

CITY OF RANCHO CORDOVA



CITY COUNCIL MEETING Monday, September 18, 2023

**5:30 PM – Regular Meeting
David B. Roberts Council Chambers**

**City Hall
2729 Prospect Park Drive, Rancho Cordova**

**211 Meyer Avenue
Hamel IL, 62046**

Join the Meeting Via Zoom Link:

<https://cityofranchocordova.zoom.us/j/81550944376?pwd=YUFSbzdINTNUVUJxYkp2VGYxb1VKdz09>

Join the Meeting via the Zoom Phone Number

Zoom Phone Number: +1 669 900 6833, +1 253 215 8782

Webinar ID: 815 5094 4376

Password: 578969

Instructions to Make Public Comment

Submitting Public Comment via Email

Members of the public who wish to provide public comment via email will need to submit written comments to CityClerk@cityofranchocordova.org no later than 2:00 p.m. on Monday, September 18, 2023. Written comments received no later than 2:00 p.m. will be distributed to the Council, filed in the record, and will not be read aloud. All comments submitted later than 2:00 p.m. will be distributed to the Council.

Listening to a Zoom Meeting by Zoom Video Conference

To make a public comment using the Zoom platform, please use the “raise hand” feature at the bottom center of the screen. Please make sure to enable audio controls once access has been given by the City Clerk’s office to speak. Please wait to be called upon by the City Clerk.

Listening to a Zoom Meeting by Phone Only

You can join a Zoom meeting via teleconferencing/audio conferencing using a cell phone or traditional landline phone. To request to make a public comment by phone press *9 to raise your hand. Please wait to be called upon by the City Clerk.

All public comments will be limited to three minutes.

If you have questions related to the City Council Meeting or the use of Zoom, please contact the City Clerk's Office at (916) 851-8720 before Monday, September 18, 2023, at 2:00 p.m.

AGENDA

1. REGULAR MEETING - CALL TO ORDER/ROLL CALL

Council Members Garrett Gatewood, Siri Pulipati, David Sander, Donald Terry, and Mayor Linda Budge

2. METRO CABLE TV TELEVISION ANNOUNCEMENT

The Clerk will announce the meetings video recording and playback schedules.

3. PLEDGE OF ALLEGIANCE

The Mayor will call on someone in attendance to lead the Pledge.

4. INVOCATION

Ruby Smallwood with the Sacramento Law Enforcement Chaplaincy will give the invocation.

5. PRESENTATIONS

5.1. Sacramento County Project Update on the Hazel Avenue/U.S. 50 Interchange Project.

5.2. New Employee Introductions: Taylor Muldrow, Customer Services Representative II by Stacy Leitner, City Clerk, Brooke Lindquist, Permit Technician I by Jeremiah Zillig, Building Official, and Michaela Paul, Animal Services Officer by Russ Ducharme, Neighborhood Services Manager.

6. PUBLIC COMMENT

Citizens wishing to address the Council for any matter not on the agenda may do so at this time via teleconference or by completing and submitting a Speaker Card to the City Clerk.

If you want to make a public comment via teleconference, please use the "raise hand" feature at the bottom center of the screen. If you are participating by telephone and you want to make a public comment, please press *9 to raise your hand. For those participating by Zoom or telephone, please wait to be called upon by the City Clerk.

For items on the agenda, speakers will be called by the Mayor at the point on the agenda when the item will be heard. Speakers are encouraged to keep comments to three minutes or less and to state name and community of residence.

Under the provisions of the California Government Code, the City Council is prohibited from discussing or taking immediate action on any item not on the agenda unless it can be

demonstrated to be of an emergency nature or the need to take immediate action arose after the posting of the agenda.

7. COUNCIL REPORTS

8. CITY MANAGER'S REPORT

9. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

- 9.1. **Subject:** Meeting Minutes from the Special Meeting of August 29, 2023 and the Regular Meeting of September 5, 2023.

Recommendation: Adopt the minutes.

- 9.2. **Subject:** A Resolution Authorizing the City Manager to Approve the Addition of Cesar Chavez Day and Juneteenth as Holidays Beginning in 2024.

Recommendation: Adopt the Resolution.

- 9.3. **Subject:** A Resolution Approving the Final Map of the Ranch Village 13, Subdivision No. FM-2021-002-09, and Authorizing the City Manager to Execute Subdivision Improvement Agreement Contract No. 2023-124 with K. Hovnanian At Jaeger Ranch, LLC.

Recommendation: Adopt the Resolution.

- 9.4. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 58-2019-3 with Coastline Water Resources, Inc. to Increase the Contract Amount from \$2,335,000 to an Amount not to Exceed \$3,285,000 for Storm Response Services Funded by a FEMA Grant.

Recommendation: Adopt the Resolution.

- 9.5. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 2021-337-2 with R.E.Y. Engineers, Inc. will Extend the Contract Term from June 24, 2024, to December 31, 2026 and Increase the Contract Amount from \$707,182 to an Amount not to Exceed of \$945,026 for the Countryside Neighborhood Street Rehabilitation Project.

Recommendation: Adopt the Resolution.

- 9.6. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 2022-212-1 with Rebuilding Together Sacramento will Extend the Contract Term from October 31, 2024, to June 30, 2025 and Increase the Contract Amount from \$300,000 to an Amount not to Exceed \$650,000 for Funding the Rebuilding Together Sacramento Critical Repair Program.

Recommendation: Adopt the Resolution.

- 9.7. **Subject:** A Resolution Authorizing the Public Works Director to Submit and Execute Applications and Documents for CalRecycle Grants.

Recommendation: Adopt the Resolution.

10. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

- 10.1. **Subject:** Resolutions Approving the Rancho Cordova Climate Action and Adaptation Plan Initial Study/Negative Declaration and Final Draft Climate Action and Adaptation Plan.

Recommendation: 1. Adopt the Resolution approving a California Environmental Quality Act (CEQA) Negative Declaration for the Rancho Cordova Climate Action and Adaptation Plan.

2. Adopt the Resolution approving the Rancho Cordova Climate Action and Adaptation Plan.

11. PUBLIC HEARING ITEMS - 6:30 PM

- 11.1. **Subject:** Public Hearing on Draft Boundary Maps of Council Districts and First Reading of an Ordinance Providing for the Election of Council Members by Five Districts and Establishing the Boundaries and Election Order of Each District.

Recommendation: 1. Open the public hearing, receive public comments, close the public hearing, provide feedback to the demographic consultant and staff regarding the draft Council District boundary maps.

2. Vote to designate a preferred map, designate the sequence and preferred election years for each district to be included in the proposed Ordinance.

3. Waive the first reading and introduce the proposed Ordinance, as revised by the Council direction in Step 2 above, establishing five districts for election of five City Council Members, which would continue the practice of the City Council annually appointing a member of the City Council to serve for one year as Mayor of the City and amending and adding new sections to Chapter 2.42 Elections of the Rancho Cordova Municipal Code to provide for City Council Election Districts.

- 11.2. **Subject:** Resolutions Related to the Annexation of Stonecreek Industrial Project to the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance).

Recommendation: Adopt the Resolutions.

12. REGULAR CALENDAR ITEMS

- 12.1. **Subject:** Appointment of Real Property Negotiators: Micah Runner, City Manager and Adam U. Lindgren, City Attorney. Assessor's Parcel Number's (APN's): 072-2360-028-0000, 072-2360-029-0000, and 072-2360-030-0000.

Recommendation: Appoint Real Property Negotiators.

13. COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

14. ADJOURN TO CLOSED SESSION

Mayor Budge will adjourn the meeting to Closed Session.

15. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Council Members Garrett Gatewood, Siri Pulipati, David Sander, Donald Terry, and Mayor Linda Budge

16. CLOSED SESSION

Council will meet in closed session to discuss the following item:

- 16.1. CONFERENCE WITH REAL PROPERTY NEGOTIATORS: Pursuant to Government Code Section 54956.8: Property: Assessor's Parcel Number (APN):072-2360-028-0000, 072-2360-029-0000, and 072-2360-030-0000 City Negotiators: Micah Runner, City Manager, and Adam U. Lindgren, City Attorney, Negotiating Parties: Capital Jackson Partners. Under Negotiation: Price and terms of payment.

17. OPEN SESSION - REPORT FROM CLOSED SESSION

The City Attorney will report on action taken in Closed Session.

18. ADJOURNMENT

ADDITIONAL INFORMATION

Special Meetings listed below are subject to change/cancellation without further notice.

Unless the Council adopts a motion to extend the meeting, any item that is not initiated before 11:00 p.m. will be continued to the next day at 5:30 p.m. or scheduled on the next regular meeting agenda of the Council.

Public documents related to items on the open session portion of this agenda, which are distributed to the City Council less than 72 hours prior to the meeting, shall be available for public inspection at the time the documents are distributed to the Council. Documents are available for inspection at the City Clerk's office located in Rancho Cordova City Hall.

The agenda items are accessible on the City's website at www.cityofranchocordova.org on Thursdays or Fridays prior to the Regular City Council Meeting.

UPCOMING MEETINGS

September 26, 2023	5:30 PM Special Meeting/Work Session
October 2, 2023	4:00 PM Special Meeting/Regular Meeting
October 16, 2023	5:30 PM Regular Meeting
October 24, 2023	5:30 PM Special Meeting/Work Session
November 6, 2023	4:00 PM Special Meeting/Regular Meeting
November 20, 2023	5:30 PM Regular Meeting
November 28, 2023	5:30 PM Special Meeting/Work Session
December 4, 2023	4:00 PM Special Meeting/Regular Meeting

If you have any technical questions related to the agenda items, please contact City Hall at (916) 851-8700.

The Rancho Cordova City Council meeting will be videotaped in its entirety and will be cablecast without interruption on Metro Cable 14, the Government Affairs Channel on the Comcast, Consolidated Communications and AT&T U-Verse Systems. Closed Captioning will be available on the playback cablecast. A DVD copy is available from the City Clerk's Department and a webcast of this meeting will be available for viewing via video streaming from the City's website within 48 hours of adjournment of this meeting.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's Office at (916) 851-8720 at least 48 hours prior to the meeting.

CERTIFICATION OF POSTING OF AGENDA

I, Stacy Leitner, City Clerk for the City of Rancho Cordova, declare that the foregoing agenda for the September 18, 2023 Regular Meeting of the Rancho Cordova City Council was posted and available for review on September 14, 2023 at City Hall of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California, 95670. The agenda is also available on the city website at www.cityofranhocordova.org.

Signed September 14, 2023 at Rancho Cordova, California.



Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA



CITY COUNCIL MEETING
Tuesday, August 29, 2023

5:30 PM –Special Meeting/Public Hearing
David B. Roberts Council Chambers

City Hall
2729 Prospect Park Drive, Rancho Cordova

DRAFT MINUTES

1. SPECIAL MEETING - CALL TO ORDER/ROLL CALL

Mayor Budge called the Special meeting to order in the David B. Roberts Council Chambers at 5:35 p.m.

Council Members Present: Garrett Gatewood, Siri Pulipati, David Sander, Donald Terry, and Mayor Linda Budge

Council Members Absent: None

Staff Members Present: Stacy Leitner, Adam Lindgren, Persephonie Riley, and Micah Runner

2. PUBLIC COMMENT

The City Clerk stated that public comment would be taken at the time the items were heard.

3. PUBLIC HEARING ITEMS

- 3.1. **Subject:** Public Hearing on Draft Council District and Boundary Maps.
Recommendation: 1. Provide further discussion and direction to staff and consultant related to the number of districts.

2. Conduct the public hearing, receive public comments, provide feedback to the demographic consultant and staff regarding the draft Council District boundary maps, and consider designating a preferred map for inclusion in the ordinance that is to be drafted and brought to the Council for possible introduction at the public hearing on this topic on September 18, 2023.

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Rancho Cordova City Council - DRAFT MINUTES
Meeting of Tuesday, August 29, 2023

3. Provide further discussion and direction to staff and consultant whether or not to transition from an appointed Mayor to a directly elected Mayor.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Fayzah Mughal
2. Tera Kolvenbach
3. James Garcia
4. Helen Whelan-Bashaw
5. Jim Garcia
6. Sue Garcia
7. Diann Rogers
8. Lupe Hernandez
9. Elisha Abbott
10. Jennifer Garcia
11. Florence Richardson
12. Diana Burdick
13. Joyce Rosenberg
14. Scott Rafferty
15. Matt Cummings
16. Anil Reddy
17. Dawn Davidson
18. James Garcia
19. Marilyn Metzger
20. Laurene Brown
21. Fayzah Mughal
22. Helen Whelan-Bashaw
23. Jennifer Garcia

Mayor Budge closed the public comment period.

BREAK 7:36 PM – 7:55 PM

ACTION: Staff was given direction narrow the list of draft maps under consideration from the initial twenty to three five district maps: Map 508b (revised version of Map 508), Map 511, Map 516b (revised version of Map 516) as focus maps.

- 3.2. **Subject:** Update on Ordinance Adding Chapter 16.96 Floodplain Management Ordinance; and Amending Title 3 Revenue and Taxation, Chapter 3.60 Purchasing System, Chapter 3.70 Informal Bidding Procedures; Title 6 Health and Sanitation, Chapter 6.20 Solid Waste Management, Chapter 6.21 Business and Multifamily Recycling and Organics Recycling; Title 10 Vehicles and Traffic; Title 12 Streets and Sidewalks; Title 15 Water and Sewers, Chapter 15.10 Storm Drainage Fee, Chapter 15.12 Stormwater Management and Discharge Control; Title 16 Buildings and Construction, Chapter 16.44 Land Grading and Erosion Control, Chapter 16.84 Development Impact Fees to Finance the Cost of Transportation Facilities.

Recommendation: Receive update and continue the item to the September 5, 2023 City Council Meeting.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. James Garcia

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Rancho Cordova City Council - DRAFT MINUTES
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ATTACHMENT 3

2. Helen Whelan-Bashaw
3. Brenda Gustin
4. Carl Salmonsén
5. James Garcia
6. Brenda Gustin

Mayor Budge closed the public comment period.

ACTION: Motion to continue item 3.2 to September 5, 2023 by Terry second by Gatewood;

Motion passed with a 4:0 vote.

AYES: Gatewood, Pulipati, Terry, and Budge

NOES: None

ABSENT: None

RECUSED: Sander

4. ADJOURN TO CLOSED SESSION

Mayor Budge adjourned the meeting to closed session at 9:18 p.m.

5. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Mayor Budge called closed session to order at 9:15 p.m.

Council Members Present: Garrett Gatewood, Siri Pulipati, David Sander, Donald Terry, and Mayor Linda Budge

Council Members Absent: None

Staff Members Present: Stacy Leitner, Adam Lindgren, Persephonie Riley, and Micah Runner

6. CLOSED SESSION

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Fayzah Mughal

Mayor Budge closed the public comment period.

Council met in closed session to discuss the following item:

- 6.1. PUBLIC EMPLOYEE PERFORMANCE EVALUATION: City Manager: Pursuant to Government Code Section 54957(b)(1).

7. OPEN SESSION - REPORT FROM CLOSED SESSION

City Attorney Adam Lindgren reported that staff was given direction and no reportable action was taken in closed session.

8. ADJOURNMENT

Mayor Budge adjourned the meeting in memory of Herb Baker at 9:59 p.m.

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Rancho Cordova City Council - DRAFT MINUTES
Meeting of Tuesday, August 29, 2023

Stacy Leitner, CMC
City Clerk

ATTACHMENT 3

CITY OF RANCHO CORDOVA



CITY COUNCIL MEETING
Tuesday, September 5, 2023

4:00 PM – Special Meeting/Closed Session
5:30 PM – Regular Meeting
David B. Roberts Council Chambers

City Hall
2729 Prospect Park Drive, Rancho Cordova

DRAFT MINUTES

1. SPECIAL MEETING - CALL TO ORDER/ROLL CALL

Mayor Budge called the Special meeting to order in the David B. Roberts Council Chambers at 4:07 p.m.

Council Members Present: Garrett Gatewood, Siri Pulipati, Donald Terry, and Mayor Linda Budge

Council Members Absent: David Sander

Staff Members Present: Stacy Leitner, Adam Lindgren, Persephonie Riley, and Micah Runner

2. PUBLIC COMMENT

Mayor Budge opened the public comment period. Seeing no speakers. Mayor Budge closed the public comment period.

3. ADJOURN TO CLOSED SESSION

Mayor Budge adjourned the meeting to closed session at 4:08 p.m..

4. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Mayor Budge called closed session to order at 4:09 p.m.

Council Members Present: Garrett Gatewood, Siri Pulipati, David Sander (arrived at 4:15 p.m.), Donald Terry, and Mayor Linda Budge

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Meeting of Tuesday, September 5, 2023

ATTACHMENT 2

Council Members Absent: None

Staff Members Present: Adam Lindgren and Micah Runner

5. CLOSED SESSION

Council met in closed session to discuss the following item:

- 5.1. PUBLIC EMPLOYEE PERFORMANCE EVALUATION: City Manager: Pursuant to Government Code Section 54957.

6. OPEN SESSION - REPORT FROM CLOSED SESSION

City Attorney Adam Lindgren reported that no reportable action was taken in closed session.

7. ADJOURN TO REGULAR MEETING

Mayor Budge adjourned to the Regular Meeting at 5:08 p.m.

8. REGULAR MEETING - CALL TO ORDER/ROLL CALL

Mayor Budge called the Regular meeting to order in the David B. Roberts Council Chambers at 5:35 p.m.

Council Members Present: Garrett Gatewood, Siri Pulipati, David Sander, Donald Terry, and Mayor Linda Budge

Council Members Absent: None

Staff Members Present: Stacy Leitner, Adam Lindgren, Persephonie Riley, and Micah Runner

9. METRO CABLE TV TELEVISION ANNOUNCEMENT

The City Clerk read the meetings recordings and playback schedule.

10. PLEDGE OF ALLEGIANCE

Russ Ducharme led the pledge.

11. INVOCATION

Ruby Smallwood with the Sacramento Law Enforcement Chaplaincy gave the invocation.

12. PRESENTATIONS

- 12.1. Proclamation Recognizing September 2023 as Prostate Cancer Awareness Month.
- 12.2. Introduction of New Employees: Khaliq McClean, Assistant Civil Engineer by Quoc Nham, Senior Civil Engineer; April Stevenson, Management Analyst by Russ Ducharme, Neighborhood Services Manager; Lauren Burke, Communications Officer I by Maria Kniestedt, Communications and Public Affairs Director; and Marco Juarez, Senior Accounting Technician by Kim Juran, Administrative Services Director.
- 12.3. Employee Milestone Anniversary Presentation.

13. PUBLIC COMMENT

Mayor Budge opened the public comment period. The following individuals addressed

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Rancho Cordova City Council - DRAFT MINUTES
Meeting of Tuesday, September 5, 2023

ATTACHMENT 2

the Council or submitted public comment via email:

1. James Garcia
2. Helen Whelan-Bashaw
3. Mark Berry
4. Jennifer Garcia
5. Fayzah Mughal
6. Lori Hermann
7. Mary Lou Wright
8. Lisa Sanchez
9. Angel Ball
10. Lisa Phenix
11. Fayzah Mughal
12. Jennifer Garcia

Mayor Budge closed the public comment period.

14. COUNCIL REPORTS

Council reported on events since the last meeting.

15. CITY MANAGER'S REPORT

City Manager Micah Runner gave his report.

16. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

Mayor Budge opened the public comment period. Seeing no speakers. Mayor Budge closed the public comment period.

ACTION: Motion to approve item 16.1. through 16.6. by Terry second by Pulipati;
Motion passed with a 5:0 vote.

- 16.1. **Subject:** Meeting Minutes from the Special Meeting of August 14, 2023 and the Regular City Council Meeting of August 21, 2023.
Recommendation: Adopt the minutes.
- 16.2. **Subject:** A Resolution Declaring the Results of a Mail Ballot Election Relating to the Imposition of the Annual Stormwater Utility Fee for the Logisticenter Project in the City of Rancho Cordova.
Recommendation: Adopt the Resolution declaring the results of the mail ballot election relating to the imposition of the Annual Stormwater Utility Fee for the Logisticenter project.
- 16.3. **Subject:** A Resolution Accepting a Grant from the State of California Department of Alcoholic Beverage Control (ABC) in the Amount of \$99,128 and Authorizing the City Manager or his Designee to Execute a Grant Agreement.
Recommendation: Adopt the Resolution.
- 16.4. **Subject:** Treasurer's Report - June 30, 2023.
Recommendation: This report is informational only. It is recommended that the City Council receive and file the June 30, 2023, Treasurer's Report.
- 16.5. **Subject:** A Resolution Authorizing the City Manager to Execute Contract No. 2023-199 with Bio-One of Sacramento for a Three-Year Term in an Amount Not to Exceed \$1,000,000 for Biohazard and Non-Biohazard Clean-Up Services Throughout the City.
Recommendation: Adopt the Resolution.

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Rancho Cordova City Council - DRAFT MINUTES
Meeting of Tuesday, September 5, 2023

ATTACHMENT 2

- 16.6. **Subject:** A Resolution Authorizing the City Manager to Execute a Grant Agreement with the California Department of Toxic Substances Control for the Equitable Community Revitalization Grant Program (ECRG) for Site-Specific Clean Up Activities at 10153 Folsom Boulevard.

Recommendation: Adopt the Resolution.

17. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

None.

18. PUBLIC HEARING ITEMS

- 18.1. **Subject:** Jackson Properties Warehouse Storage Building - Major Design Review (CEQA Exempt Pursuant to Section 15183. Projects Consistent with a Community Plan or Zoning) - Project No. PLND-0622-0044.

Recommendation: Adopt the Resolution.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Helen Whelan Bashaw
2. James Garcia
3. Jim Garcia
4. Jennifer Garcia
5. James Garcia

Mayor Budge closed the public comment period.

ACTION: Motion to approve item 18.1. by Terry second by Sander;
Motion passed with a 5:0 vote.

- 18.2. **Subject:** Second Reading of an Ordinance Adding Chapter 16.96 Floodplain Management Ordinance; and Amending Title 3 Revenue and Taxation, Chapter 3.60 Purchasing System, Chapter 3.70 Informal Bidding Procedures; Title 6 Health and Sanitation, Chapter 6.20 Solid Waste Management, Chapter 6.21 Business and Multifamily Recycling and Organics Recycling; Title 10 Vehicles and Traffic; Title 12 Streets and Sidewalks; Title 15 Water and Sewers, Chapter 15.10 Storm Drainage Fee, Chapter 15.12 Stormwater Management and Discharge Control; Title 16 Buildings and Construction, Chapter 16.44 Land Grading and Erosion Control, Chapter 16.84 Development Impact Fees to Finance the Cost of Transportation Facilities.

Recommendation: Waive the second reading and adopt the Ordinance.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Helen Whelan-Bashaw
2. James Garcia
3. Cathy Birch
4. Grant Davenport
5. Sage Pasquale
6. Brenda Gustin
7. Lisa Phenix

Mayor Budge closed the public comment period.

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ACTION: Motion to approve item 18.2. by Terry second by Gatewood;
Motion passed with a 4:0 vote.

AYES: Gatewood, Pulipati, Terry, and Budge

NOES: None

ABSENT: None

RECUSED: Sander

19. REGULAR CALENDAR ITEMS

- 19.1. **Subject:** Presentation from Cordova Community Council Foundation on Fiscal Year 2022-23 Outcomes and Accomplishments and a Resolution Authorizing the City Manager to Execute the Third Restated Grant Agreement with the Cordova Community Council Foundation.

Recommendation: Receive information and adopt the Resolution.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Jennifer Laret

Mayor Budge closed the public comment period.

ACTION: Motion to approve item 19.1. by Gatewood second by Terry;
Motion passed with a 5:0 vote.

- 19.2. **Subject:** Presentation of American Rescue Plan Act (ARPA) Community Survey Results and Discussion of Community Project Ideas.

Recommendation: Receive presentation and provide input.

Mayor Budge opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Fayzah Mughal

Mayor Budge closed the public comment period.

ACTION: Input was received regarding the American Rescue Plan Act (ARPA) Community Survey Results and Discussion of Community Project Ideas.

20. COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

1. Library Master Plan for Rancho Cordova

21. ADJOURNMENT

Mayor Budge adjourned the meeting at 9:01 p.m.

Stacy Leitner, CMC
City Clerk

MEMORANDUM



ITEM 9.2.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Micah Runner, City Manager
SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO APPROVE THE ADDITION OF CESAR CHAVEZ DAY AND JUNETEENTH AS HOLIDAYS BEGINNING IN 2024**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

By adopting the Resolution, the City-approved holidays would include the last Monday in March (Cesar Chavez Day) and June 19, 2024 (Juneteenth) annually as City holidays, effective January 1, 2024. This will change the paid holidays from 11 paid holidays per calendar year, plus one (1) floating holiday, to 13 paid holidays per calendar year. The one floating holiday will be removed effective January 1, 2024. This change will put us in line with the cities of Folsom, Citrus Heights, and Sacramento for the number of paid holidays per year.

BACKGROUND

The City of Rancho Cordova is a diverse community of over 81,000 who live here and 65,000 who work here. Rancho Cordova is the 29th most diverse city in the United States (according to Esmi). Our Rancho Cordova community celebrates and supports this diversity in many ways throughout the year. In recognition of this diversity, and to honor the contributions of our community and as a workplace, these additional holidays shall be recognized beginning in calendar year 2024.

On June 17, 2021, President Biden signed a Proclamation declaring June 19, 2021, as Juneteenth Day of Observance, which officially recognizes Juneteenth as a federal holiday. Juneteenth is the oldest nationally celebrated commemoration of the ending of slavery in the United States. This was more than two years after President Lincoln's Emancipation Proclamation, which became official January 1, 1863.

Historically, Juneteenth commemorates the emancipation of four million enslaved Black people, whose freedom was delayed two and a half years. The day is promoted by celebrating black history, culture, and achievements, as well as by advancing diversity, equity, and inclusion.

Cesar Chavez Day commemorates the history of the farm labor movement in the United States and honors the birth and legacy of the civil rights and labor movement activist. On August 18,

2000, the Governor of the State of California signed Senate Bill 984, which provides, among other things, that the 31st of March is a paid holiday for state employees. Other states such as Arizona, Washington, and Utah observe Cesar Chavez Day. The City of Sacramento has recognized Cesar Chavez's birthday as a City holiday since the 1990's.

Many employers across the United States have implemented a paid holiday for employees on the 31st of March for Cesar Chavez Day and on the 19th of June for Juneteenth. The City of Rancho Cordova currently recognizes 11 City holidays and (one) 1 floating holiday annually. As part of the City's commitment to diversity, equity, and inclusion and in recognition of the important contributions of Cesar Chavez and the civil rights movement, it's desired to declare Cesar Chavez Day on the last Monday in March as a City holiday as well as Juneteenth Day of Observance on the 19th of June as a City holiday to recognize the origins of the holiday and its legacy of struggle for racial equality and to celebrate the accomplishments of Black people. Beginning in calendar year 2024, City employees shall receive a paid holiday for Cesar Chavez Day, the last Monday of March, and for Juneteenth Day of Observance, the 19th of June. When the 19th of June falls on a Saturday, it generally will be observed on the previous Friday. If it falls on a Sunday, it generally will be observed on the following Monday. Additionally, City facilities will be closed on these two holidays (last Monday of March and the 19th of June or the day on which it is recognized, when the 19th of June falls on a weekend). The one floating holiday will be removed starting in 2024, thereby bringing the total number of paid holidays to 13 annually.

FISCAL IMPACT AND FUNDING SOURCE

There is no direct Fiscal Impact on the City's operating budget.

ATTACHMENT(S)

1. Resolution

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA,
STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO APPROVE THE
ADDITION OF CESAR CHAVEZ DAY AND JUNETEENTH AS HOLIDAYS BEGINNING IN
2024**

WHEREAS, the City of Rancho Cordova is a diverse community of over 81,000 who live here and 65,000 who work here. Rancho Cordova is the 29th most diverse city in the United States (according to Esmi). Our Rancho Cordova community celebrates and supports this diversity in many ways throughout the year. In recognition of this diversity, and to honor the contributions of our community and as a workplace, these additional holidays shall be recognized beginning in calendar year 2024; and

WHEREAS, on June 17, 2021, President Biden signed a Proclamation declaring June 19, 2021, as Juneteenth Day of Observance, which officially recognizes Juneteenth as a federal holiday. Juneteenth is the oldest nationally celebrated commemoration of the ending of slavery in the United States. This was more than two years after President Lincoln's Emancipation Proclamation, which became official January 1, 1863; and

WHEREAS, Cesar Chavez Day commemorates the history of the farm labor movement in the United States and honors the birth and legacy of the civil rights and labor movement activist. On August 18, 2000, the Governor of the State of California signed Senate Bill 984, which provides, among other things, that the 31st of March is a paid holiday for state employees. Other states such as Arizona, Washington, and Utah observe Cesar Chavez Day. The City of Sacramento has recognized Cesar Chavez's birthday as a City holiday since the 1990's; and

WHEREAS, many employers across the United States have implemented a paid holiday for employees on the 31st of March for Cesar Chavez Day and on the 19th of June for Juneteenth. The City of Rancho Cordova currently recognizes 11 City holidays and (one) 1 floating holiday annually. As part of the City's commitment to diversity, equity, and inclusion and in recognition of the important contributions of Cesar Chavez and the civil rights movement, it's desired to declare Cesar Chavez Day on the last Monday in March as a City holiday as well as Juneteenth Day of Observance on the 19th of June as a City holiday to recognize the origins of the holiday and its legacy of struggle for racial equality and to celebrate the accomplishments of Black people. Beginning in calendar year 2024, City employees shall receive a paid holiday for Cesar Chavez Day, the last Monday of March, and for Juneteenth Day of Observance, the 19th of June. When the 19th of June falls on a Saturday, it generally will be observed on the previous Friday. If a holiday falls on a Sunday, it generally will be observed on the following Monday. Additionally, city facilities will be closed on these two holidays (last Monday of March and 19th of June or the day on which it is recognized, when the 19th of June falls on a weekend). The one floating holiday will be removed starting in 2024, thereby bringing the total number of paid holidays to 13 annually.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA authorizes the City Manager to approve the addition of Cesar Chavez Day and Juneteenth as paid holidays and to remove one floating holiday beginning in 2024.

ITEM 9.2.

ATTACHMENT 1

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Linda Budge, Mayor

Stacy Leitner, CMC
City Clerk

MEMORANDUM



ITEM 9.3.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Albert Stricker, Public Works Director
Quoc Nham, Senior Civil Engineer
SUBJECT: **A RESOLUTION APPROVING THE FINAL MAP OF THE RANCH VILLAGE 13, SUBDIVISION NO. FM-2021-002-09, AND AUTHORIZING THE CITY MANAGER TO EXECUTE SUBDIVISION IMPROVEMENT AGREEMENT CONTRACT NO. 2023-124 WITH K. HOVNANIAN AT JAEGER RANCH, LLC.**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to enter into Subdivision Improvement Agreement Contract No. 2023-124, Attachment 2, guaranteeing the construction of public roads and utilities with K. Hovnanian at Jaeger Ranch, LLC. and the recording of the final subdivision map for The Ranch Village 13, creating 39 residentially zoned lots, 4 landscape lots, and 3 roadway lots located south of Chrysanthy Blvd and east of Rancho Cordova Parkway.

BACKGROUND

The map has been examined and checked for compliance with Title 22 of the City of Rancho Cordova Municipal code and the California Subdivision map Act. The City Council approved the Small Lot Tentative Map on January 6, 2020. A Development Agreement by the City and K. Hovnanian at Jaeger Ranch, LLC. was entered into on February 21, 2020, and recorded on May 1, 2020 in the Official Records of Sacramento County on Document No. 202005010617. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this letter.

Roads are offered for dedication with this subdivision. K. Hovnanian at Jaeger Ranch, LLC. has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers, Inc. has waived the requirement for a bond to guarantee payment for setting the survey monuments with the subdivision. The soil report requirement has been satisfied by Wallace-Kuhl and Associates dated December 12, 2019.

There are no delinquent taxes against the property and the Tax Collector has so certified. The 2022/2023 estimated taxes have been secured with the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the City.

ATTACHMENT(S)

1. Resolution
2. Contract No. 2023-124
3. Final Map
4. Vicinity Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE FINAL MAP OF THE RANCH VILLAGE 13 SUBDIVISION NO. FM-2021-002-09, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT CONTRACT NO. 2023-124 WITH K. HOVNANIAN AT JAEGER RANCH, LLC.

WHEREAS, the City Council approved the Small Lot Tentative Map on January 6, 2020 per Resolution No. 5-2020; and

WHEREAS, the map is in substantial compliance with the approved tentative map; and

WHEREAS, the conditions of approval have been complied with; and

WHEREAS, the map complies with Title 22 of the City of Rancho Cordova municipal code and the California Subdivision Map Act; and

WHEREAS, the approval of final maps is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Regulation Section 15268(b)(3) as a ministerial approval; and

WHEREAS, the City desires to enter into a subdivision improvement agreement with the developer to ensure necessary public improvements are completed and secured with a bond.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does approve the Final Map of The Ranch Village 13 Subdivision No. FM-2021-002-09 and does authorize the City Manager to execute Subdivision Improvement Agreement Contract No. 2023-124 with K. Hovnanian at Jaeger Ranch, LLC., in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September, 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Stacy Leitner, CMC
City Clerk

Linda Budge, Mayor

SUBDIVISION IMPROVEMENT AGREEMENT**THE RANCH VILLAGE 13 FINAL MAP
SUBDIVISION NO. FM-2021-002-09**

THIS SUBDIVISION IMPROVEMENT AGREEMENT (hereinafter, "Agreement") entered into this _____ day of _____, 20__, by and between the City of Rancho Cordova, (hereinafter "City"), a California municipal corporation, and **K. Hovnanian at Jaeger Ranch, LLC**. (hereinafter "Principal").

RECITALS

WHEREAS, Section 66462 of the Government Code provides that if the work of improvement required therein is not completed prior to the acceptance of a final subdivision map, the owner of the subdivision may enter into an agreement with the City to perform the work of improvement as required by said sections in consideration of the acceptance of said final subdivision map by the City; and

WHEREAS, Section 66499 of the Government Code requires that said agreement be secured by a surety bond or by an instrument of credit issued by a financial institution subject to regulation by the State or federal governments or by a cash deposit; and

WHEREAS, Section 66499.3 establishes the types and amount of security to guarantee the performance of any such improvement agreement; and

WHEREAS, City and Principal desire to enter into an improvement agreement as authorized by the Subdivision Map Act under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises, conditions and covenants hereinafter set forth, City and Principal agree as follows:

1. **Incorporation of Recitals.** The foregoing recitals are hereby incorporated by reference.
2. **Findings and Conditions of Subdivision Map.** Principal recognizes that approval of its subdivision was subject to the findings and conditions attached to such approval and hereby acknowledges and agrees to be bound by such findings and conditions.
3. **City Approval of Subdivision Map.** City agrees to approve the final map of the subdivision presented to it by Principal and designated **The Ranch Village 13 Final Map, FM-2021-002-09** and to accept on behalf of the public all lands, rights of way and easements therein offered in dedication, in accordance with the conditions hereinafter set forth.

4. **Completion of Improvements.** In consideration of such approval, Principal agrees to complete the work of improvement required for said subdivision in accordance with the requirements of the Rancho Cordova Municipal Code and such standard specifications created by applicable City ordinances or resolutions which are in effect at the time of the installation of said improvements. The work required may lie within or outside the subdivision and must be completed within **24** months of the date of this Agreement.

5. **Payment For Services.** Principal further agrees to promptly pay, when due, all costs for plan checking, inspection services and material testing performed by City pursuant to the requirements of Sections 12.03.210 et. seq. of the Rancho Cordova Municipal Code.

6. **Acceptance of Improvements.** Upon satisfactory completion of all public improvements in accordance with standard specifications created by City ordinances or resolutions which are in effect at the time of the installation of said improvements, City agrees to accept for maintenance the work of improvement within the dedicated parcels shown on said final subdivision map, and any off site easements granted, subject to the provisions of paragraph 8 hereof. Acceptance will be postponed until such time the City determines a public purpose exists. Public Purpose is defined as existence of habitable structures within the subdivision.

7. **Notice of Commencement of Work.** Principal shall notify the City Engineer in writing of the commencement of the work of improvements.

8. **Correction of Defects.** Principal agrees to remedy any defects in the improvement arising from faulty or defective construction of said improvements occurring within twelve months after acceptance thereof by City.

9. **Indemnity.** Principal shall indemnify and hold harmless with counsel selected by the City, the City of Rancho Cordova, its agents, officers, consultants, and employees ("City") from any and all loss, damage or liability arising out of or resulting from Principal's performance or non-performance of his duties and obligations under this Agreement, or from the negligent act or omission of himself, his agents, servants and employees. Principal shall, at his own cost and expense, defend any and all actions, suits, or legal proceedings arising out of or resulting from the performance or nonperformance of this Agreement, that may be brought or instituted against the City, its officers and employees, on any such claim or demand, and pay or satisfy any judgment that may be rendered against the City in any such action, suit or legal proceedings, or result thereof, regardless whether caused in part by a party indemnified hereunder.

10. **Extension of Completion Date.** If the construction of the work or improvement

should be delayed without fault of Principal, the time for completion thereof may be extended by City for such period of time as City may deem reasonable.

11. Improvement Security. (a) Principal shall obtain and furnish to City an improvement security consisting of a surety bond in favor of City, issued by a corporate surety authorized to do business in the State of California, and in form approved by City, securing the faithful performance by Principal of the work of improvement required, and also securing the payment of the costs and interest, if any, due under Sections 12.030.210 et seq. of the Rancho Cordova Municipal Code, as provided in Paragraph 5 herein and an additional bond issued by a corporate surety authorized to do business in the State of California, in the amount of not less than 50 percent of the total estimated cost of the improvement, securing payment to contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement.

(b) In lieu of said corporate surety bonds, Principal may furnish an improvement security consisting of a letter of credit, certificate of deposit, or similar instrument of credit, in form satisfactory to City, issued by a financial institution subject to regulation by the State or Federal government, pledging that the funds necessary to meet the performance required herein are on deposit, and guaranteed for payment on demand. Said letter of credit, certificate of deposit, or similar instrument of credit shall provide that the funds designated therein shall become trust funds for the purposes set forth in said instrument.

(c) The failure of Principal to commence the required work of improvements, or to complete the same within the time required after commencement thereof, shall entitle City to the full payment of the security, or so much thereof as may be necessary to complete the required work of improvement. The amount of the surety bond for faithful performance shall be in the sum of **\$4,626,277.54**. The amount of the surety bond for the payment of the claims of the contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement shall be at least 50 percent of the above amount. The letter of credit, certificate of deposit or similar instrument of credit, or cash deposit for faithful performance, shall be in the above amount plus an additional 50 percent for the purposes set forth herein.

12. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 11 hereof shall be a condition precedent to acceptance by City of the above described real property and the performance by the City of the covenants herein on its part to be performed.

13. Inspection of Work In Progress. (a) Principal may request The City Engineer to inspect the work as it progresses. If the work performed is found to be in accordance with the

requirements of City, it may be accepted as it progresses and a partial refund of the cash deposit, or a release pro tanto of the faithful performance bond, letter of credit, certificate of deposit or similar instrument of credit shall be made in a sum in the same ratio to the total deposit as the work accepted bears to the total work to be done. No refund in excess of 85 percent of the total amount of the improvement security for faithful performance shall be made until all the work has been completed and accepted.

(b) The determination of the Administrator of Public Works of City as to the amount of work done, and the amount of refund or partial release pro tanto, shall be final and conclusive. When the work of improvement is accepted, 10 percent of the improvement security shall be retained to guarantee faithful performance of the provisions of paragraph 8 of this Agreement.

(c) Improvement security given to secure payment to contractor, his subcontractors and to persons renting equipment or furnishing labor or materials for the work of improvement may, six months after completion and acceptance of the work, be reduced to an amount not less than the total of all claims on which an action has been filed, and notice thereof given in writing to City, and if there are no actions filed, such improvement security may be released in full.

14. Execution By Real Party In Interest. Where title to the subdivision property is held by the record owner thereof under a holding Agreement, this Agreement and the bond given pursuant thereto must be executed by the real party or parties in interest.

15. Waiver of Civil Code Section 2819. Any extension of time hereunder shall not operate to release the surety on the bond filed pursuant to this Agreement. In this connection the surety waives the provisions of Section 2819 of the Civil Code of the State of California.

16. City Construction of Improvements. In the event that all or any portion of the works of improvement contemplated herein are proposed to be constructed by street improvement proceedings under the control of City, the undertaking of such proceedings shall in no way relieve Principal of any duties under this Agreement, except where all of the works of improvement that are required under this Agreement have in fact been constructed and accepted by City.

17. Interest. Interest shall accrue at the highest rate permitted by law on all sums from the date payment is due under the terms of this Agreement and the sum due is certain or reasonably capable of being made certain.

18. Attorneys' Fees. In the event that it is necessary for the City to enforce the obligations secured by the improvement security furnished pursuant to Paragraph 11 hereof, the City shall be entitled to recover its costs and reasonable expenses and fees, including

reasonable attorneys' fees, as provided for in Government Code Section 66499.4.

19. Amendments. This Agreement may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by the parties hereto.

20. Entire Agreement. This Agreement and any attachments hereto constitute the sole, final, complete, exclusive and integrated expression and statement of the terms and conditions of this Agreement among the parties hereto concerning the subject matter addressed herein, and supercedes all prior negotiations, representations or agreements, oral or written, that may be related to the subject matter of this Agreement.

21. Construction and Interpretation. It is agreed and acknowledged by the Principal that the provisions of this Agreement have been arrived at through negotiation, and that the Principal has had a full and fair opportunity to revise the provisions of this Agreement and to have such provisions reviewed by legal counsel. Therefore, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this Agreement.

22. Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

23. Time. Time is of the essence in the performance of each and every term of this Agreement.

SIGNATURE PAGE FOLLOWING

ITEM 9.3.

ATTACHMENT 2

CONTRACT NO. 2023-124

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA,
California Municipal Corporation

K. Hovnanian at Jaeger Ranch, LLC.
A California Limited Liability Company

Micah Runner, City Manager

Tim Collison, Controller

Date: _____

Date: _____

ATTEST:

Stacy Leitner, CMC, City Clerk

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENTS TO THE PREPARATION AND RECORDATION OF THIS FINAL MAP.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES;

THE UNDERSIGNED HEREBY OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO ANY AND ALL PUBLIC USES THE PUBLIC BOULEVARD AND WAY SHOWN HEREON AND ALSO OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO SPECIFIC PURPOSES THE FOLLOWING.

- EASEMENT FOR PLANTING AND MAINTAINING TREES, ELECTROLIERS, TRAFFIC CONTROL DEVICES, WATER AND GAS PIPES, AND UNDERGROUND WIRES AND CONDUITS FOR ELECTRIC, TELEVISION AND TELEPHONE SERVICES, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS THOSE LOT A, LOT B, LOT C, LOT D AND THOSE STRIPS OF LAND SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).
- EASEMENT FOR THE PURPOSE OF PUBLIC UTILITIES INCLUDING BUT NOT LIMITED TO WATER, SEWER, GAS AND DRAINAGE PIPES, POLES, OVERHEAD LINES AND OTHER APPURTENANCES AS TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS LOT E, LOT F AND LOT G" (PUE).
- RIGHT OF WAYS AND EASEMENTS FOR THE INSTALLATION AND MAINTENANCE OF A PEDESTRIAN WALKWAY, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO ON, OVER, UNDER AND ACROSS THOSE STRIPS OF LAND SHOWN HEREON AND DESIGNATED "PEDESTRIAN EASEMENT" (PE). THE MAINTENANCE AND REPAIR OF THE WALKWAY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
- AN EASEMENT FOR CONSTRUCTING AND MAINTAINING CENTRALIZED MAIL DELIVERY BOXES, PEDESTALS, AND SLABS, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO INCLUDING PEDESTRIAN ACCESS FOR DELIVERY AND RECEIPT OF MAIL ON, OVER, UNDER AND ACROSS STRIPS OF LAND FIVE FEET IN WIDTH LYING CONTIGUOUS TO THE PRIVATE STREETS SHOWN HEREON.

K. HOVNANIAN AT JAEGER RANCH, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: [Signature]
NAME: ~~TIMOTHY J COLLISON~~ **YAHYA ZAKOUR BAAYOUN**
TITLE: ~~REGION CONTROLLER~~ **DIVISION PRESIDENT**

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF California }
COUNTY OF Placer } SS
ON August 25th, 2023 BEFORE ME, Stephanie Gonzalez
PERSONALLY APPEARED, Yahya Zakour Baayoun
WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/their AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/their SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND: [Signature]
PRINTED NAME: Stephanie Gonzalez
MY PRINCIPAL PLACE OF BUSINESS IS THE
COUNTY OF: Placer
MY COMMISSION EXPIRES: October 18th, 2025
MY COMMISSION NO.: 2378898

BENEFICIARY'S STATEMENT

WILMINGTON TRUST, NATIONAL ASSOCIATION AS BENEFICIARY UNDER THAT DEED OF TRUST RECORDED MARCH 12, 2020 AS DOC# 202003120392, OFFICIAL RECORDS SACRAMENTO COUNTY , HEREBY CONSENTS TO THE PREPARATION AND FILING OF THIS MAP.

BY: [Signature]
NAME: TIMOTHY J COLLISON
TITLE: REGION CONTROLLER

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF California }
COUNTY OF Placer } SS
ON August 25, 2023 BEFORE ME, Stephanie Gonzalez
PERSONALLY APPEARED, Timothy J. Collison
WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/their AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/their SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: [Signature]
PRINTED NAME: Stephanie Gonzalez
MY PRINCIPAL PLACE OF BUSINESS IS THE
COUNTY OF: Placer
MY COMMISSION EXPIRES: October 18th, 2025
MY COMMISSION NO.: 2378898

SIGNATURE OMISSIONS

THE FOLLOWING SIGNATURES BY LISTED DEEDS HAVE BEEN OMITTED UNDER SECTION 66436 (a) (3) (A) (i-viii) OF THE SUBDIVISION MAP ACT THEIR INTEREST IS SUCH THAT IT CAN NOT RIPEN INTO A FEE TITLE AND SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY:

- SACRAMENTO COUNTY WATER AGENCY OF SACRAMENTO COUNTY, EASEMENT HOLDER FOR WATER PIPELINES AND INCIDENTAL PURPOSES RECORDED ON JUNE 03, 2022 IN DOC # 202206031257 AND ON APRIL 18, 2023 IN DOC # 202304180580, OFFICIAL RECORDS OF SACRAMENTO COUNTY. SAID EASEMENT IS PLOTTED AND SHOWN HEREON.
- SACRAMENTO COUNTY AREA SEWER DISTRICT OF SACRAMENTO COUNTY, EASEMENT HOLDER FOR SEWER PIPELINES AND INCIDENTAL PURPOSES RECORDED ON SEPTEMBER 16, 2022 IN DOC # 202209160292, ON MARCH 16, 2023 IN DOC # 202303160752 AND ON AUGUST 15, 2023 IN DOC # 202308150986, OFFICIAL RECORDS OF SACRAMENTO COUNTY. SAID EASEMENT IS PLOTTED AND SHOWN HEREON.

SURVEYOR'S STATEMENT

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF K. HOVNANIAN ON MAY, 2022. I HEREBY STATE THAT ALL THE MONUMENTS ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED OR THAT THEY WILL BE SET IN THOSE POSITIONS BEFORE DECEMBER 31, 2024, AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, AND THAT THIS FINAL MAP SUBSTANTIALLY CONFORMS TO THE CONDITIONALLY APPROVED TENTATIVE MAP.

[Signature]
CRAIG E. SPIESS, PLS 7944
EXPIRATION DATE: DECEMBER 31, 2023
DATE: 8/17/23



CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF THE RANCH VILLAGE 13 IS TECHNICALLY CORRECT.

LAND SURVEYOR, JOCELYN L. LIMAS P.L.S. 9596
DATE: _____



CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF THE RANCH VILLAGE 13 AND FIND IT TO BE SUBSTANTIALLY THE SAME AS THE TENTATIVE MAP APPROVED BY THE CITY OF RANCHO CORDOVA AND ANY APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND ALL APPLICABLE CITY ORDINANCES HAVE BEEN COMPLIED WITH.

CITY ENGINEER, ALBERT STRICKER, R.C.E. 64057
DATE: _____



CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF THE RANCH VILLAGE 13 AND ACCEPTS ON BEHALF OF THE PUBLIC ALL PUBLIC EASEMENTS AND RIGHTS-OF-WAY OFFERED HEREON, SUBJECT TO COMPLETION OF THE IMPROVEMENTS THEREOF.

BY: _____
CITY CLERK
CITY OF RANCHO CORDOVA
DATE: _____

RECORDER'S STATEMENT

FILED THIS _____ DAY OF _____, 2023, AT _____ M. IN BOOK _____ OF MAPS, AT PAGE _____, AT THE REQUEST OF R.E.Y. ENGINEERS, INC. TITLE TO THE LAND INCLUDED IN THIS FINAL MAP BEING VESTED AS PER CERTIFICATE NO. _____ ON FILE IN THIS OFFICE.

DONNA ALLRED, COUNTY RECORDER DOCUMENT NO. _____
BY: _____ FEE \$ _____
DEPUTY COUNTY RECORDER

FINAL MAP OF
THE RANCH VILLAGE 13
SUBDIVISION NO. FM-2021-002-09

BEING LOT 3 AS SHOWN AND SO DESIGNATED ON THAT CERTAIN FINAL MAP ENTITLED "LARGE LOT FINAL MAP OF THE RANCH PHASE 2 SUBDIVISION NO. FM-2021-002-04" FILED FOR RECORD ON JUNE 15, 2023 IN BOOK 448 OF MAPS, AT PAGE 1, SACRAMENTO COUNTY RECORDS, SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, MOUNT DIABLO MERIDIAN.

CITY OF RANCHO CORDOVA
SACRAMENTO COUNTY • CALIFORNIA
R. E. Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors
905 Sutter St. Ste 200 Folsom CA 95630
(916) 366-3040 Fax (916) 366-3303
SEPTEMBER 2023
SHEET 1 OF 6 4664.1003

RECORDED EASEMENTS

- ① 20' SEWER EASEMENT PER DOC# 202303160752
- ② 20' P.U.E. PER DOC# 202304210318
- ③ WATER EASEMENT PER DOC# 202206031257 & DOC# 202304180580
- ④ 20' SEWER EASEMENT PER DOC# 202206190292 & 202303160752
- ⑤ SACRAMENTO AREA SEWER DISTRICT DOC# 202308150986

LEGEND

- FOUND 5/8" REBAR WITH CAP STAMPED "LS 7944"(2)
- ⊘ SET 3/4" IRON PIPE WITH CAP STAMPED "LS 7944"
- DIMENSION POINT NOTHING FOUND OR SET
- AC. ACRES
- BN DY BOUNDARY
- B.M. BOOK OF MAPS
- I.O.D. IRREVOCABLE OFFER OF DEDICATION
- (OA) OVERALL
- O.R. OFFICIAL RECORDS OF SACRAMENTO COUNTY
- N.T.S. NOT TO SCALE
- P.E. PEDESTRIAN EASEMENT
- P.U.E. PUBLIC UTILITY EASEMENT
- (R) RADIAL BEARING
- S.F. SQUARE FEET
- () REFERENCE
- ① SHEET NUMBER

BASIS OF BEARINGS:

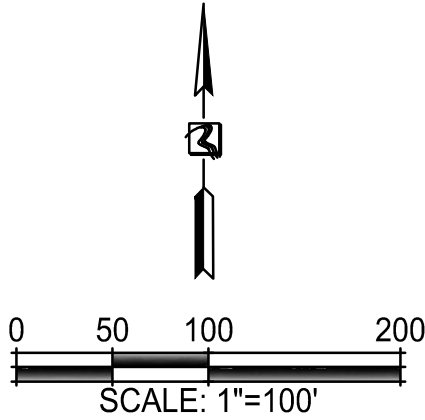
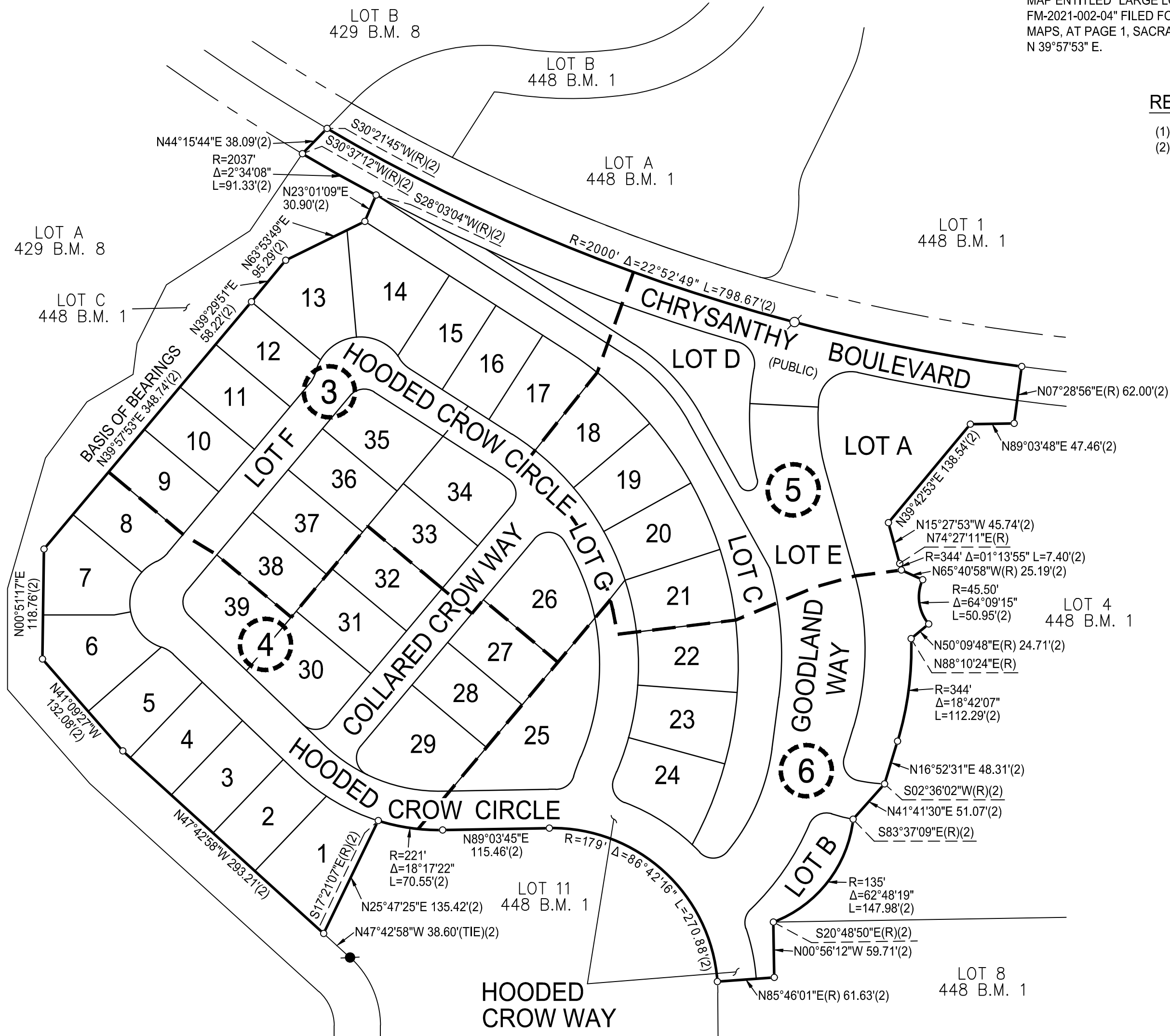
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE WEST BOUNDARY LINE OF LOT 3 AS SHOWN AND SO DESIGNATED ON THE CERTAIN FINAL MAP ENTITLED "LARGE LOT OF THE RANCH - PHASE 2 SUBDIVISION NO. FM-2021-002-04" FILED FOR RECORD ON JUNE 15, 2023 IN BOOK 448 OF MAPS, AT PAGE 1, SACRAMENTO COUNTY RECORDS, SAID BEARING IS N 39°57'53" E.

REFERENCES:

- (1) 429 B.M. 8
- (2) 448 B.M. 1

NOTES:

- TOTAL AREA OF THIS "THE RANCH - VILLAGE 13" SUBDIVISION IS 12.83 ACRES, CONSISTING OF 39 RESIDENTIAL LOTS, 4 LANDSCAPE LOTS AND 3 ROADWAY LOTS.
- ALL CURVE DIMENSIONS ARE RADIUS, ARC LENGTH AND DELTA. ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.
- ALL DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
- DUE TO ROUNDING, THE SUM OF THE INDIVIDUAL DIMENSIONS MAY NOT EQUAL THE OVERALL DIMENSION.
- ALL FRONT CORNERS ADJACENT TO ATTACHED SIDEWALK WILL BE SET IN THE SIDEWALK WITH A 1.00 FOOT OFFSET ON THE SIDE LOT LINE WITH A 1" DIAMETER BRASS MARKER STAMPED "LS 7944".
- ALL REAR CORNERS AND ANGLE POINTS WILL BE SET WITH A 5/8" REBAR AND PLASTIC CAP STAMPED "LS 7944". WHERE REAR CORNER FALLS WITHIN A MASONRY RETAINING WALL, MASONRY SOUND WALL OR CONCRETE FOOTING, A 5/8" REBAR WITH PLASTIC CAP STAMPED "LS 7944" WILL BE SET ON THE SIDE LOT LINE 4.00 FOOT OFFSET TO THE REAR CORNER OR A BRASS TAG STAMPED "LS 7944" WILL BE SET WITH EPOXY TO THE FACE WALL 2.00 FOOT ABOVE GROUND OR ON TOP OF WALL WHERE AS OFFSET MONUMENT CANNOT BE SET.
- SOUNDWALL IS ADJACENT TO LOTS 14 THROUGH 24, INCLUSIVE.
- THE IRREVOCABLE OFFER OF DEDICATION AS SHOWN AND SO DEDICATED ON THAT CERTAIN FINAL MAP ENTITLED "THE RANCH" FILED FOR RECORD JULY 22, 2021 IN BOOK 429, AT PAGE 8, SACRAMENTO COUNTY RECORDS, FALLS WITHIN THE RIGHT OF WAY SHOWN HEREON.
- THE NON-EXCLUSIVE ROAD EASEMENT AS SHOWN AND SO DEDICATED ON THAT CERTAIN FINAL MAP ENTITLED "THE RANCH-PHASE 2" FILED FOR RECORD ON JUNE 15, 2023 IN BOOK 448 OF MAPS, AT PAGE 1, SACRAMENTO COUNTY RECORDS, FALL WITH IN THE LOT E SHOWN HEREON.
- LOTS A, B, C AND D ARE FOR LANDSCAPE PURPOSES, LOT E, F AND G ARE FOR ROADWAY AND PUBLIC UTILITY EASEMENT, AND SAID LOTS SHALL BE GRANTED TO THE HOMEOWNERS ASSOCIATION BY SEPARATE DOCUMENT.
- THE SACRAMENTO AREA SEWER DISTRICT EASEMENT RECORDED IN DOCUMENT NUMBER 202308150986 LIES WITHIN A PORTION OF LOT A AND E, AND ALL OF LOTS F AND G, AS SHOWN HEREON.
- ADDITIONAL INFORMATION FOR INFORMATIONAL PURPOSE ONLY PURSUANT TO SECTION 66434.2 OF THE GOVERNMENT CODE - THIS SUBDIVISION IS APPROXIMATELY 1 MILE FROM THE KIEFER LANDFILL.



FINAL MAP OF
THE RANCH VILLAGE 13
SUBDIVISION NO. FM-2021-002-09

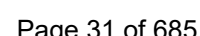
BEING LOT 3 AS SHOWN AND SO DESIGNATED ON THAT CERTAIN FINAL MAP ENTITLED "LARGE LOT FINAL MAP OF THE RANCH PHASE 2 SUBDIVISION NO. FM-2021-002-04" FILED FOR RECORD ON JUNE 15, 2023 IN BOOK 448 OF MAPS, AT PAGE 1, SACRAMENTO COUNTY RECORDS, SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, MOUNT DIABLO MERIDIAN.

CITY OF RANCHO CORDOVA
SACRAMENTO COUNTY • CALIFORNIA

R. E. Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors
905 Sutter St. Ste 200 Folsom CA, 95630
(916) 366-3040 Fax (916) 366-3303

SEPTEMBER 2023

SHEET 2 OF 6 4664.1003



LOT A
429 B.M. 8

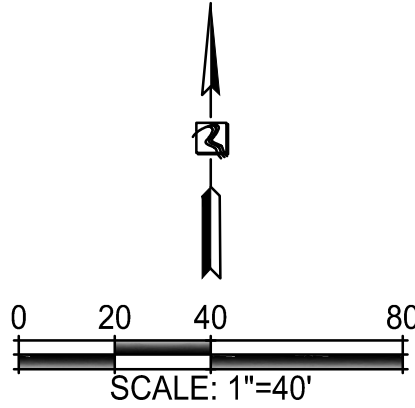
LOT C
448 B.M. 1

LOT 11
448 B.M. 1

SEE SHEET 3

SEE SHEET 6

CURVE TABLE			
#	RADIUS	DELTA	LENGTH
C1	179'	26°47'50"	83.72'
C2	200'	44°37'34"	155.77'
C3	200'	03°04'44"	10.75'
C4	200'	38°52'10"	135.68'
C5	200'	02°40'40"	9.35'
C6	221'	37°46'34"	145.71'
C7	221'	44°37'34"	172.13'
C8	221'	06°51'00"	26.42'
C9	221'	10°13'51"	39.46'
C10	221'	16°06'21"	62.12'



FINAL MAP OF
THE RANCH VILLAGE 13
SUBDIVISION NO. FM-2021-002-09

BEING LOT 3 AS SHOWN AND SO DESIGNATED ON THAT CERTAIN FINAL MAP ENTITLED
"LARGE LOT FINAL MAP OF THE RANCH PHASE 2 SUBDIVISION NO. FM-2021-002-04"
FILED FOR RECORD ON JUNE 15, 2023 IN BOOK 448 OF MAPS, AT PAGE 1,
SACRAMENTO COUNTY RECORDS, SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST,
MOUNT DIABLO MERIDIAN.

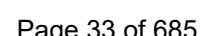
CITY OF RANCHO CORDOVA
SACRAMENTO COUNTY • CALIFORNIA

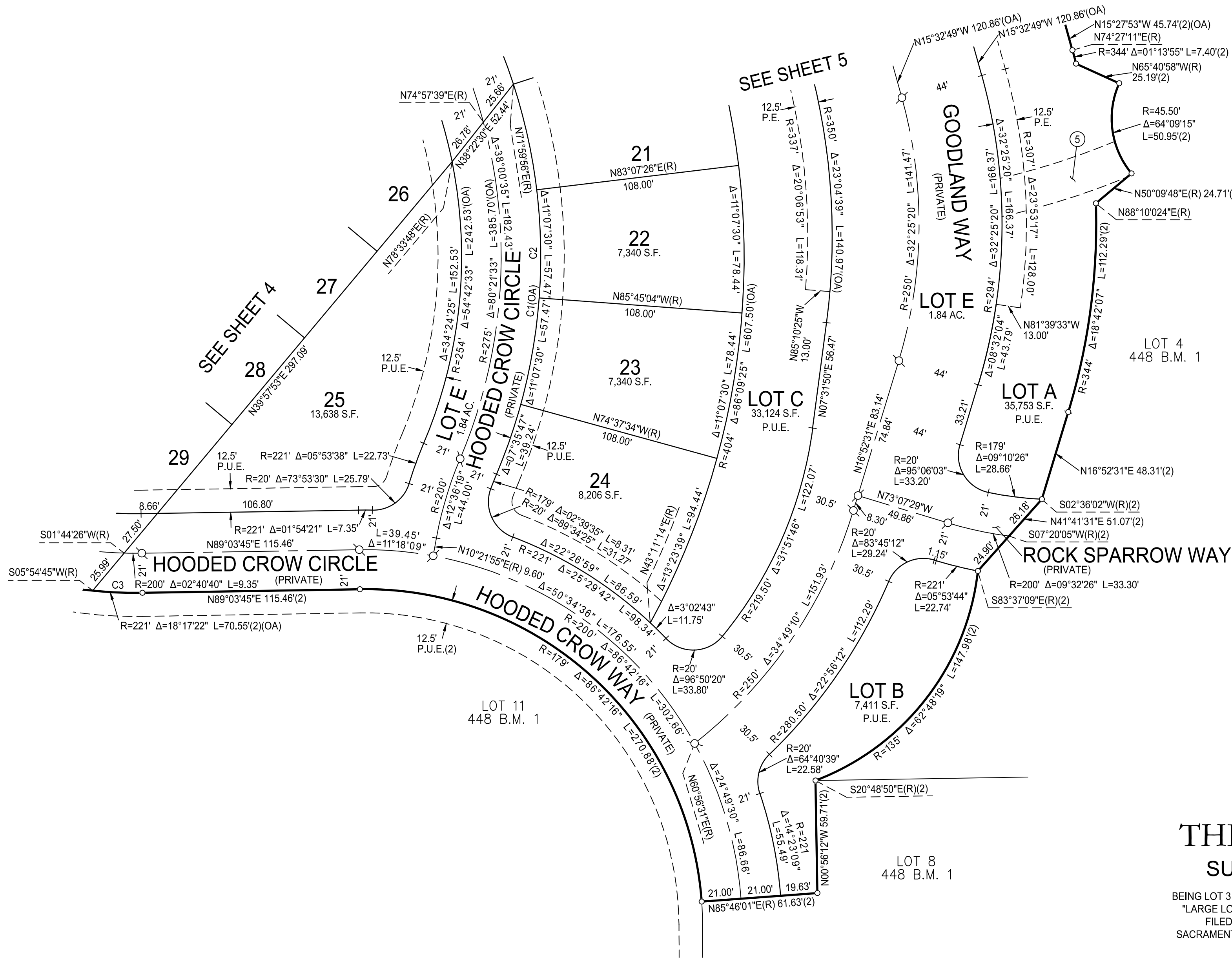
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SEPTEMBER 2023

SHEET 4 OF 6 4664.1003

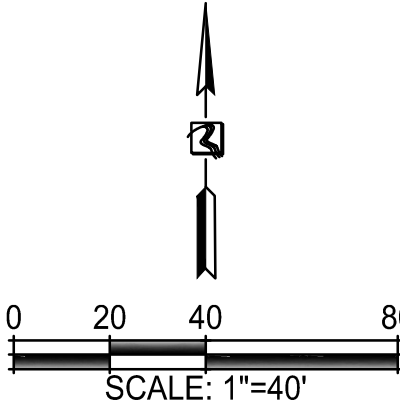
SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND, NOTES & REFERENCES





CURVE TABLE

#	RADIUS	DELTA	LENGTH
C1	296'	80°21'33"	415.15'
C2	296'	40°58'17"	211.67'
C2	221'	06°51'00"	26.42'



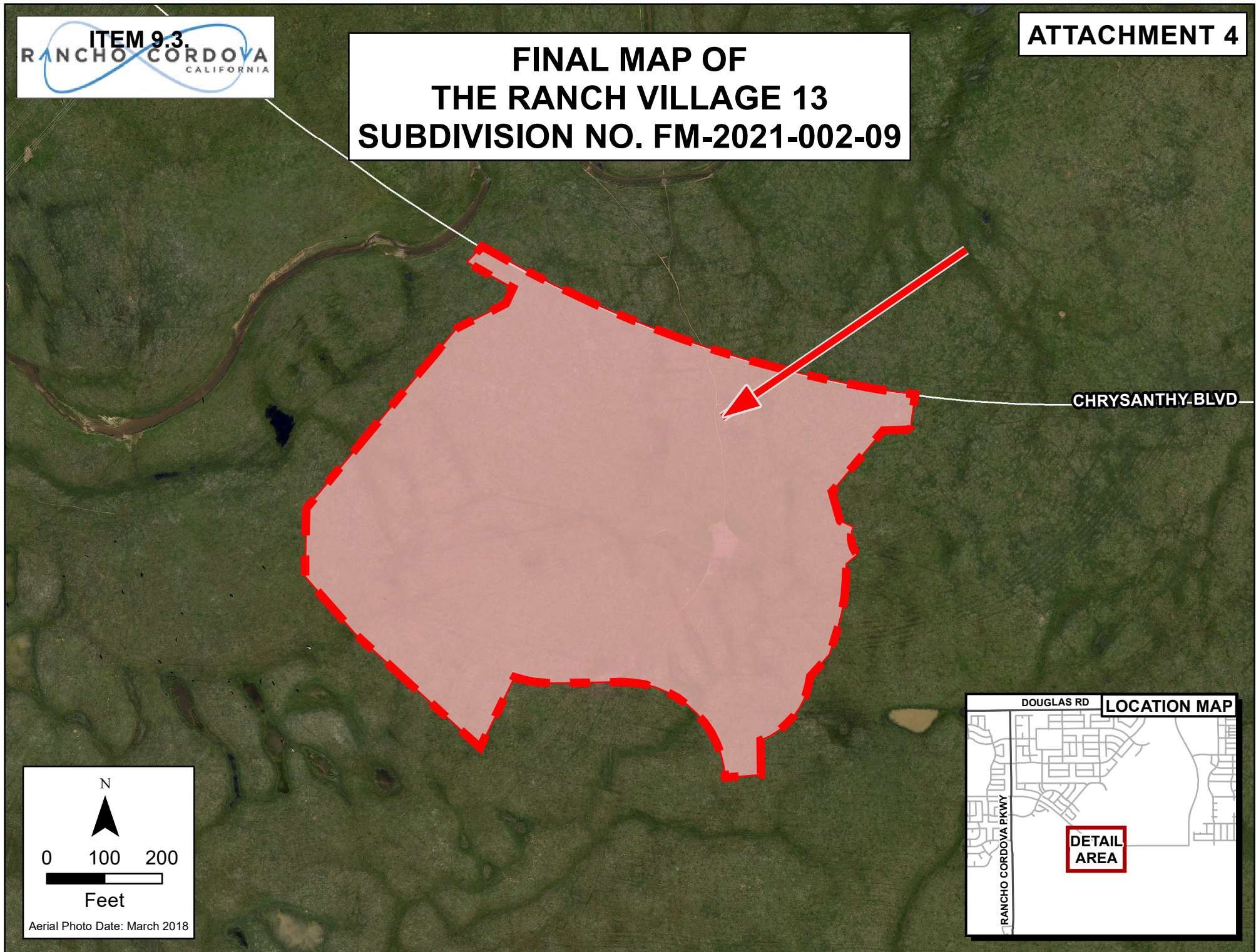
FINAL MAP OF
THE RANCH VILLAGE 13
SUBDIVISION NO. FM-2021-002-09

BEING LOT 3 AS SHOWN AND SO DESIGNATED ON THAT CERTAIN FINAL MAP ENTITLED
"LARGE LOT FINAL MAP OF THE RANCH PHASE 2 SUBDIVISION NO. FM-2021-002-04"
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SEPTEMBER 2023
SHEET 6 OF 6 4664.1003

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND, NOTES & REFERENCES

**FINAL MAP OF
THE RANCH VILLAGE 13
SUBDIVISION NO. FM-2021-002-09**



MEMORANDUM



ITEM 9.4.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Albert Stricker, Public Works Director
Dalia Fadl, Principal Engineer
SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 58-2019-3 WITH COASTLINE WATER RESOURCES, INC. TO INCREASE THE CONTRACT AMOUNT FROM \$2,335,000 TO AN AMOUNT NOT TO EXCEED \$3,285,000 FOR STORM RESPONSE SERVICES FUNDED BY A FEMA GRANT**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract Amendment No. 58-2019-3 to increase the contract amount from \$2,335,000 to an amount not to exceed \$3,285,000 for the provision of storm drain maintenance services by Coastline Water Resources, Inc. for storm response services funded by a FEMA grant.

BACKGROUND

The City of Rancho Cordova's storm drain system includes more than 250 miles of underground pipes, six pump stations, six regional flood control basins, and more than 70 acres of creek channels or tributaries to the American River. Water flows to the river through the channels without additional treatment or filtration, so effective maintenance of the system is essential for preventing trash, debris, or pollutants from eventually reaching the American River.

The work conducted under this contract includes furnishing all labor, materials, tools, and equipment to perform emergency response services within City-maintained stormwater facilities, including but not limited to pipes, inlets, culverts, bridges, and manholes as well as other items as designated by the City Engineer.

On October 7, 2019, City Council approved Contract No. 58-2019 in an amount not to exceed \$1,285,710 with Coastline Water Resources, Inc. for storm drain maintenance services. Coastline Water Resources, Inc. has provided an excellent performance record and an effective understanding of the city's desired level of services.

On January 14, 2023, the Federal Emergency Management Agency (FEMA) issued a notice of the Presidential Declaration of a major disaster for the State of California due to severe winter

storms, flooding, and mudslides. The California Severe Winter Storms, Flooding, Landslides, and Mudslides Disaster Declaration FEMA-4683-DR (declaration) included notice of intent to provide financial assistance for emergency debris removal and emergency protective measures in counties affected by the disaster, including Sacramento County. As a local government within Sacramento County, the city was eligible to apply for Public Assistance grant funds. Subsequent amendments to the declaration further expanded the local, grant-eligible scope of work to "permanent work" on roads and bridges, water control facilities, public buildings and equipment, public utilities, parks, recreational, and other facilities.

City staff closely coordinated with FEMA and California Office of Emergency Services (CalOES) officials to identify necessary and reasonable maintenance work at City storm drain facilities affected by the winter storms. City staff have successfully obtained approval of public agency assistance funding from FEMA to perform repairs associated with storms from last winter, including storm drain repair and cleaning, erosion repair, pavement repair, and street signs' repair.

The City is seeking to execute contract amendment three with Coastline Water Resources, Inc. to increase the contract amount from \$2,335,000 to an amount not to exceed \$3,285,000. The cost increase is necessary to provide storm response services in support of work associated with the California Severe Winter Storms, Flooding, Landslides, and Mudslides Disaster Declaration (FEMA-4683-DR).

FISCAL IMPACT AND FUNDING SOURCE

Funding for this contract amendment is through a FEMA grant for cost recovery of all incurred repair cost. There is no impact to the City's general fund.

ATTACHMENT(S)

1. Resolution
2. Contract No. 58-2019-3
3. FEMA Disaster Declaration

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 58-2019-3 WITH COASTLINE WATER RESOURCES, INC. TO INCREASE THE CONTRACT AMOUNT FROM \$2,335,000 TO AN AMOUNT NOT TO EXCEED \$3,285,000 FOR STORM RESPONSE SERVICES FUNDED BY A FEMA GRANT

WHEREAS, the City entered into Contract No. 58-2019 with Coastline Water Resources, Inc. on October 7, 2019, in the amount of \$1,285,710 to provide citywide storm drain maintenance services; and

WHEREAS, the scope of work includes all labor, materials, tools, and equipment to perform services comprised of routine cleaning of structures and pipes, closed-circuit television inspection, miscellaneous repairs, and emergency response within city-maintained stormwater facilities; and

WHEREAS, Coastline Water Resources, Inc. has provided an excellent performance record and an effective understanding of the city's desired level of services; and

WHEREAS, Amendment No.1 increased the contract amount from \$1,285,710 to \$1,835,000 and extended the contract term to June 30, 2023; and

WHEREAS, Amendment No. 2 increased the contract amount from \$1,835,000 to \$2,335,000 and extended the contract term to June 30, 2024; and

WHEREAS, the Federal Emergency Management Agency (FEMA) issued a notice of intent to provide financial assistance for emergency and permanent work for facilities affected by the California Severe Winter Storms, Flooding, Landslides, and Mudslides Disaster Declaration FEMA-4683-DR; and

WHEREAS, City staff closely coordinated with FEMA and California Office of Emergency Services (CalOES) officials to identify necessary and reasonable maintenance work at City storm drain facilities affected by the winter storms. City staff have successfully obtained approval of public agency assistance funding from FEMA to perform repairs associated with storms from last winter, including storm drain repair and cleaning, erosion repair, pavement repair, and street sign repair; and

WHEREAS, work eligible for grant reimbursement by FEMA must be completed within 18 months after the disaster (June 2024); and

WHEREAS, the City wishes to increase the maximum compensation amount from \$2,335,000 to an amount not to exceed \$3,285,000; and

WHEREAS, the amount exceeds the maximum amount that the City Manager has authorization to approve; and

WHEREAS, the contract will be funded through a FEMA grant for cost recovery of all

ITEM 9.4.

ATTACHMENT 1

incurred repair cost.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to execute Contract Amendment No. 58-2019-3 with Coastline Water Resources, Inc. in a form approved by the City Attorney to increase the contract amount from \$2,335,000 to an amount not to exceed \$3,285,000 for storm response services funded by a FEMA grant.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Linda Budge, Mayor

Stacy Leitner, CMC
City Clerk

**THIRD AMENDMENT TO THE GENERAL SERVICES AGREEMENT
BETWEEN THE CITY OF RANCHO CORDOVA AND COASTLINE WATER RESOURCES, INC.
FOR STORM DRAIN MAINTENANCE SERVICES**

This Third Amendment to the General Services Agreement ("Amendment") is made by and between the City of Rancho Cordova ("City") and **Coastline Water Resources, Inc.** ("Contractor") as of September 18, 2023. City and Contractor are hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, the Parties entered into a General Services Agreement ("GSA") No. 58-2019 dated October 7, 2019 to provide storm drainage system maintenance services; and

WHEREAS, the scope of work includes routine cleaning of structures and pipe, closed-circuit television inspection, miscellaneous repairs, and emergency response within the City-maintained storm drainage system; and

WHEREAS, Coastline Water Resources, Inc. has provided an excellent performance record and an effective understanding of the city's desired level of services; and

WHEREAS, Amendment No.1 increased the contract amount from \$1,285,710 to \$1,835,000 and extended the contract term to June 30, 2023; and

WHEREAS, Amendment No.2 increased the contract amount from \$1,835,000 to \$2,335,000 and extended the contract term to June 30, 2024; and

WHEREAS, the Federal Emergency Management Agency (FEMA) issued a notice of intent to provide financial assistance for emergency and permanent work for facilities affected by the California Severe Winter Storms, Flooding, Landslides, and Mudslides Disaster Declaration FEMA-4683-DR; and

WHEREAS, City staff closely coordinated with FEMA and California Office of Emergency Services (CalOES) officials to identify necessary and reasonable maintenance work at City storm drain facilities affected by the winter storms. City staff have successfully obtained approval of public agency assistance funding from FEMA to perform repairs associated with storms from last winter, including storm drain repair and cleaning, erosion repair, pavement repair, and street sign repair; and

WHEREAS, work eligible for grant reimbursement by FEMA must be completed within 18 months from the first qualifying event (June 2024).

WHEREAS, the City wishes to increase the maximum compensation amount from \$2,335,000 to an amount not to exceed \$3,285,000; and

WHEREAS, the Parties agree that changes to the term and services provided for in the GSA are necessary in order for the City to continue receiving services by Contractor.

NOW, THEREFORE, the Parties hereto agree as follows:

AGREEMENT

1. Section 4 of the GSA, "Compensation of Contractor," provides for the City to pay Contractor **Two Million, Three Hundred Thirty-Five Thousand Dollars (\$2,335,000)**. The Parties agree to amend Section 2 of the GSA in order to increase the compensation amount to pay Contractor for additional services. The first sentence of Section 4 of the GSA is amended to read as follows:

"The Contractor shall be paid **Three Million, Two Hundred Eighty-Five Thousand Dollars (\$3,285,000)** for performance of the Services pursuant to this Agreement."

2. All other terms and conditions in the GSA shall remain in full force and effect to the extent they are not in conflict with this Amendment.
3. The signatures of the Parties to this Amendment may be executed and acknowledged on separate pages or in counterparts which, when attached to this Amendment, shall constitute one complete Amendment.

IN WITNESS WHEREOF, the Parties have executed this Amendment on the day and year first above written.

CITY OF RANCHO CORDOVA

CONTRACTOR

Micah Runner, City Manager

Jeremy Jaeger, President

Date: _____

Date: _____

Attest:

Stacy Leitner, CMC, City Clerk

Date: _____

Approved as to Form:

Adam U. Lindgren, City Attorney

Date: _____

ITEM 9.4.**ATTACHMENT 3**

An official website of the United States government

[Here's how you know](#)**FEMA**

DR-4683-CA Public Notice 004



English

Notice Date

February 23, 2023

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) hereby gives notice to the public of its intent to provide financial assistance to the State of California, local and Indian tribal governments, and private nonprofit organizations under major disaster declaration FEMA-4683-DR-CA. This notice applies to the Individual Assistance (IA), Public Assistance (PA), and Hazard Mitigation Grant (HMGP) programs implemented under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207. This public notice concerns activities that may affect historic properties, activities that are located in or affect wetland areas and the 100-year floodplain, and may involve critical actions within the 500-year floodplain. Such activities may adversely affect the historic property, floodplain or wetland, or may result in continuing vulnerability to flood damage.

I. Public Notice – Major Disaster Declaration FEMA-4683-DR-CA and Overview of Authorized Assistance

The President declared a major disaster for the State of California on January 14, 2023, and amended January 17, 2023, as a result of the severe winter storms, flooding, landslides, and mudslides that began on December 27, 2022 and are continuing, pursuant to his authority under the Robert T. Stafford Disaster Relief and Emergency

ITEM 9.4.**ATTACHMENT 3**

Assistance Act, Pub. L. No. 93-288 (1974) (codified as amended at 42 U.S.C. § 5121 *et seq.*) (Stafford Act).

This declaration, numbered FEMA-4683-DR-CA, has authorized Individual Assistance for Alameda, Amador, Calaveras, Contra Costa, Mendocino, Merced, Monterey, Sacramento, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, and Ventura Counties; and reimbursement through the Public Assistance Program, including direct federal assistance, for emergency work (Categories A-B) for Merced, Monterey, Sacramento, San Luis Obispo, Santa Barbara, and Santa Cruz Counties.

The following counties have been designated as eligible for Public Assistance, Category C through G for permanent work: Merced, Monterey, Sacramento, San Luis Obispo, Santa Barbara, and Santa Cruz Counties.

The following counties have been designated as eligible for Public Assistance: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Inyo, Los Angeles, Madera, Marin, Mariposa, Mendocino, Napa, Nevada, Placer, San Benito, San Diego, San Francisco, San Joaquin, San Mateo, Santa Clara, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, and Yolo Counties.

The Hazard Mitigation Grant Program is available statewide. Additional counties may be designated at a later date.

Amendment No. 1, issued January 17, 2023, to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following counties as eligible for Individual Assistance: Monterey, San Luis Obispo, and Santa Barbara Counties, and identified the following counties as eligible for debris removal and emergency protective measures (Categories A and B), including direct federal assistance, under the Public Assistance program: Monterey, San Luis Obispo, and Santa Barbara Counties.

Amendment No. 2 issued January 18, 2023, to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following county as eligible for Individual Assistance: San Joaquin County.

Amendment No. 3 issued January 23, 2023, to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following county as eligible for Individual Assistance: Calaveras County.

Amendment No. 4 issued January 18, 2023, authorizes Federal funds for debris removal and emergency protective measures, including direct Federal assistance, at 100 percent of the total eligible costs for 60 days from the start of the incident period.

ITEM 9.4.**ATTACHMENT 3**

Amendment No. 5 issued January 26, 2023, to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following county as eligible for Individual Assistance: San Mateo County. The following counties have also been identified as eligible for Public Assistance, Category C through G for permanent work: Merced, Monterey, Sacramento, Santa Barbara, and Santa Cruz Counties (already designated for Individual Assistance and assistance for debris removal and emergency protective measures [Categories A and B] including direct federal assistance, under the Public Assistance program). Additionally, the following counties have been identified as eligible for Public Assistance: San Benito, Tulare, and Ventura Counties.

Amendment No. 6 issued February 1, 2023, to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following counties as eligible for Individual Assistance: Alameda, Contra Costa, and Mendocino Counties. The following county has been identified as eligible for Individual Assistance (already designated for Public Assistance): Ventura County. The following counties have been identified as eligible for Public Assistance: Alameda, Butte, Colusa, Fresno, Glenn, Humboldt, Los Angeles, Marin, Mendocino, Placer, Santa Clara, Siskiyou, Sonoma, Trinity, and Yolo Counties. The following counties have been identified as eligible for Public Assistance (already designated for Individual Assistance): Calaveras and San Joaquin Counties. The following county has been identified as eligible for permanent work [Categories C-G] (already designated for Individual Assistance and assistance for debris removal and emergency protective measures [Categories A and B], including direct federal assistance, under the Public Assistance program): San Luis Obispo County.

Amendment No. 7 issued February 6, 2023, provided notice that the incident period for this disaster is closed effective January 31, 2023.

Amendment No. 8 issued February 16, 2023 to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following counties as eligible for Public Assistance: Amador, Del Norte, El Dorado, Inyo, Madera, Mariposa, Napa, Nevada, San Diego, San Francisco, Solano, Stanislaus, Sutter, Tehama, and Tuolumne Counties. The following counties have been identified as eligible for Public Assistance (already designated for Individual Assistance): Contra Costa and San Mateo Counties.

Amendment No. 9 issued February 22, 2023 to the notice of major disaster declaration for the state of California (FEMA DR-4683-CA), dated January 14, 2023, identified the following county as eligible for Individual Assistance (already designated for Public Assistance): Amador County. The following county has been identified as eligible for Public Assistance: Alpine County.

ITEM 9.4.**ATTACHMENT 3**

Individual Assistance is authorized by Section 408 of the Stafford Act. FEMA may provide IA program funding for disaster-related emergency housing. These actions may adversely affect a floodplain/wetland, or may result in continuing vulnerability to floods. These actions may include repair, restoration or construction of housing or private bridges, purchase and placement of travel trailers or manufactured housing units, or repair of structures as minimum protective measures. This will be the only public notice concerning these actions.

The Public Assistance Program is authorized by Sections 403, 406, and 407 of the Stafford Act. FEMA may provide financial assistance under the Public Assistance Program for the State of California, local and Indian tribal governments, and private nonprofit organizations to perform debris removal and emergency protective measures.

The Hazard Mitigation Grant Program is authorized by Section 404 of the Stafford Act. Under the Hazard Mitigation Grant Program, FEMA may provide financial assistance for the State of California, local and Indian tribal governments, and private nonprofit organizations to implement mitigation measures to reduce the risk of life and property from future disasters during the recovery from the major disaster. In the course of developing project proposals, subsequent public notices will be published if necessary, as more specific information becomes available.

II. Public Notice – Financial Assistance for Activities that Affect Historic Properties or Located in or that Affect Wetlands Areas or Floodplains

Some of the activities for which FEMA provides financial assistance under the Individual Assistance, Public Assistance, and Hazard Mitigation Grant Programs may affect historic properties, may be located in or affect wetland areas or the 100-year floodplain, and may involve critical actions within the 500-year floodplain. In accordance with all requirements of the National Environmental Policy Act (NEPA), all federal actions must be reviewed and evaluated for feasible alternatives. FEMA must also comply with Executive Order 11988, Floodplain Management; Executive Order 11990, Protection of Wetlands; the National Historic Preservation Act of 1966, Pub. L. No. 89-655 (1966) (codified as amended at 16 U.S.C. § 470 et seq.) (NHPA); and the implementing regulations at 44 C.F.R. pt. 9 and 36 C.F.R. pt. 800. The executive orders, NHPA, and regulations require FEMA to provide public notice for certain activities as part of approving the award of financial assistance for specific projects.

A. Federal Actions in or Affecting Floodplains and Wetlands

FEMA has determined for certain types of facilities there are normally no alternatives to restoration in the floodplain or wetland. These are facilities meeting all of the following criteria:

ITEM 9.4.**ATTACHMENT 3**

1) FEMA's estimate of the cost of repairs is less than 50% of the cost to replace the entire facility and is less than \$100,000; 2) the facility is not located in a floodway; 3) the facility has not sustained major structural damage in a previous Presidentially declared flooding disaster or emergency; and 4) the facility is not critical (e.g., the facility is not a hospital, generating plant, emergency operations center, or a facility containing dangerous materials). FEMA intends to provide assistance for the restoration of these facilities to their pre-disaster condition, except certain measures to mitigate the effect of future flooding or other hazards may be included in the work. For example, a bridge or culvert restoration may include a larger waterway opening to decrease the risk of future washouts.

For routine activities, this will be the only public notice provided. Other activities and those involving facilities not meeting the four criteria are required to undergo more detailed review, including the study of alternate locations. Subsequent public notices regarding such projects will be published if necessary, as more specific information becomes available.

In many cases, an applicant may have started facility restoration before federal involvement. Even if the facility must undergo detailed review and analysis of alternate locations, FEMA will fund eligible restoration at the original location if the facility is functionally dependent on its floodplain location (e.g., bridges and flood control facilities), or the project facilitates an open space use, or the facility is an integral part of a larger network which is impractical or uneconomical to relocate, such as a road. In such cases, FEMA must also examine the possible effects of not restoring the facility, minimizing floodplain or wetland impacts, and determining both an overriding public need for the facility clearly outweighs the Executive Order requirements to avoid the floodplain or wetland, and the site selected is the only practicable alternative. The State and local officials will confirm to FEMA the proposed actions comply with all applicable federal, state, and local floodplain management and wetland protection requirements.

The Public Assistance (PA) Federal Flood Risk Management Standard (FFRMS) partial implementation policy, effective for all major disasters declared on or after June 3, 2022, applies to PA projects in the 1% annual chance floodplain (1% and 0.2% annual chance floodplains for critical actions) involving new construction of structures, structures that have a substantial damage determination, or structures that require substantial improvement. The policy applies regardless of the cause of damage.

The Hazard Mitigation Assistance (HMA) FFRMS partial implementation policy applies to non-critical actions involving structure elevation, dry floodproofing, and mitigation reconstruction in the 1% annual chance floodplain. For all FEMA programs and project types, if a state, local, tribal, or territorial government has its own higher elevation standard, FEMA requires use of the higher standard. FEMA program policies also

ITEM 9.4.**ATTACHMENT 3**

reference additional consensus codes and standards, such as ASCE-24-14, that incorporate additional elevation requirements beyond the base flood elevation.

B. Federal Actions Affecting Historic Properties

Section 106 of the NHPA requires FEMA to consider the effects of its activities (known as undertakings) on any historic property and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on such projects before the expenditure of any federal funds. An Individual Assistance, Public Assistance, or Hazard Mitigation Grant Program activity is an “undertaking” for the purposes of the NHPA, and a historic property is any property which is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). For historic properties which will not be adversely affected by FEMA’s undertaking, this will be the only public notice. FEMA may provide additional public notices if a proposed FEMA undertaking would adversely affect a historic property.

III. Further Information or Comment

The Rehabilitation Act of 1973 protects the civil rights of persons with disabilities. It prohibits discrimination on the basis of disability by the federal government, federal contractors, and by recipients of federal financial assistance. Any recipient or sub-recipient of federal funds is required to make their programs accessible to individuals with disabilities. Its protections apply to all programs and businesses receiving any federal funds. This applies to all elements of physical/architectural, programmatic and communication accessibility in all services and activities conducted by or funded by FEMA. FEMA intends to comply with the Rehabilitation Act in all federally conducted and assisted programs in alignment with the principals of whole community inclusion and universal accessibility.

Executive Orders 13985 and 14008 further address the need to achieve environmental justice and equity across the federal government. The issuance of the new executive orders more than 20 years after Executive Order 12898 was signed indicates the administration’s directive to federal agencies to renew their energy, effort, resources, and attention to environmental justice. FEMA is working with applicants/sub-applicants to identify communities with Environmental Justice concerns and provide an avenue for local groups and non-profits with an Environmental Justice mission to self-identify so FEMA Programs can start to work with them on specific projects from the beginning of the application process.

FEMA also intends to provide HMGP funding to the State of California to mitigate future disaster damages. These projects may include construction of new facilities, modification of existing, undamaged facilities, relocation of facilities out of floodplains, demolition of structures, or other types of projects to mitigate future

ITEM 9.4.**ATTACHMENT 3**

disaster damages. In the course of developing project proposals, subsequent public notices will be published if necessary, as more specific information becomes available.

This will be the only public notice regarding the actions described above for which FEMA may provide financial assistance under the Individual Assistance, Public Assistance, and Hazard Mitigation Grant Programs. Interested persons may obtain information about these actions or a specific project by writing to the Federal Emergency Management Agency Region RIX Office, Regional Environmental Officer, Kenneth Sessa, 1111 Broadway, Suite 1200, Oakland, CA 94607. All comments concerning this public notice must be submitted in writing to the Region RIX Office within 30 days of its publication.

Last updated February 23, 2023

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ITEM 9.4.

ATTACHMENT 3



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National Terrorism Advisory System

MEMORANDUM



ITEM 9.5.

DATE: September 18, 2023

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Jesse Yabes, Assistant Civil Engineer
Edgar Medina, Principal Engineer

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 2021-337-2 WITH R.E.Y. ENGINEERS, INC. WILL EXTEND THE CONTRACT TERM FROM JUNE 24, 2024, TO DECEMBER 31, 2026 AND INCREASE THE CONTRACT AMOUNT FROM \$707,182 TO AN AMOUNT NOT TO EXCEED OF \$945,026 FOR THE COUNTRYSIDE NEIGHBORHOOD STREET REHABILITATION PROJECT**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract Amendment No. 2021-337-2 with R.E.Y. Engineers, Inc. for the Countryside Neighborhood Street Rehabilitation Project. This will extend the contract term from June 30, 2024, to December 31, 2026 and increase the contract amount from \$707,182 to an amount not to exceed \$945,026 for the Countryside Neighborhood Rehabilitation Project.

BACKGROUND

The Countryside Neighborhood Street Rehabilitation Project (Project) is located in the neighborhood bordered by Routier Road, Folsom Boulevard, Mather Field Road, Rockingham Drive, and Old Placerville Road ([Attachment 3](#)). The Project will include an overlay of existing pavement to improve the road surfaces, sidewalk repairs and curb ramp upgrades to achieve compliance with the Americans with Disabilities Act, storm drain upgrades to improve flood protection and conveyance, and other incidental work as required.

On January 3, 2022, City Council approved Contract No. 2021-337 for R.E.Y. Engineers, Inc. to provide on-call engineering and design services for the Countryside Neighborhood Street Rehabilitation Project in an amount not to exceed \$616,948.

On October 4, 2022, City Council approved contract No. 2021-337-1 (Amendment 1) for R.E.Y. Engineers, Inc. (R.E.Y.) to provide additional engineering and design services including utility locating and survey monument investigation and field verification.

Due to the availability of funding in the City's Capital Improvement Program, the City adjusted construction of the Project from 2024 to the year 2025. By extending the project schedule to 2025, construction engineering support services cannot be provided until a future time. Therefore, the original PSA contract requires an extension until completion of the Project.

Contract Amendment No. 2021-337-2 will add funds to the Project to provide additional services including traffic signal design for enhanced video detection, enhanced sidewalk design, drainage design and connections, pavement investigation, coordination with stakeholder agencies, survey monument preservation and extending the construction date. This amendment will also provide post-construction corner survey reports and re-establishment of survey monuments.

Performing these proposed services will result in the complete design of additional infrastructure improvements and a thorough set of construction documents for the project.

City staff selected R.E.Y. as the project designer from a list of pre-qualified engineering consultants. City staff recommended award of the original contract with R.E.Y. based on their qualifications and experience designing similar projects. To maintain consistency of the project design and current project schedule, City staff recommend authorizing Amendment 2 with R.E.Y. Engineers, Inc.

It is anticipated that the Project design will be complete in 2024 and construction is anticipated to begin in second half of 2025.

FISCAL IMPACT AND FUNDING SOURCE

Contract Amendment No. 2021-337-2 is funded through Gas Tax. There is no impact to the City's General Fund.

ATTACHMENT(S)

1. Resolution
2. Contract Amendment No. 2021-337-2
3. Project Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 2021-337-2 WITH R.E.Y. ENGINEERS, INC. TO EXTEND THE CONTRACT TERM FROM JUNE 24, 2024, TO DECEMBER 31, 2026, AND INCREASE THE CONTRACT AMOUNT FROM \$707,182 TO AN AMOUNT NOT TO EXCEED \$945,026, FOR THE COUNTRYSIDE NEIGHBORHOOD STREET REHABILITATION PROJECT

WHEREAS, the Parties entered into Professional Services Agreement (“PSA”) 2021-337, on January 4, 2022 in an amount not to exceed \$616,948, for the purpose of providing engineering and design services for the Countryside Neighborhood Street Rehabilitation Project; and

WHEREAS, Amendment No. 1 was executed on October 4, 2022, and increased the contract amount from \$616,948 to \$707,182; and

WHEREAS, Amendment No. 2 will extend the contract expiration date from June 30, 2024 to December 31, 2026; and

WHEREAS, Amendment No. 2 will increase the contract amount from \$707,182 to an amount not to exceed \$945,026; and

WHEREAS, this includes additional services for traffic signal design, enhanced sidewalk re-design, drainage design, pavement investigation, agency coordination, and additional survey monument preservation to complete the design of the Countryside Neighborhood Street Rehabilitation Project; and

WHEREAS, funding for Amendment 2 will be from Gas Tax. The contract does not impact the general fund.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to execute Contract Amendment No. 2021-337-2 with R.E.Y. Engineers, Inc. to extend the contract term from June 30, 2024, to December 31, 2026, and increase the contract amount from \$707,182 to an amount not to exceed \$945,026 in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ITEM 9.5.

ATTACHMENT 1

ATTEST:

Stacy Leitner, CMC
City Clerk

Linda Budge, Mayor

**FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT
BETWEEN THE CITY OF RANCHO CORDOVA AND
R.E.Y. ENGINEERS, INC.**

This First Amendment to the Agreement for Professional Services ("Amendment") is made by and between the City of Rancho Cordova ("City") and R.E.Y. Engineers, Inc. ("Professional") as of September 19, 2023. City and Professional are hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, the Parties entered into a Professional Services Agreement ("PSA") dated January 4, 2022, in the amount of \$616,948, for the purpose of providing engineering and design services for the Countryside Neighborhood Street Rehabilitation Project; and

WHEREAS, the Parties entered into the First Amendment to the PSA ("First Amendment") dated October 4, 2022, for the purpose of providing additional utility location and coordination, engineering services, and survey monument location for the Countryside Neighborhood Street Rehabilitation Project and increased the contract compensation amount from \$616,948 to \$707,182; and

WHEREAS, the City wishes to update the scope of work to add additional services and compensation for the Countryside Neighborhood Street Rehabilitation Project

WHEREAS, this Amendment No. 2021-337-2 ("Second Amendment") will include additional tasks outlined in Exhibit "D" for the Professional to perform traffic signal design, enhanced sidewalk re-design, drainage design, pavement investigation, agency coordination and additional survey monument preservation to complete the design of the Countryside Neighborhood Street Rehabilitation Project; and

WHEREAS, this Second Amendment will result in an increase to the contract compensation amount from \$707,182 to \$945,026; and

WHEREAS, this Second Amendment updates the Contract Term from June 30, 2024, to December 31, 2026; and

WHEREAS, the Parties agree that changes to the term and services provided for in the PSA are necessary in order for the City to continue receiving services by Professional.

NOW, THEREFORE, the Parties hereto agree as follows:

AGREEMENT

1. The Parties agree to modify the end date of the PSA from June 30, 2024, to December 31, 2026. The first two sentences of Section 1.1 of the PSA, "Term of Service," is amended to read as follows:

"The term of this Agreement shall begin on the date first noted above and shall end on December 31, 2026, the date of completion specified in Exhibit D. Professional shall complete the work described in Exhibit A, Exhibit C, and Exhibit D prior to that date; unless the term of the Agreement is otherwise terminated or extended, as provided in Section 8."

2. Section 2 of the PSA Amendment 1, "Compensation," provides for the City to pay Professional a sum not to exceed Nine Hundred Forty-Five Thousand Twenty-Six Dollars and No Cents (\$945,026.00). The Parties agree to amend Section 2 of the PSA Amendment 1 in order to increase the compensation amount to pay Professional for additional services. The first sentence of Section 2 of the PSA Amendment 1 is amended to read as follows:

"City hereby agrees to pay Professional a sum not to exceed Nine Hundred Forty-Five Thousand Twenty-Six Dollars and No Cents (\$945,026.00), notwithstanding any contrary indication that may be contained in Professional's proposal, for services to be performed and reimbursable costs incurred under this Agreement."

3. The Attached Exhibit "D" is hereby added to the PSA which provides for additional services and compensation as specified therein.
4. All other terms and conditions in the PSA shall remain in full force and effect to the extent they are not in conflict with this Amendment.
5. The signatures of the Parties to this Amendment may be executed and acknowledged on separate pages or in counterparts which, when attached to this Amendment, shall constitute one complete Amendment.
6. **Contract Administration.** This Agreement shall be administered by Jesse Yabes ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

Notices. Any written notice to Professional shall be sent to:

James Fisher, P.E., Principal
905 Sutter Street, Suite 200
Folsom, CA 95630
Email Address (for Insurance Update Requests):
jfisher@reyengineers.com

Any written notice to City shall be sent to:

Jesse Yabes
2729 Prospect Park Drive
Rancho Cordova, CA 95670
jyabes@cityofranchocordova.org

IN WITNESS WHEREOF, the Parties have executed this Amendment on the day and year first above written.

CITY OF RANCHO CORDOVA

PROFESSIONAL

Micah Runner, City Manager

James Fisher, Principal

Date:_____

Date:_____

Attest:

Stacy Leitner, CMC, City Clerk

Date:_____

Approved as to Form:

Adam U. Lindgren, City Attorney

Date:_____

EXHIBIT C
ADDITIONAL SCOPE OF WORK AND COMPENSATION

R.E.Y. ENGINEERS, INC.
Civil Engineers | Land Surveyors | LiDAR
905 Sutter Street, Suite 200 Folsom, CA 95630
Phone: (916) 366-3040 Fax: (916) 366-3303
www.reyengineers.com



September 5th, 2023

Jesse Yabes
City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670

sent via email: JYabes@cityofranchocordova.org

Subject: Countryside Neighborhood Street Rehabilitation Project – Contract Amendment No. 2 Scope and Fee for Additional Final Design and Construction Services

Dear Mr. Yabes,

Thank you for the opportunity to work with the City of Rancho Cordova (City) on the Countryside Neighborhood Street Rehabilitation Project (Project). Due to the availability of project funding, the City has elected to delay the construction of the Countryside Neighborhood Street Rehabilitation Project to the year 2025. This amendment request includes services corresponding to the change in delivery schedule as well as additional services requested for the betterment of the project.

Below is an overview of the proposed scope of work for Contract Amendment No. 2:

Task II.1 – Project Management (existing task) - \$18,172

Postponing construction to the year 2025 extends the overall timeframe that we had anticipated providing services to the City by approximately 18 months. We are requesting a supplemental budget to perform project management tasks throughout those additional 18 months to facilitate the new tasks and added services to existing tasks detailed below including traffic signal design, inclusion of the Ellenwood sidewalk improvements, creation of a Pavement Preservation Memo, project coordination with Sacramento Regional Transit District (SacRT), and survey monument preservation work. These additional Project Management tasks include, but are not limited to, budget monitoring, schedule monitoring, internal oversight, subconsultant oversight, and coordination with City Staff.

Task II.7 – 100% PS&E/Bid Documents (existing task) - \$34,194

To facilitate the changing construction schedule, R.E.Y. will provide services to create a new plan set, project specifications and engineer's estimate containing only those improvements in Routier Road and Ellenwood Avenue. To aid in the 100% design, additional geotechnical investigations and a final geotechnical report will be prepared. Additional services include utility coordination, and preparation of CEQA documentation.

Task II.10 – Traffic Signal Design (new task) - \$18,031

R.E.Y. will provide services to accommodate the City's desire to upgrade the traffic signal at the intersection of Old Placerville Road and Rockingham Drive to a video detection system. The video detection system will replace the existing detector loops located within the pavement which conflict with the project's roadway improvements. These additional services include design of the traffic signal modifications and integration into the project plans, specifications, and engineer's estimates.

Task II.11 – Ellenwood Sidewalk (new task) - \$22,978

R.E.Y. will provide services to accommodate the City's desire to close a gap in the existing pedestrian network on Ellenwood Avenue. This task consists of topographic surveying, design, and right of way acquisition for the inclusion of curb, gutter, and sidewalk improvements along 10122 Ellenwood Avenue into the project documents. Also included are utility coordination efforts to relocate several SMUD owned utility poles that are in conflict with the proposed improvements and attendance at one (1) meeting with the property owner.

ITEM 9.5.**ATTACHMENT 2**Task II.12 – Pavement Preservation Memo (new task) - \$8,297

In recent years, the City has completed pavement preservation projects using different preservation types, techniques and materials on various streets within the City. The Pavement Preservation Memo task includes the efforts necessary to develop a set of standards for the City to use on the Countryside Neighborhood Street Rehabilitation Project and for future projects that will address pavement preservation. R.E.Y. Engineers will accompany the City on one half-day site visit to tour streets that have recently received pavement preservation treatment. Using information gathered during the site visit, input from the City, and project specifications provided by the City, R.E.Y. Engineers will develop a Pavement Preservation Memo which will include a selection matrix that will provide direction on what type of pavement preservation technique should be implemented given the characteristics of a roadway.

Task II.13 – SacRT Coordination (new task) - \$8,426

The Sacramento Regional Transit District (SacRT) Mather Field/Mills Station light rail station is located off Mill Station Road, which will undergo full roadway reconstruction with this project. To avoid interruptions to SacRT's operations during construction, R.E.Y. will create a staging plan, specific to this cause, to be included in the project plans. We will also incorporate language in the special provisions that alert the contractor to the sensitivity of this work zone and to ensure all additional traffic control, staging and sequencing costs are included by the contractor at the time of bidding.

Task III.4 – Survey Monument Preservation (new task) - \$106,496

The City has elected to expand the surveying efforts on this project to include survey monument preservation. Authorized as a part of Contract Amendment No. 1, R.E.Y. performed office research and field verification of the existing survey monuments within the project site and found 157 monuments that would likely be disturbed or destroyed during construction. Services included with this contract amendment request include final determination of the monuments which may be disturbed or destroyed, preparing and filing pre-construction and post construction corner records, and re-establishing the affected monuments after construction. During construction, the contractor shall install a concrete monument and monument well per Caltrans Standard Plan A74 and R.E.Y. will punch and finalize the brass disk after construction.

Task II.7, Task II. 8, Task II. 9, Task III.1, Task III.2, and Task III.3 (existing tasks) – Rate Adjustment \$21,250

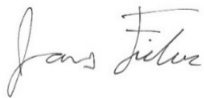
Due to the adjustment of the project schedule, it is anticipated that a portion of the efforts necessary to complete the existing tasks listed above will occur beyond the expiration of the project fee schedule. The supplemental budget requested will adjust our contract amount to accommodate updated rates as shown on the attached Countryside Neighborhood Street Rehabilitation Project Fee Schedule.

The above tasks sum to a total of \$237,844 which would increase our current contract amount from \$707,182 to \$945,026.

In addition to the tasks listed above, we would like to request that the expiration date of our contract be extended to December 31st, 2026. We are also requesting approval to use the updated Fee Schedule attached beginning on January 1st, 2024.

Thank you for your consideration of these additional project services. If you have any questions or comments, please don't hesitate to contact me.

Sincerely,



Jim Fisher, PE, QSD/P

Attachments: Countryside Neighborhood Street Rehabilitation Project Fee Schedule
Countryside Neighborhood Street Rehabilitation Project Contract Amendment 2 Fee Estimate



**City of Rancho Cordova
 Countryside Neighborhood Street Rehabilitation Project**

Fee Schedule

<u>Labor Classification</u>	<u>Rate*</u>
Technician I	\$104
Technician II	\$122
Technician III	\$141
Senior Technician I	\$154
Senior Technician II	\$174
Senior Technician III	\$196
LiDAR Technician I	\$167
LiDAR Technician II	\$189
LiDAR Technician III	\$210
Senior LiDAR Specialist I	\$221
Senior LiDAR Specialist II	\$247
Assistant I	\$128
Assistant II	\$140
Assistant III	\$153
Assistant IV	\$166
Assistant V	\$178
Associate I	\$163
Associate II	\$175
Associate III	\$188
Associate IV	\$200
Associate V	\$213
Senior I	\$220
Senior II	\$239
Senior III	\$259
Senior IV	\$278
Senior V	\$297
Principal I	\$305
Principal II	\$329
Expert Witness	\$464
1 Person Survey Crew	\$215
2 Person Survey Crew	\$356
3 Person Survey Crew	\$469
Project Administrator	\$64
Project Coordinator	\$139
<u>Expense Classification</u>	
Terrestrial LiDAR Equipment	\$164
Mobile LiDAR Equipment	\$600
UAV LiDAR Equipment (<i>per flight day</i>)	\$840
Bathymetric Survey Vessel (<i>per project day</i>)	\$1,074
Special Monuments, Iron Stakes, etc.	Cost
Filing Fees, Checking Fees, etc.	Cost
Outside Reproductions, Services, and Subconsultants	Cost + 10%
In-House Large Format Prints (B+W)	\$0.30/SF
In-House Large Format Prints (Color)	\$0.75/SF

Legend

* Rates above are the hourly rate to be charged for each classification unless otherwise noted.

Notes

- Rates are valid through December 31st, 2026.
- Reimbursement for mileage is included in the rates above.
- Rate for overtime for field and non-exempt employees will be charged at 135% of rate listed above.
- Rate for double time for field and non-exempt employees will be charged at 170% of rate listed above.

Countryside Neighborhood
Street Rehabilitation Project
City of Rancho Cordova

Contract Amendment 2 Fee Estimate

August 24, 2023

R.E.Y. ENGINEERS, INC.
 Civil Engineers | Land Surveyors | LiDAR
 905 Sutter Street, Suite 200 Folsom, CA 95630
 Phone: (916) 366-3040 Fax: (916) 366-3303
 www.reyengineers.com



TASK DESCRIPTION	Labor Cost	Rate Adjustment	ODC's	Total
Billing Rate				
Task II - Final Design				
1 Project Management	\$18,172			\$18,172
1.01 Project Management (18 months)	\$18,172			\$18,172
7 100% PS&E/Bid Documents	\$34,194	\$7,500		\$41,694
7.01 Rate Adjustment		\$7,500		\$7,500
7.02 Ellenwood and Routier Improvements	\$34,194			\$34,194
8 Bid Support		\$1,250		\$1,250
8.01 Rate Adjustment		\$1,250		\$1,250
9 Utility Coordination		\$3,250		\$3,250
9.01 Rate Adjustment		\$3,250		\$3,250
10 Traffic Signal Design	\$15,116		\$2,915	\$18,031
10.01 Traffic Signal Design - Video Detection	\$15,116		\$2,915	\$18,031
11 Ellenwood Sidewalk	\$22,978			\$22,978
11.01 Supplemental Topo	\$2,632			\$2,632
11.02 Preliminary Design	\$4,815			\$4,815
11.03 Exhibit	\$3,087			\$3,087
11.04 Utility Coordination with SMUD	\$2,460			\$2,460
11.05 Plat and Legal Description	\$6,678			\$6,678
11.06 Property Owner Meeting	\$1,036			\$1,036
11.07 Revise 100%/Final PS&E	\$2,271			\$2,271
12 Pavement Preservation Memo	\$8,297			\$8,297
12.01 Field Observations	\$1,295			\$1,295
12.02 Pavement Preservation Memo	\$7,002			\$7,002

Countryside Neighborhood
Street Rehabilitation Project
City of Rancho Cordova

Contract Amendment 2 Fee Estimate

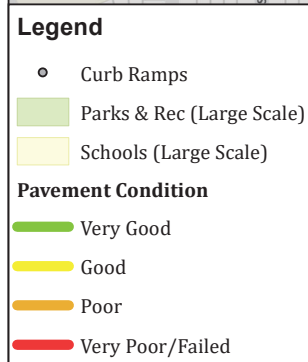
August 24, 2023

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 Phone: (916) 366-3040 Fax: (916) 366-3303
 www.reyengineers.com



TASK DESCRIPTION	Labor Cost	Rate Adjustment	ODC's	Total
Billing Rate				
13 SacRT Coordination	\$8,426			\$8,426
13.01 Staging Plans	\$8,426			\$8,426
SUBTOTAL	\$107,183	\$12,000	\$2,915	\$172,344
Task III - Construction				
1 Construction Documents		\$1,250		\$1,250
1.01 Rate Adjustment		\$1,250		\$1,250
2 Construction Engineering Support		\$5,500		\$5,500
2.01 Rate Adjustment		\$5,500		\$5,500
3 As-Built/Record Drawings		\$2,500		\$2,500
3.01 Rate Adjustment		\$2,500		\$2,500
4 Survey Monument Preservation	\$106,496			\$106,496
4.01 Identify Affected Monuments	\$10,004			\$10,004
4.02 Re-establish Monuments	\$36,131			\$36,131
4.03 Corner Records	\$60,361			\$60,361
SUBTOTAL	\$106,496	\$9,250		\$115,746
TOTAL HOURS				
TOTAL DOLLARS	\$163,433	\$21,250	\$2,915	\$237,844

ATTACHMENT 3



MEMORANDUM



ITEM 9.6.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Lorianne Ulm, Community Engagement Manager
SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 2022-212-1 WITH REBUILDING TOGETHER SACRAMENTO WILL EXTEND THE CONTRACT TERM FROM OCTOBER 31, 2024, TO JUNE 30, 2025 AND INCREASE THE CONTRACT AMOUNT FROM \$300,000 TO AN AMOUNT NOT TO EXCEED \$650,000 FOR FUNDING THE REBUILDING TOGETHER SACRAMENTO CRITICAL REPAIR PROGRAM**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract No. 2022-212-1 with Rebuilding Together Sacramento to provide critical repair services to residences owned by low and moderate-income persons, the elderly, or disabled, in the City of Rancho Cordova, which will benefit the City of Rancho Cordova and its residents by increasing the health and safety of residents of Rancho Cordova.

BACKGROUND

On June 20, 2022, the City Council approved Resolution No. 119-2022 for projects and programs to be funded from the approved Measure H 1/2 cent sales tax measure for the fiscal year ending June 30, 2023. Additionally, on June 15, 2020, the City Council approved Resolution No. 64-2020 which also approved projects and programs to be funded from the approved Measure H 1/2 cent sales tax measure for the fiscal year ending June 30, 2021. Exhibit A to both Resolution No. 64-2020 and Resolution No. 119-2022, allocated funding for community development, community building, outreach, community service activities, and beautification projects, programs, and incentives.

In an effort to provide additional support to our community, the City entered into a two-year contract with Rebuilding Together Sacramento on November 1, 2022 to provide critical repairs and maintenance work on residences owned by low-and moderate-income persons, the elderly, or disabled, in the City of Rancho Cordova, which will benefit the City of Rancho Cordova and its residents by increasing the health and safety of resident of Rancho Cordova.

This first amendment to the Agreement modifies the end date of the contract from October 31,

2024, to June 30, 2025, and provides additional funds to increase the number of critical repairs and maintenance work on residences owned by low-and moderate-income persons, the elderly, or disabled, in the City of Rancho Cordova. The first amendment extends the contract term from October 31, 2024 to June 30, 2025 and amends the agreement for use of City funds to increase the total available project allocation by an additional Three Hundred Fifty Thousand Dollars (\$350,000), from Three Hundred Thousand Dollars (\$300,000) to Six Hundred Fifty Thousand Dollars (\$650,000), which equates to One Hundred Fifty Thousand Dollars (\$150,000) from November 1, 2022 to October 31, 2023, Two Hundred Fifty Thousand Dollars (\$250,000 November 1, 2023 to October 31, 2024), and Two Hundred Fifty Thousand Dollars (\$250,000 November 1, 2024 – June 30, 2025).

FISCAL IMPACT AND FUNDING SOURCE

There is no additional fiscal impact since the available funding was already authorized under Resolution No. 64-2020 and Resolution No. 119-2022 under Measure H and approved under the Measure R budget for Fiscal Year 2023/24 and Fiscal Year 2024/2025.

ATTACHMENT(S)

1. Resolution
2. RTS Measure R Critical Repair Funding Agreement Amendment 1

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO ENTER INTO A FIRST AMENDMENT TO THE AGREEMENT WITH REBUILDING TOGETHER SACRAMENTO IN AN AMOUNT NOT TO EXCEED \$650,000 FOR FUNDING THE REBUILDING TOGETHER SACRAMENTO CRITICAL REPAIR PROGRAM

WHEREAS, the parties will enter into the first amendment to the original Agreement for the amount of \$650,000 for the Rebuilding Together Sacramento Critical Repair Program; and

WHEREAS, this first amendment also extends the contract end date from October 31, 2024 to June 30, 2025; and

WHEREAS, this first amendment increases the total available project allocation by an additional Three Hundred Fifty Thousand Dollars (\$350,000), from Three Hundred Thousand Dollars (\$300,000) to Six Hundred Fifty Thousand Dollars (\$650,000), which equates to One Hundred Fifty Thousand Dollars (\$150,000) from November 1, 2022 to October 31, 2023, Two Hundred Fifty Thousand Dollars (\$250,000) November 1, 2023 to October 2024, and Two Hundred Fifty Thousand Dollars (\$250,000) November 1, 2024 to June 30, 2025; and

WHEREAS, these services will exceed the maximum amount the City Manager has authorization to approve; and

WHEREAS, funding for the amended Agreement will be from Measure R, Community Enhancement and Investment Funds.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to enter into a first amendment to the Agreement with Rebuilding Together Sacramento in the amount of \$650,000 for funding of the Rebuilding Together Sacramento Critical Repair Program.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, CMC
City Clerk

AMENDMENT NO. 1 TO
AGREEMENT BETWEEN CITY OF RANCHO CORDOVA
AND REBUILDING TOGETHER SACRAMENTO
FOR USE OF CITY FUNDS

This Amendment is made by and between the City of Rancho Cordova, a California municipal corporation (“City”), and Rebuilding Together Sacramento, a California Nonprofit Corporation (“Provider”) (each may herein be referred to as a “Party” or collectively as “Parties”) as of November 1, 2023.

Whereas, City has allocated City funds to Provider for the purpose of supporting critical repair and maintenance work to be performed on residences owned by low- and moderate-income persons, the elderly, or disabled, in the City of Rancho Cordova, which will benefit the City of Rancho Cordova and its residents by increasing the health and safety of residents of Rancho Cordova and increasing property values; and

Whereas, City and Provider entered into a two-year agreement for use of City funds dated November 1, 2022, pursuant to which Provider will provide the services described above; and

Whereas, City and Provider now desire to amend the agreement for use of City funds to extend the contract term from October 31, 2024 to June 30, 2025 and amend the agreement for use of City funds to increase the total available project allocation by an additional Three Hundred Fifty Thousand Dollars (\$350,000), from Three Hundred Thousand Dollars (\$300,000) to Six Hundred Fifty Thousand Dollars (\$650,000), which equates to One Hundred Fifty Thousand Dollars (\$150,000) from November 1, 2022 to October 31, 2023, Two Hundred Fifty Thousand Dollars (\$250,000) November 1, 2023 to October 2024, and Two Hundred Fifty Thousand Dollars (\$250,000) November 1, 2024 to June 30, 2025, pursuant to the original contract Resolution #189-2022 dated October 17, 2022, and the Fiscal Year 2023 through June 30, 2025 Budget, Resolution #61-2023 dated June 5, 2023.

City and Provider agree as follows:

The Agreement Between City of Rancho Cordova and Rebuilding Together Sacramento For Use of City Funds, dated November 1, 2022, (the “Agreement”) is hereby amended as follows:

1. Exhibit A of the Agreement is amended in its entirety to read as set forth on the Exhibit A attached hereto.
2. Exhibit B of the Agreement is amended in its entirety to read as set forth on the Exhibit B attached hereto.
3. Exhibit C of the Agreement is amended in its entirety to read as set forth on the Exhibit C attached hereto.

ITEM 9.6.

ATTACHMENT 2
Contract No.: 2022-212-1

4. All other terms and conditions of the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY:

PROVIDER:

Micah Runner
City Manager

Bonnie Patterson
Executive Director

Date: _____

Date: _____

Attest:

Stacy Leitner, CMC
City Clerk

Date: _____

Approved as to Form:

Adam U. Lindgren, City Attorney

EXHIBIT A
SCOPE OF SERVICES

Address: P.O. Box 255584, Sacramento, CA 95865

Telephone: 916-455-1880 ext. 2

Email: bpatterson@rebuildingtogethersacramento.org

Contact Person/Title: Bonnie Patterson/ Executive Director

Funding Allocation: \$650,000

Term: November 1, 2022 – June 30, 2025

1. Services to be Provided: Provider shall use the funds to provide critical health and safety repairs to ten to fifteen (10-15) homes per contract year throughout the City. Each year during the Term of this Agreement, Provider will utilize paid labor to perform extensive health, safety, and efficiency repairs for homes owned by residents with low or moderate income. Work performed will vary based upon the needs of each individual home, but may include, but not be limited to water heaters, plumbing, electrical, roofs, and heating and air conditioning, appliance replacement, and accessibility modifications. Any major existing code violations shall be addressed so the home is code compliant with both the California Building Code and Rancho Cordova Municipal Code when the work performed by Provider is complete.

2. Units of Service to be Provided: See above.

3. Use of Funds: Provider shall use the funds as follows:

Year One (November 1, 2022 – October 31, 2023)

\$44,000 Project Management (Personnel, Insurance, Mileage, Office Cost)

\$106,000 Home Related Expenses (supplies, contractors, equipment, permits, equipment rentals, house testing, abatement, and volunteer support)

\$150,000 Total

Year Two (November 1, 2023 – October 31, 2024)

\$75,000 Project Management (Personnel, Insurance, Mileage, Office Cost)

\$175,000 Home Related Expenses (supplies, contractors, equipment, permits, equipment rentals, house testing, abatement, and volunteer support)

\$250,000 Total

Year Three (November 1, 2024 – June 30, 2025)

ITEM 9.6.

ATTACHMENT 2 Contract No.: 2022-212-1

\$75,000	Project Management (Personnel, Insurance, Mileage, Office Cost)
<u>\$175,000</u>	Home Related Expenses (supplies, contractors, equipment, permits, equipment rentals, house testing, abatement, and volunteer support)
\$250,000	Total

Funds can be used for improvements made to homes within Rancho Cordova throughout the term of this Agreement.

Provider shall meet with the City Manager, or designee, sixty (60) days prior to the end of year 1 of this Agreement to evaluate Provider's performance and the success of the program offered. If the City, in its sole discretion, determines that the services have not been successful at providing enhanced programming, the City may terminate this Agreement.

a. The amounts listed above are estimates of the expenditures and may vary. However, the amount may not vary by more than thirty percent (30%) (with City Manager approval) unless the Agreement is amended. In no event shall the City's total distribution of funds to Provider under the Agreement exceed the total allocation shown above.

b. Unexpended Funds. If any funds advanced to Provider remain unexpended upon the expiration of the term of this Agreement, Provider shall return the unexpended funds to City within thirty (30) days of the expiration date of the Agreement.

c. In the event that the costs to perform the items of work set forth herein exceed the amount of funds granted to Provider, Provider shall be responsible for the payment of all costs in excess of the funds granted.

d. Prevailing Wages. To the extent required by law, Provider and all of the Provider's subcontractors shall comply with California Health and Safety Code Section 33422.1 and shall comply with California Labor Code Section 1770 et seq. and all regulations adopted pursuant thereto (referred to herein as, "**Prevailing Wage Laws**"), and be responsible for carrying out the requirements of such provisions. The Provider shall, and hereby agrees to, unconditionally indemnify, reimburse, defend, protect and hold harmless the City and its elective and appointive boards, commissions, officers, agents, attorneys, consultants and employees, and all of their respective successors and assigns, from and against any and all claims, demands, suits and actions at law or in equity, and losses, liabilities, expenses, penalties, fines, orders, judgments, injunctive or other relief, and costs and damages of every kind, nature and description (including but not limited to attorneys' fees and court costs; with counsel reasonably acceptable to the City), and administrative, enforcement or judicial proceedings, whether known or unknown, and which directly or indirectly, in whole or in part, are caused by, arise from, or relate to, or are alleged to be caused by, arise from, or relate to, the payment or requirement of payment of prevailing wages or the requirement of competitive bidding

in the construction of the Project, the failure to comply with any state or federal labor laws, regulations or standards in connection with this Agreement, including but not limited to California Labor Code Section 1770 et seq. and the Prevailing Wage Laws, or any act or omission of the City or the Provider related to this Agreement with respect to the payment or requirement of payment of prevailing wages or the requirement of competitive bidding, whether or not any insurance policies shall have been determined to be applicable to any such claims, demands, suits, actions, losses, liabilities, expenses, penalties, fines, orders, judgments, injunctive or other relief, costs, damages, or administrative, enforcement or judicial proceedings. It is further agreed that the City does not, and shall not, waive any rights against the Provider which they may have by reason of this indemnity and hold harmless agreement because of the acceptance by the City, or the deposit with the City by the Provider, of any of the insurance policies described in this Agreement.

4. Eligibility Criteria for Qualification of Recipients for Services: The services funded through this Agreement must be provided to low or moderate-income, owner-occupied homeowners residing in the City of Rancho Cordova. Structure types include single-family, manufactured, or mobile homes, duplexes, and townhouse units.

Provider shall keep documentation confirming eligibility requirements were met by recipients.

5. Allocation and Payment of Funds: City shall distribute the funds to Provider as follows: City shall pay Provider for the items set forth in Section 3, above, based on monthly invoices establishing that reimbursable costs have been incurred. Provider shall submit invoices no more frequently than once per month.

In the event that any Report for Use of City Funds and/or Outcomes Report which is due to be filed prior to the date upon which a distribution is otherwise due, has not been timely filed, City shall not be obligated to make any additional distributions based on the submission of invoices until two weeks after the date on which the delinquent reports are received by City and have been reviewed and been determined to comply with the requirements of this Agreement.

All requests for the payment of funds shall be due to City by the termination date of this Agreement. The City acknowledges, however, that there may be circumstances when Provider may be unable to do so because it may not yet have received an invoice from a vendor prior to that date. In that case Provider may submit a final request for payment within sixty (60) days after the termination date of the Agreement. City shall not be required to make any payments based on requests submitted more than sixty (60) days after the termination date.

6. Reports: Provider shall file the following reports (each a “**Report**” and collectively the “**Reports**”) with City on the dates set forth below:

6.1 Report for Use of City Funds: May 31, 2023, October 31, 2023, May 31, 2024, October 31, 2024 and June 30, 2025. The Reports shall include copies of documentation for all expenditures of the funds granted pursuant to this Agreement. Such documentation may include receipts, cancelled checks, credit card statements, or other evidence acceptable to City,

ITEM 9.6.**ATTACHMENT 2
Contract No.: 2022-212-1**

and must clearly document the amount and purpose of the expenditure. Expenditures which are not so documented are not eligible for funding under this Agreement. If all funds granted herein have been fully documented in the October of 2024 report, then the final Use of Funds Report is not required to be submitted in June of 2025.

6.2 Outcomes Report: May 31, 2023, October 31, 2023, May 31, 2024, October 31, 2024, and June 30, 2025. The Reports shall describe the services and/or programs provided, number of participants or attendees, and include photographs. If all funds granted herein have been fully documented in the October of 2024 report, then the final Outcomes Report is not required to be submitted in June of 2025.

EXHIBIT B

REPORT OF USE OF CITY FUNDS

Address: P.O. Box 255584, Sacramento, CA 95865

Telephone: 916-455-1880 ext. 2

Email: bpatterson@rebuildingtogethersacramento.org

Contact Person/Title: Bonnie Patterson/ Executive Director

Report Due Date: May 31, 2023, October 31, 2023, May 31, 2024, October 31, 2024, and June 30, 2025

Report Accounting Period: November 1, 2022 – May 31, 2023 (Report 1), June 1, 2023 – October 31, 2023 (Report 2), November 1, 2023 – May 31, 2024 (Report 3), June 1, 2024 – October 31, 2024 (Report 4), November 1, 2024 – June 30, 2025 (Report 5).

City funds received during reporting period:

City funds expended during reporting period (please attach all receipts and proof of payments made using City funds): *[this should include a total and what it was spent on, including any line items, if applicable, and attach receipts or proof of expenditures]*

Units of service provided during this period (if applicable):

Units of service provided to City Residents during this period (if applicable):

The Reports shall include copies of documentation for all expenditures of the funds granted pursuant to this Agreement. Such documentation may include receipts, cancelled checks, credit card statements, or other evidence acceptable to City, and must clearly document the amount and purpose of the expenditure. Expenditures which are not so documented are not eligible for funding under this Agreement. If all funds granted herein have been fully documented in the October of 2024 report, then the final Use of Funds Report is not required to be submitted in June of 2025.

EXHIBIT C

OUTCOMES REPORT

Address: P.O. Box 255584, Sacramento, CA 95865

Telephone: 916-455-1880 ext. 2

Email: bpatterson@rebuildingtogethersacramento.org

Contact Person/Title: Bonnie Patterson/ Executive Director

Report Due Date: May 31, 2023, October 31, 2023, May 31, 2024, October 31, 2024, and June 30, 2025

Report Accounting Period: November 1, 2022 – May 31, 2023 (Report 1), June 1, 2023 – October 31, 2023 (Report 2), November 1, 2023 – May 31, 2024 (Report 3), June 1, 2024 – October 31, 2024 (Report 4), November 1, 2024 – June 30, 2025 (Report 5).

[Provider should submit a narrative of any measurable outcomes achieved or goals met]

The Reports shall describe the services and/or programs provided, number of participants or attendees, and include photographs. If all funds granted herein have been fully documented in the October of 2024 report, then the final Outcomes Report is not required to be submitted in June of 2025.

MEMORANDUM



ITEM 9.7.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Kristine Courdy, Senior Civil Engineer
Edgar Medina, Principal Engineer
SUBJECT: **A RESOLUTION AUTHORIZING THE PUBLIC WORKS DIRECTOR TO SUBMIT AND EXECUTE APPLICATIONS AND DOCUMENTS FOR CALRECYCLE GRANTS**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City to submit applications and documents to CalRecycle for all grants and designates the Public Works Director or their designee to execute all grant documents for a period of five (5) years from the date of adoption.

BACKGROUND

CalRecycle is the state agency that administers various grant programs to further California's efforts to reduce, recycle, and reuse solid waste, in turn preserving landfill capacity and protecting public health, safety and the environment. Some of the CalRecycle grants programs are for: utilizing rubberized pavement on street paving projects, offering an oil recycling program, outreach for household hazardous waste recycling, and commercial organics program implementation. CalRecycle requires jurisdictions who wish to apply for grant funds to adopt a Resolution that authorizes the submittal of the grant applications to CalRecycle and designates signing authority on behalf of the City of Rancho Cordova. CalRecycle allows this Resolution to remain in effect for five (5) years. To date, the City has been awarded over \$900,000 in CalRecycle funding for various Projects and Programs.

The City Council approved Resolution 133-2018 on October 15, 2018, authorizing the Public Works Director to submit and execute applications and documents for CalRecycle grants effective for five (5) years through October 15, 2023. In order for the City to continue to apply and receive CalRecycle grants, an updated Resolution that will remain in effect for the next five (5) years needs to be approved.

FISCAL IMPACT AND FUNDING SOURCE

To date, the City has been awarded over \$900,000 in CalRecycle funding for various Projects and Programs. There is no anticipated fiscal impact of the proposed action to the City's General Fund.

ATTACHMENT(S)

1. Resolution

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE PUBLIC WORKS DIRECTOR TO SUBMIT AND EXECUTE APPLICATION(S) AND DOCUMENT(S) FOR CALRECYCLE GRANTS

WHEREAS, the Public Resources Code sections 40000 et seq. authorizes the Department of Resources Recycling and Recovery (CalRecycle) to administer various grant programs (grants) in furtherance of the State of California (state) efforts to reduce, recycle, and reuse solid waste generated in the state; thereby preserving landfill capacity and protecting public health and safety and the environment; and

WHEREAS, in furtherance of this authority, CalRecycle is required to establish procedures governing the application, awarding, and management of the grants; and

WHEREAS, CalRecycle's grant application procedures require, among other things, an applicant's governing body to declare by Resolution certain authorizations related to the CalRecycle grants; and

WHEREAS, City Council Resolution 133-2018 adopted on October 15, 2018 authorizing the Public Works Director to submit and execute CalRecycle grants is effective for five years through October 15, 2023; and

WHEREAS, in order for the City to continue to apply and receive CalRecycle grants, an updated Resolution that will remain in effect for the next five (5) years needs to be approved.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize:

1. The submittal of application(s) to CalRecycle for all grants for which the City of Rancho Cordova is eligible; and
2. The Public Works Director, or their designee, is hereby authorized and empowered to execute in the name of the City of Rancho Cordova all grant documents, including but not limited to: applications, agreements, amendments, and requests for payment, necessary to secure grant funds and implement the approved grant project; and
3. These authorizations are effective for five (5) years from the date of adoption.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ITEM 9.7.

ATTACHMENT 1

ATTEST:

Stacy Leitner, CMC
City Clerk

Linda Budge, Mayor

MEMORANDUM



ITEM 10.1.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Stefan Heisler, Senior Management Analyst I
SUBJECT: **RESOLUTIONS APPROVING THE RANCHO CORDOVA CLIMATE ACTION AND ADAPTATION PLAN INITIAL STUDY/NEGATIVE DECLARATION AND FINAL DRAFT CLIMATE ACTION AND ADAPTATION PLAN**

RECOMMENDATION

1. Adopt the Resolution approving a California Environmental Quality Act (CEQA) Negative Declaration for the Rancho Cordova Climate Action and Adaptation Plan.
2. Adopt the Resolution approving the Rancho Cordova Climate Action and Adaptation Plan.

RESULT OF RECOMMENDED ACTION

Adoption of the two Resolutions will adopt the CEQA Initial Study/Negative Declaration and the Rancho Cordova Climate Action and Adaptation Plan.

BACKGROUND

Staff presented the final draft Climate Action and Adaptation Plan (CAAP) to the City Council on August 23, 2023. At that meeting the City Council voted to approve and adopt the required CEQA Initial Study/Negative Declaration (IS/ND) and the Final Draft Climate Action and Adaptation Plan. However, following the meeting, a technical deficiency was identified in the IS/ND resolution. The Resolution lacked the required finding language required by California Environmental Quality Act (CEQA) Implementation Guidelines Section 15074(b). This item corrects that error for the City Council's consideration for adoption of the corrected IS/ND resolution ([Attachment 1](#)) as well as the second resolution ([Attachment 2](#)) to adopt the Final Draft CAAP following adoption of the IS/ND. The attached Final Draft Climate Action and Adaptation Plan also includes the minor edit requested by the Cordova Recreation and Parks District within the supporting actions to clarify agency roles with regards to events and programs on other agency-owned properties.

Climate Action and Adaptation Plan CEQA Review

Environmental review of the CAAP is required by CEQA and the draft environmental document has been completed and released for a 30-day public review period from June 2, through July 1, 2023. Performing environmental review of the CAAP is also one of the required elements of a CEQA Qualified CAAP (CEQA Guidelines Section 15183.5[b][b1]). The CAAP Initial

Study/Negative Declaration (IS/ND) is attached to this report. The following is a summary of this information.

An Initial Study (IS) analyzing the potential environmental impacts of adopting and implementing the CAAP was conducted and a Negative Declaration (ND) prepared pursuant to CEQA requirements. The IS shows that there is no substantial evidence, in light of the whole record before the city, that the implementation of the CAAP may have a significant effect on the environment.

Four letters were received by staff in response to the IS/ND from the following respondents: California Department of Transportation, 350 Sacramento, Sacramento Metropolitan Air Quality Management District, and Sacramento Regional Transit District. In response to these comments, no changes were made to the IS/ND. Because no changes that materially affect the analysis or conclusions were made, no recirculation is required pursuant to CEQA Guidelines Section 15088.5. Further, none of the comments received affect the adequacy of the IS/ND to address the proposed project. The comment letters received, and city responses to environmental issues raised in the comments are included in the IS/ND.

Staff recommends adoption of the IS/ND to meet CEQA requirements through the attached Resolution (Attachment 1).

Next Steps

Following CAAP adoption, staff will develop an implementation strategy, apply to available grant opportunities to implement CAAP actions, and return to the City Council as needed to receive direction on implementation of CAAP actions. The Final Draft CAAP Implementation and Monitoring chapter identifies future steps for required CAAP updates, including a monitoring report every two (2) years and updating the Greenhouse Gas (GHG) Inventory every five (5) years.

FISCAL IMPACT AND FUNDING SOURCE

There is no additional fiscal impact with the requested action, as the Final Draft CAAP and CEQA ND are planning documents identifying prioritized actions for further development and implementation. Prioritized CAAP actions that require approval by City Council will be brought back to the City Council for review and approval, including allocating funds, approving ordinances or other actions.

ATTACHMENT(S)

1. Resolution to Adopt a CEQA Negative Declaration
2. Resolution to Adopt the Final Draft Climate Action and Adaptation Plan
3. Final Negative Declaration, Comment Letters Received, and City Responses
4. Final Draft Climate Action and Adaptation Plan
5. Final Draft Climate Action and Adaptation Plan References and Appendices

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA,
ADOPTING A NEGATIVE DECLARATION FOR THE RANCHO CORDOVA CLIMATE
ACTION AND ADAPTATION PLAN**

WHEREAS, an Initial Study/Negative Declaration (SCH#2023060063) was prepared and analyzed the environmental effects associated with the Rancho Cordova Climate Action and Adaptation Plan; and

WHEREAS, the Initial Study/Negative Declaration was prepared and processed pursuant to the California Environmental Quality Act (CEQA; Public Resources Code § 21000 et seq.); and

WHEREAS, the Initial Study/Negative Declaration was circulated for a 30-day public review and comment period ending on July 1, 2023; and

WHEREAS, public comments were received, but did not identify new significant impacts or present new information that would alter the environmental analysis or require recirculation; and

WHEREAS, no changes were made to the Initial Study/Negative Declaration in response to comments, therefore no recirculation is required pursuant to CEQA Guidelines Section 15088.5; and

WHEREAS, the Initial Study/Negative Declaration adequately evaluated potentially significant impacts of the project and concluded that the all the potential environmental impacts were less than significant; and

WHEREAS, the Initial Study/Negative Declaration shows that there is no substantial evidence, in light of the whole record before the city, that the project may have a significant effect on the environment; and

WHEREAS, on September 18, 2023, the City Council held a public hearing and reviewed the Initial Study/Negative Declaration, the staff reports pertaining to the project, and all evidence received at the City Council hearings, all of which documents and evidence are hereby incorporated by reference into this Resolution.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AS FOLLOWS: Adopts the Initial Study/Negative Declaration prepared for the Rancho Cordova Climate Action and Adaptation Plan based on the following findings.

Findings:

1. The Negative Declaration reflects the City's independent judgement and analysis on the potential environmental effects of the proposed Rancho Cordova Climate Action and Adaptation Plan and was presented to the City Council prior to their consideration of the Project.
2. On the basis of the whole record before the Council, including the Initial Study and public comments received, there is no substantial evidence that the Project will have a significant effect on the environment.

ITEM 10.1.

ATTACHMENT 1

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA,
ADOPTING THE RANCHO CORDOVA CLIMATE ACTION AND ADAPTATION PLAN**

WHEREAS, the City launched the Climate Action and Adaptation Plan (CAAP) to establish a greenhouse gas reduction goal, create a set of strategies to meet the goal, and adapt to the impacts of climate change; and

WHEREAS, the CAAP directly supports the City Council Goal 2 to ensure a safe, inviting and livable community by creating a comprehensive roadmap to community sustainability and resilience in the city; and

WHEREAS, the CAAP is the first Climate Action and Adaptation Plan adopted by the City of Rancho Cordova; and

WHEREAS, the CAAP establishes a framework of implementable, measurable prioritized actions and identifies a trajectory to align with statewide GHG reduction targets for 2030 and 2045, bring the City into compliance with California legislation to reduce GHG emissions, and address climate risk; and

WHEREAS, the CAAP includes building energy and design, transportation and land use, water conservation and waste reduction, climate adaptation and carbon removal actions; and

WHEREAS, the CAAP development process included significant community and stakeholder outreach through virtual and in-person workshops, an online survey, a randomized public-opinion survey, targeted stakeholder meetings, a CAAP email address, and presentations to the Planning Commission and City Council; and

WHEREAS, an Initial Study/Negative Declaration (SCH#2023060063) was prepared for the CAAP and circulated for public review in accordance with CEQA requirements. The Initial Study adequately analyzed the potential environmental impacts of the project and determined that all potential impacts would be less than significant. Public comments were received on the Initial Study but did not alter the analysis or conclusions. No additional circulation and no further environmental review were required and on September 18, 2023 the Negative Declaration was adopted by the City Council.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AS FOLLOWS: adopts the Rancho Cordova Climate Action and Adaptation Plan.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September, 2023 by the following vote:

AYES:

NOES:

ABSENT:

ITEM 10.1.

ATTACHMENT 2

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, CMC
City Clerk

Initial Study/Proposed Negative
Declaration for the

City of Rancho Cordova Climate Action and Adaptation Plan

Prepared for:



City of Rancho Cordova

August 2023



Initial Study/Proposed Negative Declaration for the

City of Rancho Cordova Climate Action and Adaptation Plan

Prepared for:



City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Contact:

Stefan Heisler
Housing Manager
916.851.8757
sheisler@cityofranhocordova.org

Prepared by:



Ascent Environmental
455 Capitol Mall, Suite 300
Sacramento, CA 95814

August 2023

20210054.01



Ascent Environmental

455 Capitol Mall, Suite 300

Sacramento, CA 95814

ascentenvironmental.com

NEGATIVE DECLARATION

PROJECT: CLIMATE ACTION AND ADAPTATION PLAN

LEAD AGENCY: CITY OF RANCHO CORDOVA

Under the California Environmental Quality Act (CEQA), the lead agency is the public agency with primary responsibility over approval of the project. The City of Rancho Cordova (City) is the CEQA lead agency because it is responsible for adoption and implementation of the proposed Climate Action and Adaptation Plan (CAAP).

PROJECT DESCRIPTION SUMMARY

The proposed project is a CAAP, which the City of Rancho Cordova (City) has prepared to serve as a comprehensive roadmap to community sustainability and resilience. The purposes of the CAAP are to identify strategies and measures the City can take to reduce greenhouse gas (GHG) emissions to levels that align with the State of California's goals and set forth strategies to adapt and promote resilience to the impacts of climate change.

The fundamental purposes of the proposed CAAP are to set forth a plan for reducing the City's communitywide GHG emissions to levels in alignment with statewide targets and increasing the city's resilience to existing and anticipated climate change hazards. The City has developed the following objectives for the proposed CAAP:

- ▶ Prepare a baseline GHG emissions inventory of community-wide sources of emissions in the City, and project the potential growth of these emissions over time;
- ▶ Establish a local target for 2030 and a local goal for 2045 aligned with the statewide targets of SB 32 and AB 1279;
- ▶ Develop and quantify actions the City can take to reduce communitywide emissions to levels that meet or exceed its 2030 target and make substantial progress toward its 2045 goal;
- ▶ Meet the requirements of State CEQA Guidelines Section 15183.5(b)(2) regarding "Plans for the Reduction of Greenhouse Gas Emissions" to provide streamlining of GHG emissions analysis for future projects that are consistent with the proposed CAAP; and
- ▶ Identify the city's vulnerabilities to existing and anticipated climate change hazards, and set forth actions the City can take to protect people and property by adapting to these hazards and improving resilience.

FINDINGS

An Initial Study has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the Initial Study, the City has determined that the project would not have any significant effects on the environment. Therefore, no mitigation measures are proposed.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the City has independently reviewed and analyzed the Initial Study and Negative Declaration for the project and finds that the Initial Study and Negative Declaration reflects the independent judgment of the City.

Stefan Heisler, Housing Manager
City of Rancho Cordova

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Appendices

Appendix A Initial Study/Proposed Negative Declaration

1 INTRODUCTION

This Final Initial Study/Negative Declaration includes responses from the City of Rancho Cordova (City) to public comments on the draft Initial Study/Negative Declaration (IS/ND) for the proposed Climate Action and Adaptation Plan (CAAP). The draft IS/ND was circulated for a 30-day public review period, from June 2, 2023, through July 1, 2023. Consistent with State CEQA Guidelines Section 15074(d), the City has considered all comments received on the draft IS/ND. No changes or revisions have been made to the draft IS/ND since its publication for public review. A copy of the draft IS/ND is included as Appendix A to this Final IS/ND.

1.1 PROJECT SUMMARY

The proposed project is a CAAP, which the City of Rancho Cordova (City) has prepared to serve as a comprehensive roadmap to community sustainability and resilience. The purposes of the CAAP are to identify strategies and measures the City can take to reduce greenhouse gas (GHG) emissions to levels that align with the State of California's goals and set forth strategies to adapt and promote resilience to the impacts of climate change.

The fundamental purposes of the proposed CAAP are to set forth a plan for reducing the City's communitywide GHG emissions to levels in alignment with statewide targets and increasing the city's resilience to existing and anticipated climate change hazards. The City has developed the following objectives for the proposed CAAP:

- ▶ Prepare a baseline GHG emissions inventory of community-wide sources of emissions in the City, and project the potential growth of these emissions over time;
- ▶ Establish a local target for 2030 and local goal for 2045 aligned with the statewide targets of SB 32 and AB 1279;
- ▶ Develop and quantify actions the City can take to reduce communitywide emissions to levels that meet or exceed its 2030 target and make substantial progress toward its 2045 goal;
- ▶ Meet the requirements of State CEQA Guidelines Section 15183.5(b)(2) regarding "Plans for the Reduction of Greenhouse Gas Emissions" to provide streamlining of GHG emissions analysis for future projects that are consistent with the proposed CAAP; and
- ▶ Identify the city's vulnerabilities to existing and anticipated climate change hazards, and set forth actions the City can take to protect people and property by adapting to these hazards and improving resilience.

1.2 SUMMARY OF FINDINGS

Chapter 3, "Environmental Checklist," of the draft IS/ND analyzes the potential environmental impacts of the proposed project using the sample questions from Appendix G of the State CEQA Guidelines. It demonstrates that implementation of the proposed CAAP would have either no impact or a less-than-significant impact for all of the environmental topics evaluated:

- | | |
|------------------------------------|---------------------------------|
| ▶ Aesthetics | ▶ Land Use and Planning |
| ▶ Agriculture and Forest Resources | ▶ Mineral Resources |
| ▶ Air Quality | ▶ Noise |
| ▶ Biological Resources | ▶ Population and Housing |
| ▶ Cultural Resources | ▶ Public Services |
| ▶ Energy | ▶ Recreation |
| ▶ Geology and Soils | ▶ Transportation |
| ▶ Greenhouse Gas Emissions | ▶ Tribal Cultural Resources |
| ▶ Hazards and Hazardous Materials | ▶ Utilities and Service Systems |
| ▶ Hydrology and Water Quality | ▶ Wildfire |

1.3 DOCUMENT ORGANIZATION

This Final Initial Study/Negative Declaration is organized as follows:

Chapter 1, "Introduction," summarizes the CAAP and the findings of the environmental analysis.

Chapter 2, "Responses to Comments," contains a list of all parties who submitted comments on the draft IS/ND during the public review period, copies of the comment letters received, and responses from the City to environmental issues raised in the public comments.

Chapter 3, "References," identifies the documents used as sources in the Final IS/ND.

Chapter 4, "List of Preparers," identifies the preparers of this Final IS/ND.

2 RESPONSES TO COMMENTS

This chapter contains comment letters received during the 30-day public review period for the draft IS/ND, which concluded on July 1, 2023. It also includes one comment letter received after the close of the public review period on July 3, 2023. Consistent with State CEQA Guidelines Section 15074(d), the City has considered these comments. CEQA does not require the lead agency to prepare responses to public comments received on a Negative Declaration; however, the City has prepared this document to disclose all comments received and provide good-faith responses to environmental issues raised in the comments. No revisions to the draft IS/ND were required in response to environmental issues raised in the public comments.

2.1 COMMENT LETTERS

The City received four comment letters on the draft IS/ND from the following agencies and organizations. This chapter includes a copy of each letter in its entirety and responses from the City to environmental issues raised in the comments.

1. 350 Sacramento, June 28, 2023.
2. California Department of Transportation (Caltrans), District 3, June 5, 2023.
3. Sacramento Metropolitan Air Quality Management District (SMAQMD), June 30, 2023, and
4. Sacramento Regional Transit District (SacRT), July 3, 2023.

Letter 1	350 Sacramento Oscar Balaguer, Chair, CAP Team June 28, 2023
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June 28, 2023

Stefan Heisler, Housing Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Via email only: sheisler@cityofranhocordova.org

Dear Mr. Heisler:

RANCHO CORDOVA CAAP (PUBLIC REVIEW DRAFT), COMMENTS

We appreciate the opportunity to comment on the City of Rancho Cordova's public review draft Climate Action and Adaptation Plan (CAAP). Thank you for including a Table of Contents in this draft and in the associated Initial Study/proposed Negative Declaration (IS/ND)

As you know, 350 Sacramento commented previously¹ on earlier CAAP documents and we here include those comments by reference. Our current comments below are limited to the Climate Action Plan (CAP) portion of the CAAP and its associated IS/ND, and are presented under those two respective headings.

I. CLIMATE ACTION PLAN

A. CAP Chapter 3 (*Emissions Reduction Strategies and Measures*). CAP measures remain un-substantiated.

We previously asserted with substantial evidence that, *"The aspirational strategy and measure statements presented in Chapter 3 are sound; but for the most part their Supporting Actions are also merely aspirational, lacking substantiating detail, funding*

¹ 350 Sacramento:
May 26, 2021, (untitled email query re proposed use of EIR Addendum).
June 26, 2021, CRC: CAP Query Follow-up.
December 22, 2022, Rancho Cordova CAP, Draft Measures: 350 Comments.
March 5, 2023, Rancho Cordova CAP: Post-Meeting Comments.
April 3, 2023, Rancho Cordova CAP, Future Application to Projects.
April 12, 2023, City CAP: 350 Cmnts (Apr 12 Meeting, Item 6.2).
May 1, 2023, Rancho Cordova Draft CAAP, Comments.

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*information, enforceability, or indication of commitment to implement”.*² Chapter 3 appears substantially unchanged and we here re-assert our prior concerns.

B. Strategy Transportation 5 (*Transition to electric and zero emission vehicles*). The CAP presents no plan for the City fleet.

We previously noted that the CAP fails to present a plan to electrify the City fleet; instead, “*proposing vaguely only to ‘develop a program’ by some unspecified time (Transportation Strategy 5)*”.³ This is unchanged and we re-iterate our concern.

C. Strategy Solid Waste-1 (*Avoid disposal of organic waste in landfills*). The new CAP action is not substantiated. The CAP’s Actions are presented in bulleted lists, rather than identified by unique alpha-numeric designators, making referencing difficult. This Measure includes a new Action,

“Partner with other local jurisdictions and waste management companies (haulers and landfills) to create a divertible material (for example, recyclables) ban at landfills”.

This new Action, in common with its predecessor across the CAP, lacks substantiating detail that would allow assessment of its feasibility and efficacy; e.g.,

- What potential private and public partners have authorities to support such a ban?
- Why would they?
- Have any potential partners indicated they would support?
- Would incentives be necessary?
- How, by whom, and at what cost would the ban be enforced?
- What is the political feasibility of instituting such a ban, which could cause inconvenience and increase disposal costs for some City residents and businesses?

These questions are not mitigation details, formulation of which might properly be deferred. They are basic elements of the proposed action, needed to assess its feasibility. As we previously commented, per CAP Chapter 5 the City would improperly defer such fundamental questions until after the CAAP is adopted, turning the CEQA process on its head.

D. CAP Chapter 5 (*Implementation and Monitoring*). CAP Implementation as described is entirely uncertain.

We previously asserted with substantial evidence that, “*The CAP’s “Implementation Strategy” (Section 5.2, p. 5-2) makes it clear that implementation of the CAP’s measures is distinctly uncertain, citing a litany of contingencies and conditions on which*

² 350 Sacramento, May 1, 2023. Online: https://drive.google.com/file/d/1EnWlr1iiAf_Q0NJLVFIHHPOCOB8Cuvs_/view?usp=share_link

³ 350 Sacramento, May 1, 2023.

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implementation would depend, including some beyond the City's control".⁴ Chapter 5 appears substantially unchanged and we here re-assert our concerns.

E. CAAP Appendix B (*Greenhouse Gas Inventory and Forecast Worksheet*). Appendix B does not meet CEQA informational standards.

A primary purpose of CEQA is informational. Environmental documents should explain the basis of an agency's decisions in a way comprehensible to those not involved in their preparation. The CAP (section 2.2.5) and IS/ND (section 2.4.3) state without further discussion, "*Appendix B details the methodology for preparing the communitywide emissions inventory*". In fact, Appendix B presents a surfeit of detail, but lacks any explanation of its significance or the methodology used to interpret it. It is 76-page series of worksheets, 68 pages of which are densely coded data dump printouts, replete with technical jargon, generated by a number of different computer programs. Absent explanation, or prior familiarity with the input and output variables of the respective programs, it's not possible for a naïve reader to understand or assess the logical connection between these data and the conclusions presented in the CAP and IS/ND.

II. INITIAL STUDY/PROPOSED NEGATIVE DECLARATION

A. Section 2.4.4 (*Summary of Greenhouse Gas Emissions Reductions*). The CAP's "legislative reductions" are not substantiated.

The IS/ND, CAP, and Appendix C⁵ make numerous references to "Legislative Reductions", meaning Rancho Cordova's share of GHG reductions expected as a result of measures adopted by six other named federal, State, and regional agencies (CAP Table 2.3, "Summary of Legislative Reductions..."). Such reductions amount to 301,400 tons MTCO₂e by 2025, and 458,000 tons by 2045 (IS/ND Table 2-1, row "Legislative Reductions"). This is the bulk – 83 and 60 percent respectively – of the City's total claimed reductions for those target years .

CAAP Appendix C, Section 2.1 states,

"It is important to note that the legislative-adjusted BAU emissions forecasts only include emissions reductions associated with implementation of adopted federal and State legislation and regulations and do not include goals ... outside of adopted legislation and regulations".

In direct contradiction, Appendix C, Table 4 cites SMUD's non-enforceable "2030 Zero Carbon Plan" as among the six agency programs yielding "legislative" reductions; and Appendix C, Section 2.1.1 states, "*...electricity emissions factors were adjusted to reflect the Sacramento Metropolitan Utility District's (SMUD) 2030 Zero Carbon Plan of 100*

⁴ 350 Sacramento, May 1, 2023.

⁵ Ascent Environmental. City of Rancho Cordova Climate Action Plan, Greenhouse Gas Emissions Forecasts and Reduction Targets – Technical Memorandum. February 23, 2023.

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percent of electricity from zero carbon sources by 2030". However, SMUD's Zero Carbon Plan has no statutory or regulatory standing. It is *"is an ambitious plan with flexibility to work within the guardrails of affordability and reliability"*.⁶ Its success is far from assured; and it is not enforceable mitigation, as CEQA requires.

Neither the CAP, IS/ND, or CAP Appendix C quantify GHG reductions expected individually from each of the six cited agency programs, including SMUD's. Neither do they explain how the claimed City-specific reductions were derived. This information should be provided for all, with appropriate explanation of methodology. Since SMUD's 2030 plan is not legislative or otherwise enforceable, its projected GHG-reductions should be assumed in the CAP only insofar as substantial evidence demonstrates that its 2030 goal has been or will be met.

B. Section 2.5.9 (California Environmental Quality Act and the CAAP): CAP Measures must meet project-specific CEQA requirements.

The CAP states,

"The 2022 Scoping Plan emphasizes the use of CEQA as a tool by local jurisdictions for supporting the State's climate priorities Demonstrating consistency with the CAAP establishes that a project will not result in an 'additional environmental effect' related to GHG emissions".

We agree. This "permit streamlining" function of CAPs, which is applied at the individual project level, is why CEQA requires that CAP measures comply with requirements applicable to project-specific mitigation – that they be substantiated as feasible, effective, and enforceable. Adopting a CAP with infeasible, ineffective, or unenforceable provisions would likely yield approval of projects which would undermine, not support, State GHG-reduction goals. As discussed in these and 350's previous comments, the CAP's draft measures are not so-substantiated.

C. Section 3 (Environmental Checklist): The IS/ND ignores significant indirect and cumulative impacts of CAP adoption.

In considering potential environmental impacts of adopting the City's CAP, the IS/ND focuses narrowly on direct impacts from implementing the CAP's proposed measures, including but not limited to in its Air Quality, Energy, GHG Emissions, and Land Use Planning sections. This is inconsistent with CEQA's directive to consider indirect and cumulative impacts; e.g., those associated with the "permit streamlining" function of an adopted CAP, as discussed in CAP section 2.5.9 (cited above), and in previous 350 comments.

⁶ SMUD. 2030 Zero Carbon Plan, Progress Report. April 2023. Online: https://www.smud.org/-/media/Documents/Corporate/Environmental-Leadership/ZeroCarbon/2030-ZCP-Progress-Report---April-2023_FINAL.ashx

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Significant indirect and cumulative impacts of CAP adoption, beyond those resulting from implementing the CAP's measures, are reasonably and readily foreseeable. Examples of large Rancho Cordova projects which would benefit from the CAP's streamlining function, whatever the effectiveness of the CAP's measures, are the pending Westborough and Arboretum developments. Additional future projects are also foreseeable – SACOG's draft growth projection for 2036 has the region outpacing the state and nation;⁷ and vacant, undeveloped agricultural land is the City's most prevalent land use (12,900 acres), followed by single family residential development (1,950 acres).⁸ Large tracts of buildable land in an emerging housing market offers broad opportunity for future urban growth and associated GHG emissions.

D. Section 3.3 (Air Quality): The IS/ND mis-states the CAP's regulatory role.

The CAP states (p. 3-15) that its measures do not, "*propose changes to policies or regulations related to land use*". However, the practical effect of adopting the measures will be to establish CEQA thresholds of significance of general applicability regulating GHG emissions from, among other activities, proposed changes to land use.

Similarly, the CAP states (p. 3-16), "*The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development*". This is incorrect and directly contradicts the CAP statement at section 2.5.9 cited above. Although the CAP will reflect, and as a programmatic plan may establish, policy, it is at its statutory core a CEQA mitigation document indeed applicable to "*site-specific designs or proposals*".

This incorrect "policy-level" language is found also in the Climate Change and Noise sections of the IS/ND.

E. Section 3.8 (Greenhouse Gas Emissions): The CAP is inconsistent with plans, policy, or regulations.

Re, IS/ND "Environmental Issue VIII b)": the CAP is inconsistent with the following plan, policy or regulation adopted to reduce GHG emissions:

- *Senate Bill 375.* Pursuant to SB 375, CARB sets regional targets for GHG reductions from changed land use patterns and improved transportation, as set forth in regional Sustainable Community Strategy (SCS) plans. The target for the SACOG region is a 19 percent reduction. In mentioning SB 375, the IS/NG (p. 3-37) provides no discussion of how the CAP will contribute to that reduction goal. As discussed in these and prior 350 comments, the CAP's transportation and transit measures are of distinctly uncertain effect and unlikely to contribute to SB 375 compliance, because unsubstantiated as feasible, effective, or enforceable.

⁷ Sacramento Area Council of Governments. Sacramento Region Draft Growth Projections, Technical Memo. <https://www.sacog.org/sites/main/files/file-> (retrieved June 20, 2023).

⁸ Rancho Cordova CAAP IS/ND, section 3.11.1

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Regarding changed land use, the CAP, although a programmatic plan capable of considering broad policy alternatives, offers no strategies.

- *Senate Bill 743.* Pursuant to SB 743, the State of California has determined that a 15 percent *per capita* reduction of VMT induced by new development can support a CEQA finding of less than significant impact.⁹ The CAP mentions SB 743 only in citing the Sacramento Metropolitan Air Quality Management District’s regulatory guidance, with no discussion of the guidance’s relationship to the CAP; the City’s associated lead agency responsibility; or the City’s 2021 adopted “Transportation Impact Guidelines”. Effectively ignoring SB 743 in the CAP is particularly concerning because, as discussed in these and prior 350 comments, the CAP’s transportation and transit measures are of dubious efficacy because unsubstantiated as feasible, effective, or enforceable.

We offer the above comments in the hope they will assist Rancho Cordova adopt an effective, CEQA-compliant CAP. In assaying to address climate change, Rancho Cordova assumes a fraught responsibility. The CAAP correctly observes (p. 4-1),

The effects of climate change are already occurring ... and will continue to worsen existing hazards in ... the city, including extreme heat, extreme precipitation and flooding, drought, and wildfires ... the frequency, intensity, and duration of these hazards are projected to increase

According to NOAA, climate change is “supercharging the increasing frequency and intensity of ... extreme weather”.¹⁰ In fact, half the population of the United States has experienced “extreme weather” effects in the last six weeks.^{11, 12, 13, 14} Major insurance companies are leaving California because of increasing risk, with serious adverse implications for real estate and business investment.^{15, 16} These early effects of climate change are correlated with a rise in

⁹ California Office of Planning and Research. Technical Advisory on Evaluating Transportation Impacts in CEQA. April 2018.

¹⁰ National Oceanic and Atmospheric Administration. 2022 U.S. billion-dollar weather and climate disasters in historical context. Online: <https://www.climate.gov/news-features/blogs/2022-us-billion-dollar-weather-and-climate-disasters-historical-context> Press. isasters-historical-context.

¹¹ The Guardian. Half of Americans have faced ‘extreme’ weather in the last six weeks. June 21, 2023.

¹² CNN. Texas’s nighttime temperatures are a symptom of a new, more dangerous kind of heat wave. June 27, 2021.

¹³ The Guardian. Canadian wildfire smoke to engulf New York skies again. June 27, 2021.

¹⁴ National Public Radio. Air quality plummets as Canadian wildfire smoke stretches across the Midwest. June 28, 2023.

¹⁵ NY Times. Allstate Is No Longer Offering New Policies in California. June 4, 2023.

¹⁶ Associated Press. California insurance market rattled by withdrawal of major companies. June 5, 2023. Online: <https://apnews.com/article/california-wildfire-insurance-e31bef0ed7eeddcde096a5b8f2c1768f>

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average global temperature since 1850 of only about one degree Celsius (~1.8 degree Fahrenheit). Currently, the world is not on track to meet the Paris Accord's goal of keeping climate change to 1.5 degrees Celsius, and current policies are projected to result in about 2.7°C (~4.9 F) of atmospheric heating in this century. The scientific community is united in urging a drastic reduction of GHG emissions in this decade.

In this dire situation, the City of Rancho Cordova's CAP impressively suggests much, but contrary to CEQA requirements seems to carefully avoid enforceable commitments which would support attainment of California's climate goals.

We respectfully request that in formulating the CAP, the City consider first and foremost its long-term interests and responsibilities for the health, welfare and economic well-being of all its residents.

Sincerely,



Oscar Balaguer, Chair
CAP Team, 350 Sacramento

Cc: City Planning Commissioners
350 Sacramento CAP Team

CITY RESPONSE TO LETTER 1

This comment letter provides commentary and assertions on the contents of the proposed CAAP, commentary on the requirements of CEQA, and the environmental analysis of the IS-ND. Responses to comments on the environmental analysis of the IS-ND are provided below. Comments and assertions addressing the contents of the proposed CAAP, the requirements of CEQA, or otherwise unrelated to the environmental analysis of the IS-ND will be provided to the City's decision makers as they consider adoption of the proposed CAAP.

In Section C (page 4), the comment letter asserts that the "IS-ND ignores significant indirect and cumulative impacts of CAP adoption" and refers to impacts, "associated with the 'permit streamlining function' of an adopted CAP." The comment letter further asserts that "large Rancho Cordova projects...would benefit from the CAP's streamlining function," and makes reference to a set of draft growth projections for the Sacramento region in year 2036 published by the Sacramento Area Council of Governments (SACOG) and provides commentary on the amount of "vacant, undeveloped agricultural land" in the city.

The draft IS-ND appropriately evaluates the potential adverse effects that would result from implementation of the proposed CAAP by evaluating the potential physical changes that would result from implementation of the CAAP's strategies, measures, and supporting actions to reduce GHG emissions and adapt to the impacts of climate change; as explained in the draft and Final IS-ND, the implementation of the proposed CAAP would not result in any significant impacts on the environment. The proposed CAAP does not include changes to General Plan land use designations, zoning requirements, or other provisions that would result in the construction and operation of land development projects. The proposed CAAP, by meeting the requirements of a qualified plan for the reduction of GHG emissions under CEQA Guidelines 15183.5(b)(1), would provide future development projects that are consistent with the CAAP an opportunity to streamline analysis of their GHG emissions impacts under CEQA. This comment does not provide any evidence supporting its assertion that adopting a CAAP meeting the requirements of CEQA Guidelines 15183.5(b)(1) would lead to the development of land use projects that result in adverse environmental effects. The construction and operation of land development projects and any associated environmental effects, including but not limited to the Westborough and Arboretum projects referenced in the comment letter, are not reasonably foreseeable changes that would be caused by the adoption of the CAAP.

In Section E (page 5), the comment letter asserts that the proposed CAAP would be inconsistent with a plan, policy, or regulation adopted to reduce GHG emissions because it is inconsistent with Senate Bill (SB) 375. Referred to as the Sustainable Communities and Climate Protection Act (Chapter 728, Statutes of 2008), SB 375 established requirements for regional metropolitan planning organizations (MPOs) to include Sustainable Communities Strategies (SCS) within their regional transportation plans that demonstrate how transportation, housing, and land use plans can achieve specified passenger vehicle GHG reduction targets that are set by the California Air Resources Board (CARB). In the Sacramento region, the Sacramento Area Council of Governments (SACOG) is the MPO responsible for SB 375 compliance including preparing an SCS within its Metropolitan Transportation Plan (MTP). As explained in Chapter 1, Introduction, of the proposed CAAP, SACOG most recently adopted its MTP/SCS in 2020 (refer to page 1-6 of the proposed CAAP).

Neither SB 375 nor the SCS establish requirements for local governments. In addition, SB 375 stipulates that, "(n)othing in a sustainable communities strategy shall be interpreted as superseding the exercise of the land use authority of cities and counties within the region...or shall require a city's...land use policies and regulations, including its general plan, to be consistent with the regional transportation plan." (Government Code Section 65080[b][2][J]) Moreover, the proposed CAAP includes a detailed list of transportation strategies, measures, and supporting actions that would reduce transportation-related GHG emissions by reducing vehicle miles of travel (VMT). These strategies, measures, and supporting actions are listed in Tables 3.2 through 3.5 in Chapter 3, of the proposed CAAP, which also includes quantitative performance metrics identifying the estimated decrease in the amount of driving in 2030 and 2045, along with the annual GHG reduction potential in 2030 and 2045 (refer to pages 3-7 through 3-13 of the proposed CAAP). Based on the foregoing, the proposed CAAP would not result in an adverse effect on the

environment due to being inconsistent with SACOG's adopted MTP/SCS, and implementation of the proposed CAAP's transportation-related strategies, measures, and supporting actions would be compatible with the objectives of SB 375 and SACOG's MTP/SCS to reduce passenger vehicle GHG emissions.

In Section E (page 6), the comment letter also asserts that the proposed CAAP would be inconsistent with a plan, policy, or regulation adopted to reduce GHG emissions because it is inconsistent with Senate Bill (SB) 743. SB 743, which took effect in 2020, resulted in changes to how transportation impacts of projects are evaluated under CEQA – projects are now evaluated based on the amount of driving or VMT they generate, instead of measuring automobile delay (CEQA Guidelines Section 15064.3[b]). To implement SB 743, the City of Rancho Cordova adopted Transportation Impact Guidelines to describe the requirements for evaluating VMT impacts of projects in the city under CEQA, including thresholds for what constitutes an acceptable level of VMT and what requires mitigation measures to reduce VMT. Neither SB 743 nor the City's Transportation Impact Guidelines impose any requirements on the proposed CAAP. In addition, the proposed CAAP, in Transportation-1.1 (page 3-7), illustrates how the City's enforcement of its Transportation Impact Guidelines is estimated to reduce VMT levels and GHG emissions in 2030 and 2045.

Furthermore, the draft IS-ND provides an analysis demonstrating that the proposed CAAP would not conflict or be inconsistent with CEQA Guidelines Section 15064(b) – the provisions implementing SB 743. The comment letter does not address or raise any issues with this analysis of the draft IS-ND. Based on the foregoing, the proposed CAAP would not result in an adverse effect on the environment due to a conflict with SB 743. And as described above, the proposed CAAP includes numerous strategies, measures, and actions that would reduce VMT and transportation-related GHG emissions in 2030 and 2045.

This comment letter also includes commentary unrelated to the contents of the IS-ND but regarding "CEQA requirements" for the proposed CAAP, including an assertion in Section B on page 4 that "CEQA requires that CAP measures comply with requirements applicable to project-specific mitigation – that they be substantiated as feasible, effective, and enforceable." The actual provisions of a qualified plan for the reduction greenhouse gas emissions set forth in CEQA Guidelines Section 15183.5(b)(1), and a summary of the proposed CAAP's compliance with these provisions, are provided in the Final CAAP (Table 5-2, pages 5-5 and 5-6). As the Final CAAP shows, CEQA Guidelines Section 15183.5(b)(1) does not set forth requirements for the proposed CAAP that are asserted in this comment letter (nor do any other provisions of the CEQA Statutes or CEQA Guidelines).

Letter 2	California Department of Transportation (Caltrans), District 3 Nirupama Stalin, Local Development Review Branch June 5, 2023
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From: Stalin.Nirupama@DOT
To: [Stefan Heisler](#)
Cc: Arnold.Gary.S@DOT
Subject: RE: Notice of Intent to Adopt a Negative Declaration (The Rancho Cordova Climate Action and Adaptation Plan (CAAP), LLC)
Date: Monday, June 5, 2023 10:24:51 AM
Attachments: [image001.jpg](#)

Hi Stefan,

Thank you for including California Department of Transportation in the review process for The Rancho Cordova Climate Action and Adaptation Plan (CAAP), LLC Project. We wanted to reach out and let you know we have no comments at this time.

Please provide our office with copies of any further actions regarding this proposal. We would appreciate the opportunity to review and comment on any changes related to this development.

Should you have questions please contact me, Local Development Review, Equity and System Planning Coordinator, by phone (530) 821-8306 or via email at D3.local.development@dot.ca.gov.

Thank you!

Nirupama Stalin

Associate Transportation Planner, Local Development Review, Equity and System Planning
 Division of Planning, Local Assistance, and Sustainability
 California Department of Transportation, District 3
 703 B Street | Marysville, CA 95901
 Work Cell: (530) 821-8306
 Email: Nirupama.Stalin@dot.ca.gov
www.dot.ca.gov/d3/

CITY RESPONSE TO LETTER 2

This comment letter does not raise any environmental issues with the IS/ND. These comments will be provided to the City's decision makers as they consider adoption of the proposed CAAP.

Letter 3	Sacramento Metropolitan Air Quality Management District (SMAQMD) Paul Philley, Program Supervisor, Transportation & Climate Change Division June 30, 2023
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June 30, 2023

Stefan Heisler, Housing Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
sheisler@cityofranhocordova.org

Comments Submitted Via Email

RE: City of Rancho Cordova Draft Climate Action and Adaptation Plan (CAAP)
SCH Number 202306006
Sac Metro Air District # SAC202303127

Dear Stefan Heisler,

Thank you for providing the City of Rancho Cordova's (City) Public Review Draft Climate Action and Adaptation Plan (CAAP) and the Initial Study/Proposed Negative (ISMND) to the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District). The Sac Metro Air District is the local agency responsible for advancing the greater capital region towards meeting all national ambient air quality standards and the state's decarbonization commitments to protect the global climate. We are excited that the City of Rancho Cordova is addressing its share of needed greenhouse gas reductions through comprehensive planning. We offer the following comments as suggestions to help ensure the City is successful in achieving our shared clean air and carbon reduction goals.

General Comments:

We appreciate the ambitious yet achievable targets outlined in the plan. However, qualified Climate Action Plans are roadmaps for achieving greenhouse gas reductions; subsequent actions must be taken by lead agencies to implement the measures, along with continued monitoring and adjustment of measures, or plans risk losing CEQA streamlining benefits for development. To aid in implementing the plan, the Sac Metro Air District recommends additional specificity on implementation and timing, as well as a contingency should measures fall short of anticipated reductions. Contingencies are critical for measures that rely on funding sources and investments beyond the plenary authority of the City of Rancho Cordova.

Concerning resiliency, health, and equity, many jurisdictions have found that climate action also has the potential to address social and economic inequities. We appreciate the commitments

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to climate adaptation but would encourage the City to consider a stronger commitment to considerations for low-income and disadvantaged communities.

Finally, various regional efforts are moving forward to secure funding for implementing climate action measures. The Sac Metro Air District invites the City of Rancho Cordova to join the Climate Pollutants Regional Grant program, where these issues are being considered across the seven-county metropolitan statistical area.

Mandatory Measures:

Strategy Transportation-1 Support the development of walkable, interconnected neighborhoods, villages, and districts.

1. *Transportation 1.1: Enforce Transportation Impact Guidelines.*
 - a. We encourage the City to include a discussion of the requirements for new development to include permanent funding measures for the various Transportation Demand Management (TDM) Actions, such as the Transportation Services Fee that currently funds Transportation Demand Management services, such as those provided by the 50 Corridor Transportation Management Association and the Rancho Cordovan.
2. Recommended Additional Supporting Actions:
 - a. Include a plan and timeline for updating City Code and Policy to allow flexibility in using off-street parking spaces for outdoor activities.
 - b. Include a plan and timeline for implementing a transportation impact fee for new development could be included as a funding mechanism for the other actions.
 - c. Include a plan and timeline for updating City Code and Policy to strengthen existing commitments to Transit-Supportive Housing Densities for new housing projects near the existing light rail line.

Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities.

1. This measure needs to demonstrate how the City will achieve this reduction, site examples of cities that have achieved this level of mode share, and how the Bike Ped Master plan will include sufficient implementation measures to ensure the anticipated reduction.
2. Recommended Additional Supporting Actions:
 - a. Enhance the Transportation-2.1: Update Bike and Pedestrian Master Plans Supporting Actions to include physically protected and parking-protected bike lanes on arterial roadways and locations where off-street bicycle facilities or car-free zones are infeasible.

- b. Include cool pavement and urban greening policies as required components of the sidewalk improvements within the proposed Capital Improvement Program¹. Specifically, we recommend that the City include plans and a plan and timeline for updating City Code policy to implement the following:
 - i. All new pavements, including sidewalks, roads, bike lanes, pedestrian paths, parking lots, plazas, and roadways, have an albedo of at least 0.25-0.5².
 - ii. Enhance the parking lot shade ordinance to require immediate cooling measures should the tree shade fail to materialize. The enhancements could include requirements to install cool pavement surface applications in areas non-compliant with tree shading standards until compliant.
 - iii. Develop an enforcement policy that would apply to commercial and multi-family residential uses.

Strategy Transportation-3. Provide transit options that are accessible, reliable, and convenient.

1. The measure should include a detailed description of the required City actions necessary for implementation. The final measure should include discussions of the modification to the City Code, the Policy necessary to implement additional funding mechanisms to expand transit services, and the anticipated timeline for implementation.
2. Recommended Additional Supporting Actions:
 - a. We recommend that City discuss potential funding mechanisms, such as Transportation Impact fees or the proposed Capital Improvement Program³, to provide revenue to fund the proposed actions.
 - b. Consider requiring additional transit infrastructure to provide shade/shelter from inclement weather at transit stops. Possible transit enhancements include new shade/inclement weather shelters at transit stops without

¹ City of Rancho Cordova "Capital Improvements Projects Planning Process" as referenced under Strategy Adaption-5, Action 5I, Page 2-11 City of Rancho Cordova Climate Action and Adaptation Plan IS/ND, June, 2023.

² Albedo is a ratio from 0 to 1 that measures solar reflectance or the reflectivity of a surface. A dark material has an albedo close to 0 and does not reflect light, instead absorbing all incoming solar radiation and emanating it back into the environment as heat. A material with an albedo close to 1 will reflect almost all incoming light and radiation, and thus be significantly cooler. Low-albedo materials contribute to the urban heat island effect, while high-albedo materials help to reduce it.

³ City of Rancho Cordova "Capital Improvements Projects Planning Process" as referenced under Strategy Adaption-5, Action 5I, Page 2-11 City of Rancho Cordova Climate Action and Adaptation Plan IS/ND, June, 2023.

existing facilities, cool roofs on bus shelters and transit stations, and solar shading infrastructure over existing parking lots at transit centers.⁴

Strategy Transportation-4. Reduce drive-alone vehicle trips.

1. Recommended Additional Supporting Actions:
 - a. Voluntary Measure: We recommend that City include an additional supporting action to implement a policy encouraging City employees who are eligible to telework on Spare the Air days and during heat events.

Strategy Transportation-5. Transition to electric and zero-emission vehicles.

1. We support the action to require installing electric vehicle chargers (not just the conduit) for developments.
2. Recommended Additional Supporting Actions:
 - a. Voluntary Measure: We recommend that City include an additional supporting action review and update existing City ordinances and Policies to encourage new development to include solar and energy storage as feasible.
 - b. The Sac Metro Air District has partnered with local businesses and jurisdictions to fund zero-emission transportation. We invite the City to work with the Sac Metro Air District Transportation and Climate Change division to identify and procure funding for this important transition.

Strategy Energy-1b. Increase energy efficiency and electrification in existing non-residential buildings.

1. The measure should include a draft timeline for implementation, a discussion of the ongoing implementation evaluation, and alternatives if the Strategy fails to achieve the anticipated reduction.
2. Recommended Additional Supporting Actions:
 - a. Enforce California's Building Energy Benchmarking Program, including a description of the supporting action's enforcement mechanism. If it would be an update or new ordinance, the action should mention this.
 - b. Consider an additional action to encourage the implementation of on-site renewable energy and energy storage in existing non-residential buildings.

Strategy Energy-2a. Increase energy efficiency and electrification in new residential buildings.

⁴ City of Rancho Cordova "Capital Improvements Projects Planning Process" as referenced under Strategy Adaption-5, Action 5I, Page 2-11 City of Rancho Cordova Climate Action and Adaptation Plan IS/ND, June, 2023.

1. The measure does not anticipate implementation until 2026, even though the Sacramento region currently utilizes more natural gas than the scoping plan anticipates for 2030.⁵ The Sac Metro Air District advises immediate implementation of combustion-free new development or, at minimum, rewiring of mixed-fuel buildings to facilitate conversion to all-electric in the future.
2. Recommended Additional Supporting Actions:
 - a. We recommend an additional Supporting Action to review City ordinances, design standards, and building standards for requirements that may impede the use of Carbon-storing and low-carbon building materials and design techniques.

Strategy Energy-2b. Increase energy efficiency and electrification in new non-residential buildings.

1. The measure should include a draft timeline for implementation, a discussion of the ongoing implementation evaluation, and alternatives if the Strategy fails to achieve the anticipated reduction.
2. Recommended Additional Supporting Actions:
 - a. Review City ordinances, design standards, and building standards for requirements that may impede using Carbon-storing and low-carbon building materials and design techniques.

Strategy Water-1. Conserve water.

1. The measure should include a draft timeline for implementation, a discussion of the ongoing implementation evaluation, and alternatives if the Strategy fails to achieve the anticipated reduction.
2. Recommended Additional Supporting Actions:
 - a. Require or incentivize new commercial and residential developments to be built with gray water pipes to enable laundry, sinks, and other gray water to be used for landscape irrigation.
 - b. Voluntary Strategy: encourage all new commercial and residential developments to decrease pavements and increase permeable surfaces (e.g., permeable pavements, drought-friendly landscaping, bioswales, and other green infrastructure) to increase groundwater retention and reduce flood risks.

Strategy Solid Waste-1. Avoid disposal of organic waste in landfills.

⁵ Greenhouse Gas Thresholds for Sacramento County. June 1, 2020; Sacramento Metropolitan Air Quality Management District.
<https://www.airquality.org/LandUseTransportation/Documents/SMAQMDGHGThresholds2020-03-04v2.pdf>

1. The measure should include a discussion of what policies, programs, and actions the local government will take to ensure that the organics diversion mandate is met, and the estimates of GHG emissions and other indicators should be supported with evidence.

Strategy Carbon Sequestration-1. Remove emissions from the atmosphere

1. The Supporting Action includes goals of increasing Citywide Tree Canopy. The Sac Metro Air District appreciates the strong urban forestry plan developed by the City and looks forward to the adoption of its priority recommended actions into city standards.

Chapter 4, Climate Adaptation & Resilience:

Strategy Adaptation-1. Improve resilience to increased temperatures and extreme heat.

1. Instead of promoting cool roofs and piloting cool pavements, consider adopting a cool roof ordinance as well as requirements for cool pavements. The current general plan will see the conversion of land in Rancho Cordova to urban uses, increasing the urban heat island effect. Development standards emphasizing cool roofs and pavements, in addition to your existing commitments for tree shade, would help reduce this impact. Reducing heat is critical to ensuring the success of the active modes described in this plan.
2. Recommended Additional Supporting Actions:
 - a. Voluntary Measure: The Sac Metro Air District recommends including an additional supporting action requiring the City to develop a timeline and funding source for extending public library hours and promotions with indoor entertainment venues to provide additional cooling centers during periods of extreme heat.

Voluntary Measures

Substantiation for all voluntary measures – incentivized and non-incentivized – must be robust and include all participation rate and outcome assumptions. Substantiation and quantification of voluntary measures should include discussing how similar measures have been implemented elsewhere and be based on those outcomes.⁶

⁶ State of California Office of Planning and Research, General Plan Guidelines, Chapter 8 Climate Change. https://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf According to OPR's General Plan Guidelines: "Although mandatory measures are preferred to establish the substantial evidence that a particular emissions reduction measure will have the stated benefit, some examples of incentive-based measures could be considered mitigation. One example is proposed to expand an energy efficiency program that has been in place for several years and has a proven emissions reduction track record. These measures can be included in reductions towards a target as long as assumptions reflect the proven ability of that program to reduce emissions."

New Construction Checklist

We encourage the City to include a project checklist whereby applicants for new projects could identify which CAAP measures apply to the project and include those measures in the application for project review.

Communication:

To allow for sufficient time for coordination, please send all future documents and notices to ProjectReview@AirQuality.org.

If you have questions regarding these comments, please contact Joseph Hurley, Associate Planner, at jhurley@airquality.org or (279) 207-1130.

Sincerely,



Paul Philley, AICP, Program Supervisor
Transportation & Climate Change Division
Sac Metro Air District

Cc: Jaime R. Lemus, Division Manager
Transportation and Climate Change, Sac Metro Air District
Brianna Moland, Air Quality Planner/Analyst
Transportation & Climate Change, Sac Metro Air District
Joseph Hurley, Air Quality Planner/Analyst
Transportation & Climate Change, Sac Metro Air District

CITY RESPONSE TO LETTER 3

SMAQMD offers suggestions and commentary on the contents of the proposed CAAP; it does not address any environmental issues with the IS/ND. The City appreciates the suggestions and looks forward to future opportunities to collaborate with SMAQMD, including on opportunities to support and obtain funding for implementation of the proposed CAAP. These comments will be provided to the City's decision makers as they consider adoption of the proposed CAAP.

Letter 4	Sacramento Regional Transit District (SacRT) Kevin Schroder, Senior Planner July 3, 2023
------------------------	---



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July 3, 2023

Stefan Heisler
City of Rancho Cordova
Housing Manager
2729 Prospect Park Drive
Rancho Cordova, CA 95670

DOCUMENT: The Rancho Cordova Climate Action and Adaption Plan (CAAP), Initial Study (IS) Negative Declaration (ND)

Sacramento Regional Transit District (SacRT) appreciates the opportunity to review the draft Climate Action and Adaption Plan of Rancho Cordova, a member city within the Sacramento Regional Transit District. SacRT cosigns the vision behind Rancho Cordova's "comprehensive roadmap to community sustainability and resilience" by "increasing zero-emission or alternative fuel vehicle use, transportation system efficiency, and the use of alternative travel modes".

Moving forward, the City of Rancho Cordova (hereafter referred to as "City") understands that as on-road transportation accounts for most of the City's greenhouse gas (GHG) emissions, the continued investment in and development of alternatives to single-occupancy vehicles will be necessary. SacRT looks forward to collaborating with the City to meet climate goals.

As an active partner and the principal provider of public transit service in Rancho Cordova, SacRT offers the following comments regarding the Plan:

- SacRT agrees with **Strategy Transportation-1.1's Supporting Action** to "increase the density and intensity of residential, commercial, and mixed-use development near public transit"; however, SacRT recommends that specific terms be used to define "near" catchment, which is the distance that people are willing to walk from a residence to a stop. The Center for Transit-Oriented Development opts for radii between one-quarter and one-half-mile. Additionally, SacRT offers the approach of distinguishing between modes of transit when circumscribing catchments "near" public transit. For example, fixed route bus stop catchments are often more restrictive than light rail station catchments because people are willing to walk further to ride higher frequency, faster service.¹
- SacRT generally concurs with **Strategy Transportation-1.1's Supporting Action** to "use improved materials and engineering designs to make walking and transit easier"

¹ Daniels, R., & Mulley, C. (2013). Explaining walking distance to public transport: The dominance of public transport supply. *Journal of Transport and Land Use*, 6(2), 5–20. <https://doi.org/10.5198/jtlu.v6i2.308>



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and “provide educational programs and campaigns to encourage people to walk, bike, and take transit”; however, SacRT requests clarification about what the City envisions as “improved materials” for these reimagined areas and “educational programs to encourage people to walk, bike, and take transit”.

- SacRT appreciates the City’s demonstrated interest in transit service improvements shown in **Strategy Transportation-3.1** to “increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day”. SacRT was unable to find an action under Transportation-3.1 that directly supports this strategy; therefore, SacRT suggests that the City include a supporting action that affirms partnership roles and responsibilities for maintaining and improving transit. SacRT believes that transit improvements will be best realized by meeting with the City about specific expansion desires, taking an account of cumulative resources, and concertedly exploring the possibilities for improved service.
- SacRT favors **Strategy Transportation-3.2** to “implement Transit-Supportive Roadway Treatments such as transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes” and the Supporting Action to “collaborate with SacRT to provide new or improved transit amenities like seating, sun/rain shelter, route information, and lighting.” SacRT shares the City’s commitment to improving the quality and experience of public transit for residents through roadway treatments. To better understand the City’s vision and bring these treatments to fruition, SacRT requests more information on potential sites, corridors, and intersections the City proposes for transit infrastructure improvements.
- SacRT believes the City’s goal of reducing the number of single-occupancy vehicle trips is smart and foresighted— first to build transit-oriented development (*ex: first Supporting Action under Strategy Transportation-1*), then in **Strategy Transportation 3.3’s Supporting Action** to “require new residential development in proximity to transit to provide owners/tenants with free or discounted transit passes” to incentivize ridership. SacRT requests information about potential eligibility criteria for these free or discounted fares.
- SacRT appreciates **Strategy Transportation-3.4’s Supporting Action** to “expand the offerings of SmaRT Ride...and collaborate with SacRT to convert fossil-fuel powered shuttles to electric shuttles”. Today, SacRT is proud to provide residents of Rancho Cordova with affordable on-demand transit through SmaRT Ride; however, the future of SmaRT Ride service may change over the CAAP period. SacRT values the City’s commitment toward fleet electrification and will continue to coordinate on the progression of this action.

As a transit agency committed to green infrastructure and policy, innovative mobility solutions, and attracting new riders, SacRT offers the subsequent remarks on the Plan:



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- SacRT takes great interest in **Strategy Transportation-4.1** to “implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with... incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking” and its **Supporting Action** to “prepare or enhance CTR program for City employees and require (or encourage voluntary) implementation by other employers”. SacRT believes that the City’s plan to enact a CTR program is a right-minded approach to reduce congestion and single-occupancy vehicle omissions. SacRT is interested to know whether the City’s CTR program would be a mandated or encouraged policy since the supporting action suggests either, as well as an explanation on potential thresholds for the City’s CTR program. For example, Washington law requires that within the state’s nine most populous counties, companies with 100+ employees must implement CTR programs. With more knowledge about the particulars of the City’s CTR program, SacRT can evaluate the transition to public transit and identify potential changes in travel patterns and demand.²
- SacRT is also interested in **Strategy Transportation-4.4** to “provide Community-Based Travel Planning (CBTP) to households in the City in which trained travel advisors visit households to provide them with... support to encourage the use of transportation options other than driving alone” and the **Supporting Action** to “conduct outreach to increase participation in vanpool, carpool, transit programs”. SacRT is interested to know what coordination between CBTP advisors and SacRT might look like. It would be helpful to know whether the City expects to contract with the Highway-50 Corridor Transportation Management Association and similar companies solely as personal consultancies for individual families or whether information from advising sessions could be used by SacRT to help optimize routes and transit planning in the City of Rancho Cordova.

Additionally, SacRT offers the following general suggestions:

- SacRT suggests clear definitions of UBUS (urban bus) and OBUS (other bus) from the Fehr & Peers forecasts, as SacRT operates multiple types of vehicles in the City, both fixed-route buses and SmaRT Ride cutaways.
- SacRT believes it would be helpful if the delineation of Strategies as “quantified” or “qualified” were defined and discussed in the CAAP’s introduction. Presently, SacRT infers that “quantified” denotes Strategies which will result in emissions reductions that can be empirically determined.

Lastly, the City’s CAAP anticipates a 99.6% reduction in GHG emissions from urban buses between 2019 and 2045 (Memo, Table 10, Page 10), made possible by the conversion of the

² WSDOT. (2022, May 26). *Commuter Trip Reduction Program*. Washington State Department of Transportation. <https://wsdot.wa.gov/business-wsdot/commute-trip-reduction-program>



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vehicle fleet to zero-emission alternatives. In short, the electrification will be important in helping the City meet its emissions reduction benchmarks. Along these lines, SacRT would like more details about the City's support of SacRT's urban bus fleet transition to electric. SacRT believes it would be productive to consider an implementation funding strategy for the electrification of CordoVans and SmaRT ride vehicles by 2045. Please contact myself to continue this coordination.

Thank you again for providing the draft Rancho Cordova Climate Action and Adaption Plan for SacRT's review. We look forward to working in partnership with the City to improve mobility and enhance the transit experience of residents, as well as help the City meet its emissions reduction targets.

Sincerely,

Kevin Schroder

Kevin Schroder
Senior Planner, SacRT

Cc: Alexander Stern, Planning Intern, SacRT
Sarah Poe, Planner, SacRT

CITY RESPONSE TO LETTER 4

SacRT offers specific comments and general suggestions on the contents of the proposed CAAP; it does not address any environmental issues with the IS/ND. The City appreciates the specific comments and general suggestions and looks forward to future opportunities to collaborate with SacRT to implement public transit and other mobility goals of the proposed CAAP. These comments will be provided to the City's decision makers as they consider adoption of the proposed CAAP.

3 REFERENCES

CHAPTER 1, INTRODUCTION

No references were used in this chapter.

CHAPTER 2, RESPONSES TO COMMENTS

No references were used in this chapter.

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4 REPORT PREPARERS AND CONTRIBUTORS

CITY OF RANCHO CORDOVA

Stefan Heisler, Housing Manager

ASCENT

Andrew Martin, Project Manager

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Appendix A

Initial Study/
Proposed Negative Declaration

ASCENT

Public Review Draft
Initial Study/Proposed Negative Declaration
for the

City of Rancho Cordova Climate Action and Adaptation Plan

Prepared for:



City of Rancho Cordova

June 2023



Public Review Draft
Initial Study/Proposed Negative Declaration for the

City of Rancho Cordova Climate Action and Adaptation Plan

Prepared for:



City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Contact:

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June 2023

20210054.01

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ACRONYMS AND ABBREVIATIONS

2020 MTP/SCS	2020 Metropolitan Transportation Plan/Sustainable Communities Strategy
AB	Assembly Bill
BMP	Best Management Practices
CAA	Clean Air Act
CAAP	Climate Action and Adaptation Plan
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CBTP	Community-Based Travel Planning
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Rancho Cordova
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CPUC	California Public Utilities Commission
CRPD	Cordova Recreation and Park District
CTR	Commuter Trip Reduction Program
dB	Decibel
draft IS/ND	draft Initial Study/Proposed Mitigated Negative Declaration
EAP	Energy Action Plan
EIR	Environmental Impact Report
EO	Executive Order
EV	electric vehicle
FCUSD	Folsom Cordova Unified School District
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zones
FTA	Federal Transit Administration
GHG	greenhouse gas
in/sec	inches per second
Ldn	Day-Night Noise Level
Leq	Equivalent Noise Level
Lmax	Maximum Noise Level
MPO	metropolitan planning organizations
MTCO ₂ e	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Commission
NO ₂	nitrogen dioxide

NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
OIMP	odor impact minimization plan
OPR	Office of Planning and Research
PG&E	Pacific Gas and Electric
PM	particulate matter
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
PPV	peak particle velocity
PRC	Public Resource Code
PV	photo voltaic
RCMC	Rancho Cordova Municipal Code
RCPD	Rancho Cordova Police Department
RMS	root-mean-square
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCS	sustainable communities strategies
SIP	State implementation plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMFD	Sacramento Metropolitan Fire District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SSHCP	South Sacramento Habitat Conservation Plan
SVAB	Sacramento Valley Air Basin
SWPPP	storm water pollution prevention plan
VdB	vibration decibels
VMT	vehicle miles traveled
ZEV	zero-emission vehicle
ZNE	zero-net-energy

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This draft Initial Study/Proposed Negative Declaration (draft IS/ND) has been prepared by the City of Rancho Cordova (City) to evaluate potential environmental effects resulting from implementation of the City's proposed Climate Action and Adaptation Plan (CAAP). Chapter 2, "Project Description," presents a detailed description of the proposed CAAP.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 PURPOSE OF THIS DOCUMENT

As described in Chapter 3, "Environmental Checklist," the proposed CAAP would not result in any significant environmental impacts. Therefore, an IS/ND is the appropriate document for compliance with the requirements of CEQA. This draft IS/ND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City of Rancho Cordova is the CEQA lead agency because they are responsible for adopting and implementing the proposed CAAP. This draft IS/ND will be circulated for a 30-day public review period, from June 2, 2023, through July 1, 2023. Comments on this draft IS/ND must be received by 5:00 PM on July 1, 2023. Comments can be emailed to Stefan Heisler at sheisler@cityofranhocordova.org or sent to the following address:

Stefan Heisler
City of Rancho Cordova
Community Development Department, Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Comments received on the draft IS/ND will be considered and responded to before consideration of adoption of the draft IS/ND. The draft IS/ND, along with comments received by the date provided above, will be considered by the City in conjunction with consideration of adoption of the proposed CAAP.

1.3 SUMMARY OF FINDINGS

Chapter 3, "Environmental Checklist," contains the analysis and discussion of potential environmental impacts of the proposed CAAP. The Environmental Checklist for this draft IS/ND includes the checklist questions from Appendix G of the State CEQA Guidelines. The analysis of Chapter 3 demonstrates that the proposed CAAP would have either no impact or a less-than-significant impact for the following environmental topics:

- ▶ Aesthetics
- ▶ Agriculture and Forestry Resources
- ▶ Air Quality
- ▶ Biological Resources
- ▶ Cultural Resources
- ▶ Energy
- ▶ Geology and Soils
- ▶ Greenhouse Gas Emissions
- ▶ Hazards and Hazardous Materials
- ▶ Hydrology and Water Quality
- ▶ Land Use and Planning
- ▶ Mineral Resources
- ▶ Noise
- ▶ Population and Housing
- ▶ Public Services
- ▶ Recreation
- ▶ Transportation
- ▶ Tribal Cultural Resources
- ▶ Utilities and Service Systems
- ▶ Wildfire

1.4 DOCUMENT ORGANIZATION

This draft IS/ND is organized as follows:

Chapter 1: Introduction. This chapter introduces the environmental review process. It describes the purpose and organization of the draft IS/ND and presents a summary of findings.

Chapter 2: Project Description. This chapter provides an overview and background information for the proposed CAAP, lists the project objectives, and provides a detailed description of the proposed CAAP.

Chapter 3: Environmental Checklist. This chapter presents an analysis of the range of environmental topics identified in the Environmental Checklist and determines if implementation of the proposed CAAP would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any potentially significant impacts could not be reduced to less than significant, an EIR would be required.

Chapter 4: References. This chapter lists the references used in preparation of this draft IS/ND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

This chapter presents a detailed description of the proposed Climate Action and Adaptation Plan (CAAP), which the City of Rancho Cordova (City) has prepared to serve as a comprehensive roadmap to community sustainability and resilience. The purposes of the CAAP are to identify strategies and measures the City can take to reduce greenhouse gas (GHG) emissions to levels that align with the State of California's goals and set forth strategies to adapt and promote resilience to the impacts of climate change. The City is the lead agency for the proposed CAAP under the California Environmental Quality Act (CEQA).

2.2 PROJECT LOCATION

As shown in Figure 2-1, the City is located within the eastern portion of Sacramento County, to the east of the City of Sacramento and to the west of the City of Folsom, along Highway 50. Mather Field Air Base is located along the southwest boundary of the City, and the Aerojet Rocket Testing Facility is located to the east. The northern boundary of the City is defined by the American River. The Plan Area for the proposed CAAP encompasses the approximately 35 square miles within the City limits, as shown in Figure 2-2.

2.3 PROJECT BACKGROUND

California law includes targets to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32) and to net zero levels as soon as possible, but no later than 2045, with statewide anthropogenic GHG emissions reduced to at least 85% below 1990 levels by 2045 (Assembly Bill [AB] 1279). In December 2022, the California Air Resources Board (CARB) adopted an update to its Climate Change Scoping Plan, the 2022 Scoping Plan, which presents modeling showing how California can surpass its 2030 target and reduce anthropogenic GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality no later than 2045. California's statewide targets and plans the objectives and contents of the CAAP, which are described in the following sections.

2.4 PROJECT OBJECTIVES

The fundamental purposes of the proposed CAAP are set forth a plan for reducing the City's communitywide GHG emissions to levels in alignment with statewide targets and increasing the city's resilience to existing and anticipated climate change hazards. The City has developed the following objectives for the proposed CAAP:

- ▶ Prepare a baseline GHG emissions inventory of community-wide sources of emissions in the City, and project the potential growth of these emissions over time;
- ▶ Establish a local target for 2030 and a local goal for 2045 aligned with the statewide targets of SB 32 and AB 1279;
- ▶ Develop and quantify actions the City can take to reduce communitywide emissions to levels that meet or exceed its 2030 target and make substantial progress toward its 2045 goal;
- ▶ Meet the requirements of State CEQA Guidelines Section 15183.5(b)(2) regarding "Plans for the Reduction of Greenhouse Gas Emissions" to provide streamlining of GHG emissions analysis for future projects that are consistent with the proposed CAAP; and
- ▶ Identify the city's vulnerabilities to existing and anticipated climate change hazards, and set forth actions the City can take to protect people and property by adapting to these hazards and improving resilience.

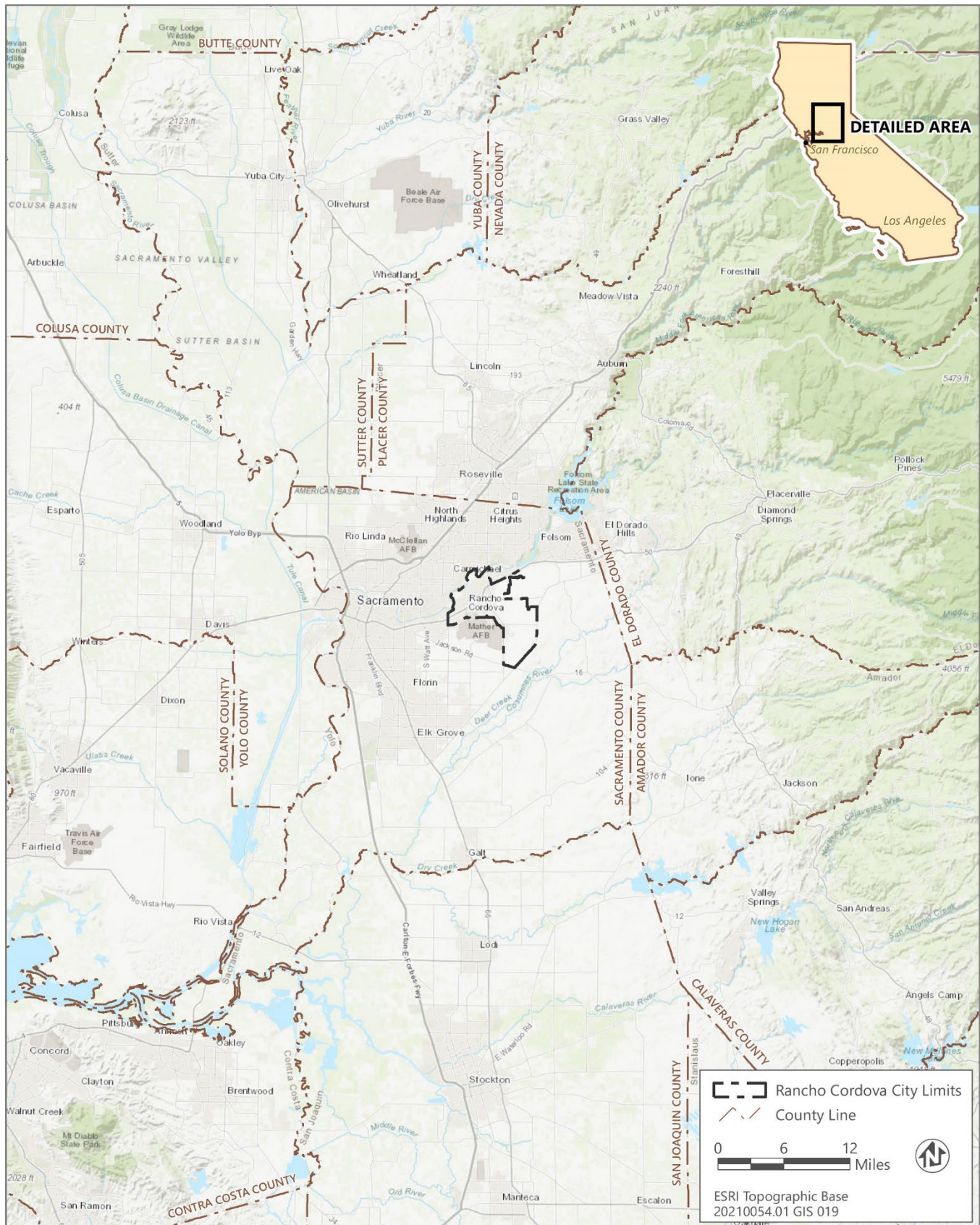
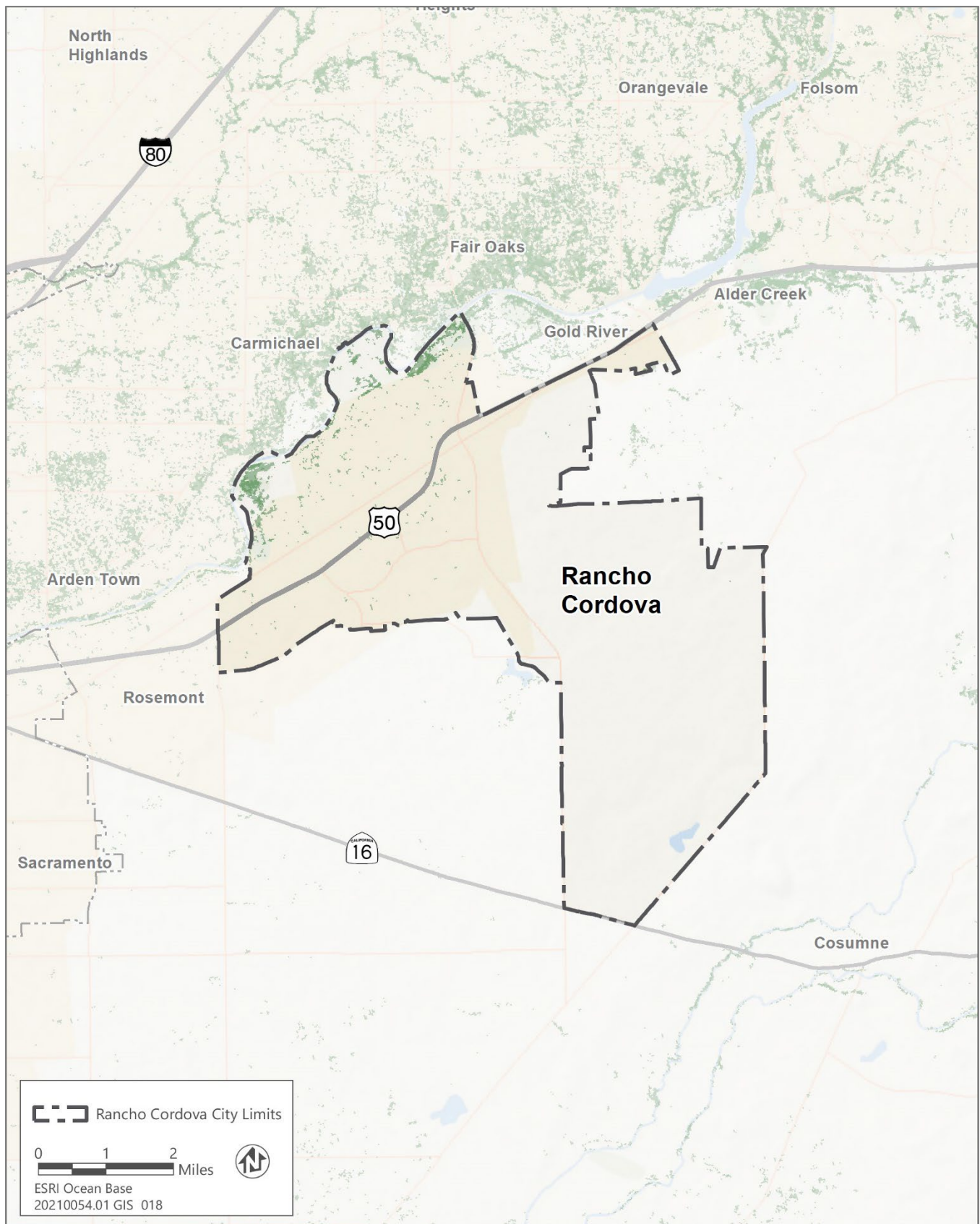


Figure 2-1 Regional Location Map



Source: adapted by Ascent in 2023

Figure 2-2 Project Location

City of Rancho Cordova
Climate Action and Adaptation Plan IS/ND

2.5 PROJECT DESCRIPTION

The CAAP is divided into five main chapters. Chapter 1, introduces the City's CAAP, outlines the goal of the CAAP, and the development process in detail, including community engagement. Chapter 2 describes the community's baseline GHG emissions inventory, presents 2030 and 2045 emissions forecasts, and identifies community emissions reduction targets. GHG emissions reduction strategies and measures are included in Chapter 3. Chapter 4 presents an overview of the climate adaptation planning process, a summary of the city's climate change vulnerability assessment, and adaptation strategies, objectives, and actions that can be implemented to strengthen community resilience to climate change. Lastly, Chapter 5 provides a framework for implementing and monitoring the CAAP and includes a timeline for future updates. These chapters are summarized below.

In developing the CAAP, the City evaluated the volume of emissions generated in a baseline year (2019) and identified City-specific targets and goals that determine the amount of community-wide emissions that need to be reduced in Rancho Cordova to align with statewide GHG reduction targets for 2030 and 2045.¹ The City then developed GHG reduction measures to achieve the City's 2030 target and make substantial progress towards the City's 2045 goal. Additionally, in preparation of the CAAP, the City conducted a climate change vulnerability assessment to better understand its vulnerability to climate hazards. This was then used to inform and develop a set of adaptation strategies, objectives, and actions to improve community resilience in the context of climate change. The successful implementation and administration of the CAAP would reduce emissions and reduce climate related risks in the city, as well as provide other co-benefits like strengthening the city's economy, improving risk management, cleaning the environment, and improving the health and wellness of residents.

2.5.1 CAAP Development

Following initiation of the CAAP in 2021, the City prepared GHG emissions inventories and forecasts, set GHG reduction targets, and conducted a climate change vulnerability assessment. The City then developed GHG emissions reduction and adaptation strategies, measures, and actions to be included in the CAAP. Engagement with members of the public, government officials, and other stakeholders was conducted throughout the entirety of the project.

2.5.2 Community Engagement

The City hosted four public workshops and performed outreach efforts to engage residents, stakeholders, and other interested organizations and individuals. The purpose was to provide an opportunity for the community to participate in the plan development process and ensure that the CAAP equitably captured the ideas and concerns of residents and businesses.

The first workshop held on October 21, 2021, provided an overview of the purpose and objectives of the CAAP and discussed the CAAP process and project timeline. The second workshop held on January 13, 2022, summarized the city's primary vulnerabilities to climate change and when these climate change impacts are likely to occur. On April 14, 2022, the City held the third workshop and discussed updates in the plan development process. The topics included the primary emissions sources and activities in Rancho Cordova, the role that legislative reductions play in reducing emissions in the city, and how much lower the future emissions need to be to align with California's climate goals. On November 16, 2022, the City hosted the fourth and final workshop which was the first in-person event. The purpose of the workshop was to gain feedback on actions the City can take to reduce GHG emissions. Due to the COVID-19 pandemic, the first three public workshops were held virtually, while the fourth workshop was an in-person event. An online survey was conducted after the fourth workshop to include feedback from residents who could not attend the final workshop.

The multiple sets of public events and additional methods for providing input on the CAAP provided residents and stakeholder groups the opportunity to contribute to CAAP development. Additionally, the City conducted a public opinion poll, the results of which are discussed in the sections below.

¹ The baseline year for the CAAP's GHG emissions inventory is 2019 because 2019 was the most recent year for which reliable data were available at the time preparation of the GHG emissions inventory commenced in 2021.

2.5.3 Emissions Inventory and Reduction Targets

The 2019 communitywide emissions level is 679,700 metric tons of carbon dioxide equivalent ("MTCO₂e") and includes the following emissions sectors:

- ▶ On-Road Transportation
- ▶ Building Energy
- ▶ Solid Waste
- ▶ Off-Road Vehicles and Equipment
- ▶ Water Supply
- ▶ Wastewater Treatment

If communitywide emissions in the city were to continue to grow unimpeded, the city is anticipated to generate 816,800 MTCO₂e in 2030 and 987,800 MTCO₂e in 2045. While legislative reductions from State, federal, and regional actions would further reduce 301,400 MTCO₂e per year, the City would still need to reduce annual emissions by 77,100 MTCO₂e by 2030 and 400,500 MTCO₂e by 2045 to achieve the proposed emissions reduction targets.

To reduce communitywide emissions in alignment with statewide targets, the CAAP has established the following:

- ▶ 2030 target: 36 percent below 2019 levels (438,300 MTCO₂e annually); and
- ▶ 2045 goal: 81 percent below 2019 levels (129,300 MTCO₂e annually)

CAAP Appendix A presents the inventory technical memorandum, CAAP Appendix B details the methodology for preparing the communitywide emissions inventory and projections, CAAP Appendix C presents the forecast and target technical memorandum, and CAAP Appendix D details the methodology for preparing the emissions reduction targets and goals.

2.5.4 CAAP Measures to Reduce GHG Emissions

To achieve the 2030 target and to make substantial progress toward the 2045 goal, the CAAP proposes a Strategy Framework consisting of 14 GHG reduction strategies, 34 GHG emission reduction measures, and supporting actions. Table 2-1 presents the summary of communitywide emissions growth with and without emissions reduction strategies and measures identified in the CAAP.

Table 2-1 Summary of Greenhouse Gas Emissions Reductions

Emissions Sectors	2030 Emissions (MTCO ₂ e)	2045 Emissions (MTCO ₂ e)
Future Emissions without Legislative Reductions	816,700	987,800
Legislative Reductions	301,400	458,000
Future Emissions with Legislative Reductions	515,400	529,800
Target Emissions	438,300	129,300
Total Reductions from Strategies and Measures	79,700	307,800
Reductions from On-Road Transportation Measures	54,800	218,200
Reductions from Building Energy Measures	13,600	45,600
Reductions from Off-Road Vehicle and Equipment Measures	1,800	9,500
Reductions from Solid Waste Measures	8,800	32,600
Reductions from Carbon Sequestration Sector Measures	440	1,000
Communitywide Emissions with Strategies and Measures	435,700	222,200

Notes: Numbers are rounded to the nearest thousand; values and totals may not equal the values summed in other tables or figures; MTCO₂e = metric tons of carbon dioxide equivalent

Source: Ascent Environmental 2023.

The measures are summarized in Table 2-2 below. The CAAP includes strategies, measures, and supporting actions that address the following major climate change-related activities that can be influenced by the City's actions:

- ▶ Getting To, From, and Around the City (On-road Transportation Sector)
- ▶ Using Energy in Homes and Businesses (Building Energy Sector)
- ▶ Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)
- ▶ Using Water and Disposing of Waste at Homes and Businesses (Water Supply, Wastewater, and Solid Waste Sectors)
- ▶ Planting and Managing Trees (Carbon Sequestration Sector)

The strategy framework contains additional information like annual emissions reduced, percent of the City's total reductions, performance targets, and supporting actions identified by the City to assist in achieving each strategy's performance target. The additional details are presented in CAAP Chapter 3, and GHG reduction calculation details are included in CAAP Appendix E.

Table 2-2 Summary of CAAP Measures to Reduce GHG Emissions

Getting To, From, and Around the City (On-road Transportation Sector)			
Strategy Transportation-1 Support development of walkable, interconnected neighborhoods, villages, and districts	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		6,700	17,100
Transportation-1.1: Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit			
Transportation-1.2: Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects			
Transportation-1.3: Improve street connectivity, for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments			
Transportation-1.4: Limit the number of drive-through businesses			
Strategy Transportation-2 Make walking and biking safe and attractive for people of all ages and abilities	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		11,500	12,800
Transportation-2.1: Implement the City's Bicycle Master Plan to increase the number and quality of walkways and bikeways			
Transportation-2.2: Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals			
Transportation-2.3: Provide temporary or permanent car-free zones or "slow streets" in specified areas, for example, individual blocks or residential streets			
Transportation-2.4: Install measures to reduce vehicle speeds and calm traffic on city streets			
Strategy Transportation-3 Provide transit options that are accessible, reliable, and convenient	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		5,800	10,200
Transportation-3.1: Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day			
Transportation-3.2: Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes)			
Transportation-3.3: Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18)			
Transportation-3.4: Provide a microtransit electric shuttle program (capacity for 7-15 passengers) that provides on-demand pick up and drop off within defined, small-scale areas			

Getting To, From, and Around the City (On-road Transportation Sector)			
Strategy Transportation-4 Provide transit options that are accessible, reliable, and convenient	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		3,800	6,800
Transportation-4.1: Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking			
Transportation-4.2: Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals			
Transportation-4.3: Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals			
Transportation-4.4: Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives, and support to encourage use of transportation options other than driving alone			
Strategy Transportation-5 Transition to electric and zero emission vehicles	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		27,000	171,300
Transportation-5.1: Install EV chargers in new residential, commercial, and industrial projects			
Transportation-5.2: Install publicly accessible EV chargers on existing private property			
Transportation-5.3: Install EV chargers on public property			
Transportation-5.4: Electrify loading docks and/or require idling-reduction systems			
Transportation-5.5: Limit new gasoline/diesel fueling stations			
Using Energy in Homes and Businesses (Building Energy Sector)			
Strategy Energy-1a Increase energy efficiency and electrification in existing residential buildings	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		9,700	29,000
Energy-1.1: Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking			
Strategy Energy-1b Increase energy efficiency and electrification in existing nonresidential buildings	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		2,100	10,000
Energy-1.2: Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking.			
Strategy Energy-2a Increase energy efficiency and electrification in new residential buildings	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		1,400	5,100
Energy-2.1: Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site)			
Strategy Energy-2b Increase energy efficiency and electrification in new nonresidential buildings	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		430	1500
Energy-2.2: Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2)			
Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)			
Strategy Offroad-1 Transition to electric and zero emissions technologies for landscaping equipment	Annual GHG Reduction Potential (MTCO ₂ e)	2030	2045
		130	260
Offroad-1.1: Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives			
Offroad-1.2: Convert new landscaping equipment to electric or zero-emission alternatives			

Getting To, From, and Around the City (On-road Transportation Sector)			
Strategy Offroad-2 Transition to electric and zero emissions technologies for construction equipment	Annual GHG Reduction Potential (MTCO _{2e})	2030	2045
		1,700	9,200
Offroad-2.1: Increase electrification and use of alternative fuels in construction projects			
Offroad-2.2: Reduce construction vehicle idling			
Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)			
Strategy Water-1 Conserve water	Annual GHG Reduction Potential (MTCO _{2e})	2030	2045
		0*	0*
Water-1.1: Reduce indoor water use in existing and new buildings			
Water-1.2: Reduce outdoor water use for landscaping and irrigation in existing and new developments			
*Emissions reduced from water measures estimated to be zero in 2030 because water-related energy needs assumed to be met by 100% renewable or zero emission electricity by 2030.			
Strategy Solid Waste-1 Make walking and biking safe and attractive for people of all ages and abilities	Annual GHG Reduction Potential (MTCO _{2e})	2030	2045
		8,800	32,600
Solid Waste-1.1: Increase recovery of edible food waste			
Solid Waste-1.2: Eliminate disposal of organic waste in landfills (food waste, yard waste)			
Planting and Managing Trees (Carbon Sequestration Sector)			
Strategy Carbon Storage-1 Make walking and biking safe and attractive for people of all ages and abilities	Annual GHG Reduction Potential (MTCO _{2e})	2030	2045
		440	1,100
Carbon Storage-1.1: Increase the number of trees in the city, through new plantings and management of existing trees			

2.5.5 Climate Adaptation and Vulnerability

The effects of climate change are already occurring at global, regional, and local scales and will continue to worsen existing hazards in and around the city, including extreme heat, extreme precipitation and flooding, drought, and wildfires. While these hazards have existed historically in the city and surrounding regions, the frequency, intensity, and duration of these hazards are projected to increase or change because of climate change. The level of impact from these climate hazards will vary across the city and the region due to variations in physical, social, and economic characteristics. Of the four climate hazards assessed, the city, inclusive of its populations and assets, is most vulnerable to the potential impacts of increased temperatures and extreme heat. However, the city is still vulnerable to the other three climate hazards that were assessed – extreme precipitation and flooding, drought, and wildfires – though to a lesser degree than increased temperatures and extreme heat.

2.5.6 CAAP Actions to Adapt to Climate Change

The CAAP also includes a set of five adaptation strategies to help the City prepare for and become more resilient to the impacts of climate change. Each adaptation strategy includes two to three tailored objectives, which are accompanied by an array of actions that can be implemented to help achieve those objectives. The adaptation strategies and objectives are summarized in Table 2-3 below. Further details, such as the associated actions for each strategy and set of objectives, are presented in Chapter 4. The city's Vulnerability Assessment Technical Memo, which was used to inform the adaptation strategies, is included in CAAP Appendix F.

Table 2-3 Summary of CAAP Actions to Adapt to Climate Change

Strategy Adaptation-1. Improve resilience to increased temperatures and extreme heat. Objectives: ▶ Reduce the urban heat island effect. ▶ Protect populations from extreme heat. Actions: 1a. Promote the use of “cool” roofs on both new and existing residential and nonresidential buildings. 1b. Pilot and monitor benefits of “cool” pavement in residential neighborhoods. 1c. Conduct a mapping exercise to determine locations around the city that experience the greatest impact from the urban heat island effect and utilize this information to prioritize locations for increased tree planting and sustained tree management. 1d. Continue hosting community tree-planting events and offering free trees for residents, businesses, and community-based organizations through the City’s Urban Forest program. 1e. Explore opportunities to further increase shading of buildings and parking lots using trees and/or solar canopies. 1f. Preserve, enhance, increase, and establish community green areas, such as parks, recreational facilities, and open space. 1g. Expand cooling center access during extreme heat events through extended hours, more locations, and less stringent criteria for opening. 1h. Partner with community-based organizations, faith-based organizations, businesses, and other public agencies to develop a “Community Cool Zone Network” comprised of air-conditioned spaces that are made available to vulnerable populations during extreme heat events to prevent heat-related illnesses. 1i. Support employers to protect worker health from extreme heat, especially those working in vulnerable occupations, through targeted outreach and information-sharing about extreme heat risks, applicable regulations, and strategies to reduce risk. 1j. Develop a “Cool Buddy” program where local volunteers are trained to build neighborhood networks, identify heat-vulnerable neighbors, and set up systems to check in on each other during extreme heat events. 1k. Develop public awareness campaigns that bolster extreme heat event preparedness actions and adaptation strategies. 1l. Support a comprehensive outreach campaign to prevent heat-related illnesses among vulnerable populations, including, but not limited to, children, seniors, people experiencing homelessness, people with disabilities in the care of licensed facilities, and workers in vulnerable occupations.
Strategy Adaptation-2. Improve resilience to extreme precipitation and flooding. Objectives: ▶ Promote climate-smart flood management. ▶ Add redundancy to the City’s flood management system. Actions: 2a. Prioritize the implementation and use of green infrastructure to manage future flood risk. 2b. Coordinate with landowners to manage stormwater runoff through sustainable land conservation practices. 2c. Utilize vacant lots to build flood control detention basins and replace undersized culverts to better address flooding from future extreme precipitation events. 2d. Encourage the use of porous pavement and vegetative buffers in large parking areas. 2e. Seek funding to purchase and install battery-powered generators for each of the City’s six pump stations, which serve to convey stormwater during precipitation events. 2f. Implement flood control projects identified in the Stormwater Capital Improvement Program Master Plan to help resolve existing flooding issues and prevent future impacts from extreme precipitation events. 2g. Encourage residents located within the 100- and 500-year floodplain to obtain flood insurance through the National Flood Insurance Program.

Strategy Adaptation-3.
Improve resilience to drought.

Objectives:

- ▶ Reduce water consumption.
- ▶ Ensure long-term sustainability and reliability of the City's water supplies.

Actions:

- 3a. Continue promoting water conservation tips and measures across the City's websites and social media platforms.
- 3b. Continue offering assistance to residents for drought-tolerant landscapes through the City's beautification program, and seek to expand assistance through other actions, such as developing a "Cash for Grass" lawn replacement program.
- 3c. Update MWELo to go beyond State requirement to plan drought-tolerant and water-conserving landscaping in new development projects.
- 3d. Coordinate with local water suppliers to establish and monitor progress on a citywide per capita water use reduction target.
- 3e. Educate the public about the benefits and water conservation potential of rainwater catchment and greywater systems.
- 3f. Promote the installation of water-efficient fixtures, appliances, and equipment in new development and as part of retrofits for existing development.
- 3g. Support the development of extended drought scenario analyses as part of future updates to Urban Water Management Plans and Water Shortage Contingency Plans of local water suppliers.
- 3h. Coordinate with local water suppliers to support the development of recycled water systems.

Strategy Adaptation-4.
Improve resilience to wildfires.

Objectives:

- ▶ Protect populations from wildfire smoke and poor air quality.
- ▶ Mitigate the impacts from potential Public Safety Power Shutoff events during high wildfire risk conditions.

Actions:

- 4a. Develop and implement a wildfire smoke protection outreach strategy.
- 4b. Monitor employers to ensure compliance with California Code of Regulations, Title 8, Section 5141.1, which requires employers to protect workers who may be exposed to wildfire smoke.
- 4c. Take steps to ensure that the City's building stock is outfitted with indoor air purification systems capable of enhancing and protecting public health from wildfire smoke and poor air quality.
- 4d. Support the installation of battery storage systems in existing residential and nonresidential development.
- 4e. Coordinate with and promote SMUD's battery storage incentives for residents and businesses.

Strategy Adaptation-5.
Promote holistic community resilience in the context of climate change.

Objectives:

- ▶ Coordinate equitable education, outreach, and engagement.
- ▶ Promote robust emergency services and other planning activities.
- ▶ Protect the built environment from climate hazards.

Actions:

- 5a. Through a multi-pronged approach, enhance public education and awareness of climate hazards and public understanding of disaster preparedness, prioritizing engagement with vulnerable populations (e.g., workshops, displays, websites, public-private partnerships).
- 5b. Provide tailored, preparedness-oriented outreach to vulnerable populations across the city regarding climate hazards that are most applicable and specific to them (e.g., flood preparedness outreach for residents residing within the city's 100- and 500-year floodplains).
- 5c. Embed climate resiliency and adaptation across City plans, programs, and activities to account for changing hazard profiles and their associated impacts.
- 5d. Prioritize making emergency services more accessible, especially for vulnerable populations.
- 5e. Encourage residents to enroll in the Sacramento Region Emergency Notification System.

-
- 5f. Maintain up-to-date emergency preparedness and evacuation plans and procedures in coordination with appropriate State, regional, county, and local agencies and departments.
 - 5g. Encourage roundabouts in place of traffic signals where appropriate for increased ability to evacuate and traffic flow.
 - 5h. Ensure interconnectivity and road standards are maintained for evacuation routes and disaster preparedness purposes.
 - 5i. Develop a clean energy microgrid for essential City facilities to support resilient emergency operations.
 - 5j. Integrate climate-smart natural resource management into City operations, incorporating climate projection data, risk modeling, and adaptive management, as appropriate, to account for future changes in climate hazards in natural resource projects.
 - 5k. Evaluate and update the City's building and engineering standards to account for climate hazards that are likely to affect critical infrastructure, such as extreme heat and extreme precipitation and flooding.
 - 5l. Identify and upgrade vulnerable critical infrastructure (e.g., utility, transportation, etc.) through the City's Capital Improvement Projects planning process.
 - 5m. Promote building retrofits to include climate resilience features (e.g., home hardening improvements, weatherization improvements, adequate climate control equipment with air filtration systems).
-

2.5.7 CAAP Implementation Strategy

After the adoption of the CAAP, the City will develop an implementation strategy for the CAAP measures. It will be based on several factors such as budget capacity and availability of funding opportunities and will involve collaboration with the Sacramento Municipal Utility District ("SMUD"), other public and private agencies, and neighboring cities. The success of CAAP implementation will also depend on the participation of residents, businesses, and other stakeholders in the city and region.

The City will implement the measures of the CAAP through several types of programs and activities that may include changes in municipal operations; new ordinances or code updates; development conditions of approval; advanced planning efforts; provision of incentives or financing; public agency or private partnerships; and education and outreach. The CAAP's effective implementation will require a process to prioritize its strategies and measures periodically.

2.5.8 CAAP Monitoring Strategy

The CAAP would be monitored over time to assess the progress by tracking key indicators for each measure. Changing circumstances, such as State and federal laws and programs, updates to climate science, changes in technology, or evolving local, State, federal, or even global economic and social conditions, may necessitate changes to the CAAP. If the CAAP is not achieving the desired outcomes, the measures or actions will need to be altered or amended.

City staff will evaluate the performance of each GHG reduction action that has been implemented. Evaluating the performance requires monitoring the level of community participation, costs, and potential barriers to implementation, as well as activities that result in GHG emissions reductions like actual reductions in fuel consumption, vehicle miles traveled, energy usage, water usage, landfilled waste, etc. In addition to considering these factors, assessing the performance of CAAP adaptation actions will be informed by resilience-related improvements in the community. The City staff will regularly monitor and report on adaptation and climate hazards and will update the strategies and actions when needed. By evaluating whether the implementation of an action is on track to achieve its objective, the City can identify successful actions and reevaluate or replace underperforming measures.

To provide updates on CAAP implementation progress, City staff will prepare a monitoring report every two years. Finally, the City will prepare a GHG emissions inventory and an update to the plan every five years, with the first update due in 2028. Updates would reflect the findings of the monitoring reports and inventory updates. Table 2-4 shows the City's implementation and monitoring timeframe.

Table 2-4 CAAP Implementation and Monitoring Timeframe

Implementation and Monitoring Timeframe		
2023	CAAP adopted	City Council adopts the CAAP (anticipated).
2023	Development of CAAP Implementation Strategy	City staff begins to develop the implementation strategy.
2023	CAAP Implementation	City staff begins to implement CAAP measures.
2025	Monitoring Report	City staff will prepare a monitoring report every two years and present the report to City Council and Planning Commission. The first monitoring report will be completed two years from adoption of the CAAP. Each monitoring report will evaluate implementation status of the CAAP's GHG reduction measures. The monitoring report will identify whether any of the measures require amendment to maintain progress toward achieving the emissions reductions identified in the CAAP.
2028	GHG Emissions Inventory Update	An updated GHG inventory will be prepared to track the CAAP implementation progress by assessing the City's progress towards achieving the emissions reductions identified in the CAAP.
2028	CAAP Update	Based on the results of the monitoring report and updated GHG emissions inventory, the City will update the CAAP to include new or amended measures, remove, or update any ineffective measures, and incorporate new technologies and methodologies as necessary to ensure the CAAP is on track to achieve the City's target and goal.

2.5.9 California Environmental Quality Act and the CAAP

The California Environmental Quality Act (CEQA) is a statute that requires local agencies to identify significant environmental impacts of their actions and avoid or mitigate those impacts, if feasible. The 2022 Scoping Plan emphasizes the use of CEQA as a tool by local jurisdictions for supporting the State's climate priorities. When a local plan complies with CEQA requirements, individual projects that comply with the plan are allowed to streamline the project-specific GHG analysis. The City plans to utilize this tool for ensuring that new development is constructed with more sustainable and low-carbon features than existing development. By following this approach, the CAAP has been prepared consistent with the provisions of CEQA Guidelines Section 15183.5 ("Qualified Plan"). As a result, it provides new development project applicants in the city the opportunity to use CEQA streamlining tools for projects that are consistent with the CAAP. Demonstrating consistency with the CAAP establishes that a project will not result in an "additional environmental effect" related to GHG emissions. A project's consistency with the CAAP will be determined through the Consistency Checklist ("Checklist") presented in Appendix G. The Checklist contains GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to achieve the City's 2030 reduction target and make substantial progress toward the 2045 goal. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements.

2.6 POTENTIAL PERMITS AND APPROVALS REQUIRED

The City is the CEQA lead agency responsible for considering adoption and implementation of the proposed CAAP. As the lead agency, the City is responsible for considering adoption of the Initial Study/ Negative Declaration before determining if the proposed CAAP should be adopted.

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. **Project Title:** Rancho Cordova Climate Action and Adaptation Plan
2. **Lead Agency Name and Address:** City of Rancho Cordova
Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670
3. **Contact Person and Phone Number:** Stefan Heisler, Housing Manager
(916) 851-8757
4. **Project Location:** The Plan Area for the City of Rancho Cordova Climate Action and Adaptation Plan encompasses approximately 35 square miles within the City limits. See Chapter 2, "Project Description," for more detailed information.
5. **Project Sponsor's Name and Address:** City of Rancho Cordova
Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670
6. **General Plan Designation:** Various, see Chapter 2, "Project Description," for more detailed information.
7. **Zoning:** Various, see Chapter 2, "Project Description," for more detailed information.

8. Description of Project:

The Climate Action and Adaptation Plan (CAAP) has been prepared as a comprehensive roadmap to community sustainability and resilience. The purposes of the CAAP are to identify strategies and measures the City of Rancho Cordova (City) can take to reduce greenhouse gas (GHG) emissions to levels that align with the State of California's goals and set forth strategies to adapt and promote resilience to the impacts of climate change. See Chapter 2, "Project Description," for more detailed information.

9. Surrounding Land Uses and Setting:

The City is located within the eastern portion of Sacramento County, to the east of the City of Sacramento and to the west of the City of Folsom, along Highway 50. Mather Field Air Base is located along the southwest boundary of the City, and the Aerojet Rocket Testing Facility is located to the east. The northern boundary of the City is defined by the American River.

- 10. Other public agencies whose approval is required:** (e.g., permits, financing approval, or participation agreement)
None.

- 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

In compliance with PRC section 21080.3.1, the City provided formal written notification of the CAAP to following four Native American tribes on January 27, 2023: Lone Band of Miwok Indians; United Auburn Indian Community; Shingle Springs Band of Miwok Indians; and Wilton Rancheria. The notification letters were received by the tribes on January 30, 2023.

In response to the City's notification, the United Auburn Indian Community contacted the City via e-mail on February 28, 2023 to request additional information on how tribal cultural resources could potentially be affected by the CAAP. The City responded in writing on March 10, 2023, and received no further correspondence from United Auburn Indian

Community. In a letter dated March 10, 2023, the Shingle Springs Band of Miwok Indians requested that formal consultation be initiated. The City responded in writing on March 20, 2023, and received no further correspondence from the Shingle Springs Band of Miwok Indians. AB 52 consultation related to the CAAP is closed.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

Any environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as demonstrated by the analysis presented in the checklist on the following pages. If checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forest Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology / Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards / Hazardous Materials |
| ☐ Hydrology / Water Quality | ☐ Land Use / Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population / Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities / Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |
| | ☒ None | ☐ None with Mitigation Incorporated |

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☒ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☐ I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

Title

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The City is relatively flat and does not include any significant geologic features such as hills or ridges. However, the city is geographically situated between the Sierra Nevada Mountain Range and the California Coastal Mountain Range along the American River, and includes views of major peaks and natural landmarks within the region, including Mount Diablo. Additional qualified scenic vistas, as concluded in the City's General Plan, include Pine Hill, Flagstaff Hill, Pyramid Peak, Carson Spur, Jackson Butte, Mount Vaca, and Goat Mountain/Snow Mountain (City of Rancho Cordova 2006a). Other scenic resources within the Plan Area include, but are not limited to, oak trees, streams, creeks, and the American and Cosumnes Rivers (City of Rancho Cordova 2006b).

There are no State designated or eligible scenic highways or corridors within the Plan Area (Caltrans 2023). However, Highway 50 is a corridor that provides distant views of natural landmarks to passing motorists.

Light and glare conditions within developed portions of the Plan Area are typical of those associated with urban and suburban uses. The main sources of daytime glare in the Plan Area are from sunlight reflecting from structures with reflective surfaces such as windows, and from vehicles on major roadways. Nighttime lighting is prevalent throughout the Plan Area along roadways, parking lots, building perimeters and within residential areas. Areas with substantially less night-lighting include the sparsely developed and largely cultivated southeastern portion of the Plan Area. Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, as well as glass and other shiny reflective surfaces. Nighttime light illumination primarily consists of structured illumination, streetlights, and headlights of motor vehicles (City of Rancho Cordova 2006b).

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than significant. Important scenic vistas include the American River as well as distant views of the Sierra Nevada mountain range. Numerous scenic vistas of the American River are provided within the City at various public accesses within the American River Parkway and at river crossings at Watt Avenue, Sunrise Boulevard, and Folsom Boulevard (City of Rancho Cordova 2006b). Development within the American River Parkway is regulated via the provisions of the American River Parkway Plan (Sacramento County 2008).

The implementation of the CAAP would result in short-term and long-term changes to the physical environment. Long-term changes could include improvements at or near grade level of existing roadways, as well as minor changes to traffic intersections and walkways (through implementation of Transportation-1.3, -2.1, -2.2), planting of trees and shade-inducing vegetation (through implementation of Carbon Storage-1.1; Adaptation-2d, -1e), and would not otherwise involve new features of substantial height, bulk, or massing that could substantially damage scenic vistas. For example, implementation of Transportation-1.3, -2.1, and -2.2 could result in the installation of new walkways at the ends of existing cul-de-sacs, new and upgraded bikeways and walkways along existing developed roadways and rights-of-way in the city, and the installation of roundabouts to control traffic within the intersections of existing developed roadways.

During the short-term, temporary construction activities associated with the implementation of the CAAP, such as equipment use and staging of materials, would not result in permanent impacts to scenic vistas. Construction activities would vary depending on the type of CAAP measure. For example, Transportation-1.3, -2.1, -2.2, and Adaptation-5g may involve removing existing pavement; repaving roadway surfaces; painting or restriping pavement; modifying curbs; laying concrete, and installing traffic signals, lighting, landscaping, street furniture, and other amenities. Some of these improvements may require limited ground disturbance. Construction activities would be short-term and temporary, and would typically not involve equipment of substantial height, bulk, or massing that would alter existing scenic vistas. Because duration of these activities would be limited to relatively short periods of the overall construction phase, their temporary effect on scenic vistas would not be substantial. Additionally, the increase in planted trees and the development of new landscaping (Carbon Storage-1.1; Adaptation-2d, -1e) would offer a permanent visual improvement to the local surrounding area and would not result in a substantial effect on a scenic vista.

In addition, enforcement of the Rancho Cordova Municipal Code (RCMC) and the provisions of the American River Parkway Plan would avoid substantial damage to scenic vistas and degradation of public views. For example, RCMC Chapter 23.513 aims to strengthen the City's adopted street standards by making them architecturally compatible with development occurring within the city's centers and include new typologies that further facilitate the creation of a pedestrian-oriented street networks. Pursuant to RCMC Chapter 23.716, any new or existing projects that provide landscaping on public property are required to file an application for a permit with the City's Planning Director. Prior to the issuance of the permit, a final landscape plan shall be prepared by a registered licensed landscape architect and reviewed by the City to ensure consistency with City design standards and aesthetic conditions. Additionally, pursuant to the City's provisions to administer land use policy and development review within its jurisdiction of the American River Parkway Plan (e.g., Parkway Corridor Combining Zones, General Plan, and Parkway Plan policies), the implementation of softscaping such as trees along streets and sidewalks would assist in softening the built environment and reduce visual impacts to pedestrians. For all of the foregoing reasons, implementation of the CAAP would not have a substantial adverse effect on a scenic vista and the impact would be less than significant, and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Plan Area does not include and is not located proximate to a State or locally designated or eligible scenic highway and thus will not damage scenic resources such as trees, rock outcroppings, or historic buildings within the viewshed of such a highway. No impact would occur, and no mitigation is required.

- c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Less than significant. The implementation of the CAAP would result in short-term and long-term changes to the visual environment of the Plan Area. For example, installation of electric vehicle (EV) charging infrastructure (Transportation-5.1 through 5.4), development of roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), as well as new tree planting and increased landscaping (Carbon Storage-1.1; Adaptation-1e) could result in short-term and long-term changes to the visual character within the Plan Area. Long-term changes would include improvements at or near grade level of existing roadways and would involve minor changes to traffic intersections and parking lots, increase in trees and shade-inducing vegetation, and would not otherwise involve features with substantial height, bulk, or massing that could substantially damage the existing character or quality of public views. During the short-term, temporary construction activities associated with the implementation of the CAAP such as equipment use and staging of materials would not result in permanent impacts to scenic resources. Because duration of these activities would be limited to relatively short periods of the overall construction phase, their temporary effect on the visual character and quality of the city would not be substantial.

Additionally, implementation of Measure Adaptation-5i would develop a clean energy microgrid to serve essential City facilities to support resilient emergency operations. Project-specific details for a clean energy microgrid are not included in the CAAP, but a microgrid would typically include distributed energy sources such solar arrays and diesel generators to produce electricity, batteries to storage electricity, hardware and software to monitor and distribute electricity to the facilities in the event of a power outage on the electrical grid. Microgrid infrastructure is typically installed at or near the end users, which under implementation of the CAAP would result in the installation of improvements like solar arrays, generators, and battery systems on City properties that are home to essential facilities. Implementation of these improvements to provide essential City facilities with electricity during a power outage would be required to comply with applicable zoning and other regulations governing scenic quality.

In addition, enforcement of the RCMC and the City's implementing provisions of the American River Parkway Plan would avoid substantial damage to the visual character and quality of public views. For example, RCMC Chapter 23.513 aims to strengthen the City's adopted street standards by making them architecturally compatible with development occurring within the city's centers and include new typologies that further facilitate the creation of a pedestrian-oriented street networks. Pursuant to RCMC Chapter 23.716, any new or existing projects that provide landscaping on public property is required to file an application for a permit with the City's Planning Director. Prior to the issuance of the permit, a final landscape plan shall be prepared by a registered licensed landscape architect and reviewed by the City to ensure consistency with City design standards and aesthetic conditions. Additionally, pursuant to the provisions of the American River Parkway Plan and General Plan Policy NR.4.3, the implementation of softscaping along streets and sidewalks and the promotion of tree planting would soften the built environment and reduce visual impacts to motorists and pedestrians. For all the foregoing reasons, implementation of the CAAP would not substantially degrade the visual character or quality of public views of the city and its surroundings. This impact would be less than significant, and no mitigation is required.

- d) **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Less than significant. The implementation of the CAAP may result in the use of temporary lighting sources during construction of roadway improvement projects (Transportation-1.3; Transportation-2.1 through Transportation-2.3; Adaptation-5g) and installation of EV charging infrastructure (Transportation-5.1 through 5.4) in the event that nighttime construction is necessary. EV charging facilities facilitated by CAAP implementation could add minimal nighttime lighting, however it would not create new sources of substantial light or glare.

Implementation of the CAAP would not involve short- or long-term physical changes that could result in new substantial sources of light and glare. Furthermore, lighting associated with CAAP implementation would be generally low profile and angled down and away from nearby receptors.

Enforcement of the RCMC and the City's adopted Design Guidelines would regulate new sources of light and glare to avoid affecting day or nighttime views in the Plan Area during construction. For example, temporary lighting fixtures installed during roadwork and associated construction activities are regulated under the City's outdoor lighting provisions established by RCMC Chapter 23.725, and require the utilization of downcast and shielded lighting fixtures to minimize light pollution. Additionally, the City's Design Guidelines emphasizes the importance of planting trees and providing tactful landscaping to filter sunlight and reduce glare (City of Rancho Cordova 2005). The impact would be less than significant. No mitigation is required.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

3.2.1 Environmental Setting

The majority of the Plan Area is urbanized, specifically areas adjacent to and nearby Highway 50. The southeastern portion of the Plan Area supports predominantly unused grazing land, with approximately 46 percent designated for grazing and livestock uses. The Plan Area contains Prime Farmland, Farmland of Statewide Importance, and Unique Farmlands (City of Rancho Cordova 2006b).

3.2.2 Discussion

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Less than significant. The implementation of the CAAP would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, implementation of the CAAP would not involve changes to policies or regulations related to land use or zoning for agricultural uses. Given the nature of the CAAP, construction activities associated with the implementation would occur in already disturbed, developed areas such as roadways and parking lots that are not designated for Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Further, future projects would be required to comply with General Plan Policy LU.1.10 which directs the City to protect existing agricultural areas.

Implementation of the CAAP would not involve short- or long-term physical changes that could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

For all the foregoing reasons, implementation of the CAAP would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and the impact would be less than significant. No mitigation is required. Potential impacts related to conversion of forest lands are discussed in Section 3.2.2 e) below.

- b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

Less than significant. The implementation of the CAAP would not involve changes to policies or regulations related to land use or zoning for land under Williamson Act contract. Given the nature of the CAAP, construction activities associated with their implementation would occur in already disturbed, developed areas that are not in agricultural use nor under Williamson Act contract. Further, future projects would be required to comply with General Plan Policy LU.1.10 which directs the City to protect existing agricultural areas and conservation easement. Therefore, implementation of the CAAP would not conflict with existing zoning for agricultural use or a Williamson Act contract and the impact would be less than significant. No mitigation is required.

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. There are no lands currently used for timber production or management in the Plan Area, and no lands that have a zoning designation for timberland or forest land. Therefore, implementation of the CAAP would not conflict with existing zoning or cause rezoning any forest land, timberland, or timber land zoned for timberland production. Additionally, CAAP implementation would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur. No mitigation is required.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The City is in the Sacramento Valley Air Basin (SVAB), which includes all of Sacramento County and is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Regional and local air quality in the SVAB is affected by topography, dominant airflows, location, and season. The SVAB is bounded by the coastal ranges to the west and the Sierra Nevada to the east. Additionally, SVAB lies to the east of San Francisco Bay Area Air Basin and to the north of the San Joaquin Valley Air Basin. Considerable transport of pollutants occurs between these air basins, so that air quality in the city is partially determined by the release of pollutants elsewhere. The region is characterized by warm dry summers and mild winters. The prevailing wind direction is southwesterly, which is the wind direction when marine breezes flow through the Carquinez Strait. Marine breezes dominate during the spring and summer months and vary in strength. During fall and winter, when the sea breeze diminishes, northerly winds occur more frequently, but southwesterly winds still predominate. Pollutants generated in the city affect air quality in areas to the north and east. (City of Rancho Cordova 2006a).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}), and lead. The sources of criteria air pollutants and their respective acute and chronic health impacts are described in Table 3.3-1.

Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute ¹ Health Effects	Chronic ² Health Effects
Ozone	secondary pollutant resulting from reaction of ROG and NO _x in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO _x results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO ₂)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	irritation of upper respiratory tract, increased asthma symptoms	insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable particulate matter (PM ₁₀), Fine particulate matter (PM _{2.5})	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO ₂ and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

¹ "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

² "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Notes: NO_x = oxides of nitrogen; ROG = reactive organic gases.

Source: EPA 2022a.

TOXIC AIR CONTAMINANTS

According to the U.S. Environmental Protection Agency, diesel particulate matter (PM) contains complex mixture of microscopic solids and liquids comprised of various substances that can pose a risk to human health when inhaled (EPA 2022b). Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Odor sources of concern include wastewater treatment plants, landfill and composting facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, marijuana cultivation, coffee roasters, and food processing facilities.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. Individuals who are especially sensitive to pollutants are dispersed throughout the city.

FEDERAL AND STATE AIR QUALITY PLANNING

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and most recently amended by Congress in 1990. The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. CAA also requires each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for States with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish its own California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS.

Sacramento County is currently designated as nonattainment for ozone and PM 2.5 with respect to the NAAQS and for ozone and PM₁₀ with respect to the CAAQS (EPA 2023, CARB 2022).

The California Department of Resources Recycling and Recovery (CalRecycle) regulates solid waste disposal and composting facilities. All compostable material handling facilities and operations are required to comply with the State minimum standards set forth in California Code of Regulations (CCR) Title 14, Division 7, Chapter 3.1, Articles 5, 6, 7, 8, and 9. An odor impact minimization plan (OIMP) is required for facilities and operations as specified in 14 CCR section 17863.4. The CalRecycle minimum standard (14 CCR section 17867(a)(2)) for odor requires that "All handling activities shall be conducted in a manner that minimizes vectors, odor impacts, litter, hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms."

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local agency responsible for air quality planning in Sacramento County. SMAQMD develops and implements an air quality plan for attaining the NAAQS and CAAQS. The most recent air quality plan is the 2017 Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Sacramento Ozone Plan) that was last updated and approved by CARB in 2018. There are currently no plans established for achieving the NAAQS for PM_{2.5} or the CAAQS for PM₁₀. SMAQMD develops regulations and emission reduction programs to control emissions of criteria air pollutants, ozone precursors (oxides of nitrogen [NO_x] and reactive organic gases [ROG]), TACs, and odors within its jurisdiction.

SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (CEQA Guide), provides guidance to lead agencies preparing air quality impact analyses in CEQA documents (SMAQMD 2020). The CEQA Guide includes SMAQMD-recommended thresholds of significance for evaluation of air quality impacts of projects in Sacramento County, including significance criteria that are tied to achieving or maintaining the attainment of the NAAQS and CAAQS. For the purposes of this analysis, the following thresholds of significance, which are based on SMAQMD-recommended

thresholds, are used to determine whether project-generated emissions would result in impacts to air quality that result in adverse effects to human health. These significance thresholds are also consistent with the checklist questions about air quality in Appendix G of the CEQA Guidelines.

Air quality impacts would be significant if the project would:

- ▶ result in construction-generated emissions of NO_x exceeding 85 pounds per day (lb/day), PM₁₀ exceeding 80 lb/day or 14.6 tons/year, or PM_{2.5} exceeding 82 lb/day or 15 tons/year;
- ▶ result in operational emissions of ROG exceeding 65 lb/day, NO_x exceeding 65 lb/day, PM₁₀ exceeding 80 lb/day or 14.6 tons/year, or PM_{2.5} exceeding 82 lb/day or 15 tons/year;
- ▶ emit levels of CO that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm during construction and operations;
- ▶ expose any off-site sensitive receptor to a substantial incremental increase in TAC emissions greater than 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater; or
- ▶ create objectional odors affecting a substantial number of people.

In addition to these thresholds, all SMAQMD-recommended Best Management Practices (BMPs) and use of Best Available Control Technology (BACT) will be implemented to minimize emissions of PM₁₀ and PM_{2.5}. Without the application of BMPs and BACT, the threshold for allowable PM₁₀ and PM_{2.5} emissions during construction and operations is zero pounds per day.

3.3.2 Discussion

- a) **Conflict with or obstruct implementation of the applicable air quality plan?**
- b) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Less than significant. The applicable air quality plan for the City is the Sacramento Ozone Plan. The Sacramento Ozone Plan addresses attainment of the 8-hour NAAQS for ozone (CARB 2017). A project in the SVAB has the potential to conflict with the Sacramento Ozone Plan if the level of ozone precursor emissions associated with the project would be greater than that which was accounted for in the Sacramento Ozone Plan. Regional emission inventories in the Sacramento Ozone Plan are developed based on anticipated growth in population, housing, vehicle miles traveled (VMT), and other parameters, which are based on the zoning designations of local general plans. The analysis below focuses on whether implementation of the CAAP would increase population, employment, or VMT, above planned levels, as well as potentially result in exceedances of applicable thresholds for construction and operational emissions (see above).

Construction

Measures included as part of the CAAP that would result in the construction of new EV charging stations, public transportation-based access routes, building efficiency retrofits, roundabouts, bicycle infrastructure, and new rooftop and canopy-cover solar panels, (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, and Energy -1.1,-1.2) could require a temporary increase in the number of construction workers. These types of projects are small construction projects, which would not require a large construction crew. Furthermore, construction workers would likely be from the greater Sacramento region and permanent, substantial relocation of workers would not be required. Therefore, implementation of these measures would not result in substantial population growth, employment growth, or increase in VMT.

Implementation of the above measures, as well as other measures which would require construction activities for their implementation, would generate emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with off-road equipment use (i.e. excavators, front loaders, pavers, dump trucks, cranes, and backhoes), material and equipment delivery trips,

worker commute trips, and other miscellaneous activities. Fugitive dust emissions of PM₁₀ and PM_{2.5} would be associated primarily with site preparation and would vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM₁₀ and PM_{2.5} are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_x, would be associated primarily with construction equipment, such as those listed above, and on-road mobile exhaust from worker commutes and hauling and delivery trips. The application of architectural coatings would result in off-gas emissions of ROG. Construction activities would likely be relatively small in scale, occur intermittently and last for only short periods of time, as the CAAP does not propose the construction of large-scale land use development projects. Therefore, emissions from construction activities would not be concentrated in one area for an extended period of time, but rather occur intermittently across a large area. Additionally, Measure Off Road-1.2 would increase the electrification and use of alternative fuels, while Measure Off Road-2.2 would reduce construction vehicle idling time, further reducing construction related emissions. Due to the non-intensive, sporadic, and widespread nature of these construction activities, emissions of criteria air pollutants would likely not occur in concentrations which would exceed SMAQMD thresholds and would therefore be consistent with the goals of the Sacramento Ozone Plan.

Operations

Implementation of the CAAP would not induce population growth directly or indirectly, because the CAAP does not propose new housing, nor do they propose changes to policies or regulations related to land use or residential zoning. Rather, the CAAP is intended to reduce GHG emissions generated within the City by implementing numerous transportation-, water-, waste-, and energy-related measures. For example, the implementation of the CAAP would encourage the use of alternatively fueled vehicles through measures such as Transportation-5.2 which would involve the installation of publicly accessible EV chargers on private property. This would reduce overall gasoline and fuel consumption, therefore reducing emissions related to fossil fuel combustion. Other transportation-related measures such as Transportation-1.3 would reduce VMT in the City by improving street connectivity. Reducing VMT would reduce the emission of air pollutants by decreasing the consumption of fossil fuel in vehicles. Energy-related measures such as Energy-2.2 would reduce GHG emissions by requiring all new nonresidential development to achieve energy efficiency above minimum State building code requirements. While these reduction measures were formulated to reduce GHGs, they would also improve overall air quality by reducing the emission of criteria air pollutants. A higher proportion of buildings powered by all-electric systems (i.e., no natural gas plumbing) due to implementation of measure Energy-2.2 would reduce natural gas combustion at residential and commercial land uses within the Plan Area, which would also reduce local criteria air pollution. The effects associated with the reduction of air pollutant emissions in the Plan Area and SVAB would be largely beneficial and would, by nature, reduce the concentration of air pollutants. Therefore, operational activities under implementation of the CAAP would not result in the exceedance of SMAQMD thresholds and would be considered consistent with the goals of the Sacramento Ozone Plan.

Impact Summary

Air pollutant emissions resulting from construction activities associated with the implementation of the CAAP would likely be relatively small in scale, occur intermittently and last for only short periods of time and would therefore not exceed SMAQMD thresholds. Similarly, operational air pollutant emissions from CAAP implementation would likely result in a net decrease in criteria air pollutants and would therefore not result in emissions of criteria air pollutants which would exceed SMAQMD thresholds. Overall, the operational air quality benefits resulting from implementation of the CAAP, including reductions in gasoline fuel consumption due to increased use of zero emission vehicles and measures to reduce the rate of VMT and reduce consumption of natural gas within residential and commercial buildings would likely outweigh the contribution of pollutants from construction activities. For these reasons, construction and operation of the CAAP would not result in exceedances of the applicable local emissions thresholds and would therefore be consistent with the Sacramento Ozone Plan. This impact would be less than significant. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant. Provided below are analysis CO emissions, criteria air pollutant emissions, and TAC emissions.

Carbon Monoxide

The single largest source of CO within the City is motor vehicle engines. CO concentrations near roadways are a direct function of vehicle idling time and, thus, traffic flow conditions. The CAAP does not include new or modified land use designations that would increase traffic or have the potential to result in CO hotspots. The CAAP does not induce or otherwise result in any residential development that would result in regional population increases. The goal of the CAAP is to reduce GHG emissions in the Plan Area, including from passenger vehicles by measures that would increase the use of zero emission vehicles and decrease the rate of VMT, that would also have the co-benefit of reducing air pollutant emissions. Although there would be a temporary increase in vehicle trips related to construction worker commute and equipment delivery, implementation of the CAAP would not result in substantial long- or short-term vehicle trip generation at levels that would exceed the CAAQS for CO. Rather, the CAAP would include the implementation of measures (Transportation-1.1, -3.1, -3.4, -4.2, and -4.3) which would collectively reduce CO emissions resulting from vehicle trips by encouraging the use of alternatively fueled vehicles, increasing access to public transportation, and encouraging the use of alternative transportation such as biking. Measure Transportation-2.2 would reduce pollutant concentrations associated with vehicle idling by implementing roundabouts to control traffic at intersections, rather than the use of stop signs or traffic lights. Therefore, the CAAP would not create or contribute to a CO hotspot.

Criteria Air Pollutants

For the purposes of this analysis, the CAAP would not result in a significant localized and/or regional air quality impact such that human health would be adversely affected if it would cause construction-generated or operational criteria air pollutant or precursor emissions to exceed SMAQMD thresholds (see above under Criterion [a]).

The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures identified in the CAAP have the potential to directly or indirectly emit air pollutants. Emissions of PM₁₀, PM_{2.5}, NO_x, SO_x, CO, and VOCs would result from the use of construction equipment, construction worker vehicle trips, and truck hauling trips. Emissions of fugitive dust (PM₁₀ and PM_{2.5}) are largely associated with ground-disturbing activities, such as site preparation.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, Energy-1.1, -1.2, and Carbon Storage-1.1), would not involve substantial numbers of workers, ground disturbance, or extensive use of construction equipment. Occasional maintenance activities for these facilities and operational vehicle trips would be minimal; thus, associated operational criteria air pollutant emissions would also be minimal.

Measure Carbon Storage-1.1, mentioned above, would involve planting additional trees throughout the city. Tree planting is known to act as a filter for air pollution. While this would not prevent emissions from occurring, it would aid in removing them from the air.

Measures Solid Waste-1.1 and -1.2, which increase the recovery of edible food waste and eliminate the disposal of organic waste in landfills, respectively, could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. A substantial net increase in the number of haul truck trips and associated criteria air pollutant emissions within the Plan Area would not be anticipated.

Implementation of the other GHG reduction measures in the CAAP would not involve short- or long-term physical changes that could result in criteria air pollutant emissions. Additionally, the CAAP includes several GHG reduction measures that would also reduce the emission of air pollutants by reducing VMT such as implementing an intra-city shuttle system (Transportation-3.4), increasing transit ridership (Transportation-3.3), and limiting the number of drive-through businesses (Transportation-1.4). Therefore, implementation of the CAAP would not be expected to result in construction-phase or operational air pollutant emissions in exceedance of SMAQMD thresholds and would minimize the potential for exposing receptors to unhealthy concentrations of criteria air pollutants.

Toxic Air Contaminants

The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures that would be implemented with CAAP adoption have the potential to directly or indirectly emit TACs. The CAAP does not propose any stationary sources of TAC pollution and therefore diesel PM is the primary TAC of concern. CAAP measures would result in short-term diesel exhaust emissions from construction equipment and heavy-duty trips during construction. Diesel PM dissipates rapidly from the source, and exposure concentrations would decline with distance from construction activities (Zhu et al. 2002). The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70- or 30-year exposure period. However, such assessments should be limited to the period/duration of activities that generate TAC emissions (OEHHA 2015).

CAAP GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, Energy-1.1, -1.2, and Carbon Storage-1.1) could result in diesel PM emissions from the use of construction equipment and from the use of haul trucks to deliver materials. These types of construction activities would occur in residential and commercial areas, which include sensitive receptors such as residences, schools, playgrounds and hospitals. However, these activities would involve minimal use of heavy-duty diesel equipment and thus, diesel PM emissions would be minimal and temporary as well. Furthermore, the planting of trees (Carbon Storage-1.1) is known to filter pollutants in the air and would thus aid in removing emissions from construction activities as well as operational activities. It is unlikely that construction of such projects involving use of heavy-duty diesel equipment or vehicles would last for longer than one year, which is a short exposure period relative to the 30- or 70-year exposure timeframe recommended for health risk assessments.

Impact Summary

The CAAP would not create or change land use designations that would increase the number of vehicle trips or have the potential to result in CO hotspots. Additionally, the CAAP includes several GHG reduction measures (Transportation-1.1, -3.1, -1.4, -3.4, -4.2, and -4.3) that would reduce VMT such as implementing an intra-city shuttle system, increasing transit ridership, and limiting the number of drive-through businesses. Although there would be a temporary increase in vehicle trips related to construction worker commute and equipment delivery, the CAAP would not result in substantial long- or short-term vehicle trip generation at levels that could cause unhealthy concentrations of CO on nearby roadways. This impact regarding CO emissions would be less than significant.

GHG reduction measures that would result in new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting, would result in minor criteria air pollutant and TAC emissions during construction and beneficial long-term air quality impacts. It is unlikely that these types of activities would be of the size, intensity, or duration to exceed SMAQMD thresholds of significance or to emit substantial TAC concentrations. SMAQMD recommends these thresholds in consideration of achieving attainment for the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, these measures would not contribute to the exceedance of the NAAQS or CAAQS in the SVAB nor result in greater acute or chronic health impacts compared to existing conditions.

Measures Solid Waste-1.1 and -1.2, described above, could result in new haul truck routes or additional haul truck traffic in some areas, which may subject sensitive receptors to new or increased diesel PM emissions. However, these trips would likely be infrequent and would not involve the trucks idling for extended periods of time near sensitive receptors. Thus, increases in mobile-related TAC emissions would not result in substantial TAC exposure to any single receptor. Therefore, the CAAP would not expose receptors to substantial pollutant concentrations. This impact would be **less than significant**. No mitigation is required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant. The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development. However, implementation of some GHG reduction measures would result in temporary emissions of odors from construction activities such as asphalt paving and use of diesel-powered construction vehicles and equipment.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, Energy-1.1, -1.2, and Carbon Storage-1.1), would result in odorous emissions from construction equipment. For example, Measure Transportation-2.2, which involves the implementation of roundabouts, would result in asphalt paving. Measure Transportation-2.1 would result in the implementation of the City's Bicycle Master Plan to increase the number and quality of walkways and bikeways, which could involve asphalt paving. Although locations for some of these improvements have not been identified, these types of activities would generally occur in populated residential and commercial areas. However, these activities would occur sporadically and independent of one another across a large area and would involve minimal use of heavy-duty diesel equipment and thus, diesel PM emissions would be minimal, temporary, and each individual occurrence of construction activity would be highly localized. Furthermore, these emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Because odors would be temporary and would disperse rapidly with distance from source, construction-generated odors would not adversely affect a substantial number of people.

Measures Solid Waste-1.1 and -1.2, which increase the recovery of edible food waste and eliminate the disposal of organic waste in landfills, respectively, would generate odors through the anaerobic decomposition of composted waste that the City would divert from landfills and through increased haul truck trips to composting facilities. Compostable materials handling operations and facilities that would receive increased volumes of compostable waste from the Plan Area under implementation of Measures Solid Waste-1.1 and -1.2 are regulated by CalRecycle (e.g. landfill, composting, etc.) and required by State regulation (Title 14, California Code of Regulations, Section 17863.4) to have OIMPs in place to prevent odors from occurring and to identify the measures that should be taken if odors do occur. The hauling of increased volumes of compostable waste to facilities via truck would result in some odors associated with diesel exhaust but would not adversely affect substantial numbers of people.

Construction activities associated with implementation of the CAAP would result in temporary generation of odorous emissions. The specific locations and emissions of possible future projects implemented under the CAAP are not known at this time. Therefore, the precise odor impacts cannot be identified at this time. Factors necessary to identify specific impacts include location, operational characteristics, frequency and duration, and the location of sensitive receptors. However, given the temporary and intermittent nature of the impacts, and dissipation of odor, construction odor impacts would be less than significant. Measures Solid Waste-1.1 and -1.2, described above, would result in increased odors from the anaerobic decomposition of composted waste and haul truck trips to composting facilities. These impacts would be avoided through implementation of an OIMP, as required by State regulation. Therefore, the CAAP would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. This impact would be less than significant, and no mitigation is required.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

3.4.1 Environmental Setting

Land cover within the Plan Area is comprised of developed land, vegetation communities, and riparian and wetland communities. Developed land makes up the urban core of the Plan Area and is comprised of nonnative and ornamental vegetation. Vegetation communities occur in the eastern and southern portions of the Plan Area and primarily consist of pasture grassland and mixed riparian woodland. Riparian and wetland vegetation communities occur along water bodies within the Plan Area. Wetlands include areas where emergent vegetation is present within the drainage, as well as active springs and seeps where surface water is sufficient to support hydrophytic vegetation. Vernal pools, a wetland associated habitat type, are spread throughout much of the Plan Area and are known to support several federally listed plant and wildlife species. Approximately 20,728 acres of vernal pool grasslands exist within the Plan Area (City of Rancho Cordova 2006b).

Undeveloped areas within the Plan Area support an array of reptiles, amphibians, birds, and small mammals. The Plan Area supports eight special-status plant species and 29 special-status wildlife species, including the federally threatened vernal pool fairy shrimp, the elderberry longhorn beetle, and the threatened State listed Swainson's hawk and Bank swallow (City of Rancho Cordova 2006b).

Wildlife movement primarily occurs within undeveloped northeastern and southern portions of the Plan Area. However, wildlife movement also occurs within the developed core of the Plan Area along the American River. Wildlife movements also occur along riparian creeks and drainage corridors including Morrison Creek, Laguna Creek, Deer Creek, Buffalo Creek, Carson Creek, and some tributaries (City of Rancho Cordova 2006b).

The South Sacramento Habitat Conservation Plan (SSHCP), adopted by the County of Sacramento in 2018, is a comprehensive, multiple jurisdictional sub-regional habitat planning program designed for southern Sacramento County. The Planning Area encompasses approximately 317,655 acres within south Sacramento County, including the portion of the Rancho Cordova, south of U.S. Highway 50. The SSHCP ensures preservation of species, natural communities, and aquatic resources in the Plan Area; while providing an improved environmental permitting process for projects that impact listed species, listed species habitats, or aquatic resources. The South Sacramento Conservation Agency (SSCA) implements the SSHCP. The SSCA is responsible for ensuring compliance with the terms of the SSHCP (SSHCP 2018).

3.4.2 Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Less than significant. The implementation of CAAP would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the measures included in the CAAP, construction activities associated with its implementation would occur in already disturbed developed areas such as roadways and parking lots that lack natural habitat and where candidate, sensitive, or special-status species or their habitats are not present. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy NR.1.1 which directs the City to support the protection of rare, threatened, and endangered species and their habitats, and Policy NR.1.9 which directs the city to ensure that future development maintains the biotic habitat value of riparian areas. Further, the City will implement policies included in the County's SSHCP which identifies conservation areas and protected species.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to special-status species and their habitat to the extent feasible in compliance with CEQA Guidelines section 15126.4. In general, facilities associated with CAAP implementation would occur in more urbanized areas that could involve the removal of largely landscape trees and other vegetation and would not generally require the removal of native vegetation. Impacts would be minimized through implementation of the City's General Plan policies and the SSHCP described above. In addition, federal and State requirements would be adhered to, and project-specific measures that take into consideration site specific habitat conditions would be implemented to conserve, protect, and preserve special-status species and their habitat. For all of the foregoing reasons implementation of the CAAP measures would not cause a substantial adverse direct and indirect effects to special-status species. This impact would be less than significant. No mitigation is required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than significant. The implementation of CAAP measures would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the measures included in the CAAP, construction activities associated with its implementation would occur in already disturbed developed areas such as roadways and parking lots that lack natural habitat and where riparian habitat or other sensitive natural communities are not present. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy NR.1.1 which directs the City to support the protection of rare, threatened, and endangered species and their habitats, and Policy NR.1.9 which directs the city to ensure that future development maintains the biotic habitat value of riparian areas.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to riparian habitat or other sensitive natural community to the extent feasible in compliance with CEQA Guidelines section 15126.4. In general, facilities associated with CAAP implementation would occur in more urbanized areas that could involve the removal of largely landscape trees and other vegetation and would not generally require the removal of native vegetation. Impacts would be minimized through implementation of the City's General Plan policies described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve riparian habitat and sensitive natural communities. For all of the foregoing reasons, implementation of the CAAP measures would not cause a substantial adverse direct and indirect effects to riparian habitat or other sensitive natural community. This impact would be less than significant. No mitigation is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than significant. The implementation of CAAP measures would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the measures included in the CAAP, construction activities associated with its implementation would occur in already disturbed developed areas such as roadways and parking lots where protected wetlands are not present. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy NR.1.1 which directs the City to support the protection of rare, threatened, and endangered species and their habitats, and Policy NR.1.9 which directs the city to ensure that future development maintains the biotic habitat value of riparian areas. Further, RCMC Section 16.44.150(D) states that a grading permit shall not be issued for areas where proposed activity will adversely affect the water quality of watercourses and existing drainage unless the City's Planning Commission has found such grading is necessary.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to protected wetlands to the extent feasible in compliance

with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and RCMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve wetlands. For all of the foregoing reasons, implementation of the CAAP measures would not cause a substantial adverse direct and indirect effects to wetlands. This impact would be less than significant. No mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than significant. The implementation of CAAP measures would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the measures included in the CAAP, construction activities associated with its implementation would occur in already disturbed developed areas such as roadways and parking lots where wildlife corridors are not present. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy NR.1.1 which directs the City to support the protection of rare, threatened, and endangered species and their habitats, and Policy NR.1.9 which directs the city to ensure that future development maintains the biotic habitat value of riparian areas. Further, the City will implement policies included in the County's SSHCP which identifies conservation areas and protected species.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to wildlife corridors to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and the SSHCP described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve wildlife corridors. For all of the foregoing reasons, implementation of the CAAP measures would not cause a substantial adverse direct and indirect effects to wildlife corridors. This impact would be less than significant. No mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant. The implementation of CAAP measures would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the measures included in the CAAP, construction activities associated with its implementation would occur in already disturbed developed areas such as roadways and parking lots where protected biological resources are not present. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy NR.1.1 which directs the City to support the protection of rare, threatened, and endangered species and their habitats, and Policy NR.1.9 which directs the city to ensure that future development maintains the biotic habitat value of riparian areas. Pursuant to RCMC 19.12.050, any person desiring to remove a tree is required to file an application with the City's Planning Director.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to protected biological resources to the extent feasible in compliance

with CEQA Guidelines section 15126.4. In general, facilities associated with CAAP implementation would occur in more urbanized areas that could involve the removal of largely landscape trees and other vegetation and would not generally require the removal of native vegetation. Impacts would be minimized through implementation of the City's General Plan policies and SMMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve riparian habitat and sensitive natural communities. For all of the foregoing reasons, implementation of the CAAP measures would not conflict with local policies or ordinances protecting biological resources. This impact would be less than significant. No mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than significant. The SSHCP was adopted in 2018, and the City is an active participant in the program including the conservation planning efforts involved. The City complies with the conservation policies identified in the SSHCP and will use the SSHCP as an implementation tool for future projects. Further, implementation of CAAP measures that would involve ground disturbing activities, including grading and excavation, would occur in already disturbed, developed areas such as roadways and parking lots. Therefore, CAAP measures would not conflict with provisions of the SSHCP. This impact would be less than significant. No mitigation is required.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

CEQA defines historic resources as those that are listed on, or determined to be eligible for listing on, the California Register of Historical Resources (CRHR) or a local register, or are otherwise determined to be historical pursuant to CEQA (PRC Section 21084.1) or CEQA Guidelines (CCR Title 14, Section 15064.5). The CRHR also includes properties formally determined eligible or listed in the National Register of Historic Places (PRC Section 5024.1). A historic resource may be an object, building, structure, site, area, place, record, or manuscript that is historically significant or significant in terms of California's architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records (PRC Section 5020.1(j)). Typically, historic resources are more than 50 years old. There are 23 identified historic architectural resources within the Plan Area. These sites are generally related to the development of transportation networks and agriculture, and also include historic buildings such as the Pfingst Realty building and the American River Grange Hall (City of Rancho Cordova 2006b).

Archaeological resources may be considered historic resources or, if not, they may be determined to be "unique" as defined by CEQA (PRC Section 21083.2(g)). A "unique archaeological resource" is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person. There are eight prehistoric sites and one prehistoric/historic site within the Plan Area, located primarily along the American River and creeks. Several of these sites are known to contain human remains (City of Rancho Cordova 2006b).

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than significant. Implementation of the CAAP would involve improvements to or near properties that contain listed or eligible historical resources. For example, installation of EV charging infrastructure (Transportation-5.1 through 5.4), development of a building retrofit program, (Adaptation-5m), and installation of alternatively-fueled water heaters (Energy-1.1, -1.2). The implementation of measures that involve ground disturbance, including grading

and excavation, would not involve the demolition, destruction, alteration, or structural relocation of a historical resource. Energy efficiency improvements and building retrofits would involve minor changes to the exterior (e.g., rooftop solar panels) or interior (e.g., water heating and space heating and cooling systems) of existing buildings, and would not otherwise involve features with substantial height, bulk, or massing that could substantially cause an adverse change to a historic resource.

The implementation of any measures that involves listed or eligible historical resources would be required to comply with existing federal, State, and local regulations that protect historical resources and undergo the City's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA that would ensure that identified resources are appropriately protected. For example, following the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings would ensure that implementation of any measures involving historical resources, such as promoting building retrofits to include climate resilience (Adaptation-5m) would not adversely change the historical resource. Compliance with the 2022 California State Historical Building Code (RCMC Chapter 16.05) would protect from substantial adverse change to historic structures included on the national or State registers of historic places. Additionally, these projects would be required to comply with applicable requirements in the City's *Design Guidelines*, including standards for construction and maintenance of curbs, sidewalks, and roads while preserving the historical nature of the city (City of Rancho Cordova 2005). Implementation of the other measures included in the CAAP would not involve short- or long-term physical changes that could cause a substantial adverse change in the significance of a historical resource.

For all of the foregoing reasons, implementation of the CAAP would not cause a substantial adverse change in the significant of a historical resource. This impact would be less than significant. No mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation, in which archaeological resources could be encountered. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). Because ground disturbance would be limited to shallow depths, comprised of artificial fill or previously disturbed soils, archaeological resources are unlikely to be encountered. In addition, construction activities associated with CAAP implementation would occur in already disturbed developed areas such as roadways and parking lots. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects.

Implementation of the other measures included in the CAAP would not involve short- or long-term physical changes that could cause a substantial adverse change in the significance of an archaeological resource. In general, facilities associated with CAAP implementation would occur in more urbanized areas that would involve development within previously disturbed areas. However, depending on the depth of excavation with certain facilities, disturbance of native soils may be necessary.

The exact locations of physical activities implementing the CAAP are unknown at this time; however, they would be required to comply with General Plan Policy CHR.1.3 ensuring that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements, and Policy CHR.1.2 which directs the City to identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA. In addition, enforcement of General Plan EIR (State Clearinghouse No. 2005022137) mitigation measures would reduce impacts to archaeological resources. Specifically, General Plan EIR Mitigation Measure 4.11.2 which directs the City to require the preparation of a literature study and records search prior to any ground disturbing activity to determine whether the project area has been previously surveyed and whether cultural resources were identified. Further, General Plan Policy

CHR.1.3 directs the City to require a qualified archaeologist to evaluate any cultural resources discovered during site construction activities, and a Tribal monitor will accompany a qualified archeologist to identify, and determine the significance of, cultural resources and/or sacred lands. For all the foregoing reasons, the implementation of CAAP measures would not result in substantial adverse change in the significance of an archaeological resource. Therefore, the impact would be **less than significant**. No mitigation is required.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less than significant. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation, could, depending on their location, encounter human remains interred outside formal cemeteries. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). Because ground disturbance would generally be limited to previously disturbed soils and would occur at shallow depths, human remains are unlikely to be encountered. Implementation of the other measures included in the CAAP would not involve short- or long-term physical changes that could disturb human remains.

Location of grave sites and Native American remains can occur outside identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within future project sites and could be encountered during construction activities.

California recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Codes Sections 7050.5 and 7052 and Public Resource Code (PRC) Section 5097.

These statutes require that, if human remains are discovered during construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the County coroner and Native American Commission (NAHC) shall be notified immediately, in accordance with PRC Section 5097.98 and California Health and Safety Code Section 7050.5. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94. Compliance with California Health and Safety Code Sections 7050.5 and 7052, and PRC Section 5097 would avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. In addition, future activities implementing the CAAP would be required to comply with General Plan Policy CHR.1.3 which directs the City to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements. Therefore, implementation of the CAAP would not disturb humans remains, including those interred outside of formal cemeteries. This impact would be less than significant. No mitigation is required.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Environmental Setting

Sacramento Municipal Utility District (SMUD) is a community-owned electric utility that provides energy service to approximately 645,000 people within a 900-square-mile service area that encompasses most of Sacramento County, as well as portions of Placer and Yolo Counties, including the City (SMUD 2023). SMUD obtains electricity from a variety of sources, including SMUD-owned facilities and other private and publicly owned facilities that provide electricity through contracts and agreements. In 2021, SMUD sourced approximately 30 percent of its electricity from eligible renewables (i.e. biomass/biowaste, geothermal, eligible hydroelectric, solar, and wind), 18 percent from large hydroelectric, 51 percent from natural gas, 0.8 percent from nuclear, and 0.6 percent from other and unspecified sources. SMUD has also committed to eliminating 100 percent of GHG emissions from the electricity it generates by 2030 through the 2030 Zero Carbon Plan (SMUD 2021).

FEDERAL REGULATIONS

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

STATE REGULATIONS

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

The CEC, CPUC, and now defunct Consumer Power and Conservation Financing Authority prepared the first State of California Energy Action Plan (EAP) in 2003 to establish shared goals and specific actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers.

The plan was updated in 2005 and 2008 to address policy the emerging importance of climate change, transportation-related energy issues, and research and development activities.

Executive Order B-18-12

Executive Order (EO) B-18-12, which was signed by Governor Brown in 2012, proclaims that State agencies take actions to reduce entity-wide GHG emissions by at least 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline. This order also directed State agencies to use clean onsite power generation to the extent feasible and to obtain LEED "Silver" certification or higher for any new or substantially renovated structure larger than 10,000 square feet.

Title 24 California Building Code

California Energy Code

Title 24 CCR Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings (California Energy Code). The California Energy Code consists of energy and water efficiency requirements for the construction of new buildings as well additions and alterations to existing buildings (CEC 2022). The CEC adopted the most recent California Energy Code (2022) on August 11, 2021.

California Green Building Standards

Part 11 of Title 24 is the California Green Building Standards Code (CALGreen) which consists of mandatory regulations pertaining to both residential and non-residential building efficiency standards for energy efficiency, water efficiency, material conservation and resource efficiency, and environmental quality. (DGS 2022). The most recent version of the CALGreen code (2022) became effective January 1, 2023.

Transportation-Related Regulations

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. The current plan for the Sacramento Area Council of Governments (SACOG) is the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (2020 MTP/SCS) which was adopted on November 18, 2019. Through the implementation of this plan SACOG aims to reduce GHG emissions from passenger vehicles by 19 percent in 2035 (CARB 2018).

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles (ZEVs), into a single package of regulatory standards for vehicle model years 2017– 2025. The new regulations strengthened the GHG standards for 2017 models and beyond. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025. In August 2022, CARB adopted the ACC II program, which sets sales requirements for ZEVs to ultimately reach the goal of 100 percent ZEV sales in the State by 2035.

GHG Reduction Regulations

Several regulatory measures such as AB 32, EO B-30-15, SB 32, AB 197, and most recently, AB 1279, were enacted to reduce GHGs and have the co-benefit of reducing California's dependency on fossil fuels and making land use

development and transportation systems more energy efficient. CARB adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) in December 2022, which provides the framework for meeting the state's ambitious GHG reduction targets of reducing GHG emissions 85 percent below 1990 levels and achieving carbon neutrality by 2045 (CARB 2022).

Renewable Energy Regulations

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

3.6.2 Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than significant. Provided below are analyses of energy consumption related to construction and operational activities.

Construction

Implementation of the CAAP would result in the consumption of energy resources during construction. GHG reduction measures that would result in new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, Energy-1.1, -1.2), would consume energy resources such as electricity, fuels, and non-renewable resources during construction. These types of projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. However, workers would likely be located within the Sacramento region and would not require extended commutes to reach construction sites. Construction equipment may also be used during installation of these facilities and features, construction equipment (e.g., backhoes, front loaders, bulldozers and skid steers), but it is likely that this equipment would be used intermittently and for relatively short periods of time. Additionally, Measures Off Road-2.1 and -2.2 would promote the use of alternative fuel in construction equipment and limit construction vehicle idling time, respectively. Demand for energy resources during construction would vary throughout the construction period and would generally cease upon completion of construction.

Measure Carbon Storage-1.1 would increase tree planting in areas such as parks, public gathering places and along sidewalks and bike paths. This would likely not require heavy equipment but could result in a small amount of fuel consumption when delivering trees.

Operations

Occasional operational maintenance activities for facilities and features above may be required with implementation of the CAAP. However, these trips would be infrequent and therefore operational vehicle trips would be minimal; thus, associated operational fuel consumption would also be minimal.

Implementation of the CAAP would improve operational energy efficiency and reduce the use of fossil fuels through measures which reduce VMT and encourage EV use, as well as measures which facilitate the increased generation and utilization of renewable energy. For example, measures such as Transportation-5.2 and -5.3 would involve the installation of publicly accessible EV chargers on private property as well as public property, respectively, while other transportation-related measures such as Transportation-1.3 would reduce VMT in the City by improving street connectivity. Measures pertaining to EV charging, such as Transportation-5.2 and -5.3 described above, would increase the use of electricity. However, these measures would reduce the consumption of fossil fuels. Energy-related measures such as Energy-2.2 would reduce GHG emissions and decrease operational energy consumption by requiring all new nonresidential development to achieve energy efficiency above minimum State building code requirements.

Measures Solid Waste-1.1 and -1.2, which increase the recovery of edible food waste and eliminate the disposal of organic waste in landfills, respectively, could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. Therefore, no net change in energy consumption is anticipated.

Measure Carbon Storage-1.1 would increase tree planting in areas such as parks, public gathering places and along sidewalks and bike paths, and would therefore indirectly involve minor electricity consumption associated with conveyance and treatment of water used for irrigation.

Collectively, these measures are intended to reduce the urban heat island effect, reduce consumption of gasoline and diesel fuels, and reduce the amount of energy consumed for cooling in the summer. Therefore, these projects would be considered necessary and beneficial uses of energy resources. Implementation of the other GHG reduction measures and adaptation strategies in the CAAP would not involve short- or long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption.

Impact Summary

The goal of the CAAP is to reduce GHG emissions generated within the Plan Area by using alternatively fueled vehicles, reducing VMT, generating and utilizing renewable energy, reducing waste generation, and increasing carbon sequestration. The CAAP also sets forth actions to adapt to climate change hazards including extreme heat, drought, flooding, and wildfires. Although implementation of the CAAP would result in temporary construction activities that would consume energy resources, standard best management practices would discourage unnecessary idling and the operation of poorly maintained equipment during construction. Moreover, while GHG reduction measures were formulated to reduce GHGs, many would improve energy efficiency and decrease reliance on fossil fuels. Thus, implementation of the CAAP would not result in wasteful, inefficient, or unnecessary consumption of energy, during project construction or operation. This impact would be less than significant. No mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less than significant. The goals and measures included in the CAAP are being developed in consideration of the long-term GHG reduction goals of the 2022 Scoping Plan, especially those pertaining to energy utilization and generation. Additionally, the CAAP includes the Priority GHG Reduction Strategies outlined in the 2022 Scoping Plan. These measures, which focus on transportation electrification and VMT reduction, are intended to provide local jurisdictions with impactful GHG reduction strategies that can be implemented by local governments (CARB 2022). Measures included in the CAAP such as Energy-1.1, -1.2, -2.1, and -2.2 collectively reduce the demand and usage of fossil fuels in both residential and nonresidential applications by retrofitting existing buildings to improve energy efficiency, requiring that new residential development be all-electric and zero-net-energy (ZNE), and that new nonresidential development exceed State building code requirements for energy consumption. Additionally, the CAAP would encourage the use of alternatively fueled vehicles through the implementation of measures such as Transportation-5.2 which would involve the installation of publicly accessible EV chargers on private property. Other transportation-related measures such as Transportation-1.3 would reduce VMT in the City by improving street connectivity. While the construction required to implement these measures may require some energy consumption, ultimately the measures would improve energy efficiency and reduce fossil fuel consumption. Measures Off Road-2.1

and -2.2 would promote the use of alternative fuel in construction equipment and limit construction vehicle idling time, respectively, reducing the consumption of gasoline and diesel fuel. Therefore, construction associated with implementation of the CAAP would not obstruct achievement of the energy efficiency and GHG reduction goals outlined in the 2022 Scoping Plan.

The EAP, which focuses on energy efficiency; demand response; renewable energy; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets would also be relevant to the implementation of the CAAP (CEC and CPUC 2008). As discussed above in Criterion (a) although implementation of the CAAP would consume energy resources during construction and operation, GHG reduction measures such as Energy-1.1, -1.2, -2.1, and -2.2, Transportation-1.3, and -5.2 (described above) would increase energy efficiency and use of renewable energy while also acting to conserve energy and reduce reliance on fossil fuels. Measures to increase energy efficiency, support the conversion from gasoline or diesel to electricity or alternative fuels, and increase the supply of renewable energy would directly support EAP goals and strategies. Lastly, all GHG-related measures within the CAAP would support the EAP's goal of achieving GHG reduction targets because the CAAP is intended to reduce GHG emissions generated within the Plan Area. Therefore, the CAAP would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be less than significant. No mitigation is required.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

The City is located within the Great Valley geomorphic province, which is characterized by thick, Jurassic through Holocene aged sedimentary deposits. Elevations range from several feet below mean sea level to more than 1,000 feet above sea level. Underlying geologic formations consist of alluvial gravel, sand, and silt derived from the western slopes of the Sierra Nevada Range. The youngest geomorphic features in the Plan Area are low floodplains, which are found primarily along the American River and Cosumnes River (City of Rancho Cordova 2006b).

There are no known active fault lines within the Plan Area and the potential for surface fault displacements is considered low. The Plan Area is not located within an Alquist-Priolo Fault Zone, liquefaction zone, or landslide zone (DOC 2023).

Expansive soils are deposited in a loose, highly porous State, then harden and remain dry after deposition. Upon contact with moisture, the weak cementation between the loose soil particles softens and can result in settlement or collapse. Expansive soils, with high shrink-swell characteristics, are known to occur within the Plan Area (City of Rancho Cordova 2006b).

The Great Valley province is bounded by the Klamath and Cascade mountain ranges to the north, the Sierra Nevada Mountains to the east, and the California Coast Mountain Range to the west. The geologic units that underlie the area consist mostly of Cenozoic Quaternary gravelly alluvial and glacial deposits from the American River, which date back to the mid Pleistocene age or approximately 600,000 years. Paleontological resources are not known to occur within these geologic units; however fossil localities have been identified in the Riverbank Formation (City of Rancho Cordova 2006b).

3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

No impact. There are no delineated Alquist-Priolo Earthquake Fault Zones within the Plan Area. Therefore, measures that would be implemented as part of the CAAP would not cause substantial adverse effects related to the rupture of a known earthquake fault. No impact would occur. No mitigation is required.

- ii) **Strong seismic ground shaking?**

No impact. There are no delineated Alquist-Priolo Earthquake Fault Zones or other potentially active faults that have been mapped within the Plan Area. Furthermore, CAAP implementation would not include the construction of habitable structures and development of CAAP-related structures would occur within already developed areas where the necessary ground compaction and other seismic considerations have already been taken into account. Thus, implementation of the CAAP would not exacerbate hazards to people or property from strong seismic ground shaking. No impact would occur. No mitigation is required.

- iii) **Seismic-related ground failure, including liquefaction?**

No impact. There are no liquefaction zones identified within the Plan Area. Furthermore, liquefaction and other seismic-related ground failure events primarily affect structures. Because CAAP implementation would not result in construction of habitable structures and development of CAAP-related structures would occur within already developed areas where the necessary ground compaction and other seismic considerations, including liquefaction, have already been taken into account. Thus, implementation of the CAAP would not exacerbate hazards to people or property from seismic-related ground failure, including liquefaction, no impact would occur. No mitigation is required.

- iv) **Landslides?**

No impact. There are no landslide zones identified within the Plan Area or steep slopes. In addition, CAAP implementation would not occur on steep slopes or require substantial ground disturbing activities that could cause a landslide. No impact would occur. No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant. Implementation of the CAAP would involve minor ground disturbing activities, including grading and excavation, could, depending on their location, cause soil erosion and loss of topsoil. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts, upgraded walkways, and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the CAAP, construction activities associated with the implementation would occur in already disturbed, developed areas such as roadways and parking lots. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Additionally, CAAP measures involving disturbance of one or more acres would be required to comply with a project-specific storm water pollution prevention plan (SWPPP) that complies with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (Order 2009-0009-DWQ). The SWPPP would identify erosion and sediment controls to substantially reduce the amount of soil disturbance, erosion, and sediment transport into receiving waters during construction. Through compliance with applicable requirements, measures that would be implemented as part of the CAAP would not result in substantial soil erosion or the loss of topsoil. For all the foregoing reasons, implementation of the CAAP would not result in substantial soil erosion or the loss of topsoil. This impact would be less than significant. No mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

No impact. There are no delineated Alquist-Priolo Earthquake Fault Zones, landslide zones, or liquefaction zones identified within the Plan Area. Furthermore, CAAP implementation does not include construction of habitable structures and development of CAAP-related structures would occur within already developed areas where the necessary ground compaction and other seismic considerations, including geologic unit or soil type, have already been taken into account. Thus, implementation of the CAAP would exacerbate the risk of lateral spreading, subsidence, liquefaction, or collapse. No impact would occur. No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

No impact. Expansive soils are known to occur within the Plan Area; however, CAAP implementation does not include construction of habitable structures that could be affected by soil expansion and development of CAAP-related structures would occur within already developed areas where the necessary ground compaction and other seismic considerations have already been taken into account. Therefore, CAAP implementation would not create substantial risks to life or property from expansive soils. No impact would occur. No mitigation is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. CAAP implementation does not include installation of any septic tanks or alternative wastewater disposal systems. As a result, no impact would occur. No mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant. The Plan Area is located within the Great Valley geomorphic province. The geologic units that underlie the area consist of aged sedimentary deposits that date back roughly 160 million years. Paleontological resources include continental and marine sediments, which consist of moderate paleontological sensitivity (CGS 2002). Thus, measures that involve ground disturbing activities could be implemented in areas underlain by

potentially unique paleontological resources. Measures that would be implemented as part of the CAAP would involve minor grading, excavation, and other ground disturbance during construction. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts, upgraded walkways, and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the CAAP, construction activities associated with the implementation would occur in already disturbed, developed areas such as roadways and parking lots. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. Ground disturbance would generally be limited to shallow depths, comprised of artificial fill or previously disturbed soils, within developed roadways and urbanized areas; paleontological resources are unlikely to be encountered during the types of ground-disturbing activities that would occur during CAAP implementation. Furthermore, CAAP measures would be consistent with General Plan Policy CHR.1.3, which call for the preservation of important cultural and paleontological resources that contribute to the unique identity and character of the City. General Plan Policy CHR.1.2 encourages the preservation of significant cultural and paleontological resources listed on the national, state, or local registers through maintenance or development of appropriate ordinances that protect, enhance, and perpetuate resources; incentive programs; and/or the development review process (City of Rancho Cordova 2006a). For all the foregoing reasons, the CAAP would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This impact would be **less than significant**. No mitigation is required.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of CO₂ are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known, but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of the CEQA, GHG impacts relative to global climate change are inherently cumulative.

Although there is strong scientific consensus that global climate change is occurring and is influenced by human activity, there is less certainty as to the timing, severity, and potential consequences of the climate phenomena. Scientists have identified several ways in which global climate change is anticipated to alter the physical environment in California (CNRA 2012, DWR 2006, IPCC 2007). These include:

- ▶ increased average temperatures;
- ▶ modifications to the timing, amount, and form (rain vs. snow) of precipitation;
- ▶ changes in the timing and amount of runoff;
- ▶ reduced water supply;
- ▶ deterioration of water quality; and
- ▶ elevated sea level.

FEDERAL REGULATORY SETTING

The EPA is the federal agency responsible for implementing the federal CAA and its amendments. EPA has taken steps to regulate GHG emissions and lent support for State and local agencies' efforts to reduce GHG emissions. In October

2012, EPA and the National Highway Traffic Safety Administration, issued rules to reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 FR 62624).

STATE REGULATORY SETTING

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). AB 1279 requires California to achieve “net zero greenhouse gas emissions” as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. It also requires that statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels by 2045. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015).

CARB adopted the 2022 Scoping Plan on December 16, 2022 (CARB 2022). It identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The 2022 Scoping Plan traces the pathway for the state to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top-down, bottom-up approach under various scenarios.

CARB and other state agencies also released the *January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan* consistent with the carbon neutrality goal of Executive Order B-55-18 (California Environmental Protection Agency et al. 2019).

The state has also passed more detailed legislation addressing GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles than EPA. In addition, the program’s zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California’s new vehicle sales by 2025. In August 2022, CARB adopted the ACC II program, which sets sales requirements for ZEVs to ultimately reach the goal of 100 percent ZEV sales in the state by 2035.

Executive Order B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen-fueling stations and 250,000 EV-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity (CI) of California’s transportation fuels. Low-CI fuels emit less CO₂ than other fossil fuel-based fuels such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to develop and adopt sustainable communities strategies (SCSs) as a component of the federally-prepared regional transportation plans (RTPs) to show reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035 (CARB 2018b). These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for the Sacramento region. The current plan for the Sacramento Area Council of Governments (SACOG) is the 2020 Metropolitan Transportation Plan/Sustainable

Communities Strategy (2020 MTP/SCS) which was adopted on November 18, 2019. Through implementation of this plan, SACOG aims to reduce GHG emissions from passenger vehicles by 19% in 2035 (CARB 2018a).

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. As required by the Renewable Portfolio Standard (RPS), California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code. The code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years, typically including more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2022 California Energy Code went into effect on January 1, 2023. The 2022 California Energy Code advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar photo voltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million MTCO_{2e} over the next 30 years (CEC 2021).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandatory codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. As compared to the 2019 CalGreen Code, the 2022 CalGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CalGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by state agencies for meeting the requirements of Executive Order B-18-12.

LOCAL

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in Sacramento County. SMAQMD also recommends measures for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SMAQMD developed thresholds of significance in line with State GHG reduction goals to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA and SB 32. SMAQMD's goals in developing GHG thresholds include ease of implementation; use of standard analysis tools; and emissions mitigation consistent with SB 32 (SMAQMD 2020). It should be noted that SMAQMD thresholds are modeled after Bay Area Air Quality Management District thresholds, which were developed in line with the AB 1279, which requires California to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. It also requires that statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels by 2045. Therefore, SMAQMD thresholds are aligned with AB 1279. Based on SMAQMD's guidance, which includes a tiered approach to determining project significance, a project would result in a cumulatively considerable contribution to climate change if it would:

Construction

Result in construction emissions that exceed 1,100 MT CO₂e/year.

Operation

Be inconsistent with the Climate Change Scoping Plan by not implementing applicable BMPs or equivalent on/off site mitigation. The following tiered approach shall be used to determine consistency:

- ▶ Tier 1 BMPs (BMP 1 & 2)
 - Projects shall be designed and constructed without natural gas infrastructure.
 - Projects shall meet the current CalGreen Tier 2 EV charging standards (i.e., 10 percent of all parking spaces to be EV-ready).
 - After Tier 1 standards are met, do the project's emissions exceed 1,100 MT CO₂e/year?
- ▶ Tier 2 (BMP 3)
 - Residential projects shall achieve a 15 percent reduction in VMT per resident and office projects shall achieve a 15 percent reduction in VMT per worker compared to existing average VMT for the county, and retail projects shall achieve no net increase in total VMT to show consistency with SB 743.

3.8.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant. The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures and adaptation actions that would be implemented with CAAP adoption have the potential to directly or indirectly emit GHG emissions.

Construction

Implementation of the CAAP would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new rooftop and canopy-cover solar panels, and tree planting (Transportation-1.1, -1.3, -2.1, -2.2, -3.4, -5.1, Energy-1.1, -1.2) and would generate GHG-emissions from the operation of construction equipment, construction worker vehicle trips, and truck hauling trips. These types of projects would not involve substantial numbers of workers or extensive use of construction equipment. Additionally, CAAP Measures Off Road-2.1 and -2.2 would promote the use of alternative fuel in construction equipment and limit construction vehicle idling time, respectively. This would reduce GHG emissions from construction activities in the Plan Area. The SMAQMD threshold for construction-related GHG emissions is 1,100 MTCO₂e per year. It is highly unlikely that small-scale, sporadic infrastructure-improvement construction projects, such as those required for implementation of the CAAP, would exceed the SMAQMD threshold for construction-related GHGs. Additionally, any temporary GHG emissions would be offset by the by the overall net benefit of GHG emissions reduction after implementation of the CAAP.

Operations

Occasional maintenance activities for these facilities and operational vehicle trips described above would be minimal; thus, associated operational GHG emissions resulting from implementation of the CAAP would also be minimal. Measures Solid Waste-1.1 and -1.2, are intended to reduce fugitive methane emissions from anaerobic decomposition of organic waste in landfills by increasing the recovery of edible food waste and eliminate the disposal of organic waste in landfills, respectively. These measures would result in increased waste diversion, which could lead to increased haul truck trips to and from composting and recycling facilities. However, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. A net increase in the number of haul truck trips and associated GHG emissions within the Plan Area would not be anticipated. Implementation of the CAAP would also reduce GHG emissions by encouraging the use of alternatively fueled vehicles through the installation of

measures such as Transportation-5.2 and -5.3, which would involve the installation of publicly accessible EV chargers on both private and public property, respectively. Measures pertaining to EV charging, such as Measures Transportation-5.2 and -5.3, would increase the use of electricity. However, these measures would reduce the consumption of fossil fuels related to transportation and are considered to be beneficial in reducing GHG emissions. Other transportation-related measures such as Transportation-1.3 would reduce VMT by improving street connectivity. Through implementation of these measures, it is expected that implementation of the CAAP would lead to a reduction in the consumption of fossil fuels related to transportation. Measures Energy-1.1, -1.2, -2.1 and -2.2, would reduce GHG emissions related to energy consumption and production. This would be achieved by retrofitting existing residential and non-residential buildings for increased efficiency and reduced natural gas consumption (Energy-1.1 and -1.2). Additionally, new residential buildings would be required to be all-electric and zero-net-energy (Energy-2.1), while new non-residential development would be required to exceed California Building Code energy efficiency requirements (Energy-2.2). This would result in reduced consumption of natural gas used for the purpose of providing electricity to buildings, and therefore reduced GHG emissions.

Measures W-1.1 and W-1.2 would reduce both indoor and outdoor (i.e. landscaping) water use in new and existing buildings. This would reduce water consumption and, therefore, GHG emissions associated with electricity used for conveyance and treatment of water supply.

Measure Carbon Storage-1.1 would involve the planting of new trees while also preserving existing trees. While this measure would not reduce GHG emissions, it would aid in the removal of GHG emissions from the atmosphere. Additionally, this measure could reduce electricity demand associated with the use of air conditioning by providing shade.

Impact Summary

Implementation of the GHG reduction measures in the CAAP would not involve short- or long-term physical changes that could result in GHG emissions. The CAAP would reduce GHG emissions generated within the Plan Area by encouraging the use of alternative fuels in vehicles, reducing VMT, improving energy efficiency, reducing waste generation, and increasing carbon sequestration. In addition, measures that support energy efficiency and renewable energy generation would reduce GHG emissions at power plants generating electricity that serves the Plan Area. Thus, any temporary GHG emissions would be offset by the by the overall net benefit of GHG emissions reduction after implementation of the CAAP. Therefore, implementation of the CAAP would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant. No mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant. See Criterion (b) of Section 3.6 "Energy," which explains that implementation of the CAAP would not conflict with the 2022 Scoping Plan, which is the adopted Statewide plan for the purpose of reducing GHG emissions. This impact would be less than significant. No mitigation is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

This section describes the environmental setting and impacts related to hazards and hazardous materials. For the purposes of this analysis, the term "hazards" refers to risk associated with such issues as fires, explosions, exposure to hazardous materials, and interference with emergency response plans. The term "hazardous material" is defined in different ways for different regulatory programs. For this analysis, "hazardous material" is defined by the California Health and Safety Code, Section 25501: "because of their quantity, concentration, or physical or chemical characteristics, (they) pose a significant present or potential hazard to human health and safety or to the environment if release into the workplace or the environment."

"Hazardous waste" is a subset of hazardous materials. For this analysis, "hazardous waste" is defined by the California Health and Safety Code, Section 25517, and in the California Code of Regulations, Title 22, Section 66261.2: "because of their quantity, concentration, or physical or chemical characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed." California Government Code Section 65962.5 requires the California Environmental Protection Agency to compile, maintain, and updated specified lists of hazardous material release sites.

There are no public airports or private airstrips within city limits, but the Mather Airport is located within the General Plan Area. It is located immediately adjacent to the southern border of the City. The southern portion of the General Plan Area is located within the "imaginary surfaces" of Mather Airport, which require specific height restrictions of structures that could constitute as a hazard to aircraft navigation as deemed by the FAA (City of Rancho Cordova 2006b).

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped Fire Hazard Severity Zones (FHSZs) for the entire State. FHSZs are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather and are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. According to CAL FIRE's Fire Resource Assessment Program FHSZ Geographic Information System data, the City is not located within a Very High FHSZ (ArcGIS 2023).

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The implementation of CAAP would involve the use of hazardous materials during construction and routine maintenance. However, all future projects would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to be affected by an accidental release of hazardous materials. Regulations that would be required of those transporting, using or disposing of hazardous materials include the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Hazardous Materials Transportation Act; Title 22; CCR Title 27, and California Fire Code. For all the foregoing reasons, implementation of the CAAP would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. This impact would be less than significant. No mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant. As discussed in Criterion (a) above, all future projects would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to be affected by an accidental release of hazardous materials. Enforcement of these regulatory standards would ensure that GHG reduction measures facilitated by CAAP implementation would not create a significant hazard through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment. This impact would be less than significant. No mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than significant. Implementation of GHG reduction measures would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to

be affected by an accidental release of hazardous materials. Because such laws are established to be protective of human health and the environment, compliance with applicable regulations is sufficient to ensure that any hazardous materials used during CAAP implementation would not result in hazardous emissions within one-quarter mile of an existing or proposed school. This impact would be less than significant. No mitigation is required.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Less than significant. Sites with the potential to contain soil and/or groundwater contamination are located throughout the Plan Area. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation, which could result in the release of contaminants into the environment, if they are present in the underlying soils and/or groundwater. According to the Hazardous Waste and Substances Site List (Cortese), the City contains 3 active hazardous materials sites including on a list compiled pursuant to Government Code Section 65962.5. These sites include McDonnell Douglas- inactive test site, Aerojet General Corporation, and Purity Oil Sales-Delta Gunite. Each of these are active cleanup sites with efforts focusing on remediation of polluted ground water supply from contaminated soils. The McDonnell Douglas and Purity Oil Sites are under a state led response, while the Aerojet site is listed as an active federal superfund site. Implementation of the CAAP would not result in any ground-disturbing activities on these sites before their cleanup and remediation activities are completed. In addition, in the event CAAP implementation results in ground disturbance on these sites after completion of their cleanup activities, any residual contamination that is encountered would be remediated to allowable regulatory levels in accordance with applicable county and State regulations before any ground-disturbing activities are permitted to occur. Therefore, implementation of the CAAP would not result in a significant hazard to the public or the environment due to being located on a hazardous materials site. This impact would be less than significant. No mitigation is required.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

No Impact. The implementation of GHG reductions measures would not result in new or relocated residential land uses, other types of noise-sensitive receptors, or new places of permanent employment where residents or workers could be exposed to a safety hazard or excessive noise. The closest airport to the Plan Area is Mather Airport located outside of and along the south border of the Plan Area. Therefore, implementation of the CAAP would not expose residents or workers to a safety hazard or excessive noise levels. No impact would occur. No mitigation is required.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Less than significant. Implementation of the CAAP would result in construction of improvements to existing roadways that serve as evacuation routes, including new bikeways (Transportation-2.1) and roundabouts (Transportation-2.2). However, these improvements would not adversely affect the capacity of roadways during an emergency or evacuation. In fact, the CAAP includes Adaptation-5g, which encourages the installation of roundabouts in place of traffic signals to increase traffic flow and ability to evacuate during an emergency.

Overall, the physical improvements resulting from CAAP implementation would not impair or interfere with adopted emergency response or evacuation plans. Additionally, the CAAP would promote emergency response and evacuation by increasing awareness of climate hazards, increasing understanding of disaster preparedness, and encouraging residents to enroll in the Sacramento Region Emergency Notification System (Adaptation-5a, -5b, and 5e). This impact would be less than significant. No mitigation is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less than significant. The Plan Area is not located within a Very High FHSZ. The implementation of the CAAP would involve ground disturbing activities, including grading and excavation, that require the temporary and periodic use of construction vehicles and equipment. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new bikeways and roundabouts (Transportation-2.1 and -2.2) and installation of EV charging infrastructure (Transportation-5.1 through -5.4). Given the nature of the CAAP, and the absence of Very High FHSZs in the Plan Area, construction activities associated with implementation would occur in already disturbed, developed areas such as roadways and parking lots where wildfire risk is low. The CAAP also includes adaptation actions that would reduce the potential for people to be indirectly exposed to significant risks due to wildfire by developing and implementing a wildfire smoke protection strategy (Adaptation-4a) and monitoring employers to ensure compliance with State regulations protecting workers who may be exposed to wildfire smoke. Implementation of the CAAP would not directly or indirectly expose people or structures to a significant risk of loss injury, or death involving wildland fires. Therefore, the impact would be less than significant. No mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

The Plan Area is located within the Sacramento River Basin. The northern portion of the Plan Area is located within the Lower American River Watershed which covers approximately 1,875 square miles. The southern portion of the Plan Area is located within the Lower Sacramento Watershed, one of the largest watersheds in the U.S., which covers approximately 27,000 square miles and drains the Sacramento Valley, the Modoc Plateau, and parts of the Cascade Range and Sierra Nevada Range. The main tributaries in the Lower Sacramento Watershed include the Feather, Yuba, Pit, and American Rivers (City of Rancho Cordova 2006b).

Flooding hazards within the Plan Area are due to the potential for surface water bodies, most specifically the American and Consumnes River, to overflow as well as localized flooding resulting from undersized drainage facilities

in existing developed areas, including Sunrise Boulevard south of White Rock Road (City of Rancho Cordova 2006b). The Elder Creek, Laguna Creek, and Morrison Creek floodplains are located within the Plan Area (City of Rancho Cordova 2006a). In addition, the Federal Emergency Management Agency (FEMA) has identified 500-year floodplain predictions as a result of complete failure of Folsom Dam (City of Rancho Cordova 2006b). However, substantial flooding within the Plan Area has an extremely low probability of occurring and is not considered to be a reasonably foreseeable event (FEMA 2023).

The Plan Area is located within the South American Subbasin (SASb; DWR Bulletin 118, 5- 21.65). which is a high priority subbasin within the larger Sacramento Valley Groundwater Basin. A majority of the SASb is surrounded by rivers including the American River on the northern boundary, the Cosumnes and Mokelumne Rivers on the south, and the Sacramento River forming the western boundary. The eastern boundary is the only area not bounded by a river, located where the alluvial sediments of the groundwater basin give way to the foothills of the Sierra Nevada.

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA), which requires the state's high and medium priority groundwater basins to develop a GSP to achieve a sustainable regime that balances pumping and recharge and considers the needs of all water users. In accordance with SGMA, six Groundwater Sustainability Agencies (GSAs) were formed, and under a collective Memorandum of Understanding (MOU) in Spring of 2020, GSAs agreed to develop one Groundwater Sustainability Plan (GSP) for the SASb.

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than significant. The Water Quality Control Plan for the Sacramento River Basin (Basin Plan), adopted by the Central Valley Regional Water Quality Control Board (RWQCB), establishes water quality objectives for ground and surface waters in the Central Valley region. The purpose of the Basin Plan is to preserve and enhance water quality and protect the beneficial uses of regional waters. The RWQCB also issues waste discharge requirements to ensure that wastewater is not discharged in a manner that would cause an exceedance of applicable water quality objectives or adversely affect beneficial uses designated in the Basin Plan.

Implementation of the CAAP would include improvements to the City's existing pedestrian, bicycle, and transit network. These types of projects would not create substantial new sources of pollutants and would not involve the discharge of wastewater. The CAAP measures involving construction activity would require minor grading, excavation, and other ground disturbance. Ground-disturbing activities, could, depending on their location, potentially cause soil erosion which in turn can contaminate nearby surface water. However, implementation of the CAAP would be required to comply with RCMC Chapter 16.44, which specify grading and erosion control standards. For CAAP measures that involve one or more acres of ground disturbance, applicants would be required to submit a Notice of Intent to SWRCB to obtain approval to carry out construction activities under the NPDES Construction General Permit (Order 2009-0009-DWQ). Compliance with the Construction General Permit requires the applicant to develop a project-specific SWPPP, which would identify source control, site design, and treatment-control BMPs to reduce stormwater runoff volumes and pollutants leaving the site. Erosion and sediment controls identified in the SWPPP would substantially reduce the amount of soil disturbance, erosion, and sediment transport into receiving waters, and pollutants in site runoff during construction. Through compliance with all applicable regulations and permits, implementation of CAAP measures under the program would not violate any water quality standards or waste discharge requirements established by the Central Valley RWQCB or otherwise substantially degrade surface or groundwater quality. This impact is less than significant. No mitigation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than significant. The implementation of the CAAP would involve ground disturbing activities, including grading and excavation, which could require the use of water for dust abatement as needed via a water truck. In addition, These activities would be temporary and intermittent and would not involve the substantial use of groundwater or otherwise affect recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. CAAP measures Carbon Storage-1.1, Adaptation-2d, and Adaptation-1e would increase the number of trees in the Plan area which would require water consumption for irrigation. However, landscaping would be limited to water-efficient varieties, such as species that are native to the Sacramento region or that are adapted to a hot dry summer and cool winter climate, as required by RCMC Chapter 22.180, "Water Use and Conservation."

Implementation of the CAAP measures would primarily occur in areas developed with impervious surfaces that do not provide for substantial groundwater recharge. Additionally, CAAP measures are not anticipated to increase the amount of impervious surface area in the Plan Area and could decrease the amount of impervious surface area. For example, Adaptation-2d would encourage the City to use porous pavement and vegetative buffers in large parking areas to mitigate flooding hazards associated with climate change, which would also have the effect of increase groundwater recharge. Furthermore, implementation of the CAAP would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase water demand. Measures Water-1.1 and -1.2 would reduce indoor and outdoor water use. Therefore, implementation of the CAAP would not decrease groundwater supplies or interfere with groundwater recharge. The impact would be less than significant. No mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less than significant. The implementation of CAAP measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, cause soil erosion. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of future projects it is likely that construction activities would occur in already disturbed areas developed with impervious surfaces. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with RCMC Chapter 16.44, which contains design standards and performance requirements to avoid or reduce excessive erosion. For all of the foregoing reasons, implementation of CAAP measures would not result in substantial soil erosion. The impact would be less than significant. No mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less than significant. The implementation CAAP measures that would involve construction activities, could, depending on their location, increase the amount of impervious surface that could result in an increase of surface runoff. Given the nature of future projects it is likely that construction activities would occur in already disturbed areas developed with impervious surfaces. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. Implementation of CAAP measures would not substantially increase the amount of impervious surfaces in the Plan Area. Further, future projects would be required to comply with General

Plan Policy NR.3.4 which directs the City to require development to protect natural drainage systems through site design, runoff reduction measures, and BMPs consistent with the Central Valley RWQCB. Construction and post-construction activities would be required to adhere to various federal, State, and regional water quality standards, such as the Municipal Permit and Construction General Permit. As such, runoff volumes and pollutants leaving sites during construction and post-construction operations would be substantially reduced through source control, site design, and/or treatment-control BMPs mandated by these permits. Erosion and sediment controls identified in project-specific SWPPPs would substantially reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. In addition, implementation of the CAAP would reduce the potential for flooding in the Plan Area by, for example, utilizing vacant lots to building flood control detention basins to address flooding from anticipated future extreme precipitation events (Adaptation-2c) and encouraging use of porous pavement and vegetative buffers in large parking areas (Adaptation-2d). For all of the foregoing reasons, implementation of CAAP measures would not increase the rate or amount of surface runoff. The impact would be less than significant. No mitigation is required.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than significant. The implementation of CAAP measures that would result in ground disturbing activities, including grading and excavation, could, depending on their location, require the use of water for dust abatement as needed via a water truck. These activities would be temporary and intermittent and would not generate permanent water drainage flows. In addition, implementation of the CAAP would not substantially increase impervious surface area in the Plan Area such that the quantity of runoff water would increase or additional sources of polluted runoff would be created. Therefore, implementation of CAAP measures could not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. This impact would be less than significant. No mitigation is required.

iv) Impede or redirect flood flows?

No impact. Flooding hazards within the Plan Area are located along the American and Consumnes River. The implementation of CAAP measures would not place any structures in or adjacent to the American and Consumnes River. Further, future projects would be required to comply with RCMC Section 16.44.150 which directs the City to deny grading permits where the proposed activity would adversely affect existing drainage and watercourses. Therefore, implementation of CAAP measures could not impede or redirect flood flows. No impact would occur. No mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No impact. Flooding hazards within the Plan Area are located along the American and Consumnes River. The implementation of CAAP measures would not place any structures in or adjacent to the American and Consumnes River. In addition, implementation of CAAP measures would not result in construction of buildings or other facilities or store materials on site where they could be inundated by tsunami, floodwater, or seiche. Additionally, the City is located approximately 95 miles east of the Pacific Ocean and is not located near other large bodies of water that could result in tsunamis, flooding, or seiches. Further, future projects would be required to comply with RCMC Section 16.44.150 which directs the City to deny grading permits where the proposed activity would adversely affect existing drainage and watercourses. In addition, as described in Section 3.10.2(a), CAAP projects involving disturbance of one or more acres would be subject to the requirements of the NPDES Construction General Permit. Applicants would be required to develop a project-specific SWPPP, which would identify BMPs to reduce the potential for pollutants in surface runoff from leaving the project site. Therefore, implementation of the CAAP would not risk release of pollutants due to inundation of the Plan Area during a flood. No impact would occur. No mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant. As discussed in Criterion (a) above, future projects would be required to comply with the RCMC Chapter 16.44 which contains design standards and performance requirements to avoid or reduce excessive erosion which could impact water quality. In addition, construction projects that disturb one or more acres would be required to prepare a SWPPP that demonstrates conformance with applicable best management practices that would be implemented to reduce the amount of surface runoff. Further, implementation of CAAP measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase water demand. Therefore, implementation of CAAP measures would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact would be less than significant. No mitigation is required.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

The city is characterized by a wide range of existing land uses located within 16 distinct planning areas, including residential developments, commercial/retail/office uses, industrial uses, as well as natural features, such as open space, parks, and vacant land. Land uses within the Plan Area primarily consist of residential uses with distinct residential neighborhoods and supporting businesses, industrial employment, and commercial services. Vacant undeveloped agricultural land is the most prevalent land use pattern and accounts for approximately 12,900 acres of land within the Plan Area, located predominantly within the southeastern portion of the Plan Area. Single family residential housing accounts for the second most prevalent land use, accounting for approximately 1,950 acres of land. Parks, open space, and commercial recreational uses provide substantial acreage for general recreation in the Plan Area. Commercial, office, and retail uses are located along main commercial corridors including Folsom Boulevard and Sunrise Boulevard. Industrial, manufacturing and distribution facilities uses are located throughout the Plan Area primarily along Sunrise Boulevard, Jackson Highway, Bradshaw Road, and Folsom Boulevard. The majority of manufacturing and distribution outlets are located along Folsom Boulevard, Bradshaw Road, and Sunrise Boulevard. (City of Rancho Cordova 2006b).

3.11.2 Discussion

a) Physically divide an established community?

Less than significant. Typically, physical division of an established community could result from the construction of a physical feature, such as a wall, interstate highway, airport, roadway, or railroad tracks. Additionally, division of an established community could result from the removal of a means of access, such as a local road or bridge, that could impair mobility or constrain travel within an existing community or between a community and outlying areas.

Implementation of the CAAP would not result in development that could physically divide a community. For example, construction of roundabouts and bikeways (Transportation-2.1, -2.2, and Adaptation-5g) would reduce vehicle congestion and encourage bicycle trips, which would increase community connectivity and access. Further, all future improvements to roadways would be required to comply with the City's Street Design Standards which requires streets to be designed to current City standards and final pavement approval by the Public Works Directory prior to installation (City of Rancho Cordova 2005). As such, these projects are intended to improve, rather than impair, community connectivity and access throughout the city. Therefore, implementation of the CAAP would not result in construction of physical barriers that would change the connectivity between developed areas or physically divide an established community. The impact would be less than significant. No mitigation is required.

- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. CAAP measures that would be implemented as part of the program would include improvements to the City's existing pedestrian, bicycle, and transit network within developed areas. Implementation of the CAAP would not change existing land uses and would comply with all applicable zoning regulations. Furthermore, as discussed in Section 3.3, "Air Quality," Section 3.8, "Greenhouse Gas Emissions," and Section 3.17, "Transportation," CAAP measures would be consistent with General Plan policies intended to reduce vehicle trips and associated air pollutant and greenhouse gas emissions, which would have beneficial environmental effects. Therefore, implementation of CAAP measures under the program would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur. No mitigation is required.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

Historic mineral production in the region has included construction aggregate, kaolin clay, common clay, pumice, and gold. Construction aggregate consists of sand, gravel, and crushed stone. Existing mineral extraction activities that occur in and around the Plan Area primarily consist of fine sand and coarse gravel construction aggregates, as well as clay.

There are currently two permitted mining operations within City limits. The Grantline West Mining Site is located adjacent to the Rio del Oro Planning Area. The Aerojet Mining Site is located north of the Sunridge Specific Plan Area. Approximately 10,275 acres within the Plan Area contains land designated as MRZ-2 locations, or areas where there are known mineral resources (City of Rancho Cordova 2006a). MRZ-2 areas are located generally west of Sunrise Boulevard and encompass primarily aggregate deposits (City of Rancho Cordova 2006b). Five additional mining operations occur within the southeastern portion of the Plan Area, predominately outside of city limits. No known mineral resource recovery sites of local importance are included in the General Plan (City of Rancho Cordova 2006a; b).

3.12.2 Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No impact. The Plan Area contains two quarries and several areas of land designated as MRZ-2. The implementation of the CAAP would involve ground disturbing activities, including grading and excavation, could, depending on their location, impact mineral resources. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bikeways (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of the CAAP, construction activities associated with its implementation would occur in already disturbed and developed areas such as roadways and parking lots where known mineral resources are not present. Areas designated as MRZ-2 have a high likelihood of containing valuable mineral deposits and are protected by the City from premature or incompatible development with mining per the California Surface Mining and Reclamation Act. Future projects would be required to comply with General Plan Policy NR.6.1 which directs the City to protect known mineral resources, prevent the unnecessary loss of mineral resources, and comply with State of California requirements for mineral resources contained in the State Surface Mining and Reclamation Act. Implementation of the other measures included in the CAAP would not involve short- or long-term physical changes that could cause a loss of availability of known mineral resources.

For all these foregoing reasons, implementation of the CAAP would not result in the loss of availability of a known mineral resource and no impact would occur. No mitigation is required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. As discussed in Criterion (c), construction activities associated with implementation of the CAAP would occur in already disturbed, developed areas such as roadways and parking lots where known mineral resources are not present. Further, future projects would be required to comply with General Plan Policy NR.6.1 which directs the City to protect known mineral resources, prevent the unnecessary loss of mineral resources, and comply with State of California requirements for mineral resources contained in the State Surface Mining and Reclamation Act. Therefore, implementation of the CAAP would not result in the loss of availability of a locally important mineral resource recovery site and no impact would occur. No mitigation is required.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.13.1 Environmental Setting

Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.13-1.

Table 3.13-1 Acoustic Term Definitions

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
Equivalent Noise Level (L_{eq})	The average noise level during a specified time period; that is, the equivalent steady-State noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level (L_{max})	The highest instantaneous noise level during a specified time period.
Day-Night Noise Level (L_{dn})	The 24-hour L_{eq} with a 10-dB penalty applied during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping.

Term	Definition
Community Noise Equivalent Level (CNEL)	Similar to the L_{dn} described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for evening relaxation activities.

Source: Caltrans 2013

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers.

In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Major sources of noise within the Plan Area are vehicular traffic along major roadways (i.e., SR 16, U.S. 50, Sunrise Boulevard, Folsom Boulevard, White Rock Road, Zinfandel Drive, and Bradshaw Road), as well as commercial and industrial uses, active recreation of parks, outdoor play areas of schools, and railroad operations. The Plan Area also experiences noises common in urban environments such as automotive repair facilities, elementary school playgrounds, building fire alarms, and community organized events (City of Rancho Cordova 2006b). A community noise survey found average daytime ambient noise levels ranged from 40 dB to 75 dB L_{eq} , with maximum noise levels that ranged from 51 dB to 88 dB L_{max} (City of Rancho Cordova 2006b).

GROUND VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient in nature, such as explosions.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006; Caltrans 2013). PPV and RMS vibration velocity are normally described in inches per second (in/sec). Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006).

The typical background vibration-velocity level in residential areas such as the project area is approximately 50 VdB. Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006).

SENSITIVE RECEPTORS

Noise- and vibration-sensitive land uses are generally considered to include those uses for which noise exposure could result in health-related risks to individuals, as well as uses for which quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, health

care facilities, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise- and vibration-sensitive land uses.

AIRPORTS AND PRIVATE AIRSTRIPS

The Mather Airport is located within the southern portion of the Plan Area, which includes the currently adopted 60- and 65-dBA CNEL noise contours outlined in the Mather Airport Comprehensive Land Use Plan (CLUP). Single-event noise levels for aircraft overflights are greatest and most frequent near the airport's primary flight paths.

CITY OF RANCHO CORDOVA GENERAL PLAN

The City's General Plan Noise Element utilizes Sacramento County's interior and exterior noise standards. Land use compatibility noise exposure limits are generally established as:

- ▶ 55 dBA CNEL/L_{dn} during any cumulative 30-minute period at day and 50 dBA CNEL/L_{dn} during any cumulative 30-minute period at night for exterior spaces at a majority of land use designations throughout the City.
- ▶ No noise lasting for any duration shall exceed 75 dBA CNEL/L_{dn} during the day and 70 dBA CNEL/L_{dn} at night.

Relevant goals and policies include the following:

GOAL N.1: Ensure that all new development will be free of noise disturbances.

- ▶ **Policy N.1.2:** Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.
- ▶ **Policy N.1.3:** Ensure that proposed non-residential land uses likely to exceed the City's standards do not create noise disturbances in existing noise-sensitive areas.
- ▶ **Policy N.1.4:** Mitigate noise created by proposed non-transportation noise sources to comply with the City's noise standards to the maximum extent feasible.
- ▶ **Policy N.1.5:** Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.
- ▶ **Policy N.1.6:** Ensure that comfortable noise levels and adequate privacy are maintained in higher density development.
- ▶ **Policy N.1.8:** New residential development shall only be allowed inside of the 60 CNEL Mather Airport Policy Area if the following conditions are met:
 - Noise insulation is provided in all new residential dwelling units that reduces interior noise levels to 45 dB with windows closed in any habitable room.
 - Prospective buyers are notified through the Public Report prepared by the California Department of Real Estate disclosing the fact that the parcel is located within the Mather Airport Policy Area.
 - An Aviation Easement is recorded on the property acknowledging that the property is located within the Mather Airport Policy Area. The easement shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport. The Aviation Easement shall be granted to the County of Sacramento, recorded with the Sacramento County Recorder and filed with the County Department of Airports.

GOAL N.2: Reduce noise disturbances in existing development and ensure that all mitigation methods positively contribute to the city's livability.

- ▶ **Policy N.2.1:** Strategically locate grade separations on existing or future light rail lines so that they will not result in adverse noise impacts to adjacent residential areas.

- ▶ **Policy N.2.2:** Ensure that operational noise levels of new roadway projects will not result in significant noise impacts.
- ▶ **Policy N.2.3:** Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.

CITY OF RANCHO CORDOVA MUNICIPAL CODE

The City's Noise Ordinance (Chapter 6.68 of the RCMC) prohibits loud, annoying, or unnecessary noises. It provides definition for and examples of prohibited noise sources and establishes numeric noise thresholds for exterior and interior related noise. Exterior noise levels are limited 7 days a week to 55 dBA L_{max} from 7:00 a.m. to 10:00 p.m. and 50 dBA L_{max} from 10:00 p.m. to 7:00 a.m. Interior noise levels are limited to 45 dBA L_{max} for a cumulative period of more than five minutes in any hour, 50 dBA L_{max} for a cumulative period of more than one minute in any hour, and 55 dBA L_{max} for any period of time. Construction activities, however, are exempt from the noise standards provided that they do not occur outside the daytime hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and 9:00 a.m. to 6:00 p.m. on Sunday. Exemptions also apply to other specific categories mentioned in RCMC Chapter 6.68. Schools, hospitals, churches, equipment and machinery, off-road and waste disposal vehicles, and audio devices on public owned property are also subject to specific regulations described in the RCMC.

3.13.2 Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?**

Less than significant. The CAAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development. However, CAAP Measures Carbon Storage-1.1, Energy-1.1, -1.2, -2.1, -2.2, Transportation-1.1, -1.3, -2.1, -2.2, -2.3, -3.1, -3.2, -3.4, -4.1, -4.2, -4.3, -5.1, -5.2, -5.3, and -5.4 would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting. During operation, these types of projects would not permanently introduce any new stationary sources of noise (e.g., machinery, pumps, fans, compressors, or other equipment) and would not generate new vehicle trips that would result in transportation-related noise. Therefore, operation of these projects would not result in any increases in permanent noise sources.

RCMC Chapter 6.68 exempts construction activities from the City's noise standards provided that such activities occur during normal daytime hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and 9:00 a.m. to 6:00 p.m. on Sunday. Outside these hours, construction activities would be subject to the noise standards specified in RCMC Chapter 6.68. The Federal Transit Administration (FTA) has also established construction noise criteria which specify noise levels that may result in an adverse community reaction. The FTA criteria are as follows:

- ▶ Residential: 90 dBA L_{eq} (day) and 80 dBA L_{eq} (night)
- ▶ Commercial/Industrial: 100 dBA L_{eq} (day and night)

Implementation of the CAAP, including but not limited to measures Carbon Storage-1.1, Energy-1.1, -1.2, -2.1, -2.2, Transportation-1.1, -1.3, -2.1, -2.2, -2.3, -3.1, -3.2, -3.4, -4.1, -4.2, -4.3, -5.1, -5.2, -5.3, and -5.4 would result in temporary increases in ambient noise levels from vehicle trips that generate noise. Construction-related vehicle trips would travel along multiple roads throughout the city, and therefore not expose any individual sensitive receptor to substantial noise levels for a sustained period of time. Additionally, the minor and temporary increase in construction-related vehicle trips would not result in a substantial increase in ambient noise levels along roadways in the city because a doubling of traffic volume on a roadway would have to occur before an increase in noise levels would be detectable to a person.

The use of heavy equipment would also result in temporary increases in ambient noise levels during construction of the infrastructure associated with CAAP activities. Construction equipment that could be used includes concrete saws for hardscape removal, backhoes or mini excavators, skip loaders, smooth drum rollers, dump trucks, and striping and paving machines, depending on the type of project. Based on the anticipated construction equipment that would be used and applying reference maximum noise levels for each, average hourly construction noise could range from 76 dBA L_{eq} to 83 dBA L_{eq} at 50 feet from the receptor (FTA 2018).

During the normal daytime hours specified above, the construction activities for each project would be exempt from the City's construction noise requirements. If construction activities were to occur outside these hours, they would be subject to the noise standards outlined in RCMC Chapter 6.68. Depending on the specific construction activities involved and the proximity of construction activities to existing sensitive receptors, construction noise levels from construction activities taking place outside normal daytime hours may exceed the sound level limit of 55 dBA L_{eq} , as specified above. However, in these cases, applicants would be required to obtain a variance from the City, and these cases are unlikely since construction activities are not expected to take place outside normal daytime hours. Regardless, construction noise levels are not anticipated to exceed FTA's construction noise criteria of 90 dBA L_{eq} in residential areas and 100 dBA L_{eq} in commercial and industrial areas. Therefore, construction activities would not result in an adverse community reaction.

With regard to human response, changes in noise of 1 to 2 dB are generally not perceptible to people in typical noisy environments. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013). However, a substantial increase in noise itself does not necessarily constitute a significant noise impact, so long as overall noise exposure is below an acceptable level and does not result in excessive exposure for extended periods of time (FTA 2018)

For construction activity along the loudest roadways in the City, construction noise would be masked by existing ambient noise levels. However, at other locations, such as in quieter, residential neighborhoods away from major roadways, existing ambient noise levels could be below 60 dBA CNEL. In these areas, construction-related noise increases could exceed 10 dB, which would be perceived by people adjacent to the equipment as more than a doubling of existing noise levels. Actual increases in noise levels would vary depending on the distance from the construction equipment to the receptor and the presence of intervening topography, vegetation, or structures, which may provide shielding and reduce noise levels.

FTA provides general and detailed guidance for assessing construction noise impacts and this analysis is developed largely based on general guidance. In addition, FTA recognizes the greater potential for noise impacts to occur when construction activities result in noise exposure for extended periods of time, which FTA has identified as 30 days, and in these circumstances, recommends the use of lower noise standards that account for the sensitive time of the day. Because the proposed project's construction would likely occur during daytime hours and each individual phase would be relatively short (i.e., one to two days at any one location), it is appropriate to only consider the hourly noise levels at each construction location, assessing construction noise as a temporary and intermittent source rather than a source that occurs for an extended period of time.

On average, construction activities for projects under the CAAP would be short-term, lasting for approximately one to two weeks. Construction activities would not involve particularly noisy equipment or activities, such as blasting or pile driving. Different pieces of construction equipment would be used intermittently to complete the work and would move linearly along a roadway or corridor and through a given area at an approximate rate of 250 to 350 feet per day. Because the sources of construction noise would be mobile and shifting as the work is performed, the exposure of individual residents, households, and other sensitive receptors to substantial noise level increases would be limited to a fraction of a workday. Furthermore, construction-related noise-generating activities would be most likely be limited to daytime hours when ambient noise levels are higher and people are less likely to be disturbed or awakened. Such brief, intermittent periods of exposure to substantial noise level increases would not result in the kinds of adverse health effects to humans that are associated with prolonged exposure to sustained substantial noise levels over long periods of time (e.g., weeks or months) or to substantial noise level increases that disrupt sleep. Thus,

for all the foregoing reasons, construction activities would not result in substantial temporary increases in noise levels that would adversely affect human health or well-being in the city.

Based on the above discussion, implementation of the CAAP would not generate substantial temporary or permanent increases in ambient noise levels in the vicinity of a given project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans. This impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant. The CAAP is a policy-level document that does not include any site-specific designs, or locations for future improvements. However, implementation of the CAAP, including measures Carbon Storage-1.1, Energy-1.1, -1.2, -2.1, -2.2, Transportation-1.1, -1.3, -2.1, -2.2, -2.3, -3.1, -3.2, -3.4, -4.1, -4.2, -4.3, -5.1, -5.2, -5.3, and -5.4 would include EV charging stations, roundabouts, bicycle infrastructure, on-site solar arrays, and tree planting. Operation of these projects would not introduce stationary or transportation-related sources of groundborne vibration or noise. Therefore, operation of these projects would not generate excessive groundborne vibration or noise levels.

Based on FTA guidance, transient vibrations (such as construction activity) with a 0.2 inches per second (in/sec) PPV may be characterized as causing structural damage to non-engineered timber and masonry buildings, 0.3 PPV in/sec for engineered concrete masonry, and 0.5 PPV in/sec for reinforced concrete, steel, or timber structures. In addition, the FTA recommends a level of 80 VdB for the purpose of evaluating disturbance to sensitive land uses where people sleep.

Implementation of the CAAP, including measures Carbon Storage-1.1, Energy-1.1, -1.2, -2.1, -2.2, Transportation-1.1, -1.3, -2.1, -2.2, -2.3, -3.1, -3.2, -3.4, -4.1, -4.2, -4.3, -5.1, -5.2, -5.3, and -5.4 would result in temporary increases in groundborne noise and vibration from the use of heavy equipment. Construction equipment that could be used includes concrete saws for hardscape removal, backhoes or mini excavators, skip loaders, smooth drum rollers, dump trucks, and striping and paving machines, depending on the type of project. Construction activities would not require the use of pile drivers or other types of equipment that produce substantial groundborne vibration or noise. Of the types of equipment that would be used, vibratory rollers would generate the highest levels of vibration. Based on FTA guidance, reference vibration levels for this type of equipment are 0.21 PPV in/sec and 94 VdB at 25 feet. FTA recommended criteria of 0.2 PPV in/sec for structural damage and 80 VdB for human disturbance could be exceeded for projects at distances within 75 feet and 25 feet, respectively, of construction equipment use. Actual exposure levels would depend on equipment types, haul truck routes, and proximity to and characteristics of sensitive receptors.

Construction activities for each project would be short-term. Different pieces of construction equipment would be used intermittently to complete the work and would move linearly along a roadway or corridor and through a given area at an approximate rate of 250 to 350 feet per day. Because the sources of groundborne vibration and noise would be mobile and shifting as the work is performed, the exposure of individual residents, households, and other sensitive receptors to excessive groundborne vibration and noise would be limited to a fraction of a workday. Furthermore, construction activities that generate groundborne vibration and noise would most likely be limited to daytime hours when people are less likely to be disturbed or awakened. Such brief, intermittent periods of exposure to increases in groundborne vibration and noise would not result in the kinds of adverse health effects to humans that are associated with prolonged exposure to sustained substantial groundborne vibration and noise levels over long periods of time (e.g., weeks or months) or to substantial noise level increases that disrupt sleep. Furthermore, most construction activities would most likely be located at distances greater than 25 feet from the nearest structures and vibration levels would dissipate rapidly at increasing distance from the vibration source. Finally, it is extremely rare for structural damage to occur from equipment other than pile driving. At these distances, thus, the potential for structural damage from the proposed construction activities would not be a concern. For all the foregoing reasons, implementation of the CAAP would not generate excessive groundborne vibration or groundborne noise levels. This impact would be less than significant.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant. The Mather Airport is located outside of the Rancho Cordova City limits but overlaps with some of the currently adopted 60- and 65-dBA CNEL noise contours outlined in the Mather Airport Comprehensive Land Use Plan. However, the CAAP does not propose any new sensitive receptors (e.g., residences, schools) that could be adversely impacted from noise associated with aircraft flyovers. Temporary construction workers would not be adversely affected by aircraft flyover as noise generated from construction equipment would be the dominant noise exposure to them, which is generally dealt with by wearing ear plugs to prevent hearing damage. Furthermore, long-term maintenance workers would not sleep onsite; thus, they would not be exposed to potential sleep disturbance from aircraft flyovers. Thus, implementation of the CAAP would not expose people residing or working near an airport to excessive airport/aircraft noise. This impact would be less than significant.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

The City has a total population of approximately 79,332 people (U.S. Census Bureau 2020). Between 1990 and 2000 the city's population increased from 51,322 people to 53,065 people, or by approximately 3 percent, and, between 2010 and 2020, the city experienced a population increase of approximately 22.5 percent (U.S. Census Bureau 2020). Growth occurred primarily due to availability of vacant land, land constraints in other areas of the county, and employment opportunities (City of Rancho Cordova 2006b). The 2020 Census reported a total of 26,725 households, with an average household size of approximately 3 people. Approximately 66 percent of households were family households, and approximately 56 percent are owner-occupied, which is slightly less than the County average (57.8 percent) (City of Rancho Cordova 2006b; U.S. Census Bureau 2020).

3.14.2 Discussion

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than significant. CAAP measures that would be implemented as part of the program would include improvements to the City's existing pedestrian, bicycle, and transit network. These projects would not induce population growth directly or indirectly because the projects do not propose new housing or changes to policies or regulations related to land use or residential zoning. Measures included in the CAAP that would result in the construction of roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1), could require a temporary increase in the number of construction workers. These types of projects are small construction projects, which would not require a large construction crew. Furthermore, construction workers would likely be from the Sacramento region and permanent, substantial relocation of workers would not be required. Therefore, implementation of these measures would not result in substantial population growth or employment growth in the Plan Area. The impact would be less than significant. No mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. Implementation of the CAAP would not displace people or because they would not require the removal of existing housing and would not propose changes to policies or regulations related to land use or residential zoning. Therefore, implementation of the CAAP would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact would occur. No mitigation is required.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

The Plan Area is located within the following public service districts, and described further below:

- ▶ Fire Protection – Sacramento Metropolitan Fire District (SMFD)
- ▶ Police Protection – Rancho Cordova Police Department (RCPD)
- ▶ School District – Folsom Cordova Unified School District (FCUSD)
- ▶ Park District – Cordova Recreation and Park District (CRPD)
- ▶ Electrical Service – Sacramento Metropolitan Utilities District (SMUD)
- ▶ Natural Gas Service – Pacific Gas and Electric (PG&E)

The Sacramento Metropolitan Fire District (SMFD) is the agency responsible for providing emergency services in the event of a fire emergency. SMFD is a full-service department, operating 41 active fire stations, two reserve fire stations, and maintaining more than 360 vehicles and apparatus (SMFD 2023a). SMFD covers an area of approximately 357 square miles and a population of approximately 745,000 citizens, including the City (SMFD 2023b). The District provides a variety services to the community, including fire suppression; rescue; emergency medical services, including Advanced Life Support 911 response and transport services; fire prevention; vegetation management; public education; emergency preparedness; and trauma support. SMFD employs approximately 673 personnel and includes 39 engine companies, 5 truck companies, 12 medic transportation units, 8 historical fire apparatus, 5 crash/rescue units, and various watercraft response units (City of Rancho Cordova 2006b). SMFD currently has seven fire stations located within city limits, as shown in Table 3.15-1.

Table 3.15-1 Existing Fire Protection Facilities and Locations Serving Rancho Cordova

Name of Facility	Address
Station 61	10595 Folsom Blvd
Station 62	3646 Bradshaw Road
Station 63	12395 Folsom Blvd
Station 64	9116 Vancouver Drive
Station 65	11201 Coloma Road
Station 66	3180 Kilgore Road
Station 68	4381 Anatolia Dr

Source: City of Rancho Cordova 2006b

The Rancho Cordova Police Department (RCPD) contracts with the Sacramento County Sheriff's Department (SCSD) Patrol Services for law enforcement services, including patrol, traffic, investigations, and administrative services. The Police Station is located at 10361 Rockingham Way in the City. RCPD is staffed with 76 sworn officers and 13 non-sworn officers who serve the City as well as eastern Sacramento County. Furthermore, the City falls within the jurisdiction of the East Patrol Division of SCSD (SCSD 2023). SCSD serves a population of approximately 616,600 people and has personnel totaling 2,332 people, consisting of 1,789 officers and 543 non-sworn members. The SCSD also has a reserve force of 168 officers and roughly 621 volunteer forces (City of Rancho Cordova 2006b).

Primary education (grades kindergarten through 12) is largely provided by the Folsom Cordova Unified School District (FCUSD), with several schools in the Elk Grove Unified School District and one school in Sacramento Unified School District also located in the city. The FCUSD is made up of 30 schools, with 19 elementary schools, four middle schools, two high schools, plus continuation high schools, adult education, and other service centers. Based on current facilities, the FCUSD has a capacity of 18,265 students. Within city limits, the FCUSD includes 11 elementary schools, two middle schools, one high school, and two alternative/continuation schools (City of Rancho Cordova 2006b).

Other public facilities located in the city include government buildings, a library, and parks and recreational facilities. The Rancho Cordova Library is operated by the Sacramento County Library branch system and located at 9845 Folsom Blvd in downtown. The Library operates Tuesday through Saturday from 10:00 a.m. to 6:00 p.m., and is closed on Sundays and Mondays (Sacramento Public Library 2023). See Section 3.16.1 of the Recreation chapter for a description of the City's existing parks and recreational facilities.

3.15.2 Discussion

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No impact. CAAP measures that would be implemented include improvements to the City's existing pedestrian, bicycle, and transit network. These projects do not include development of new residences or the creation of permanent jobs requiring increased fire or police services. As discussed in Section 3.14, "Population and Housing," CAAP measures would not induce population growth in the community that would require school services, new or expanded park facilities, other public facilities. Therefore, implementation of the CAAP would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. No impact would occur. No mitigation is required.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

The Cordova Recreation and Park District (CRPD), which is a special district separate from the City, has the primary responsibility for providing and maintaining recreational facilities throughout the city. CRPD maintains several types of parks: community parks, which serve the entire city; neighborhood parks, which are located near schools; and mini-parks, which are small public spaces. Within the City of Rancho Cordova's boundaries, CRPD owns 8 community parks, 23 neighborhood parks, 2 community swimming pools, the Hagan Community Center at Hagan Community Park, the Neil Orchard Senior Activities Center, the Mather Sports Complex, and the White rock Community Clubhouse. Additionally, Sacramento County owns and maintains the American River Parkway, which includes 23 miles of open space located along the American River. The City has a parkland minimum standard of 5 acres of public parks and recreational facilities per 1,000 residents. Additionally, all new developments are required by the CRPD to provide either parkland dedication or in-lieu fees to construct new parks and related facilities (City of Rancho Cordova 2006b).

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No impact. The implementation of the CAAP would not increase the use of recreational facilities to the extent that substantial deterioration would occur. Typically, this impact occurs when a project induces population growth, such as new development or a business that would necessitate a large number of new employees. Implementation of the CAAP would not include construction of new housing or commercial development. Furthermore, the number of construction workers needed to install future projects would be minimal and would not substantially increase the use of existing recreational facilities. Therefore, implementation of the CAAP would not increase the use of recreational facilities to the extent that substantial deterioration would occur. No impact would occur. No mitigation is required.

- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No impact. As discussed in Section 3.16.2(a), CAAP measures would not include development of recreational facilities and would not induce population growth that would require the construction or expansion of recreational facilities. Therefore, no impact would occur. No mitigation is required.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

The transportation system in the city consists of highways, streets, pedestrian pathways, transit routes, and bikeways. The circulation system is connected to the larger regional network which includes SR 16 and Interstate 50 (I-50). SR 16 is an east-west two-lane rural highway that runs along the southern edge of the City limits to Sacramento to the west and Rancho Murieta and Amador County to the east. I-50 is an east-west multi-lane freeway beginning west of the City of Sacramento and continuing east through Sacramento County and El Dorado County to Lake Tahoe and beyond and can be accessed throughout various points within the Plan Area (City of Ranch Cordova 2006b).

Public transportation services include the public bus service and light rail service operated by Sacramento Regional Transit. Bicycle facilities within the Plan Area are concentrated along the Folsom South Canal, American River, and along a portion of Sunrise Boulevard south of the American River. Pedestrian facilities are primarily developed as part of the existing roadway system within the Plan Area and are largely comprised of paths, sidewalks, and pedestrian crossings (City of Rancho Cordova 2006b).

3.17.2 Discussion

- a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Less than significant. The implementation of CAAP would not result in long-term operational increases in vehicular traffic along roadways in the Plan Area. The GHG reduction measures and adaptation actions would improve the operation of the circulation system in several ways, including fewer vehicle trips on roadways and highways and higher numbers of transit riders, bicyclists, and pedestrians. For example, implementation of the CAAP would reduce vehicle speeds and idling through implementation of traffic calming measures (Measure Transportation-2.4), implement new bicycle lanes through the City's Bicycle Master Plan (Measure Transportation-2.1), provide a bikeshare/scooter program (Measure Transportation-2.3), provide a microtransit electric shuttle program (Measure Transportation-3.4), increase transit ridership (Measure Transportation-3.1), and provide features to discourage single occupancy vehicle trips (Measure Transportation-1.1).

Consistent with the General Plan, new bikeways would be located along identified travel routes. The construction of new bicycle infrastructure would be consistent with General Plan Goal C.2 which directs the City to establish an extensive, complete, smooth, interconnected, and continuous bicycle network through the city. Implementation of the CAAP would not conflict with any measures included in the General Plan or RCMC. Retrofits to existing buildings would introduce some level of new vehicle trips; however, this increase in vehicle movement would be dispersed throughout the Plan Area and would not be substantial to the degree that any City standards would be exceeded.

Therefore, implementation of GHG reduction measures would not adversely affect the performance of the circulation system and would not conflict with any applicable transportation plans, ordinances, or policies. This impact would be less than significant. No mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less than significant. Senate Bill 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. The Office of Administrative Law approved (on December 28, 2018) comprehensive updates to the CEQA Guidelines (including at Section 15064.3(b)) that included removing Level-of-Service as a measure of transportation impacts under CEQA and replacing it with VMT. A "vehicle mile traveled" is defined as one vehicle traveling on a roadway for 1 mile. Pursuant to State CEQA Guidelines Section 15064.3(c), this change in analysis has been required since July 1, 2020. According to OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, projects that generate or attract fewer than 110 vehicle trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR 2018). This section of the Initial Study relies on the City's VMT thresholds.

As described in Section 3.14, implementation of GHG reduction measures would not induce substantial population or employment growth in the Plan Area, therefore it would not generate additional VMT over the long-term. The types of projects facilitated by implementation GHG reduction measures are small construction projects, which would not require a large construction crew. This would result in a small number of construction worker related trips to and from future project sites. In addition, worker related trips would be sporadic and occur at designated times throughout implementation of GHG reduction measures. Therefore, implementation of GHG reduction measures would not generate 110 construction trips per day. Moreover, the CAAP includes the following GHG reduction measures that would meaningfully reduce the rate of VMT in the Plan Area over the long-term:

- ▶ Transportation-1.1: Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit.
- ▶ Transportation-1.2: Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects.
- ▶ Transportation-1.3: Improve street connectivity, for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments.
- ▶ Transportation-2.1: Implement the City's Bicycle Master Plan to increase the number and quality of walkways and bikeways.
- ▶ Transportation-2.3: Provide temporary or permanent car-free zones or "slow streets" in specified areas, for example, individual blocks or residential streets.
- ▶ Transportation-3.1: Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day.
- ▶ Transportation-13: Encourage Existing Employers to Implement Transportation Demand Management Plans
- ▶ Transportation-3.4: Provide a microtransit electric shuttle program (capacity for 7-15 passengers) that provides on-demand pick up and drop off within defined, small-scale areas.

- Transportation-4.3: Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals.

Any temporary VMT increases associated with construction activities would be offset by the overall net benefit of reducing the long-term rate of VMT due to the implementation of the CAAP. Therefore, CAAP implementation would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b), and the impact would be **less than significant**. No mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant. The implementation of the CAAP would result in ground disturbing activities, including grading and excavation, could, depending on their location, result in alterations of public roadways. Construction of new pedestrian and bicycle infrastructure (Transportation-2.1), installation of EV charging infrastructure (Transportation-5.1, -5.2, and -5.3), PV solar panels (Adapttion-1e), and installation of traffic calming infrastructure (Transportation-2.2) could result in construction-related vehicle trips, and trips associated with the workers commuting to and from construction sites. The number of haul trips and workers trips to and from construction sites would vary based on the type of future project and project location. However, the types of projects facilitated by CAAP implementation are small construction projects, which would not require a large construction crew. This would result in a small number of worker related trips to and from future project sites. Construction activities would result temporary road closures which could temporarily disrupt traffic operations; however, any lane closures would be accompanied by traffic control signage and flaggers.

All future roadway improvements would be required to comply with the City's Design Guidelines which requires streets to be designed to current City standards and final pavement approval by the Public Works Directory prior to installation (City of Rancho Cordova 2005). Construction-related activities would be subject to the standards contained in a Traffic Control Plan, which includes provisions for public convenience and safety, construction area traffic control, and hours of work, which shall be in accordance with the Standard Construction Specifications. Specific requirements are provided in Sections 6-11, 6-12, 7-8, and 12 of the Standard Construction Specifications. Future contractors would be responsible for public safety and traffic control within the project limits and on the approaches to the project.

Because future construction of the GHG reduction measures would comply with the relevant traffic- and street-related regulations overseen by the City, implementation of GHG reduction measures would not substantially increase hazards due to a geometric design feature and the impact would be less than significant. No mitigation is required.

d) Result in inadequate emergency access?

Less than significant. The GHG reduction measures would not result in new development or land uses that would require installation of emergency access routes. However, construction of new roundabouts and bicycle infrastructure (Transportation-2.1 and -2.2) could permanently alter existing roadways that serve as emergency access routes. All future roadway improvements would be required to comply with the California Fire Code, adopted by reference in SMMC Chapter 17.64, and SMMC Section 17.64.120 which requires the width of an unobstructed roadway to measure no less than 24 feet in order to provide adequate access for fire and emergency responders. Therefore, CAAP implementation would not result in inadequate emergency access and the impact would be less than significant. No mitigation is required.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☒			☐
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☒	☐

3.18.1 Environmental Setting

Lands within the Plan Area were historically inhabited by the Valley Nisenan native group, who inhabited territory between the Sacramento River to the west and the Sierra Mountains to the east, and the Cosumnes River to the south and the southern fork of the Feather River to the north. The Valley Nisenan were known for their utilitarian stone tools and their extensive assemblage of fishing-related implements (City of Rancho Cordova 2006b).

AB 52, signed into law in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, where one or more California Native American Tribes has requested formal written notification of proposed projects from a lead agency, the lead agency shall begin consultation with those tribes by providing them with formal written notification of proposed projects prior to the release of an environmental impact report, negative declaration, or mitigated negative declaration.

In compliance with PRC section 21080.3.1, the City provided formal written notification of the CAAP to following four Native American tribes on January 27, 2023: lone Band of Miwok Indians; United Auburn Indian Community; Shingle Springs Band of Miwok Indians; and Wilton Rancheria. The notification letters were received by the tribes on January 30, 2023.

In response to the City's notification, the United Auburn Indian Community contacted the City via e-mail on February 28, 2023 to request additional information on how tribal cultural resources could potentially be affected by the CAAP. The City responded in writing on March 10, 2023, and received no further correspondence from United Auburn Indian Community. In a letter dated March 10, 2023, the Shingle Springs Band of Miwok Indians requested that formal consultation be initiated. The City responded in writing on March 20, 2023, and received no further correspondence from the Shingle Springs Band of Miwok Indians. AB 52 consultation related to the CAAP is closed. During implementation of the CAAP the City will comply with AB 52 tribal consultation requirements as applicable during CEQA review.

3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?
- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation, during which, depending on their location, a tribal cultural resource could be encountered. Ground disturbing activities, including minor grading and excavation, would result from construction of new roundabouts and bikeways (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). PRC Section 21074 defines a tribal cultural resource as a site, feature, place, or cultural landscape that is geographically defined in terms of size and scope, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register or a local register of historical resources. Given that Native American tribes inhabited the Plan Area, there is a potential that unidentified resources may be discovered during construction activities. The potential for disturbance may be reduced through surveying a site to determine the likelihood that tribal cultural resources are present, review of records to determine if tribal cultural resources are known to occur in the area, and then designing future projects to avoid areas where resources may be present. However, CAAP projects would be located in developed areas within roadway rights-of-way, such as on existing roads and sidewalks, or in disturbed areas along roadway shoulders. Because ground disturbance would be limited to shallow depths, generally comprised of artificial fill or previously disturbed soils, tribal cultural resources are unlikely to be encountered.

Nonetheless, future projects would be required to comply with General Plan Policy CHR.1.3 which directs the City to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements, and Policy CHR.1.2 which directs the City to identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA. In addition, enforcement of General Plan Mitigation Measures would reduce impacts to tribal cultural resources. Although the General Plan does not address "tribal cultural resources" as specifically defined under PRC section 21074 (the General Plan was approved in 2006, prior to AB 52, signed into law September 2014), the measures were developed to protect tribal resources. The intent behind the General Plan Mitigation Measures mirror the provisions under PRC Section 21084.3 (b), which describe mitigation measures that may avoid or minimize significant adverse impacts on tribal cultural resources defined under PRC section 21074, including:

- (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - (A) Protecting the cultural character and integrity of the resource

- (B) Protecting the traditional use of the resource
- (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

For all the foregoing reasons, implementation of the CAAP would not result in substantial adverse change in the significance of a tribal cultural resource. Therefore, the impact would be less than significant. No mitigation is required.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Environmental Setting

Several agencies supply water to the City, including Sacramento County Water Agency (SCWA), Zone 40; Golden State Water Company (GSWC); and California-American Water Company (Cal-Am). In addition, the Sacramento Regional County Sanitation District (SRCSD) provides public wastewater conveyance, treatment, and disposal services. Solid waste disposal is provided by Republic Services, a private franchise hauler. Waste collected by Republic is hauled to the Elder Creek Recycling and Transfer Station where it is sorted prior to being transported to the Forward Landfill in Manteca. Republic also uses the Kiefer Landfill for a limited amount of commercial waste disposal. The City maintains the public roadway network and sidewalks, right-of-way electrical facilities, and the public storm drain conveyance system within the city. (City of Rancho Cordova 2006b).

Pacific Gas and Electric Company (PG&E), a regulated public utility, supplies natural gas to the City. Sacramento Municipal Utilities District (SMUD) provides electric service within the Plan Area.

3.19.2 Discussion

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?
- b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than significant. Implementation of the CAAP would not induce increased development or population growth directly or indirectly, because measures included do not propose new housing nor do they propose changes to policies or regulations related to land use or residential zoning. As a result, demand for new or expanded infrastructure, including water, wastewater treatment, stormwater drainage, natural gas or telecommunication facilities would not increase to serve new population or development.

The implementation of the CAAP would incrementally increase electricity consumption, for example through measures to increase the installation of EV charging stations, consume energy more efficiently within buildings, install on-site solar energy systems, and replace building natural gas end uses with systems and appliances (e.g., electric-powered heat pumps and water heaters for space and water heating). The physical effects of construction activities to implement these measures are analyzed throughout Chapter 3 and would not result in any significant environmental effects. Moreover, the incremental increases in electricity consumption would not indirectly result in new or expanded electric power infrastructure improvements for the following reasons. Increased electric consumption due to EV charging would occur incrementally as new stations are installed and the number of EVs in the Plan Area increases. In addition, CAAP implementation would increase the number of publicly-available charging stations, which increases off-peak hour charging when ample grid capacity is available. SMUD rate plans would also result in off-peak charging. In addition, replacing natural gas-powered building systems for space and water heating would primarily increase electricity consumption in the winter when ample grid capacity is available (relative to peak summer periods when demand is significantly higher). CAAP measures resulting more efficient electricity consumption than required by the State energy code and supporting on-site installation of solar energy systems lessen rather than increase demand on existing electric power infrastructure. The CAAP's support for fuel switching from natural gas to electric and more efficient natural gas consumption would lessen and not increase demand for natural gas infrastructure.

The implementation of the CAAP would involve ground disturbing activities, including grading and excavation, which could require the use of water for dust abatement as needed via a water truck. These activities would be temporary and intermittent and would not involve the substantial use of water supplies. CAAP measures Carbon Storage-1.1, Adaptation-2d, and Adaptation-1e would increase the number of trees in the Plan area which would require water consumption for irrigation. However, landscaping would be limited to water-efficient varieties, such as species that are native to the Sacramento region or that are adapted to a hot dry summer and cool winter climate, as required by RCMC Chapter 22.180, "Water Use and Conservation."

Implementation of the CAAP measures would primarily occur in areas developed with impervious surfaces and existing stormwater infrastructure. Additionally, CAAP measures are not anticipated to increase the amount of impervious surface area in the Plan Area, and could decrease the amount of impervious surface area, which would lessen the demand for stormwater infrastructure. For example, Adaptation-2d would encourage the City to use porous pavement and vegetative buffers in large parking areas to mitigate flooding hazards associated with climate change, which would also have the effect of increase groundwater recharge. Measures Water-1.1 and -1.2 would reduce indoor and outdoor water use. Therefore, implementation of the CAAP would not result in the relocation or construction of new or expanded infrastructure systems that could cause significant environmental effects and would not result in insufficient water supplies being available to serve the Plan area during normal, single-dry, or multiple dry years. The impact would be less than significant. No mitigation is required.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

Less than significant. The implementation of the CAAP would not involve development of residential communities or other non-residential development or induce population growth in an area that would increase demand for wastewater treatment. Further, it would not involve the construction of restroom facilities. Depending on the duration and location of future projects, the project proponent may supply portable restrooms for use by work crews. Portable restrooms are self-contained and would be cleaned periodically, and the waste would be hauled off-site to a wastewater treatment facility for disposal. This service is typically provided by an independent contractor permitted to handle, haul, and dispose of sanitary sewage. Pursuant to 40 CFR Part 403.5, hauled waste must be disposed of at a designated publicly owned treatment facility. Typically, publicly owned treatment facilities are responsible for implementing permit programs for hauled waste and ensure that adequate treatment capacity exists. Therefore, implementation of the CAAP would not exceed the capacity of any wastewater treatment provider. The impact would be less than significant. No mitigation is required.

- d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**
- e) **Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

No Impact. Implementation of the CAAP would not induce increased residential or non-residential development, or population growth directly or indirectly, and there would be no increase in solid waste production as a result of the CAAP. Measures Solid Waste-1.1 and -1 would increase recovery of edible food waste and eliminate disposal of organic waste into landfills, which is consistent with and would further State solid waste statutes and goals. Therefore, implementation of the CAAP would have no impact. No mitigation is required.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?	☒ Yes		☐ No	
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

CAL FIRE has mapped FHSZs for the entire State. FHSZs are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather and are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. According to CAL FIRE's Fire Resource Assessment Program FHSZ Geographic Information System data, the City is not located within a Very High FHSZ, however is located adjacent to an area designated as a moderate fire hazard risk immediately east of the Plan Area (ArcGIS 2023). Additionally, the main source of wildland fire within the Plan Area occurs where natural resource and habitat areas meet urbanized development, mainly along the American River Parkway and the northern boundary of the City limits (City of Rancho Cordova 2006a).

The Sacramento Metropolitan Fire District (SMFD) provides fire protection and prevention, as well as fire safety education to the residents of the City. The City cooperates with SMFD to ensure adequate service levels (City of Rancho Cordova 2006a).

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant. The Plan Area does not include a Very High FHSZ. Implementation of the CAAP would result in construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g) which could alter existing roadways that serve as emergency access routes. However, all future roadway improvements would be required to comply with the California Fire Code, adopted by reference in RCMC Chapter 17.04. The California Fire Code requires the width of an unobstructed roadway to measure no less than 24 feet in order to provide adequate access for fire and emergency responders. Additionally, improvements within roadway rights-of-way would be required to comply with the City's *Design Guidelines*, which require roads, including parks and trails, be designed and constructed to allow for immediate access from emergency personnel (City of Rancho Cordova 2005). Compliance with applicable codes and design standards would ensure that adequate access is provided for fire and emergency responders during operations of CAAP measure projects.

Construction activities for CAAP projects would occur within roadway rights-of-way and may require temporary lane closures or result in other traffic disruptions. Encroachment permits from the City would be required for all work within public rights-of-way. As a requirement of encroachment permit approval, project proponents would be required to develop a traffic control plan that meets the requirements of the most current California Manual on Uniform Traffic Control Devices (Caltrans 2021) and the latest edition of the Standard Specifications for Public Works Construction. Compliance with the encroachment permit and traffic control plan would ensure that adequate access is provided for fire and emergency responders for the duration of construction activities. Therefore, implementation of measures under the CAAP would not impair an adopted emergency response plan or emergency evacuation plan. This impact is less than significant. No mitigation is required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No impact. The Plan Area does not include a Very High FHSZ. As discussed in Section 3.14, "Population and Housing," CAAP measures that would be implemented as part of the program would not include the construction of new housing and do not propose changes to policies or regulations related to land use or residential zoning. Additionally, CAAP measures would not introduce new occupants that could be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of as wildfire. Furthermore, CAAP measures would be primarily within developed roadway rights-of-way where wildfire risk is low. No impact would occur. No mitigation is required.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than significant. The Plan Area does not include a Very High FHSZ. Implementation of the CAAP would result in alterations of public roadways. Specifically, the construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g). No other infrastructure (such as roads, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment are proposed. CAAP measures would not require the use of construction vehicles and equipment within very high FHSZ. The temporary and periodic use of construction vehicles and equipment has the potential to increase the risk of an accidental fire ignition. However, construction activities associated with their implementation would occur within developed roadway rights-of-way where wildfire risk is low. In addition, enforcement of the California Fire Code would require the implementation of fire safety measures during construction. Safety measures would include prohibiting smoking except in approved areas and ensuring proper use of motorized equipment so that exhausts do not discharge against combustible material and refueling would not occur while in equipment was in operation. Therefore, implementation of CAAP measures would not expose people to pollutant concentrations

from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or any other factors. This impact is less than significant. No mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant. The Plan Area does not include a Very High FHSZ. There are no landslide zones identified within the Plan Area. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in runoff or drainage changes. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). However, given the nature of future projects it is likely that construction activities would occur in already disturbed areas. EV charging stations would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. Further, future projects would be required to comply with the RCMC Chapter 16.44 which contains design standards and performance requirements and engineering analysis of slope stability, erosion control, and drainage. Enforcement of this City regulatory standard would ensure that implementation of the CAAP would not result in flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The impact would be less than significant. No mitigation is required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Environmental Setting

Environmental settings provided throughout Sections 3.1 to 3.20 were used in preparing the impact discussion for this section.

3.21.2 Discussion

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant impact. Implementation of the CAAP would involve ground disturbing activities, including grading and excavation. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (Transportation-1.3, -2.1, -2.2, and Adaptation-5g), installation of EV charging infrastructure (Transportation-5.1 through 5.4), and tree planting (Carbon Storage-1.1). Because ground disturbance would be limited to shallow depths, comprised of artificial fill or previously disturbed soils, resources that are important examples of major periods of California history or prehistory are unlikely to be encountered. In addition, construction activities associated with CAAP implementation would occur in already disturbed

developed areas such as roadways and parking lots. EV charging stations would be installed in new and existing developments, and roadway improvements such as roundabouts, walkways, and bicycle infrastructure would occur along existing developed roadways and cul-de-sacs. In addition, tree planting would occur within City green spaces, public rights-of-way and new development projects. As a result, CAAP implementation would not substantially reduce habitat for fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal species, or substantially reduce or restrict the range of an endangered, rare, or threatened species. Refer to Sections 3.4. Biological Resources, 3.5 Cultural Resources, and 3.18, Tribal Cultural Resources, for additional discussion of the reasons why CAAP implementation would not result in significant adverse effects to any biological, cultural, or tribal cultural resources. This impact is less than significant. No mitigation is required.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less than significant. Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts. Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time.

As described in Sections 3.1 through 3.20 of this checklist, construction activities implementing the CAAP would result in short-term and temporary effects on the environment, including the following: changes to the visual setting; increases in air pollutants and noise levels; erosion and degradation of water quality; potential releases of hazardous materials into the environment; and increases in demand for utilities and services. Construction-related effects would be localized within the immediate vicinity of each project site and would cease following the construction period. As a result, they are not considered cumulatively considerable. Additionally, compliance with applicable permits, programs, regulations referenced throughout this IS/proposed ND would minimize impacts such that construction-related impacts would not contribute to a cumulative effect when combined with the effects of other cumulative projects.

As described in Sections 3.1 through 3.20 of this checklist, operation of CAAP implementation would not result in substantially adverse environmental effects. Rather, CAAP implementation would reduce vehicle trips, with the co-benefits of reducing air pollutant and greenhouse gas emissions, reducing the rate of VMT, and reducing reliance on fossil fuels. CAAP implementation also would reduce natural gas consumption within building energy systems in the Plan area, which also improves air quality, reduces GHG emissions, and reducing use of non-renewable fossil fuels. As a result, they are not considered cumulatively considerable. Therefore, operations-related impacts would not contribute to a cumulative effect when combined with the effects of other cumulative projects.

Reasonably foreseeable future development in the Plan Area would be subject to the same land use and environmental regulations as described throughout checklist. Development projects within the city are guided by policies identified in the City’s General Plan and by the regulations established in the RCMC. Compliance with these local regulations would minimize the combined effects of the related projects, thereby minimizing the potential for those effects to combine with CAAP implementation to produce a cumulatively considerable impact. In addition, stand-alone projects associated with CAAP implementation would likely occur within developed areas and not associated with or near other development. As a result, they are not considered cumulatively considerable. Based on the above discussion, implementation of the CAAP would not result in a cumulatively considerable contribution to environmental impacts. This impact is less than significant. No mitigation is required.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less than significant. As discussed in Section 3.3, “Air Quality”; Section 3.8, “Greenhouse Gas Emissions”; Section 3.9, “Hazards and Hazardous Materials”; Section 3.10, “Hydrology and Water Quality”; Section 3.13, “Noise”; and Section 3.17, “Transportation”; project construction would result in the short-term and temporary increases in air pollutants, greenhouse gas emissions, and noise levels; degradation of water quality; potential releases of hazardous materials into

the environment; and disruptions to the transportation network. However, through compliance with applicable permits, programs, and regulations during construction, these environmental effects would not cause substantial adverse effects on human beings. Furthermore, these construction-related effects would be offset by the overall net benefits of CAAP implementation, which include improved air quality, reduced GHG emissions, lower consumption of non-renewable fossil fuels like natural gas and gasoline, and lower rates of VMT. Therefore, implementation of the CAAP would not result in substantial adverse effects on human beings. This impact is less than significant. No mitigation is required.

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4 REFERENCES

1 Introduction

No references used in this chapter.

2 Project Description

No references used in this chapter.

3 Environmental Checklist

3.1 Aesthetics

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3.21 Mandatory Findings of Significance

No references used in this section.

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CITY OF RANCHO CORDOVA

Climate Action & Adaptation Plan

July 2023



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List of Abbreviations

AB	Assembly Bill
BAU	Business-As-Usual
CAAP	Climate Action and Adaptation Plan
CAFE	Corporate Average Fuel Economy
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
city	City of Rancho Cordova
CO ₂ e	Carbon Dioxide Equivalent
Community Protocol	U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse Gas
ICLEI	ICLEI – Local Governments for Sustainability
Leg-adjusted BAU	Legislative-Adjusted Business-As-Usual
MTCO ₂ e	Metric Tons of CO ₂ e
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SACOG	Sacramento Area Council of Governments
SMUD	Sacramento Municipal Utility District
VMT	Vehicle Miles Traveled



EXECUTIVE SUMMARY





CITY OF
RANCHO CORDOVA



EXECUTIVE SUMMARY

OVERVIEW

The City of Rancho Cordova (hereafter referred to as “City”) has prepared this Climate Action and Adaptation Plan (CAAP) (hereafter referred to as “Plan”) to serve as a comprehensive roadmap to community sustainability and resilience in the city. The purposes of the Plan are to identify strategies and measures the City can take to reduce Greenhouse Gas (GHG) emissions to levels that align with the State of California’s goals and set forth strategies to adapt and promote resilience to the impacts of climate change.

In developing the Plan, the City evaluated the volume of emissions generated in a baseline year (2019 for this Plan) and identified City-specific targets and goals that determine the amount of community-wide emissions that need to be reduced in Rancho Cordova to align with statewide GHG reduction targets for 2030 and 2045. The City then developed GHG reduction measures to achieve the City’s 2030 target and make substantial progress towards the City’s 2045 goal. Additionally, in preparation of the Plan, the City conducted a climate change vulnerability assessment to better understand its vulnerability to climate hazards. This was then used to inform and develop a set of adaptation strategies, objectives, and actions to improve community resilience in the context of climate change. The successful implementation and administration of the Plan would reduce emissions and reduce climate related risks in the city, as well as provide other co-benefits like strengthening the city’s economy, improving risk management, cleaning the environment, and improving the health and wellness of residents.

PLAN DEVELOPMENT

The City kicked off the project in 2021 after which the City prepared GHG emissions inventories and forecasts, set GHG reduction targets, and conducted a climate change vulnerability assessment. The City then developed GHG emissions reduction and adaptation strategies, measures, and actions to be included in the Plan. Engagement with members of the public, government officials, and other stakeholders was conducted throughout the entirety of the project. Outreach and engagement efforts are described in the following section.

COMMUNITY ENGAGEMENT

The City hosted four public workshops and performed outreach efforts to engage residents, stakeholders, and other interested organizations and individuals. The purpose was to provide an opportunity for the community to participate in the Plan development process and ensure that the Plan equitably captured the ideas and concerns of residents and businesses.



Source: City of Rancho Cordova

The **first workshop** held on October 21, 2021, provided an overview of the purpose and objectives of the Plan and discussed the Plan process and project timeline. The **second workshop** held on January 13, 2022, summarized the city's primary vulnerabilities to climate change and when these climate change impacts are likely to occur. On April 14, 2022, the City held the **third workshop** and discussed updates in the Plan development process. The topics included the primary emissions sources and activities in Rancho Cordova, the role that legislative reductions¹ play in reducing emissions in the city, and how much lower the

future emissions need to be to align with California's climate goals. On November 16, 2022, the City hosted the **fourth and final workshop** which was the first in-person event. The purpose of the workshop was to gain feedback on actions the City can take to reduce GHG emissions. Due to the COVID-19 pandemic, the first three public workshops were held virtually, while the fourth workshop was an in-person event. An **online survey** was conducted after the fourth workshop to include feedback from residents who could not attend the final workshop.

The multiple sets of public events and additional methods for providing input on the Plan provided residents and stakeholder groups the opportunity to contribute to the Plan development. Additionally, the City conducted a public opinion survey, the results of which are discussed in the sections below.

EMISSIONS INVENTORY AND REDUCTION TARGETS

The 2019 communitywide emissions is 679,700 metric tons of carbon dioxide equivalent ("MTCO₂e"). Figure ES 1 shows how much is 679,700 MTCO₂e in terms of cars driven, smartphones charged, home energy used, and area of forests used. The emissions inventory includes the following emissions sectors:



- On-Road Transportation



- Off-Road Vehicles and Equipment



- Building Energy



- Water Supply



- Solid Waste



- Wastewater Treatment

Out of the seven emissions sectors included in the Plan, **on-road transportation and building energy** are responsible for **94 percent** of emissions in the city.

To reduce communitywide emissions in alignment with statewide targets, the Plan has established the following:

- ▶ 2030 target: 36 percent below 2019 levels (438,300 MTCO₂e annually); and
- ▶ 2045 goal: 81 percent below 2019 levels (129,300 MTCO₂e annually)

¹ Legislative Reductions are reductions in emissions from communitywide activities and sources that result from actions of the State, federal, or regional government agencies. Examples include enacted laws, adopted regulations, standards, and plans.

HOW MUCH IS 679,700 METRIC TONS OF GREENHOUSE GASES ?



146,456 gasoline-powered cars
driven for one year



82,681,236,543 smartphones
charged



132,253 homes'
electricity use for one year

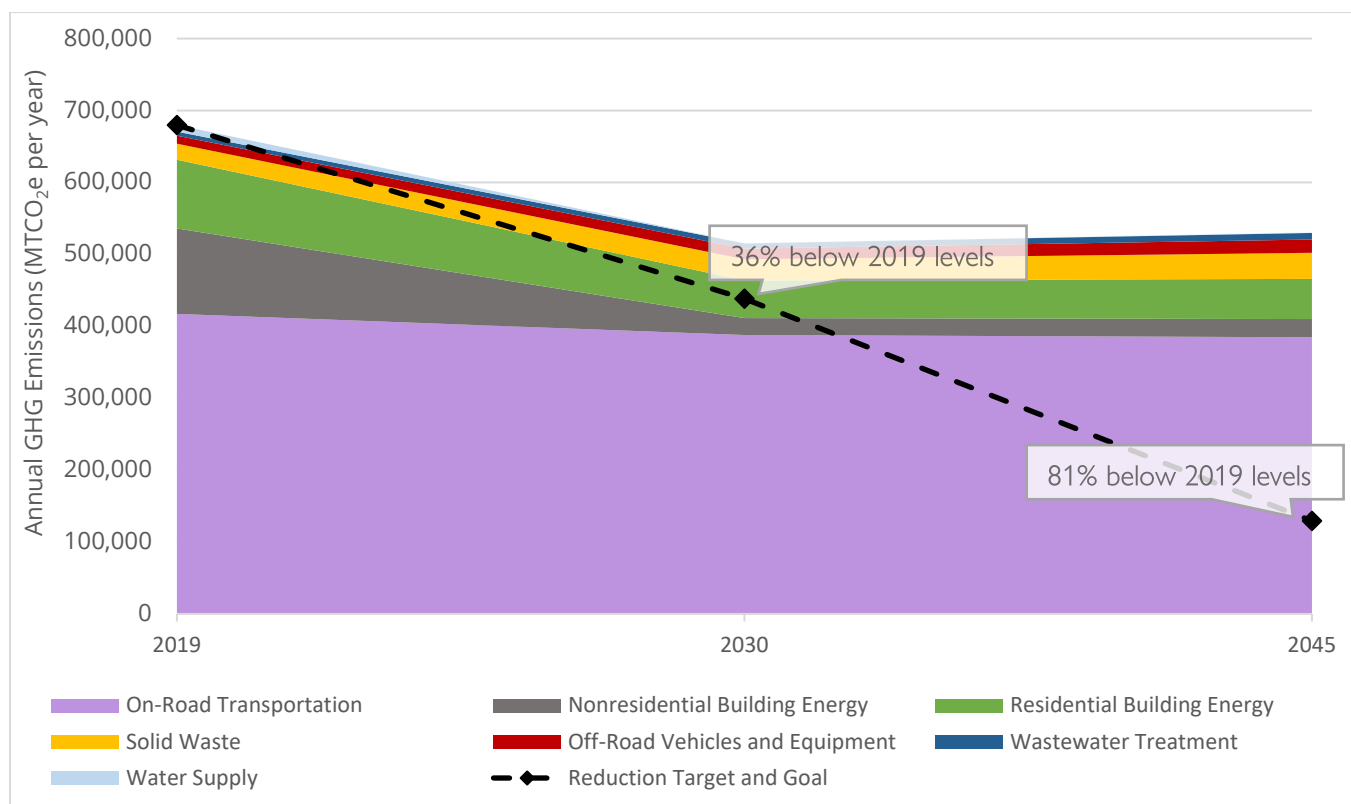


804,388 acres
of U.S. forest used
in one year

Source: US Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, 2023.

Figure ES 1 Rancho Cordova's 2019 communitywide emissions equivalencies

Figure ES 2 depicts the 2019 baseline and City's legislative-adjusted BAU forecast by sector. The black line indicates the City's GHG reduction target for 2030 and 2045 relative to the City's 2019 GHG inventory. The space between the trajectory of the black line and the top of the colored wedges represents the "gap" in emissions that needs to be addressed through local actions for the City to meet its GHG reduction targets. The City needs to reduce annual GHG emissions by 77,100 MTCO₂e in 2030 and 400,600 MTCO₂e in 2045 to achieve the targets.



Source: Ascent Environmental 2022.

Figure ES 2 Rancho Cordova's Legislative-Adjusted BAU Forecast by Sector, 2030 Emission Reduction Target: 36% below 2019 levels, and 2045 Emission Reduction Goal: 81% below 2019 levels

Appendix A presents the inventory technical memorandum, Appendix B details the methodology for preparing the communitywide emissions inventory and projections, Appendix C presents the forecast and target technical memorandum, and Appendix D details the methodology for preparing the emissions reduction targets and goals.

PLAN AT A GLANCE

Emission Reduction Measures

To achieve the 2030 target and to make substantial progress toward the 2045 goal, the Plan proposes a Strategy Framework consisting of 14 GHG reduction strategies, 34 GHG emission reduction measures, and supporting actions briefly summarized in Table ES 1 below. The strategy framework contains additional information like annual emissions reduced, percent of the City's total reductions, performance targets, and supporting actions identified by the City to assist in achieving each strategy's performance target. For measures labeled as "quantified" the CAP provides estimates of the measure's annual GHG reduction potential; measures labeled as "qualitative" would also reduce GHG emissions but their annual GHG reduction potential is not estimated in the CAP. The additional details are presented in Chapter 3, section 1.3.2, and GHG reduction calculation details are included in Appendix E.

Table ES 1 Summary of Emissions Reduction Strategy Framework identified in the Plan

Getting To, From, and Around the City (On-road Transportation Sector)			
Strategy Transportation-1 Support development of walkable, interconnected neighborhoods, villages, and districts	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		6,700	17,100
Transportation-1.1: Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit (Quantified)			
Transportation-1.2: Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects (Qualitative)			
Transportation-1.3: Improve street connectivity, for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments (Qualitative)			
Transportation-1.4: Limit the number of drive-through businesses (Qualitative)			
Strategy Transportation-2 Make walking and biking safe and attractive for people of all ages and abilities	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		11,500	12,800
Transportation-2.1: Update Bike and Pedestrian Master Plans to increase the number of low-stress bikeways and walkways that connect homes to destinations (Quantified)			
Transportation-2.2: Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals (Qualitative)			
Transportation-2.3: Provide temporary or permanent car-free zones or “slow streets” in specified areas, for example, individual blocks or residential streets (Qualitative)			
Transportation-2.4: Install measures to reduce vehicle speeds and calm traffic on city streets (Qualitative)			

Strategy Transportation-3 Provide transit options that are accessible, reliable, and convenient	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		5,800	10,200
Transportation-3.1: Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day (Quantified)			
Transportation-3.2: Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes) (Quantified)			
Transportation-3.3: Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18) (Quantified)			
Transportation-3.4: Expand the SmaRT Ride area and convert the shuttles to electric shuttles (Quantified)			
Strategy Transportation-4 Reduce drive alone vehicle trips	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		3,800	6,800
Transportation-4.1: Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking (Quantified)			
Transportation-4.2: Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals (Qualitative)			
Transportation-4.3: Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals (Qualitative)			
Transportation-4.4: Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives, and support to encourage use of transportation options other than driving alone (Qualitative)			
Strategy Transportation-5 Transition to electric and zero emission vehicles	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		27,000	171,300
Transportation-5.1: Install EV chargers in new residential, commercial, and industrial projects (Quantified)			
Transportation-5.2: Install publicly accessible EV chargers on existing private property (Quantified)			
Transportation-5.3: Install EV chargers on public property (Quantified)			
Transportation-5.4: Electrify loading docks and/or require idling-reduction systems (Qualitative)			
Transportation-5.5: Limit new gasoline/diesel fueling stations (Qualitative)			
Using Energy in Homes and Businesses (Building Energy Sector)			
Strategy Energy-1a Increase energy efficiency and electrification in existing residential buildings	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		9,700	29,000
Energy-1.1: Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking (Quantified)			
Strategy Energy-1b Increase energy efficiency and electrification in existing nonresidential buildings	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		2,100	10,000

Energy-1.2: Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking (**Quantified**)

Strategy Energy-2a

Increase energy efficiency and electrification in new residential buildings

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

1,400

5,100

Energy-2.1: Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site) (**Quantified**)

Strategy Energy-2b

Increase energy efficiency and electrification in new nonresidential buildings

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

430

1500

Energy-2.2: Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2) (**Quantified**)

**Using Equipment for Landscaping and Construction
(Off-Road Vehicle and Equipment Sector)**

Strategy Offroad-1

Transition to electric and zero emissions technologies for landscaping equipment

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

130

260

Offroad-1.1: Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives (**Quantified**)

Offroad-1.2: Convert new landscaping equipment to electric or zero-emission alternatives (**Quantified**)

Strategy Offroad-2

Transition to electric and zero emissions technologies for construction equipment

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

1,700

9,200

Offroad-2.1: Increase electrification and use of alternative fuels in construction projects (**Quantified**)

Offroad-2.2: Reduce construction vehicle idling (**Quantified**)

**Using Water and Disposing of Waste at Homes and Businesses
(Water and Solid Waste Sectors)**

Strategy Water-1

Conserve water

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

0*

0*

Water-1.1: Reduce indoor water use in existing and new buildings (**Qualitative**)^

Water-1.2: Reduce outdoor water use for landscaping and irrigation in existing and new developments (**Qualitative**)^

*Emissions reduced from water measures estimated to be zero in 2030 because water-related energy needs assumed to be met by 100% renewable or zero emission electricity by 2030.

Strategy Solid Waste-1

Avoid disposal of organic waste in landfills

Annual GHG Reduction
Potential (MTCO₂e)*

2030

2045

8,800

32,600

Solid Waste-1.1: Increase recovery of edible food waste (**Quantified**)

Solid Waste-1.2: Eliminate disposal of organic waste in landfills (food waste, yard waste) (**Quantified**)

Planting and Managing Trees (Carbon Sequestration Sector)			
Strategy Carbon Sequestration-1 Increase the number of trees in the city, through new plantings and management of existing trees	Annual GHG Reduction Potential (MTCO ₂ e)*	2030	2045
		440	1,100
Carbon Storage-1.1: Increase the number of trees in the city, through new plantings and management of existing trees (Quantified)			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

^Emissions reduced from water measures estimated to be zero in 2030 because water-related energy needs assumed to be met by 100% renewable or zero emission electricity.

Adaptation Strategies

In addition to strategies and measures to reduce GHG emissions, the Plan also includes a set of five adaptation strategies to help the City prepare for and become more resilient to the impacts of climate change. Each adaptation strategy includes two to three tailored objectives, which are accompanied by an array of actions that can be implemented to help achieve those objectives. The adaptation strategies and objectives are summarized in Table ES 2 below. Further details, such as the associated actions for each strategy and set of objectives, are presented in Chapter 4. The city's Vulnerability Assessment Technical Memo, which was used to inform the adaptation strategies, is included in Appendix F.

Table ES 2 Summary of Adaptation Strategies identified in the Plan

Strategy Adaptation-1. Improve resilience to increased temperatures and extreme heat.	
Objectives:	▶ Reduce the urban heat island effect. ▶ Protect populations from extreme heat.
Strategy Adaptation-2. Improve resilience to extreme precipitation and flooding.	
Objectives:	▶ Promote climate-smart flood management. ▶ Add redundancy to the City's flood management system.
Strategy Adaptation-3. Improve resilience to drought.	
Objectives:	▶ Reduce water consumption. ▶ Ensure long-term sustainability and reliability of the City's water supplies.
Strategy Adaptation-4. Improve resilience to wildfires.	
Objectives:	▶ Protect populations from wildfire smoke and poor air quality. ▶ Mitigate the impacts from potential Public Safety Power Shutoff events during high wildfire risk conditions.

Strategy Adaptation-5.

Promote holistic community resilience in the context of climate change.

Objectives:

- ▶ Coordinate equitable education, outreach, and engagement.
- ▶ Promote robust emergency services and other planning activities.
- ▶ Protect the built environment from climate hazards.

2022 RANCHO CORDOVA CLIMATE ACTION PLAN PUBLIC OPINION SURVEY

In addition to the online survey conducted after the fourth workshop, the City commissioned a public opinion survey to measure residents' attitudes about climate change and their opinions about the City government taking steps to reduce climate change and its impacts. The City conducted a telephone survey with 300 randomly selected participants to provide another form of outreach for resident input. The purpose was to better understand residents' perceptions of climate change and what steps the City should take to address issues associated with climate change. The survey results indicated that climate change is a very important issue for the majority of residents and a majority also responded that climate change will be very harmful or somewhat harmful to them or loved ones. A majority of the residents think it is very important for the City to take steps to reduce the impacts of climate change. A majority of residents also strongly or somewhat support specific City actions related to encouraging people to travel without using their private vehicles such as walking, biking, sharing rides, and using public transportation; increasing the use of electric vehicles, and encouraging energy efficiency and reduced natural gas consumption in existing buildings and new construction. Encouraging the use of electric-powered instead of gas-powered landscape and construction equipment was the only City-specific action that was not strongly or somewhat supported by a majority of residents. A plurality of residents somewhat support this action (41.5 percent), while approximately one-third (31.6 percent) strongly oppose this action, and 9.8 percent indicated they somewhat oppose it. No residents (0 percent) indicated strong support for this action.

Strategy highlights

- i. **Maximum emissions reduction:** Strategy Transportation-5. Transition to electric and zero emission vehicles.
- ii. **Addresses safety and mobility challenges for people with different abilities:** Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities.
- iii. **Improves aesthetics and provides cleaner air:** Strategy Carbon Sequestration-1. Remove emissions from the atmosphere.

IMPLEMENTATION STRATEGY

After the adoption of this Plan, the City will develop an implementation strategy for the Plan measures. It will be based on several factors such as budget capacity and availability of funding opportunities and will involve collaboration with the Sacramento Municipal Utility District ("SMUD"), other public and private agencies, and neighboring cities. The success of Plan implementation will also depend on the participation of residents, businesses, and other stakeholders in the city and region.

The City will implement the measures of the CAAP through several types of programs and activities that may include changes in municipal operations; new ordinances or code updates; development conditions of approval; advanced planning efforts; provision of incentives or financing; public agency or private partnerships; and education and outreach. The Plan's effective implementation will require a process to prioritize its strategies and measures periodically. Potential funding sources to support Plan implementation are listed in Appendix G.

MONITORING STRATEGY

The Plan will be monitored over time to assess the progress by tracking key indicators for each measure. Changing circumstances, such as State and federal laws and programs, updates to climate science, changes in technology, or evolving local, State, federal, or even global economic and social conditions, may necessitate changes to the Plan. If the Plan is not achieving the desired outcomes, the measures or actions will need to be altered or amended.

City staff will evaluate the performance of each GHG reduction action that has been implemented. Evaluating the performance requires monitoring the level of community participation, costs, and potential barriers to implementation, as well as activities that result in GHG emissions reductions like actual reductions in fuel consumption, vehicle miles traveled, energy usage, water usage, landfilled waste, and so on. In addition to considering these factors, assessing the performance of Plan adaptation actions will be informed by resilience-related improvements in the community. The City staff will regularly monitor and report on adaptation and climate hazards and will update the strategies and actions when needed. By evaluating whether the implementation of an action is on track to achieve its objective, the City can identify successful actions and reevaluate or replace underperforming measures.

To provide updates on Plan implementation progress, City staff will prepare a monitoring report every two years. Finally, the City will prepare a GHG emissions inventory and an update to the plan every five years, with the first update due in 2028. Updates would reflect the findings of the monitoring reports and inventory updates. Table ES 3 shows the City's implementation and monitoring timeframe.

Table ES 3 City's Implementation and Monitoring Timeframe

Year	Milestone	Description
2023	Plan adopted	City Council adopts the Plan.
2023	Develop Implementation Strategy	City staff begins to develop the implementation strategy.
2023	Plan Implementation	City staff begins to implement Plan measures.
2025	Monitoring Report	City staff will prepare a monitoring report every two years and present the report to City Council and Planning Commission. The first monitoring report will be completed two years from Plan adoption. Each monitoring report will evaluate implementation status of the Plan's GHG reduction measures. The monitoring report will identify whether any of the measures require amendment to maintain progress toward achieving the emissions reductions identified in the Plan.
2028	GHG Emissions Inventory Update	An updated GHG inventory will be prepared to track the Plan implementation progress by assessing the City's progress towards achieving the emissions reductions identified in the Plan.
2028	Plan Update	Based on the results of the monitoring report and updated GHG emissions inventory, the City will update the Plan to include new or amended measures, remove, or update any ineffective measures, and incorporate new technologies and methodologies as necessary to ensure the Plan is on track to achieve the City's target and goal.

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND THE PLAN

The California Environmental Quality Act (CEQA) is a statute that requires local agencies to identify significant environmental impacts of their actions and avoid or mitigate those impacts, if feasible. The 2022 Scoping Plan emphasizes the use of CEQA as a tool by local jurisdictions for supporting the State's climate priorities. When a local Plan complies with CEQA requirements, individual projects that comply with the Plan are allowed to streamline the project-specific GHG analysis. The City plans to utilize this tool for ensuring that new development is constructed with more sustainable and low-carbon features than existing development. By following this approach, the Plan has been prepared consistent with the provisions of CEQA Guidelines Section 15183.5 ("Qualified Plan"). As a result, it provides new development project applicants in the city the opportunity to use CEQA streamlining tools for projects that are consistent with this Plan. Demonstrating consistency with the Plan establishes that a project will not result in an "additional environmental effect" related to GHG emissions. A project's consistency with this Plan will be determined through a Consistency Checklist ("Checklist"). The Checklist will include the GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to achieve the City's 2030 reduction target and make substantial progress toward the 2045 goal. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements.

PLAN ORGANIZATION

This Plan is divided into five main chapters. Chapter 1, introduces the City's Plan, outlines the goal of the Plan, and the development process in detail. Chapter 2 describes the community's 2019 baseline GHG emissions inventory, presents 2030 and 2045 emissions forecasts, and identifies community emissions reduction targets. GHG emissions reduction strategies and measures are included in Chapter 3. Chapter 4 presents an overview of the climate adaptation planning process, a summary of the city's climate change vulnerability assessment, and adaptation strategies, objectives, and actions that can be implemented to strengthen community resilience to climate change. Lastly, Chapter 5 provides a framework for implementing and monitoring the Plan and includes a timeline for future updates.



CHAPTER 1: Introduction





CHAPTER 1: Introduction

1.1 INTRODUCTION TO THE CLIMATE ACTION AND ADAPTATION PLAN

The City of Rancho Cordova (hereafter referred to as “City”) has prepared its first Climate Action and Adaptation Plan (CAAP) (hereafter referred to as “Plan”) to serve as a comprehensive roadmap to community sustainability and resilience in the city. It lays out a set of strategies to reduce Greenhouse Gas (“GHG”) emissions and the potential impacts of climate change in Rancho Cordova. At a local level, annual temperatures and intensity of precipitation events are projected to increase over time. These changes could result in increased heat waves, wildfire risk, and flooding, resulting in adverse effects on residents’ health and safety, economic prosperity, infrastructure, and the provision of public services. The Plan identifies strategies and measures the City can take to address climate change by reducing GHG emissions to levels that align with Statewide GHG reduction targets and strategies and actions for the City to adapt and promote resilience to the impacts of climate change in Rancho Cordova.

In developing the Plan, the City evaluated the volume of emissions generated in a baseline year (2019 for this Plan) and identified City-specific targets and goals that determine the amount of community-wide emissions that need to be reduced in Rancho Cordova to align with statewide GHG reduction targets for 2030 and 2045. The City then developed GHG reduction measures to achieve the City’s 2030 target and make substantial progress towards the City’s 2045 goal. Additionally, in preparation of the Plan, the City conducted a climate change vulnerability assessment to better understand its vulnerability to climate hazards. This was then used to inform and develop a set of adaptation strategies, objectives, and actions to improve community resilience in context of climate change. The successful implementation and administration of the Plan would reduce emissions and reduce climate related risks in the city, as well as provide other co-benefits like strengthening the City’s economy, improving risk management, cleaning the environment, and improving the health and wellness of residents. At a local scale, communities can work towards reducing their carbon footprint by changing habits to consume less energy, generate less waste, conserve water, use sustainable transportation modes, and promote carbon sequestration.

1.1.1 Why is the Plan Important?

Through the Plan, community members can take climate action specific to the city’s requirements. By beginning to plan now and engaging in more sustainable practices, communities will be better suited to adapt to climate change and increase resiliency for the future. The Plan lays out prospects to shape the future development of the city in the way that the homes, businesses, and communities become more sustainable and less vulnerable to

climate risks. While saving money and promoting a healthier environment, the implementation of the Plan will improve livability and quality of life for the residents of Rancho Cordova.

1.1.2 Plan Goals

The 2019 communitywide emissions is 679,700 metric tons of carbon dioxide equivalent (“MTCO₂e”). In order to reduce emissions and meet statewide targets, the Plan has established local reduction targets consistent with statewide emissions reduction targets for 2030 and 2045. To support the achievement of statewide GHG reduction targets and reduce emissions locally, the Plan sets the following emission reductions targets using 2019 levels as a reference point:

- ▶ 2030 target: 36 percent below 2019 levels (438,300 MTCO₂e annually); and
- ▶ 2045 goal: 81 percent reduction from 2019 levels (129,300 MTCO₂e annually).

This Plan provides a summary of baseline GHG emissions and the potential growth in these emissions over time. A summary of the City’s emissions inventory, emissions projections, and methodology for setting GHG reduction targets is discussed further in Chapter 2. The strategies and measures that the City will implement to achieve the 2030 emissions reduction target and make substantial progress toward the 2045 goal are discussed in Chapter 3. The Plan also illustrates strategies and measures that the City will implement to adapt to climate change risks and vulnerabilities in Chapter 4. As part of Plan implementation, each strategy and measure should be continually assessed and monitored. More information on administering, implementing, and monitoring the Plan is included in Chapter 5.

Why

did the City prepare a Plan?

- to align with State climate goals
- establish city specific climate action and guide future development
- to maintain consistency in GHG reduction
- to support infill housing production
- to leverage other regional sustainability programs

1.2 SUMMARY OF THE PLAN DEVELOPMENT PROCESS

This section gives an overview of the internal and external processes in developing this Plan. It briefly describes the City’s process for Plan development and external engagement with residents and other stakeholders. Figure 1.1 presents the components of the CAAP development process.



Source: Ascent Environmental 2023.

Figure 1.1 Components of the CAAP development process

1.2.1 Plan Development

The City kicked off the project in 2021 after which the City prepared GHG emissions inventories and forecasts, set GHG reduction targets, and conducted a climate change vulnerability assessment. These tasks were completed by the first quarter of 2022 and then the City developed GHG emissions reduction strategies, measures, and actions, along with adaptation strategies, objectives, and actions to be included in the Plan. These efforts created the foundation for developing this Plan, which occurred in the first quarter of 2023.

Engagement with City staff, members of the public, government officials, and other stakeholders was conducted throughout the entirety of the project. Outreach and engagement efforts are described in the following section.

1.2.2 Community Engagement

The Plan serves as a resource and starting point to support the City's long-term sustainability efforts. Effective and long-term climate action and resiliency in the City can only be achieved through active and ongoing partnerships between residents, businesses, the City, and other agencies and organizations in the city.

Residents can support climate action by:

- consuming less energy
- producing less waste
- conserving water
- composting
- avoiding drive alone trips

The City hosted four public workshops and performed outreach efforts to engage residents, stakeholders, and other interested organizations and individuals. The purpose was to provide an opportunity for the community to participate in the Plan development process and ensure that the Plan equitably captured the ideas and concerns of residents and businesses. Due to the COVID-19 pandemic, the first three public workshops were held virtually, while the fourth workshop was an in-person event. The

attendees included a diverse mix of participants including Rancho Cordova residents, business owners, members of local climate groups, neighborhood associations, community council members, people who had property in the city, and so on. The workshops served to inform attendees about the project scope and goals and solicited input to gain a better understanding of the community's climate change concerns and priorities.

The **first workshop** held on October 21, 2021 was attended by 26 people. It provided an overview of the purpose and objectives of the Plan, and discussed the Plan process and project timeline. It also provided information on how the community can get involved in the development process.

The **second workshop** held on January 13, 2022, summarized the city's primary vulnerabilities to climate change and when these climate change impacts are likely to occur. 31 people including residents and business owners attended the workshop that briefed on activities that are contributing to the city's greenhouse gas emissions and emission categories contributing to these emissions.

On April 14, 2022, the City held the **third workshop** which was attended by 17 people. It discussed updates in the Plan development process. The topics included the primary emissions sources and activities in Rancho Cordova, the role that federal, State, regional, and local actions play in reducing emissions in the city, and how much lower the future emissions need to be to meet California's climate goals. Attendees had the opportunity to share thoughts on potential mitigation measures the City could take to reduce emissions to levels that meet the climate targets.

On November 16, 2022, the City hosted the **fourth and final workshop** and first in-person event. It was attended by 12 people. The purpose of the workshop was to gain feedback on actions the City can take to reduce greenhouse gas emissions. The workshop included a short presentation, followed by an interactive activity and discussion about ideas and priorities. A handout illustrating the City's measures to reduce greenhouse gas emissions was distributed among participants to serve as a reference for sharing the feedback. It offered an opportunity for participants to comment on proposed GHG reduction strategies and measures and to identify barriers to personal climate action choices. To increase opportunities for all residents to provide feedback, an **online survey** was also conducted after the fourth workshop to include feedback from residents and stakeholders who could not attend the workshop. 48 people responded to this survey.

Why

is the community engagement process important?

- to provide the community an opportunity to participate in the City's climate action
- to advance equality and reduce disparities
- to ensure that the benefits are shared among all city residents

Public input gathered from the workshops and the survey played a key role in determining the City's approach to climate change mitigation and adaptation through ground-truthing the technical analyses conducted for the Plan development. The multiple sets of public events and additional methods for providing input on the Plan provided residents and stakeholder groups the opportunity to contribute to Plan development.

1.3 2022 RANCHO CORDOVA CLIMATE ACTION PLAN PUBLIC OPINION SURVEY

The City asked residents for their comments and suggestions concerning the Plan, emissions reduction measures, and adaptation strategies through community workshops and an online survey. In addition to this, the City commissioned a public opinion survey to measure residents' attitudes about climate change and their opinions about the City government taking steps to reduce climate change and its impacts. The City conducted a telephone survey with 300 randomly selected participants concerning issues related to its Plan. The purpose of the survey was to better understand resident perceptions of climate change and the City taking steps to address climate change. Specific issues examined in this survey included the community's views on:

Why

did the City conduct a Public Opinion Survey?

- to ask residents for their comments and suggestions concerning the Plan.
- to provide another form of outreach for resident input.
- to collect inputs on a randomly selected basis

- ▶ How important climate change is to them personally.
- ▶ How harmful climate change will be to them and to future generations.
- ▶ How important it is for the City to take steps to reduce climate change and its impacts.
- ▶ How supportive the community is of specific steps the City could take to reduce the impact of climate change.

The survey results indicated that climate change is a very important issue for the majority of residents and a majority also responded that climate change will be very harmful or somewhat harmful to them or loved ones. A majority of the residents think it is very important for the City to take steps to reduce the impacts of climate change. A majority of residents also strongly or somewhat support specific City actions related to encouraging people to travel without using their private vehicles such as walking, biking, sharing rides, and using public transportation; increasing the use of electric vehicles, and encouraging energy efficiency and reduced natural gas consumption in existing buildings and new construction. Encouraging the use of electric-powered instead of gas-powered landscape and construction equipment was the only City-specific action that was not strongly or somewhat supported by a majority of residents. A plurality of residents somewhat support this action (41.5 percent), while approximately one-third (31.6 percent) strongly oppose this action, and 9.8 percent indicated they somewhat oppose it. No residents (0 percent) indicated strong support for this actions.

1.4 PROJECT WEBSITE

To provide project information and resources to the community and stakeholders, the City developed a webpage dedicated to the City's Plan (located at <https://www.cityofranhocordova.org/residents/community-topics/climate-action-plan>). It includes an overview of the project, updates on the workshops and the online survey held, GHG emissions and adaptation related information and technical documents, and other supporting documents and materials. This webpage supported public participation from the initiation of the project to the development of this Plan. After adoption of the Plan, the webpage will be updated to include updates on Plan implementation and monitoring.

1.5 REGIONAL CLIMATE PLANNING EFFORTS

The Plan is developed in the context of existing plans and policies occurring within the region that support the reduction of GHG emissions and prepare the community for the anticipated effects of climate change. These include, but are not limited to:

- ▶ Sacramento County led an update to the countywide 2016 Local Hazard Mitigation Plan (Sacramento County, 2021) in 2021, in coordination with incorporated cities, reclamation districts, and other special districts. This will complement the Plan's adaptation framework and further assist in alleviating vulnerability to climate change impacts in the city.
- ▶ The Sacramento Area Council of Governments (SACOG) adopted its most recent Sustainable Communities Strategy (SCS) in 2020 (SACOG, 2023), which provides policies and implementation actions for GHG reductions in the on-road transportation sector, consistent with statewide targets set by the California Air Resources Board (CARB). The Plan's transportation sector measures can be aligned with the SCS for more effective emission reduction in the city.
- ▶ The Capitol Region Urban Heat Island Mitigation Project, led by Sacramento Metropolitan Air Quality Management District (SMAQMD) and the Local Government Commission, built detailed models of the Urban Heat Island effect in the Sacramento region and used them to evaluate the effectiveness of a range of heat mitigation measures (SMAQMD, 2020). This will complement the Plan's adaptation framework and further assist in alleviating vulnerability to climate change impacts in the city.
- ▶ The Sacramento Municipal Utility Department (SMUD)'s Home Performance Program (HPP) is a whole-house approach that bundles energy-efficiency upgrades to deliver more savings, comfort, and rebate options. This program can be effective in supporting strategies identified in this Plan for reducing emissions from the building energy sector.
- ▶ SMUD collaborated with Five Star Bank and LoanGlide to offer Sustainable Home Improvement Loans to help residential customers finance energy efficiency upgrades. This includes converting from gas-to-electric appliances and equipment and improvements like windows and weatherization. These initiatives align with the supporting actions identified in this Plan for reducing emissions from the building energy sector.
- ▶ SacRT initiatives which include providing County residents access to micro-transit, electric busses, and expanded light rail service, for example, the Fare-Free Transit for Students and Youth Initiative and the SacRT SmART Ride where customers can request a ride that will pick up and drop off passengers within the service boundaries. These initiatives align with the supporting actions identified in this Plan for reducing emissions from the transportation sector.

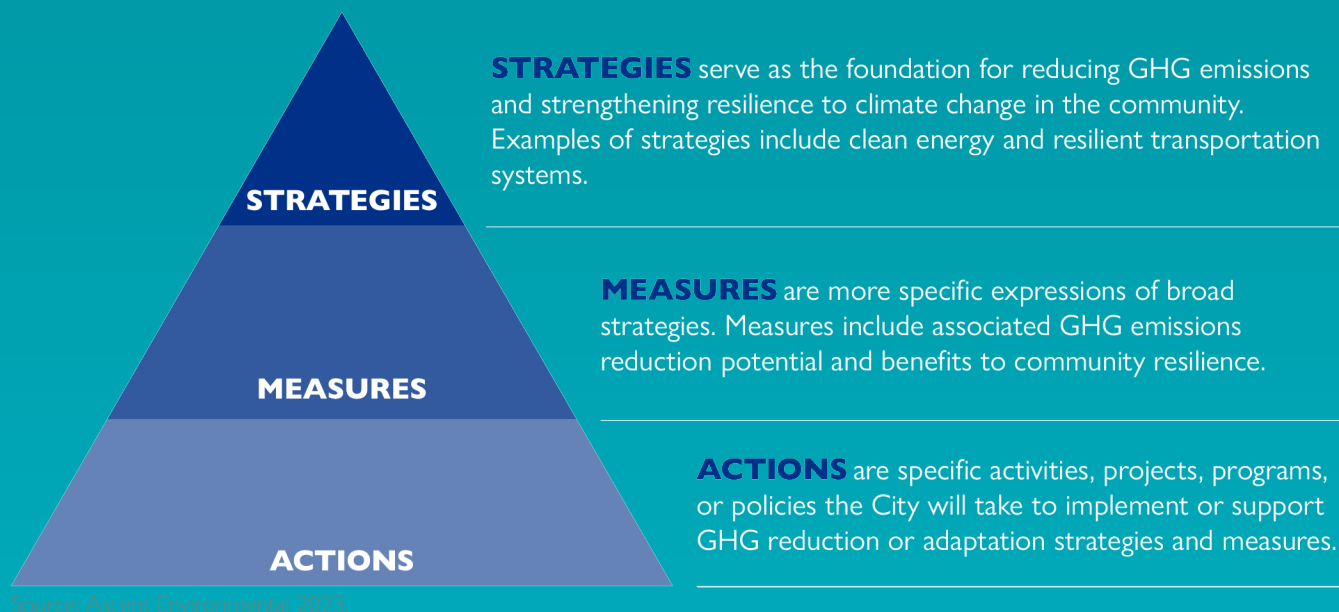
3.6 HOW TO READ THIS PLAN

3.6.1 Organization

This Plan is divided into five main chapters. This chapter, Chapter 1, introduces the City's Plan, outlines the goal of the Plan, and the development process in detail. Chapter 2 describes the community's 2019 baseline GHG emissions inventory, presents 2030 and 2045 emissions forecasts of the city, and identifies community emissions reduction targets. GHG emissions reduction strategies and measures are included in Chapter 3. Chapter 4 presents an overview of the climate adaptation planning process, a summary of the city's climate change vulnerability assessment, and adaptation strategies, objectives, and actions that can be implemented to strengthen community resilience to climate change. Lastly, Chapter 5 provides a framework for implementing and monitoring the Plan and includes a timeline for future updates. It also includes a list of potential funding sources the City can consider for the administration, implementation, and monitoring of measures included in this Plan.

3.6.2 Emissions Reduction and Adaptation Framework

The GHG emissions reduction strategies and measures in Chapter 3 and the adaptation strategies and objectives in Chapter 4 are presented under a similar framework. Each chapter presents strategies that serve as the foundation for addressing the ways in which GHG emissions can be reduced and resilience can be improved in the community. Within each GHG emissions reduction strategy are one or more measures that represent activities that the City would consider in order to achieve the target. Similarly, each of the adaptation strategies includes two to three tailored objectives. Both the GHG emissions reduction measures and adaptation objectives include a set of detailed actions that define the specific actions, projects, programs, or policies the City can implement or support to reduce GHG emissions and strengthen community resilience.

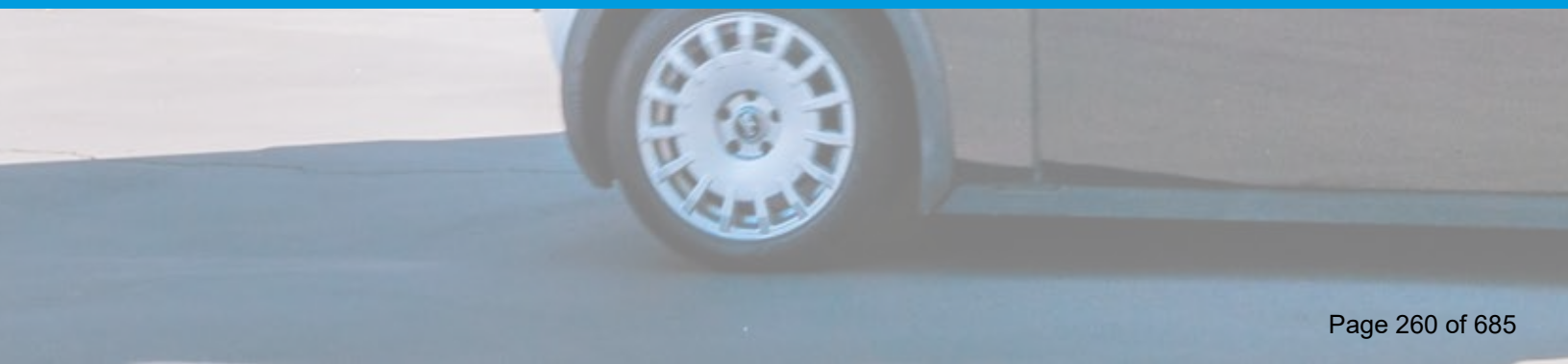




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CHAPTER 2: Greenhouse Gas Emissions Inventory





CHAPTER 2: Greenhouse Gas Emissions Inventory

2.1 OVERVIEW

This chapter summarizes the first three components of the Plan development process - identifying and estimating primary sources and annual levels of GHG emissions for a baseline year (also called a baseline inventory); estimating emissions trends and projections in the absence of local reduction measures (also called forecasts); and setting local emissions reduction goals over time to reduce contributions to climate change effects (also called targets) (refer to section 1.2 for components of the Plan).

2.2 BASELINE INVENTORY

Why

a baseline inventory?

- identifies emissions sources and their relative contribution
- provides a baseline for emissions forecasts
- supports the establishment of reduction targets and goals
- informs the development of reduction measures
- provides a framework to track the changes in emissions in the city

Conducting a baseline inventory for a jurisdiction is the process of quantifying emissions from the potential sources during a single calendar year. It informs about the emissions sources and activities and reports about the relative contribution of each. This process supports the forecasting of future emissions, the setting of targets and goals to reduce emissions, and the development of reduction measures. This section describes sources and levels of communitywide emissions in Rancho Cordova.

The City's emissions inventory is based on the 2019 baseline year – the most recent year for which reliable data were available at the time this plan was developed. Rancho Cordova's inventory is based on the most recent guidance for community-scale emissions inventories developed by ICLEI's Community Protocol, Version 1.2, published in July 2019 (ICLEI 2019). Appendix A and B present

detailed methods and assumptions used for developing the communitywide emissions inventory. Consistent with the protocol's requirements, the inventory is prepared for a baseline year that reflects the current communitywide emissions conditions and establishes a foundation to compare how emissions are estimated to grow in the future. Emissions generating activities are divided into categories called emissions sectors.

The inventory includes the following emissions sectors:



- **On-Road Transportation**

- this sector includes emissions from passenger and commercial vehicles that operate within the city, and to and from the city.



- **Building Energy**

- Residential Building Energy – this sector includes emissions generated from the use of electricity and natural gas in residential buildings in the city.
- Non-residential Building Energy – this sector includes emissions generated from the use of electricity and natural gas in non-residential buildings in the city.



- **Solid Waste**

- this sector includes emissions associated with waste generated by residents and businesses in the city.



- **Off-Road Vehicles and Equipment**

- this sector includes emissions from off-road vehicles and equipment that operate in the city.



- **Water Supply**

- this sector includes emissions associated with residential and commercial water consumption



- **Wastewater Treatment**

- this sector includes emissions associated with residential and commercial wastewater treatment

2.2.1 Rancho Cordova's Emissions Inventory

The 2019 communitywide emissions is 679,700 MTCO₂e. Out of the seven emissions sectors included in the Plan, on-road transportation and building energy are responsible for 94 percent of emissions in the city. Table 2.1 shows the results of the inventory and Figure 2.1 shows the share of emissions generated by each sector. Appendix A presents the inventory technical memorandum and Appendix B details the methodology for preparing the communitywide emissions inventory.

Table 2.1 2019 City of Rancho Cordova Community Greenhouse Gas Emissions Inventory

Sectors	MTCO ₂ e/year	Percent of Total
On-Road Transportation	417,100	61%
Nonresidential Building Energy	118,800	17%
Residential Building Energy	95,600	14%
Solid Waste	22,400	3%
Off-Road Vehicles and Equipment	11,000	2%
Water Supply	9,100	1%
Wastewater Treatment	5,700	1%
Total	679,700	100%

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalent per year

Source: Ascent Environmental 2022.

HOW MUCH IS 679,700 METRIC TONS OF GREENHOUSE GASES ?



146,456 gasoline-powered cars
driven for one year



82,681,236,543 smartphones
charged

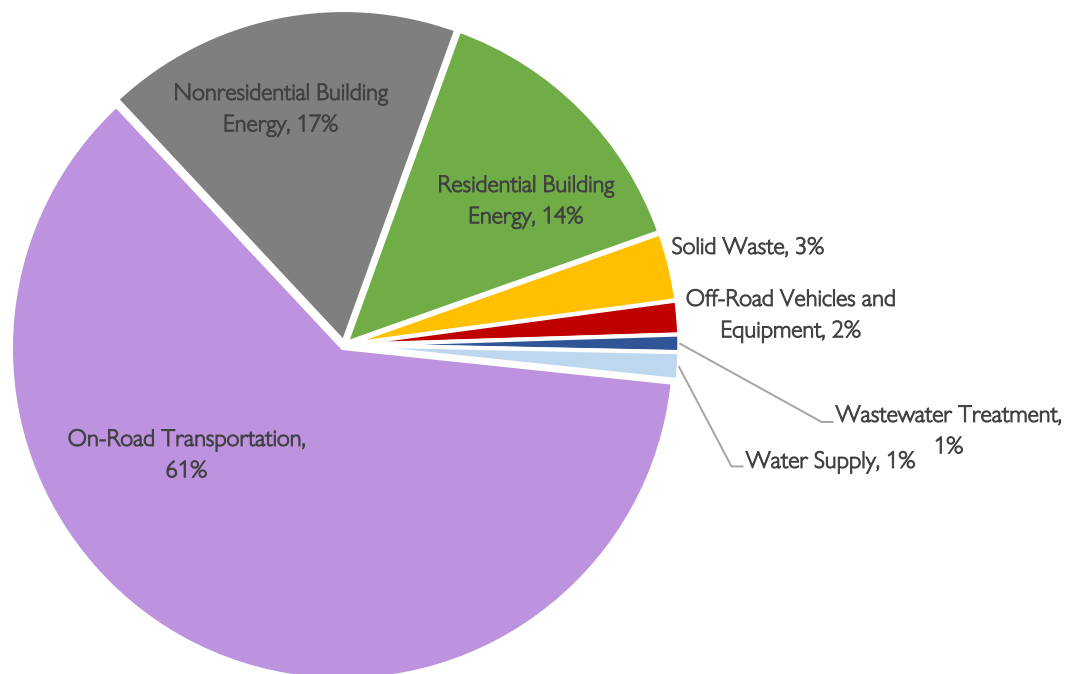


132,253 homes'
electricity use for one year



804,388 acres
of U.S. forest used
in one year

Source: US Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, 2023.



Source: Ascent Environmental 2022.

Figure 2.1 2019 City of Rancho Cordova Communitywide Greenhouse Gas Emissions Inventory

2.3 EMISSIONS FORECASTS

The next phase in the Plan process is to estimate communitywide emissions over time. Comparing the forecasts with targets will provide an emissions gap that the city needs to address to achieve the target. This information is critical to evaluating the City's performance in mitigating emissions and understanding where the City should focus its efforts in the future. The 2019 baseline inventory is used to scale emissions to 2030 and 2045. Emissions forecasts are based on the following two factors:

Why

an emissions forecast?

- identifies emissions gap
- provides a framework for comparing changes in emissions in the future

- (i) Community Activities: change in community activities like population, number of employees, and vehicle miles traveled (VMT) results in a change in communitywide emissions.
- (ii) Legislative Reductions Federal, State, and regional actions that reduce GHG emissions from communitywide activities and sources. Examples of these initiatives include a law, regulation, standard, or program.

2.3.1 Future Emissions without Legislative Reductions (Business-As-Usual Forecast)

The emissions forecast without legislative reductions (also known as Business-As-Usual or BAU Forecast) is an assessment of the City's emissions solely based on how the community activities will change over time without further local, regional, State, or federal action. It assumes that no further government action is taken to reduce GHG emissions and reflects only the change emissions that results from change in community activities. Table 2.2 shows activity projections in the city from 2019 to 2045 that are used to inform the BAU Forecast of GHG emissions, and also inform the Legislative-Adjusted BAU Forecast, which is described in the next section.

Table 2.2 Rancho Cordova Demographic and Vehicle Miles Traveled Projections

Forecast Factor	2019	2030	2045
Population	77,579	102,122	125,427
Employment	61,991	73,604	84,213
Annual VMT	919,218,798	1,071,357,646	1,307,495,381

Notes: VMT = vehicle miles traveled.

Source: SACOG Growth Forecast for the 2020 MTP/SCS; Fehr & Peers; adapted by Ascent Environmental in 2022.

2.3.2 Future Emissions with Legislative Reductions (Legislative-Adjusted BAU Forecast)

Emissions forecast with legislative reductions (also known as Legislative-Adjusted Business-As-Usual or Legislative-Adjusted BAU forecast) is an assessment of the City's emissions based on the changes in community activities including adopted legislative and regulatory actions at the regional, State, or federal levels. The legislative reductions applied to estimate emissions under this forecast are listed in Table 2.3.

Table 2.3 Summary of Legislative Reductions Applied in the Legislative-Adjusted BAU Forecast

Source	Legislative Reduction	Description	Sectors Applied
Regional	2030 Zero Carbon Plan	Establishes a target for SMUD to supply 100 percent renewable electricity by 2030.	Residential and Nonresidential Building Energy, Water Supply
State	California's Building Energy Efficiency Standards (2019 Title 24, Part 6)	Requires all new buildings in California to comply with energy efficiency standards established by CEC. Accounts for the energy efficiency gains associated with lighting, heating, cooling, ventilation, and water heating	Residential and Nonresidential Building Energy

Source	Legislative Reduction	Description	Sectors Applied
		improvements, as well as onsite solar photovoltaic requirements for low-rise residential.	
State	Advanced Clean Cars I Standards	Establishes GHG emission reduction standards for model years 2017 through 2025 that are more stringent than federal CAFE standards.	On-Road Transportation
State	Truck and Bus Regulation	Requires diesel trucks and buses that operate in California to be upgraded to reduce GHG emissions.	On-Road Transportation
Federal	Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles	Establishes fuel efficiency standards for medium- and heavy-duty engines and vehicles.	On-Road Transportation
Federal	EPA Off-Road Compression-Ignition Engine Standards	Establishes standards for phasing of EPA diesel engine tiers for off-road compression-ignition equipment.	Off-Road Vehicles and Equipment

Notes: CAFE = Corporate Average Fuel Economy; CEC = California Energy Commission; EPA = U.S. Environmental Protection Agency; GHG = greenhouse gas, SMUD = The Sacramento Municipal Utility District.

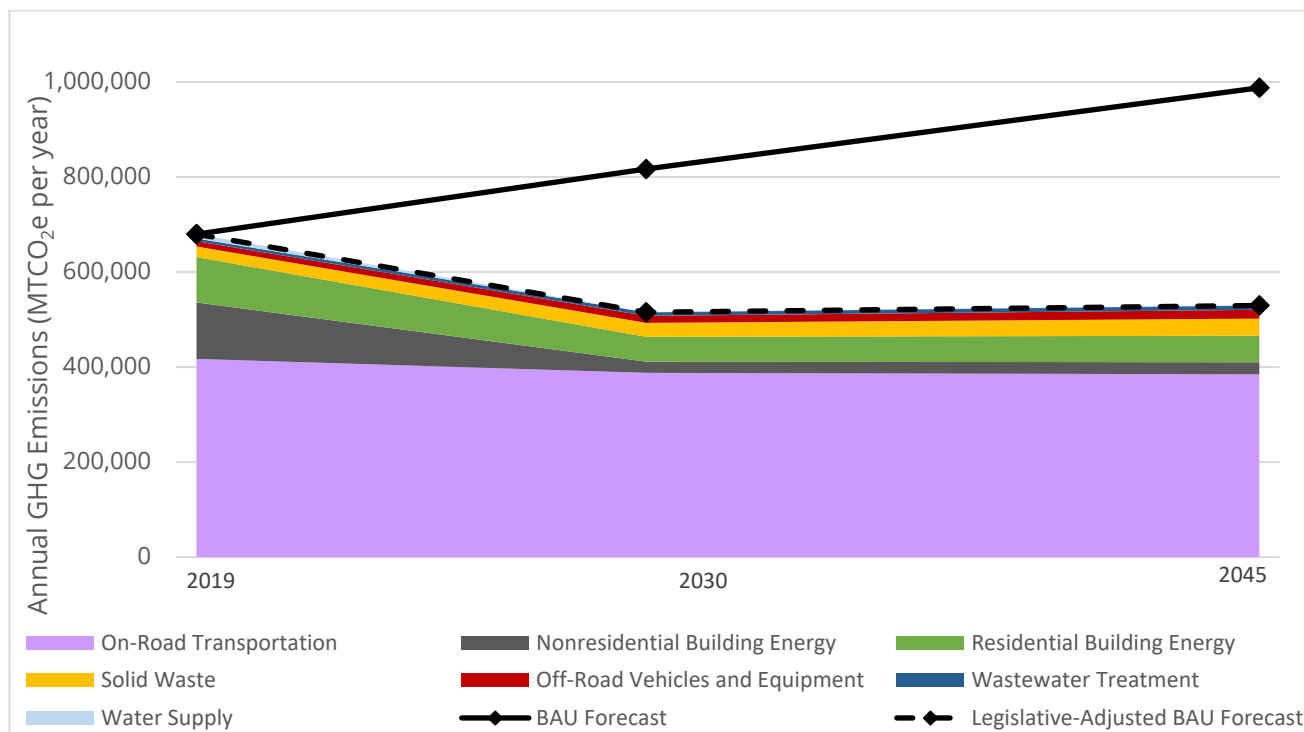
Figure 2.2 and Table 2.4 present the City's 2019 inventory with BAU forecast and Legislative-Adjusted BAU forecast for 2030 and 2045. With the legislative actions, the City's emissions would decrease by approximately 22 percent between 2019 and 2045 and by approximately 24 percent between 2019 and 2030. In 2030, the legislative-adjusted BAU Forecast is 37 percent lower than the BAU forecast, while in 2045, legislative-adjusted BAU Forecast is 46 percent lower than the BAU forecast.

Table 2.4 Rancho Cordova 2019 Greenhouse Gas Emissions Inventory, BAU Forecast, and Legislative-Adjusted BAU Forecast for 2030 and 2045 (MTCO₂e/year)

Sector	2019	2030		2045	
	Baseline Emissions	BAU Forecast	Legislative-Adjusted BAU Forecast	BAU Forecast	Legislative-Adjusted BAU Forecast
On-Road Transportation	417,100	486,200	387,800	593,300	384,700
Nonresidential Building Energy	118,800	141,100	23,600	161,400	25,300
Residential Building Energy	95,600	125,800	52,200	154,500	55,900
Solid Waste	22,400	29,500	29,500	36,200	36,200
Off-Road Vehicles and Equipment	11,000	14,800	14,800	18,500	18,500
Water Supply	9,100	12,000	0	14,700	0
Wastewater Treatment	5,700	7,500	7,500	9,200	9,200
Total	679,700	816,700	515,400	987,800	529,800

Notes: Total may not sum exactly due to independent rounding. MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Ascent Environmental 2023.



Source: Ascent Environmental 2023.

Figure 2.2 Rancho Cordova 2019 Greenhouse Gas Emissions Inventory, BAU Forecast, and Legislative-Adjusted BAU Forecast for 2030 and 2045

2.4 EMISSIONS REDUCTION TARGETS

Rancho Cordova's 2030 emissions reduction target and 2045 goal have been developed to align with the statewide emissions reduction targets for 2030 and 2045. As directed in Senate Bill (SB) 32 and Assembly Bill (AB) 1279, the State aims to reduce Statewide annual GHG emissions to:

- ▶ 40 percent below 1990 levels by 2030; and
- ▶ net zero emissions as soon as possible and no later than 2045, with at least an 85 percent reduction from 1990 levels for anthropogenic sources.¹

Consistent with State targets and considering relevant emissions sectors, this Plan establishes the following communitywide GHG reduction target for 2030 and GHG reduction goal for 2045:

- ▶ 2030 target: 36 percent below 2019 levels (438,300 MTCO₂e annually); and
- ▶ 2045 goal: 81 percent below 2019 levels (129,300 MTCO₂e annually).

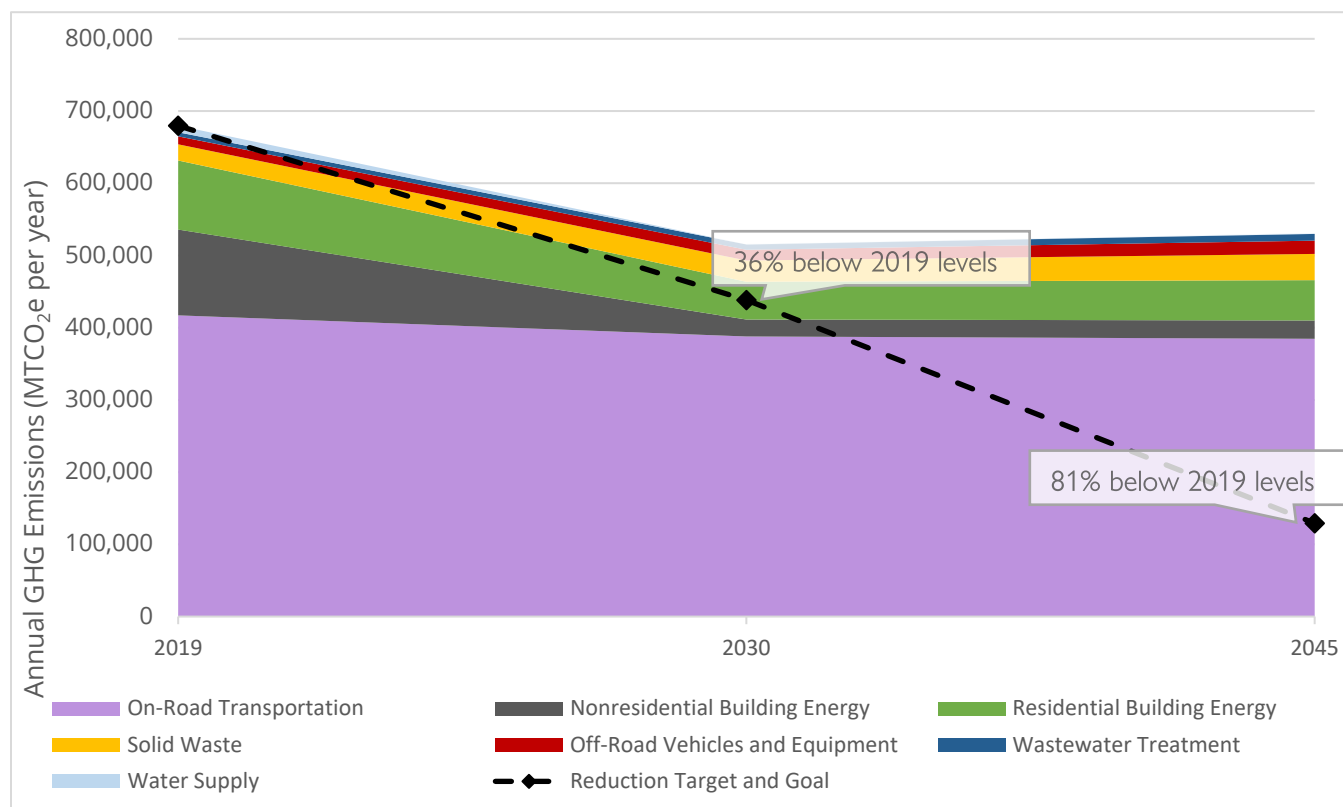
¹ Anthropogenic sources are human activities that generate emissions.

2.5 LOCAL EMISSIONS GAP

Figure 2.3 below depicts the 2019 baseline and legislative-adjusted BAU forecast by sector. The black line indicates the City's GHG reduction target for 2030 and the 2045 goal relative to the City's 2019 baseline emissions level. The space between the trajectory of the black line and the top of the colored wedges represents the "gap" in emissions that will need to be addressed through local actions for the City to meet its GHG reduction target and goal. To address the gap, the City has identified a strategy framework including emissions reduction strategies, measures, and supporting actions. The strategy framework is presented in Chapter 3. Appendix A presents the inventory technical memorandum, Appendix B details the methodology for preparing the communitywide emissions inventory and projections, Appendix C presents the forecast and target technical memorandum, and Appendix D details the methodology for preparing the emissions reduction targets and goals.

Chapter 3 of the Plan identifies emissions reduction measures to that seek to close the following emissions gaps:

77,100 MTCO₂e/year by 2030
400,500 MTCO₂e/year by 2045



Source: Ascent Environmental 2022.

Figure 2.3 Rancho Cordova's Legislative-Adjusted BAU Forecast by Sector, 2030 Emission Reduction Target: 36% below 2019 levels, and 2045 Emission Reduction Goal: 81% below 2019 levels

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CHAPTER 3:

Emissions Reduction Strategies & Measures





CHAPTER 3: Emissions Reduction Strategies and Measures

3.1 OVERVIEW

This chapter summarizes the fourth component of the Plan development process – the development of emissions reduction strategies and measures (refer to section 1.2 for components of a Plan). It outlines strategies and measures the City can take to achieve the emissions reduction target for 2030 (reducing emissions to 36 percent below 2019 levels) and make substantial progress toward the 2045 goal (reducing emissions to 81 percent below 2019 levels).

3.2 EMISSIONS REDUCTION STRATEGIES AND MEASURES

This Plan includes strategies, measures, and supporting actions that address the following major climate change-related activities that can be influenced by the City's actions:

- ▶ Getting To, From, and Around the City (On-road Transportation Sector)
- ▶ Using Energy in Homes and Businesses (Building Energy Sector)
- ▶ Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)
- ▶ Using Water and Disposing of Waste at Homes and Businesses (Water Supply, Wastewater, and Solid Waste Sectors)
- ▶ Planting and Managing Trees (Carbon Sequestration Sector)

The strategies and measures focus on reducing GHG emissions that are generated from activities occurring in Rancho Cordova. The City will implement these measures in the coming years through planned programs, policies, and projects. Additional to reducing emissions, which is the primary purpose of these strategies and measures, these will also result in added co-benefits that would occur through implementation, such as improved environmental quality, improved health outcomes, enhanced community character, address historic underinvestment, create job opportunities, and improve resilience to climate change impacts.

Implementation of the strategies and measures in this chapter would be adequate to meet the City's 2030 emissions reduction target (36 percent below 2019 levels) and make sufficient progress towards the 2045 goal (81 percent below 2019 levels). However, because the city is already experiencing the effects of climate change, this Plan includes multiple measures to adapt to climate change impacts, discussed in Chapter 4.



Source: Ascent Environmental 2023.

3.3 GREENHOUSE GAS REDUCTION STRATEGY DEVELOPMENT

The implementation of GHG reduction strategies and measures over the years will affect the entire community and these effects will persist for a long time. Hence, it is necessary that the strategies take into consideration the present and future circumstances of the community. This includes taking into consideration the requirements and aspirations of the people as well as the pressure that will be placed on the community resources. To develop strategies that best support community activities and make the best use of community resources, it is important that the whole community works as a unit and contributes to the strategy development process. Hence, the process of developing GHG reduction strategies is critical.

In developing the strategies and measures in this Plan, City staff identified the potential for future projects in the City and gathered input from residents, business owners, and community organizations, through a series of workshops and surveys. The City hosted these public events for residents, business owners, and community leaders where they were able to provide input and feedback on proposed measures. Input from these workshops was used to further define measures and identify measure goals. These outreach efforts are described in Chapter 1, section 1.2.2.

3.3.1 Greenhouse Gas Emissions Reduction Summary

If communitywide emissions in the city were to continue to grow unimpeded, the city is anticipated to generate 816,800 MTCO_{2e} in 2030 and 987,800 MTCO_{2e} in 2045. While legislative reductions would further reduce 301,400 MTCO_{2e} per year, the City would still need to reduce annual emissions by 77,100 MTCO_{2e} by 2030 and 400,500 MTCO_{2e} by 2045 to achieve the proposed emissions reduction targets. Table 3.1 presents the summary of communitywide emissions growth with and without emissions reduction strategies and measures identified in this Plan and Figure 3.1 shows the share of emissions reductions from strategies identified in the Plan for 2030.

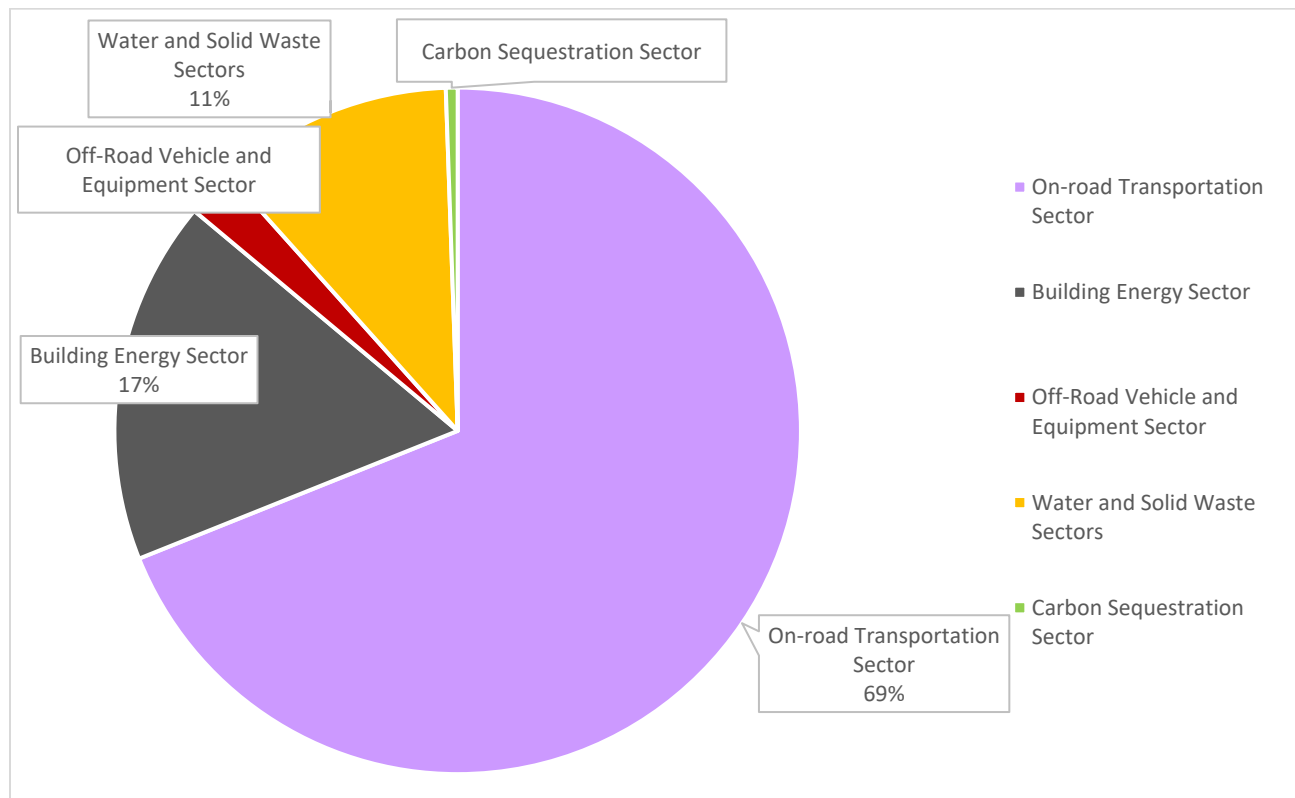
Table 3.1 Greenhouse Gas Emissions Reductions Summary

Emissions Sectors	2030 Emissions (MTCO ₂ e)	2045 Emissions (MTCO ₂ e)
BAU Forecast	816,700	987,800
Legislative Reductions	301,400	458,000
Legislative-Adjusted BAU forecast	515,400	529,800
Target Emissions	438,300	129,300
Total Reductions from Strategies and Measures	79,700	307,800
Reductions from On-Road Transportation Measures	54,800	218,200
Reductions from Building Energy Measures	13,600	45,600
Reductions from Off-Road Vehicle and Equipment Measures	1,800	9,500
Reductions from Solid Waste Measures	8,800	32,600
Reductions from Carbon Sequestration Sector Measures	440	1,000
Communitywide Emissions with Strategies and Measures	435,700	222,200

Notes: Numbers are rounded to the nearest thousand; values and totals may not equal the values summed in other tables or figures;

MTCO₂e = metric tons of carbon dioxide equivalent

Source: Ascent Environmental 2023.



Source: Ascent Environmental 2023.

Figure 3.1 GHG Emissions Reductions from Emissions Reduction Strategies and Measures in 2030

3.3.2 Emissions Reduction Strategies and Measures

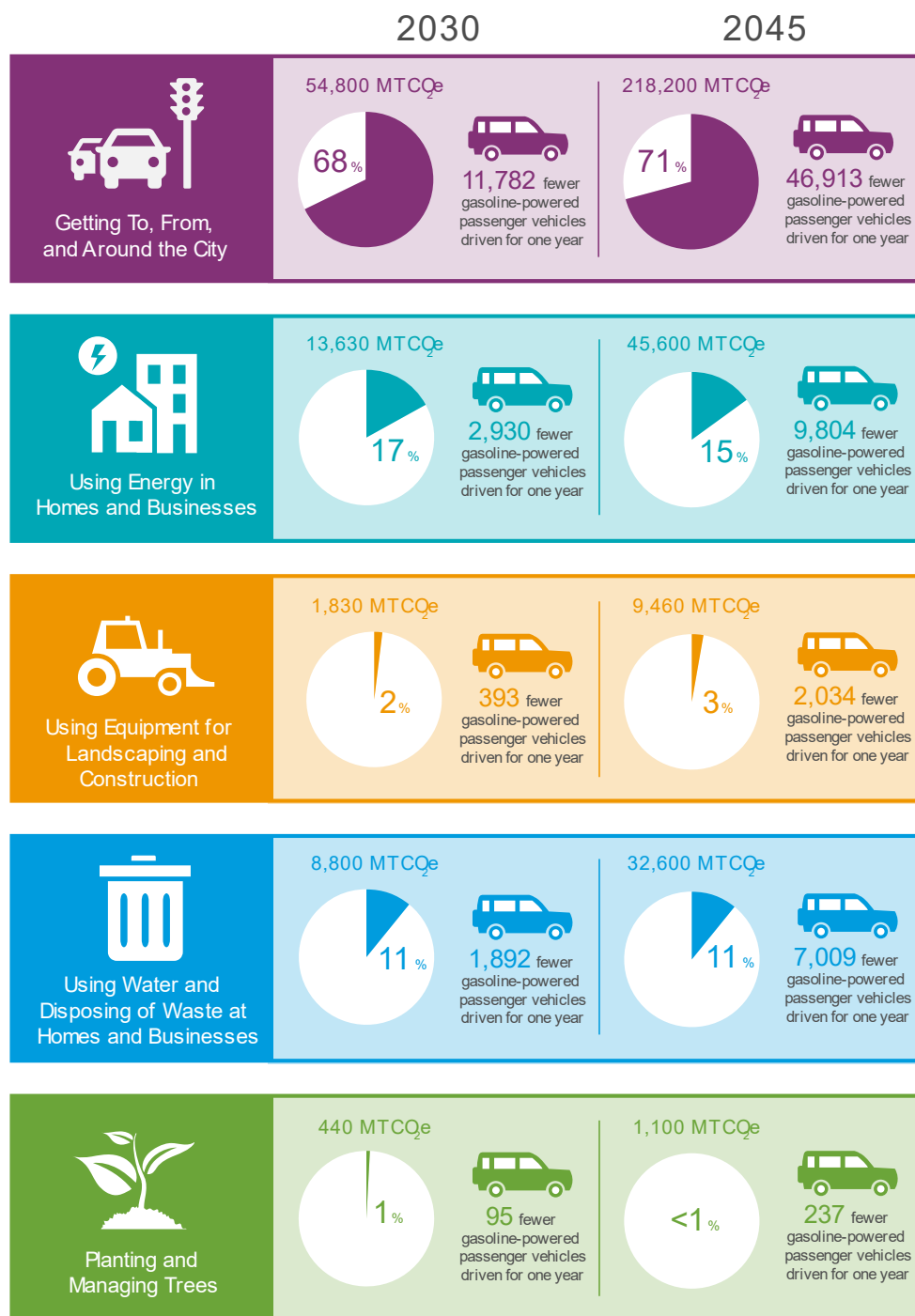
To close the gap between the legislative-adjusted BAU forecast and the 2030 emission reduction target, the Plan proposes a Strategy Framework consisting of 14 GHG reduction strategies and 34 GHG emission reduction measures, developed based on a combination of factors, including:

- ▶ the feasibility of the measure to be implemented by the City;
- ▶ existing policies, actions, or programs that can be expanded;
- ▶ proposed policies and plans yet to be adopted;
- ▶ feedback from the community workshops

The Strategy Framework is developed to achieve the 2030 reduction target and make substantial progress toward the 2045 goal. The City has also identified supporting actions that will assist in achieving each strategy's performance target but were not directly quantified toward meeting the City's reduction targets. For each strategy, the reduction strategy framework is shown in the form of tables in the sections below. The tables consist of strategies, measures, annual emissions reduced, percent of the City's total reductions, performance targets, and supporting actions. Each term used in the tables is defined here and emissions reduction strategies and measures details are included in Appendix E.

- ▶ **Strategy:** City's overall approach for reducing GHG emissions from an activity or in a sector.
- ▶ **Measure:** Activities the City could perform to implement a strategy; one or more measures are identified for each strategy.
- ▶ **Supporting Actions:** Specific actions that the City could take to successfully implement the strategy and the measures under that strategy.
- ▶ **Estimated Outcomes:** City-prepared estimates of how the implementation of the proposed measures is anticipated to affect GHG emissions levels and the performance of certain activities. The following outcomes are reported for each measure:
 - **Performance Metric:** Change in the activity that proposed measures have the potential to achieve.
 - **GHG Reduction Potential:** Estimated decrease per year from the associated measures in the target year. Emissions are measured in units of metric tons of carbon dioxide equivalent (MTCO₂e) per year.
 - **Percent of the City's Total Reductions:** Share of the City's total annual emissions reduction in the target year.

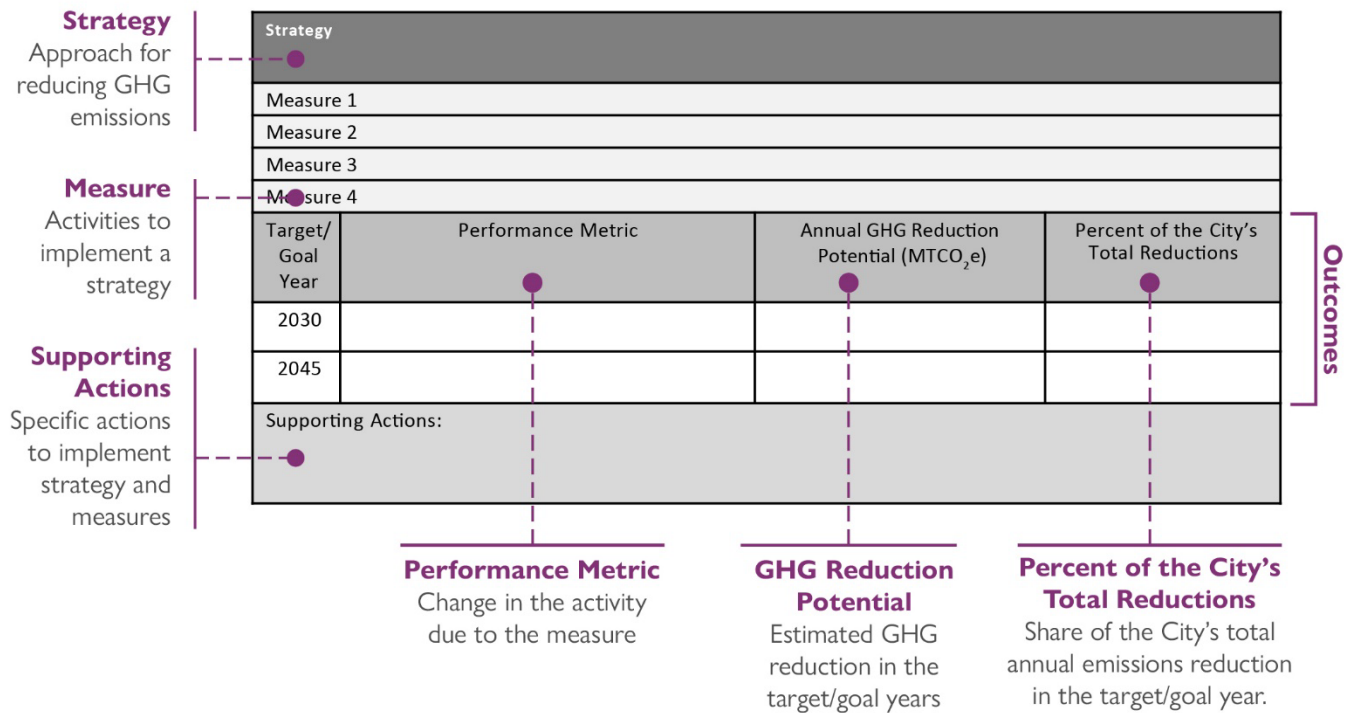
Figure 3.2 summarizes the outcomes of emissions reduction strategies and measures identified in this Plan. It shows the contribution of each emissions reduction sector in the City's future emissions in 2030 and 2045 and denotes how much reduction each sector represents in terms of fewer gasoline-powered passenger vehicles driven for one year. Figure 3.3 shows the table template used for presenting the strategy framework under each sector.



Note: Emissions reduction numbers are rounded to the nearest thousand.

Source: Appendix E, US Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, 2023. Ascent Environmental, 2022,

Figure 3.2 Summary of Potential GHG Emissions Reductions from Measures Identified In This Plan



Source: Ascent Environmental 2023.

Figure 3.3 How to Read Strategies and Measures

GETTING TO, FROM, AND AROUND THE CITY (ON-ROAD TRANSPORTATION SECTOR)



Source: City of Rancho Cordova

The majority of communitywide emissions are from the on-road transportation sector. These emissions are generated by the combustion of fossil fuels (gasoline and diesel) in motor vehicles, and in 2019, this sector accounted for 61 percent of total community GHG emissions. The amount of vehicle miles traveled (VMT) in the city, or the distance of travel by residents and visitors, is the primary factor that determines on-road transportation emissions. VMT in the city is impacted by factors such as accessibility of alternative transportation options (for example, transit) and land use planning. Vehicle fuel efficiency and fuel carbon intensity standards also affect GHG emissions generated by on-road transportation. Legislative reductions from improvements in federal and State vehicle fuel efficiency standards will contribute to reducing transportation emissions by requiring the development of cleaner vehicle fleets. However, the City will have to rely on local actions to reduce the frequency or distance of vehicle travel or reduce the use of internal combustion vehicles by shifting to alternative modes of transportation (for example, bicycling, transit) or alternative fuel types (for example, electric vehicles).

Strategies and Measures

Because the transportation sector represents the largest source of community GHG emissions, it presents the most significant opportunities to achieve emissions reductions. This section outlines transportation and land use-related strategies and measures the City will implement to help meet its emissions reduction targets. Transportation and land use measures are organized under five strategies that will be implemented at the local level in the city with the goal of increasing zero-emission or alternative fuel vehicle use, increasing transportation system efficiency for existing and future travel patterns, and increasing the use of alternative travel modes.

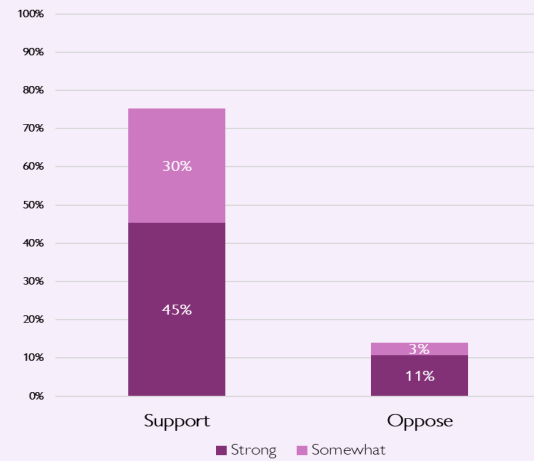
Strategy Transportation-1. Support development of walkable, interconnected neighborhoods, villages, and districts

Emissions reductions can be achieved by reducing the number of trips by car and encouraging active transportation. Under this strategy, the City plans to increase pedestrian connectivity between neighborhoods, villages, and districts in the city and develop infrastructure that encourages walking, riding an electric-powered bike, scooter, or skateboard, or any other way of getting to daily destinations like work, school, recreation, or appointments without using a fossil-fuel motorized vehicle. The four measures provided under this strategy require the community's support for the successful implementation of this strategy. It would reduce emissions by 6,700 MTCO₂e in 2030 and 17,100 MTCO₂e in 2045. This is equivalent to removing 1,441 gasoline-powered passenger vehicles in 2030 and 3,677 gasoline-powered passenger vehicles in 2045 (calculated using USEPA GHG Equivalencies Calculator, 2022). Table 3.2 provides the details of the measures, performance metrics, and supporting actions under this strategy to encourage the use of active modes of transportation.

Table 3.2 Strategy Transportation-1

Strategy Transportation-1 Support development of walkable, interconnected neighborhoods, villages, and districts	
Transportation-1.1: Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit (Quantified)	
Transportation-1.2: Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects (Qualitative)	
Transportation-1.3: Improve street connectivity, for example, by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments (Qualitative)	
Transportation-1.4: Limit the number of drive-through businesses (Qualitative)	

Support for City Action Regarding Encouraging people to go to work, school, and other activities without using their private vehicles



Source: 2022 Rancho Cordova Climate Action Plan Public Opinion Survey

Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Total miles driven in a year from new development would decrease by 10% in 2030 (relative to 2030 scenario without the proposed measures)	6,700	8%
2045	Total miles driven in a year from new development would decrease by 15% in 2045 (relative to 2045 scenario without the proposed measures)	17,100	6%

Supporting Actions:

- Increase the density and intensity of residential, commercial, and mixed-use development near public transit.
- To prevent parking spillover, implement permit parking in nearby residential areas and market-rate pricing of public on-street parking.
- Review City codes/regulations and update as needed to ensure businesses/groups have flexibility to use off-street parking spaces for outdoor activities like outdoor dining and retail.
- Update policies on roadway spacing/street networks in new development.
- Convert existing cul-de-sacs or dead ends to grid streets.
- Develop and implement the recommendations of the City's upcoming Roundabout Feasibility Study.
- Unbundle residential parking costs.
- Use improved materials and engineering designs to make walking and transit easier.
- Provide educational programs and campaigns to encourage people to walk, bike, and take transit.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities

Making active transportation safe and attractive would increase motivation to choose ways of getting around that do not include using a fossil-fuel motorized vehicle. Emissions reductions can be achieved by refining existing laws, enhancing traffic safety laws, set up car-free zones and time slots in the city. The four measures provided under this strategy require collaboration from local and regional agencies and support from residents. The implementation of this strategy would reduce emissions by 11,500 MTCO₂e in 2030 and 12,800 MTCO₂e in 2045. This is equivalent to removing 2,437 gasoline-powered passenger vehicles in 2030 and 2,752 gasoline-powered passenger vehicles in 2045 (calculated using USEPA GHG Equivalencies Calculator, 2022). Table 3.3 provides the details of the measures, performance metrics, and supporting actions under this strategy to encourage the use of active modes of transportation.

Table 3.3 Strategy Transportation-2

Strategy Transportation-2 Make walking and biking safe and attractive for people of all ages and abilities			
Transportation-2.1: Update Bike and Pedestrian Master Plans to increase the number of low-stress bikeways and walkways that connect homes to destinations (Quantified)			
Transportation-2.2: Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals (Qualitative)			
Transportation-2.3: Provide temporary or permanent car-free zones or “slow streets” in specified areas, for example, individual blocks or residential streets (Qualitative)			
Transportation-2.4: Install measures to reduce vehicle speeds and calm traffic on city streets (Qualitative)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Total miles driven in a year from existing (2019) development would decrease by 6% in 2030	11,500	14%
2045	Total miles driven in a year from existing (2019) development would decrease by 7.5% in 2045	12,800	4%
Supporting Actions: - Increase density and intensity of residential, commercial, and mixed-use development in areas (for example, business park / downtown) with infrastructure for walking and biking and getting to daily destinations without a private vehicle. - Combine sidewalk coverage and biking infrastructure with best practices such as high-visibility crosswalks, pedestrian signals, mid-block crossings, refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, landscaping, and other improvements to pedestrian safety. - Require new development to provide and/or pay fair-share contributions toward new and/or improved sidewalks. - Continue to fund and/or construct sidewalk improvements through the Capital Improvement Program - Implement new sidewalk Program in older parts of the city without sidewalks and bikeways currently. - Develop Green Streets design criteria that incorporate Green infrastructure. - Update the Bicycle and Pedestrian Master Plans to create an all ages and abilities network including more separated bikeways and shared-use paths. - Prepare a city-wide plan identifying locations/streets suitable for conversion to temporary or permanent car-free zones. - Update City codes/regulations to provide businesses/groups with flexibility to use streets for events. - Review/update roadway standards and complete streets policy to incorporate traffic calming measures. - Encourage the use of cool pavement materials, colors, and/or treatments on roads, sidewalks, and parking lots to encourage the use of alternative modes of transportation - Implement transit-supportive roadway treatments (for example, signal communication, roadway shelters, curb extensions, rotaries) to optimize traffic flow for transit and personal vehicles - Improve incident management to quickly detect, respond to, and remove traffic incidents and crashes.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Transportation-3. Provide transit options that are accessible, reliable, and convenient

Increasing the use of transit options will further reduce GHG emissions and will provide significant benefits to quality of life and public health. This strategy would achieve emissions reductions by increasing the use of transit. Under this strategy, the City plans to increase transit options and frequency, enhance transit infrastructure, and provide cost-efficient and more convenient options for people of all ages. This strategy consists of four measures and would reduce emissions by 5,800 MTCO₂e in 2030 and 10,200 MTCO₂e in 2045. This is equivalent to removing 1,247 gasoline-powered passenger vehicles in 2030 and 2,193 gasoline-powered passenger vehicles in 2045 (calculated using USEPA GHG Equivalencies Calculator, 2022). Table 3.4 provides the details of the measures, performance metrics, and supporting actions under this strategy to encourage the use of transit options.

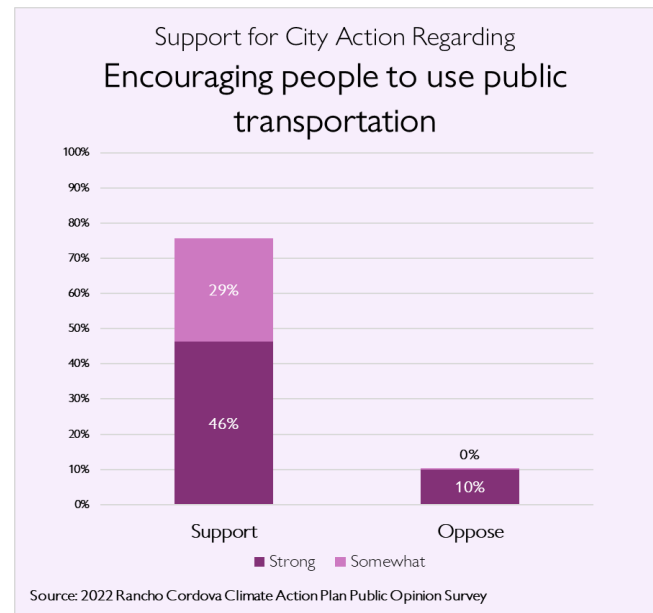


Table 3.4 Strategy Transportation-3

Strategy Transportation-3 Provide transit options that are accessible, reliable, and convenient			
Transportation-3.1: Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day (Quantified)			
Transportation-3.2: Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes) (Quantified)			
Transportation-3.3: Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18) (Quantified)			
Transportation-3.4: Expand the SmaRT Ride area and convert the shuttles to electric shuttles (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Total miles driven in a year from existing (2019) development would decrease by 3% in 2030	5,800	7%
2045	Total miles driven in a year from existing (2019) development would decrease by 6% in 2045	10,200	3%

Supporting Actions:

- Collaborate with Sacramento Regional Transit District (SacRT) to provide new or improved transit amenities like seating, sun/rain shelter, route information, and lighting.
- Require new residential development in proximity to transit to provide owners/tenants with free or discounted transit passes.
- Expand the offerings of SmaRT Ride, Sacramento Regional Transit's microtransit program, and collaborate with SacRT to convert fossil-fuel powered shuttles to electric shuttles.
- Evaluate locations of transit stops to improve linkages with the pedestrian and bicycle network.
- Identify barriers and dissuasions to transit use and work with the community and transit district to find solutions.
- Develop and implement a ridesharing subsidy program for trips to/from transit centers.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Transportation-4. Reduce drive alone vehicle trips

Reducing the number of single-occupancy vehicle trips and VMT is the most significant way to reduce on-road emissions. This strategy would achieve GHG emission reductions by reducing the number of vehicle trips and VMT. Under this strategy, the City aims to reduce VMT by implementing various programs and plans to provide services, infrastructure, and incentives for not driving alone and instead sharing the ride, taking transit, opting for active modes of transportation, or teleworking. For achieving the target under this strategy, the City would also provide relevant information and incentives to the community. The four measures provided under this strategy require collaboration from local and regional agencies, employers, businesses, and residents. The implementation of this strategy would reduce emissions by 3,800 MTCO₂e in 2030 and 6,800 MTCO₂e in 2045. This is equivalent to removing 817 gasoline-powered passenger vehicles in 2030 and 1,462 gasoline-powered passenger vehicles in 2045 (calculated using USEPA GHG Equivalencies Calculator, 2022). Table 3.5 provides the details of the measures, performance metrics, and supporting actions under this strategy to reduce drive-alone vehicle trips.

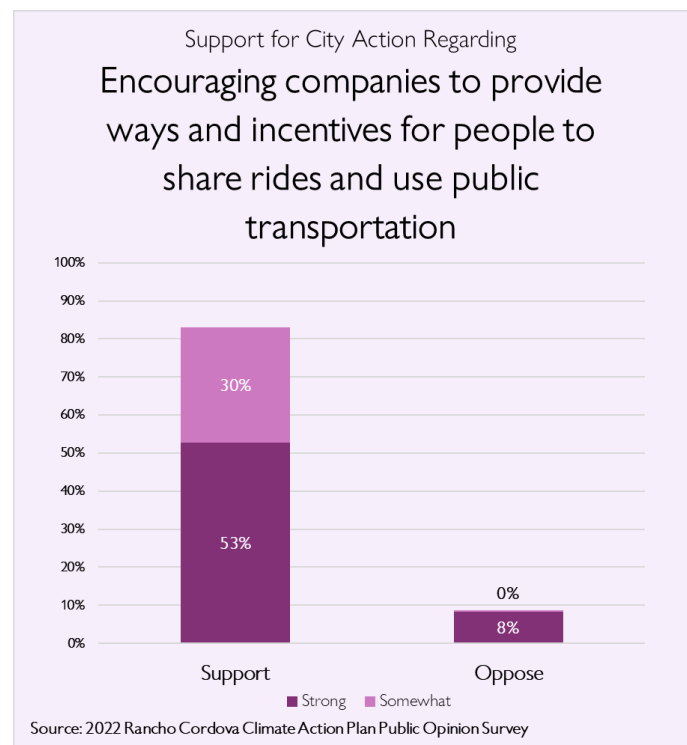


Table 3.5 Strategy Transportation-4

Strategy Transportation-4 Reduce drive alone vehicle trips			
Transportation-4.1: Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking (Quantified)			
Transportation-4.2: Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals (Qualitative)			
Transportation-4.3: Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals (Qualitative)			
Transportation-4.4: Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives, and support to encourage use of transportation options other than driving alone (Qualitative)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO _{2e})*	Percent of the City's Total Reductions
2030	Total miles driven in a year from existing (2019) development would decrease by 2% in 2030	3,800	5%
2045	Total miles driven in a year from existing (2019) development would decrease by 4% in 2045	6,800	2%
Supporting Actions: - Collaborate and coordinate with the 50 Corridor Transportation Management Association (TMA) for the implementation of CTR program and CBTP. - Implement, or partner with private company to implement CBTP program. - Prepare or enhance CTR program for City employees and require (or encourage voluntary) implementation by other employers. - Implement, or partner with private sector to implement, a car sharing program. - Provide facilities like on-street chargers and priority parking for carshare and bikeshare vehicles. Provide discounted membership to employees. - Provide EV carsharing and bike/scooter sharing at all new affordable housing developments. - Conduct outreach to increase participation in vanpool, carpool, transit programs. - Encourage the construction of roadway treatments to support electric vehicle car-sharing, for example, dedicated parking - Develop infrastructure to expand teleworking options, for example, ensuring sufficient private network bandwidth to accommodate the increase in users' needing remote access, updated security system in computers, advanced password security, and a virtual help desk to support Information Technology issues) - Develop a school pool program to match parents for carpooling - Operate bike kitchens for free bike repairs, bikes, and helmets - Price workplace parking for City employees - Provide tax-free transportation benefits to City employees for using ridesharing, carpool, vanpool, and taking transit - Expand part-time or full-time teleworking options for "telework eligible" City employees			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Transportation-5. Transition to electric and zero emission vehicles

The consumption of gasoline and diesel in internal combustion engine vehicles produces nearly half of all GHG emissions in the city. This strategy would achieve GHG emissions reductions by reducing the use of gasoline or diesel-powered vehicles and equipment and transitioning to electric or zero-emissions vehicles for residents, and workers. Increasing EV charging infrastructure to facilitate EV adoption and supporting other low-emission alternative fuels will significantly reduce GHG emissions and improve local air quality and public health. Reductions from this strategy would occur through City projects and development requirements, and partnerships with local businesses, developers, and homeowners. This strategy includes four measures that would reduce the communitywide emissions by 27,000 MTCO₂e in 2030 and 171,300 MTCO₂e in 2045. This is equivalent to removing 5,805 gasoline-powered passenger vehicles in 2030 and 36,830 gasoline-powered passenger vehicles in 2045 (calculated using USEPA GHG Equivalencies Calculator, 2022). Table 3.6 outlines the framework for this strategy. Additional activities that would support this strategy would occur through partnerships with local and regional agencies.

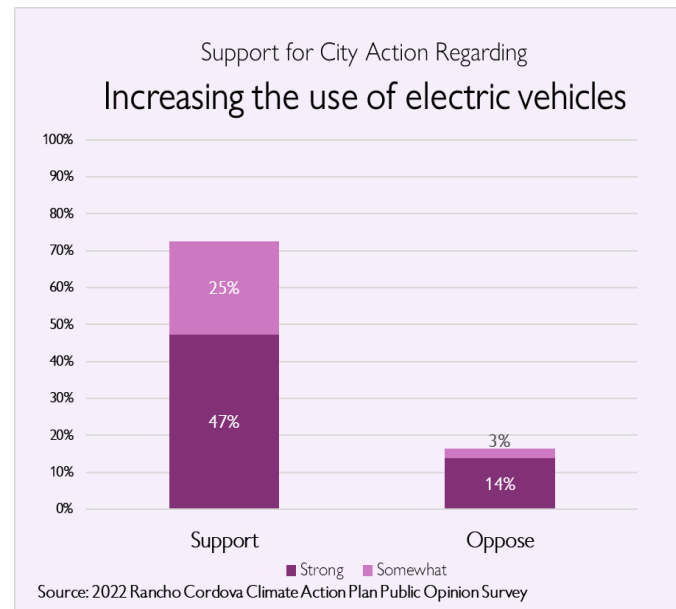


Table 3.6 Strategy Transportation-5

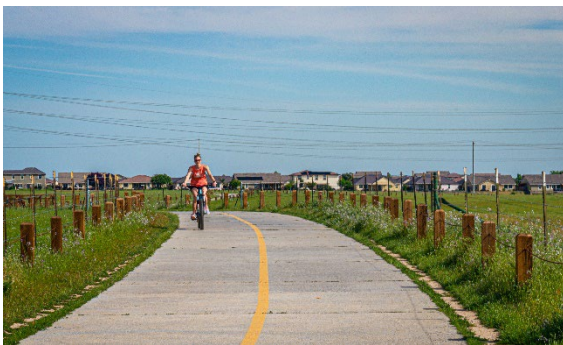
Strategy Transportation-5 Transition to electric and zero emission vehicles			
Transportation-5.1: Install EV chargers in new residential, commercial, and industrial projects (Quantified)			
Transportation-5.2: Install publicly accessible EV chargers on existing private property (Quantified)			
Transportation-5.3: Install EV chargers on public property (Quantified)			
Transportation-5.4: Electrify loading docks and/or require idling-reduction systems (Qualitative)			
Transportation-5.5: Limit new gasoline/diesel fueling stations (Qualitative)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	18% of all vehicle miles traveled would be from electric or other zero emissions vehicles in 2030; 1,500 new public and private EV chargers installed by 2030	27,000	34%
2045	85% of all vehicle miles traveled would be from electric or other zero emissions vehicles in 2045	171,300	56%

Supporting Actions:

- a. Amend City code to require installation of chargers and EV charging ready parking spaces beyond minimum CALGreen requirements.
- b. Provide grants to property owners/businesses to install EV chargers.
- c. Require new or updated Specific Plans, Master Plans, and other City plans to incorporate publicly-accessible EV chargers.
- d. Coordinate with the Sacramento Area Plug-in Electric Vehicle Collaborative's Electric Vehicle Readiness and Infrastructure Plan to increase the number of publicly-accessible EV chargers throughout the city.
- e. Pursue available funding opportunities for EV charger installation.
- f. Install publicly-available EV chargers at City facilities, for example, recreation centers and offices, rights-of-way, and SacRT park-and-rides.
- g. Amend City code to require electrification of loading docks and idling-reduction (including monitoring) in new development.
- h. Adopt an ordinance that bans, avoids, or limits the development of new fast-food drive-throughs and gasoline and diesel fuel stations in certain areas of the city.
- i. Ensure EV charging stations are encouraged and allowed through land use designations that currently permit gas fueling stations.
- j. Develop an incentive program for the purchase of electric bicycles and scooters.
- k. Encourage school bus electrification.
- l. Encourage use of public and multimodal transportation for City employees.
- m. Encourage City employees to use alternatively fueled vehicles.
- n. Develop a program to replace the City's gasoline- and diesel-powered fleet vehicles with zero-emission vehicles.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

USING ENERGY IN HOMES AND BUSINESSES (BUILDING ENERGY SECTOR)



Source: City of Rancho Cordova

Emissions in the energy category are generated through residential and non-residential electricity and natural gas use. These sectors accounted for 14 percent and 17 percent of the 2019 communitywide emissions, respectively. With a combined emissions contribution of 31 percent, building energy is the second largest contributor to overall communitywide emissions. Transitioning away from natural gas-powered heating and appliances and electrifying the building stock will reduce emissions in the city. Legislative reductions from State energy efficiency and renewable energy programs will contribute to reducing emissions by increasing the amount of utility supplied renewable energy and improving the energy efficiency of new buildings.

At the local level, GHG emissions reductions would be achieved by decarbonizing buildings and increasing energy efficiency. GHG reductions would also occur by increasing the amount of renewable energy generated locally while reducing the amount of non-renewable energy consumed. Initiatives directed under the energy category rely on efforts by local utilities, organizations, and agencies, with participation from the community.

Strategies and Measures

Being the second largest source of GHG emissions, the building energy sector has significant potential to achieve emissions reductions in the city. This section outlines measures the City will implement in this sector to help meet its 2030 emissions reduction targets. The measures are organized under four strategies that will be implemented at the local level in the City with the goal of increasing energy efficiency and electrification of residential and non-residential buildings.

Strategy Energy-1a. Increase energy efficiency and electrification in existing residential buildings

While State legislative actions provide reductions related to building energy efficiency, additional reductions are achievable by adopting local measures. This strategy aims to reduce emissions by reducing energy consumed by residential consumers through increased energy efficiency and electrification of existing residential buildings. The measure under this strategy would reduce the communitywide emissions by approximately 9,700 MTCO₂e in 2030. Table 3.7 outlines the framework to increase building energy efficiency and electrification under this strategy and the supporting actions that provide additional potential reductions.

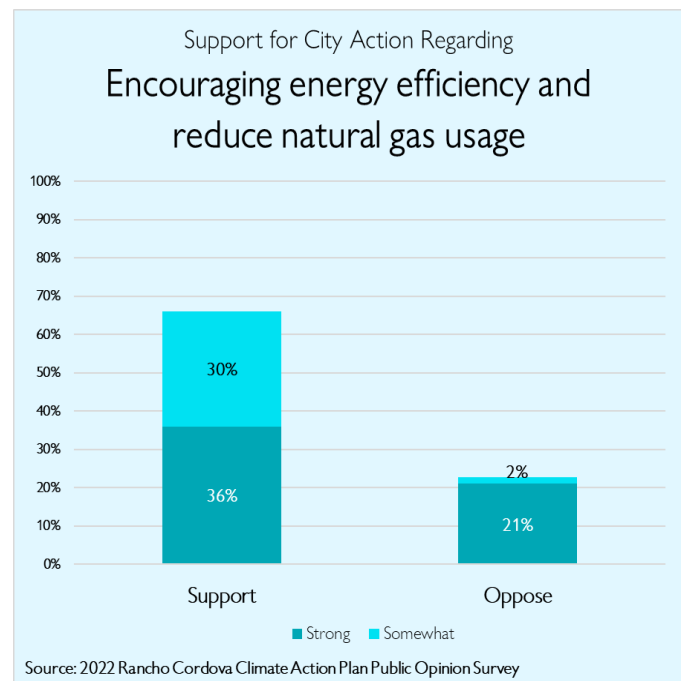


Table 3.7 Strategy Energy-1a

Strategy Energy-1a Increase energy efficiency and electrification in existing residential buildings			
Energy-1.1: Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Existing residential natural gas use is 20% lower in 2030; approximately 4,000 existing homes retrofitted by 2030	9,700	12%
2045	Existing residential natural gas use is 60% lower in 2045; approximately 12,000 existing homes retrofitted by 2045	29,000	9%

Supporting Actions:

- Adopt single-family and multifamily residential retrofit requirements to replace fossil fuel-powered space and water heating systems and appliances with electric alternatives, and upgrade other outdated appliances with ENERGY STAR-certified appliances. Upgrade requirements could apply at the point-of-replacement (end of lifecycle or otherwise) or during additions and alterations.
- Implement a Utility User Tax increase of 3% on natural gas to incentivize electrification and generate funding for retrofit projects.
- Provide subsidies for renter-occupied housing owners to limit impacts to renters.
- Collaborate with Sacramento County, PG&E, and SMUD to develop and implement a comprehensive building energy audit and retrofit program to facilitate voluntary residential energy efficiency improvements and electrification. The program should include outreach and education, incentives, and technical assistance.
- Partner with energy agencies to support contractor training and resident education on electric appliances and their installation and maintenance. Create protections for renters and vulnerable community members.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Energy-1b. Increase energy efficiency and electrification in existing nonresidential buildings

This strategy aims to reduce emissions by reducing energy consumed by nonresidential consumers through increased energy efficiency and electrification of existing nonresidential buildings. The measure under this strategy would reduce communitywide emissions by approximately 2,100 MTCO₂e in 2030. Table 3.8 outlines the framework to increase building energy efficiency and electrification under this strategy and the supporting actions that provide additional potential reductions.

Table 3.8 Strategy Energy-1b

Strategy Energy-1b Increase energy efficiency and electrification in existing nonresidential buildings			
Energy-1.2: Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Existing nonresidential natural gas use is 10% lower in 2030; 10% of existing nonresidential building area retrofitted by 2030	2,100	3%
2045	Existing nonresidential natural gas use is 48% lower in 2045; 48% of existing nonresidential building area retrofitted by 2045	10,000	3%
Supporting Actions:			
Adopt nonresidential retrofit requirements to require California Green Building Standards Code (CALGreen) Tier 1 energy efficiency compliance and electric space and water heating appliances for large retrofits. Work with SMUD and other regional energy partners to develop rebates or other incentives for electrification retrofits, for example, panel upgrades, heat pumps.			

- b. Implement a Utility User Tax increase of 3% on natural gas to incentivize electrification and generate funding for retrofit projects.
- c. Collaborate with Sacramento County, PG&E, and SMUD to develop and implement a comprehensive building energy audit and retrofit program to enable energy conservation and gas-to-electric conversions in nonresidential buildings for space and water heating.
- d. Provide education and technical and financial assistance.
- e. Enforce California's Building Energy Benchmarking Program, which requires commercial and multi-family buildings over 50,000 sq ft gross floor area to benchmark and disclose energy usage data to the California Energy Commission each year.
- f. Partner with regional energy organizations to support the use of clean hydrogen, renewable natural gas, and other clean alternative fuels for existing industrial uses where electrification is infeasible.
- g. Provide training on the EPA's free online tool, ENERGY STAR Portfolio Manager.
- h. Transition to cleaner energy choice for government owned buildings
- i. Ensure the purchase of energy efficient electric appliances

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Energy-2a. Increase energy efficiency and electrification in new residential buildings

While most of the city's building energy-related GHG emissions in the future will be generated by existing buildings (buildings that are already built today), the new development will contribute to GHG emissions. Improving the energy efficiency of new buildings, increasing renewable energy installations, and maximizing all-electric development will reduce emissions associated with new development. This strategy aims to reduce emissions by reducing energy consumed by new residential buildings. The measure under this strategy would reduce the communitywide emissions by approximately 1,400 MTCO₂e in 2030. Table 3.9 outlines the framework to increase building energy efficiency and electrification under this strategy and the supporting actions that provide additional potential reductions.

Table 3.9 Strategy Energy-2a

Strategy Energy-2a			
Increase energy efficiency and electrification in new residential buildings			
Energy-2.1: Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site) (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Beginning in 2026, all new housing is all-electric	1,400	2%
2045		5,100	2%
Supporting Actions:			
a. Adopt a reach code requiring all new single-family and low-rise and mid-rise multi-family development to be all-electric, Zero Net Energy buildings (buildings where grid electricity consumption is less than or equal to on-site renewable energy generation).			

- b. Partner with regional green building associations and contractors to strengthen education and awareness to assist developers in building all-electric development.
- c. Work with partners to develop a regional program that encourages the use of building materials that store carbon, such as wood or lower carbon alternatives such as use of wood siding instead of vinyl.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Energy-2b. Increase energy efficiency and electrification in new nonresidential buildings

This strategy aims to reduce emissions by reducing energy consumed through increased energy efficiency and electrification of new nonresidential buildings. The measure under this strategy would reduce the communitywide emissions by approximately 430 MTCO₂e in 2030. Table 3.10 outlines the framework to increase building energy efficiency and electrification under this strategy and the supporting actions that provide additional potential reductions.

Table 3.10 Strategy Energy-2b

Energy-2b Increase energy efficiency and electrification in new nonresidential buildings			
Energy-2.2: Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2) (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Beginning in 2026, all new nonresidential development is 30% more energy efficient than the minimum efficiency required by the State building code	430	<1%
2045		1500	1%
Supporting Actions:			
a. Adopt a reach code requiring all new residential and nonresidential buildings to be more energy efficient than minimum requirements under the State's Title 24 Standards. b. Facilitate guidance and training for developers to promote all-electric construction. c. Work with partners to develop a regional program that encourages the use of building materials that store carbon, such as wood and carbon-intensive concrete. d. Ensure that new government owned buildings are all electric.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

USING EQUIPMENT FOR LANDSCAPING AND CONSTRUCTION (OFF-ROAD VEHICLE AND EQUIPMENT SECTOR)



Source: City of Rancho Cordova

The operation of off-road vehicles and equipment, such as construction vehicles and landscaping equipment, generates GHG emissions through the combustion of fossil fuels, primarily diesel. These sources accounted for approximately 2 percent of emissions in the city in 2019. Without local efforts to reduce GHG emissions from this sector, emissions are expected to rise nearly 34 percent by 2030. Historically, reducing GHG emissions from the off-road vehicles and equipment sector

has been challenging. However, with technological improvements and new State objectives in recent years, emissions reductions from this sector have become more feasible. The City can implement actions that will effectively reduce emissions from off-road vehicles and equipment to help meet its GHG reduction targets.

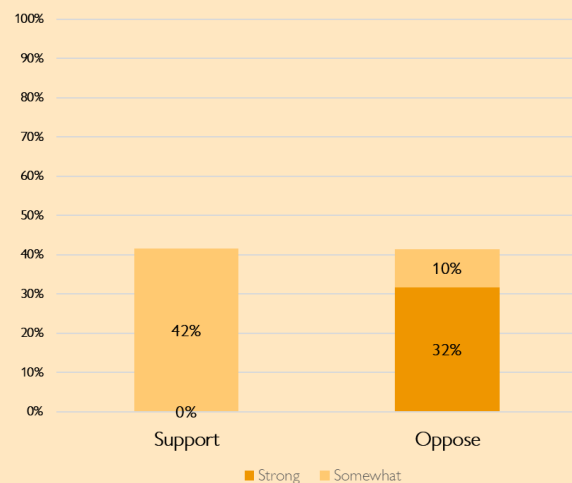
Strategies and Measures

As other sectors in the city are decarbonized in the future, the off-road vehicles and equipment sector will become an increasingly important focus for local emissions reductions. Off-road vehicles and equipment measures are organized under two strategies that focus on transitioning fossil fuel-powered construction and landscaping equipment to electric and other low-carbon alternatives for reducing GHG emissions.

Strategy Offroad-1. Transition to electric and zero emissions technologies for landscaping equipment

Reducing GHG emissions from landscaping equipment is challenging. To meet the 2030 target, the City would need to go beyond State laws. Under this strategy, the City would target the electrification of existing and new landscaping equipment or the use of other zero-emission alternatives. The measure under this strategy would reduce communitywide emissions by approximately 130 MTCO₂e in 2030. Table 3.11 outlines the framework to decrease GHG emissions under this strategy.

Support for City Action Regarding Encouraging the use of electric- powered instead of gas-powered landscape and construction equipment



Source: 2022 Rancho Cordova Climate Action Plan Public Opinion Survey

Table 3.11 Strategy Offroad-1

Strategy Offroad-1			
Transition to electric and zero emissions technologies for landscaping equipment			
Offroad-1.1: Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives (Quantified)			
Offroad-1.2: Convert new landscaping equipment to electric or zero-emission alternatives (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO _{2e})*	Percent of the City's Total Reductions
2030	30% of existing landscaping equipment is converted to electric, renewable diesel, or other zero-emission alternatives by 2030; 100% of new landscaping equipment sales are electric, renewable diesel, or other zero-emission alternatives starting in 2024 (consistent with Statewide regulation)	130	<1%
2045	100% of new landscaping equipment sales are electric, renewable diesel, or other zero-emission alternatives starting in 2024 (consistent with Statewide regulation)	260	<1%
Supporting Actions: - Collaborate with Sacramento County and SMUD in the creation and promotion of an incentive-based trade in program to encourage residents and business owners to convert or replace their fossil fuel-powered gardening equipment, such as lawn mowers, leaf blowers, and edge trimmers, with electric alternatives. - Consistent with CARB regulations for small off-road engines, adopt an ordinance that reduces the sale of fossil fuel-powered landscaping equipment by 2024 to transition to zero-emission landscaping equipment. - Require all new development to install sufficient exterior electrical outlets for electric-powered landscaping equipment. - Work with SMAQMD to develop an outreach program for residents and local landscaping businesses to increase awareness of currently available zero-emission landscaping equipment. - Develop a program to use alternative fuel and/or zero-emission landscaping equipment in government owned buildings.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

Strategy Offroad-2. Transition to electric and zero emissions technologies for construction equipment

Diesel burned to operate off-road vehicles and equipment generates GHG emissions and degrades local air quality. Reducing the use of and electrifying vehicles and equipment will result in significant emissions reductions in this sector while improving public health and natural resources. The measure under this strategy would reduce communitywide emissions by approximately 1,700 MTCO_{2e} in 2030. Table 3.12 outlines the framework to decrease GHG emissions under this strategy.

Table 3.12 Strategy Offroad-2

Strategy Offroad-2			
Transition to electric and zero emissions technologies for construction equipment			
Offroad-2.1: Increase electrification and use of alternative fuels in construction projects (Quantified)			
Offroad-2.2: Reduce construction vehicle idling (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	10% of construction equipment is electric, renewable diesel, or other zero-emission alternatives by 2030; 10% of generators are electric, renewable diesel, or other zero emission alternatives by 2030	1,700	2%
2045	50% of construction equipment is electric, and 40% of construction equipment uses renewable diesel, or other zero-emission alternatives by 2045; 60% of generators are electric, renewable diesel, or other zero emission alternatives by 2045	9,200	3%
Supporting Actions: - Require all construction projects to use zero- or low-emission equipment options, including electric, renewable diesel, or other alternative fuels, where equipment is commercially available in the region. - Where zero- or low-emission equipment are infeasible or unavailable, require EPA-rated Tier 4 Final diesel engines or cleaner in new construction projects. - Limit the use of diesel-powered generators at construction sites in all new discretionary projects by transitioning to renewable diesel and other zero-emission alternatives, as feasible. - Promote incentives and outreach materials on City websites for battery storage or other clean back-up power technologies. - Enforce the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which prohibits diesel-fueled construction vehicles from idling for more than 5 minutes. - Adopt an ordinance that limits vehicle idling to less than 5 minutes. - Discourage idling of construction vehicles and equipment through education and outreach campaigns and enforcement of existing regulations. - Promote partnership with fleet operating companies that monitor their emission generation. - Encourage fleet operators to reduce construction emissions.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

USING WATER AND DISPOSING OF WASTE AT HOMES AND BUSINESSES (WATER AND SOLID WASTE SECTORS)



Source: City of Rancho Cordova

GHG emissions in the water category are generated by the energy consumed to pump, transport, and treat water and wastewater. It is the city's smallest emissions-generating sector. Emissions from this category accounted for only one percent of the total communitywide emissions in 2019, but reduction measures that reduce water consumption also play an important role in the City to adapt to climate change impacts and develop sustainable practices to conserve water communitywide. State legislative actions will eliminate water supply-related emissions in 2030, but wastewater treatment emissions will continue to grow over time.

Emissions in the solid waste sector are associated with the decomposition of community-generated organic waste in landfills. In 2019, this sector contributed a total of 3 percent of communitywide emissions. The State has adopted a variety of legislative actions aimed at reducing GHG emissions from organic waste, but the City will need to take steps at the local level to effectively reduce waste emissions and achieve its emissions reduction targets. Significant reductions could be made by changing individual behavior through partnerships with local waste haulers and outreach to residents and businesses. Implementing local actions focused on these sectors will increase the pace of GHG emissions reductions while improving community resilience and energy reliability.

Strategies and Measures

Strategy Water-1. Conserve water

Implementing water conservation measures will contribute to improving the resilience of the city to climate change while providing additional benefits to residents, businesses, and the natural environment. The Plan does not assign any reductions to this strategy, because water-related energy needs are assumed to be met by 100% renewable or zero-emission electricity by 2030. It is still helpful to have these measures as reduced consumption of water will result in reduced energy usage for purposes like conveying and treating water. Table 3.13 outlines the framework to decrease GHG emissions under this strategy.

Table 3.13 Strategy Water-1

Strategy Water-1 Conserve water			
Water-1.1: Reduce indoor water use in existing and new buildings (Qualitative)^			
Water-1.2: Reduce outdoor water use for landscaping and irrigation in existing and new developments (Qualitative)^			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Existing building water use: indoor 25% lower, outdoor 40% lower; new building water use: indoor 40% lower; outdoor 50% lower	0^	0%
2045	Existing building water use: indoor 40% lower, outdoor 50% lower; new building water use: indoor 60% lower; outdoor 80% lower	0^	0%
Supporting Actions: - Establish requirements for existing buildings to upgrade to high-efficiency water fixtures and appliances and install smart water meters at the time of point-of-sale or during major additions/alterations. - Partner with water suppliers to provide incentives and education for voluntary water fixture and appliance upgrades and smart water meter installations in existing buildings. Promote the use of water-efficient fixture and appliance rebates from water suppliers as funding is available. - Require high-efficiency water fixtures and appliances and smart water meters in new development. - Review the City's Model Water Efficient Landscape Ordinance (MWELO) ordinance and update as needed to require drought-tolerant, water-conserving, and native landscaping in redevelopment and new development projects. - When updating water conservation measures, incorporate measures recommended by the California Department of Water Resources, the California Urban Water Conservation Council, and the Sacramento County Water Agency. - Partner with water suppliers to increase the use of existing incentives (for example, "cash for grass") and develop new incentives for conversion to low-use landscaping. - Require low-use outdoor water systems for irrigation and landscaping in new development, consistent with the City's MWELO guidelines. - Reduce indoor and outdoor water consumption in government owned buildings.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

^ Emissions reduced from water measures estimated to be zero in 2030 because water-related energy needs assumed to be met by 100% renewable or zero emission electricity

Strategy Solid Waste-1. Avoid disposal of organic waste in landfills

Communitywide emissions would be reduced by diverting waste away from landfills and into other waste streams such as recycling or composting. Implementing strategies and measures to improve waste diversion programs will serve to protect natural resources while minimizing contributions to climate change.



This section outlines the strategies and measures the City will implement to support this objective. The measure under this strategy would reduce communitywide emissions by approximately 8,800 MTCO₂e in 2030. Table 3.14 outlines the framework to decrease GHG emissions under this strategy.

Table 3.14 Solid Waste-1

Strategy Solid Waste-1 Avoid disposal of organic waste in landfills			
Solid Waste-1.1: Increase recovery of edible food waste (Quantified)			
Solid Waste-1.2: Eliminate disposal of organic waste in landfills (food waste, yard waste) (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	Amount of landfilled waste is 30% lower in 2030 (relative to 2019)	8,800	11%
2045	Amount of landfilled waste is 90% lower in 2045 (relative to 2019)	32,600	11%
Supporting Actions: - Require edible food recovery program partnerships with food generators. Develop a program to connect grocery stores and restaurants with food banks and shelters. - Require local restaurants to compost organic food waste, consistent with SB 1383. - Continue to fund and operate the green waste and food waste pick-up services. - Continue to operate the City's "pay-as-you-throw" and recycling services for residential and commercial waste. - Adopt an ordinance to limit landfill-disposal of organic waste generated by large organizations and events. Require organizations over 50 employees to implement organization-wide waste reduction initiatives, and mandate composting, the use of only compostable or recyclable materials by vendors, and adequate staff to ensure proper disposal at events that require a City-issued permit. - Partner with other local jurisdictions and waste management companies (haulers and landfills) to create a divertible material (for example, recyclables) ban at landfills. - Develop a reuse facility that makes building materials available to customers, and acts as an outlet for reusable items otherwise destined for landfill. - Expand organic waste outreach and education initiatives to improve awareness of benefits and importance of diversion. - Increase waste diversion at government owned buildings. - Increase construction and demolition diversion rates at City construction sites.			

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.

PLANTING AND MANAGING TREES (CARBON SEQUESTRATION SECTOR)



Source: City of Rancho Cordova

The process of removing atmospheric CO₂ through natural processes is referred to as carbon sequestration. Carbon sequestration is expected to play an important role in addressing the challenge of climate change. California legislation has explicitly mentioned the use of carbon sequestration to achieve the State GHG reduction targets and goals. Trees and other vegetation are a key part of the natural carbon cycle. Through photosynthesis, plants convert carbon dioxide (CO₂) from the atmosphere into oxygen and carbon-based matter. Communities can increase the amount of carbon sequestered locally to reduce community-wide GHG emissions by expanding the urban forest canopy and protecting natural systems.

Strategies and Measures

Strategy Carbon Sequestration-1. Remove emissions from the atmosphere

The presence of trees is a significant source of carbon sequestration and storage in urban areas. This strategy focuses on increasing the number of new trees planted in the city to increase the amount of carbon sequestered. In addition to offsetting CO₂ emissions, increased tree plantings result in co-benefits including improved air quality through the capture of air pollutants and community and public health benefits through the provision of shade and positive impacts on mental health. Implementation of the measure through this strategy would reduce communitywide emissions by approximately 440 MTCO₂e by 2030. Table 3.15 outlines the framework for this strategy. Additional activities that would support the implementation of this strategy would occur through partnerships with other local or regional agencies, updated City ordinances and policies, and community education and outreach activities.

Table 3.15 Strategy Carbon Sequestration-1

Strategy Carbon Sequestration-1 Remove emissions from the atmosphere			
Carbon Storage-1.1: Increase the number of trees in the city, through new plantings and management of existing trees (Quantified)			
Target Year	Performance Metric*	Annual GHG Reduction Potential (MTCO ₂ e)*	Percent of the City's Total Reductions
2030	750 new residential and 750 new City-managed trees planted per year for a total of 16,500 new trees by 2030	440	1%
2045	750 new residential and 750 new City-managed trees planted per year for a total of 39,000 new trees by 2045	1,100	<1%

**Supporting Actions:**

- a. Implement the City's 2022 Urban Forest Master Plan (UFMP).
- b. Achieve a minimum of 20% canopy cover in the developed footprint of the City by 2050. Consistent with the City's Urban Forest Master Plan, plant 750 trees per year on residential properties through the Sacramento Shade Program, and plant 750 City-managed trees per year on public property.
- c. Amend the City's Zoning Code to require new development to plant trees above and beyond existing requirements.
- d. Continue hosting community tree-planting events, and collaborating with other government agencies, such as the Cordova Recreation and Park District, to co-sponsor such events on properties owned by those other agencies, and offering free trees for residents, businesses, and community-based organizations through the City's Urban Forest program. Develop a tree planting program for increasing tree planting at City-owned sites.
- e. Evaluate City regulations and policies, such as building setbacks and roadway cross-sections and design standards, for adequacy to accommodate large shade trees.

* The calculations, assumptions, research, and other evidence used to identify measure performance metrics and estimate annual GHG reduction potential are provided in CAAP Appendix E.



CHAPTER 4:

Climate Adaptation and Resilience





CHAPTER 4:

Climate Adaptation and Resilience

OVERVIEW

This chapter describes the context of climate change adaptation and resilience for the city. It outlines the climate change adaptation planning process; summarizes the city's exposure to existing hazards, sensitivity to these hazards, potential climate-related impacts, and existing adaptive capacity to address these impacts; and introduces adaptation strategies to strengthen local resilience to climate change. Much of the content in this chapter serves as a summary of the City's Vulnerability Assessment (VA), which was developed in preparation of the Plan. The VA, which includes additional information, data, and methodologies, is provided in Appendix F.

CLIMATE ADAPTATION AND VULNERABILITY

The effects of climate change are already occurring at global, regional, and local scales and will continue to worsen existing hazards in and around the city, including extreme heat, extreme precipitation and flooding, drought, and wildfires. While these hazards have existed historically in the city and surrounding regions, the frequency, intensity, and duration of these hazards are projected to increase or change as a result of climate change. The level of impact from these climate hazards will vary across the city and the region due to variations in physical, social, and economic characteristics. Of the four climate hazards assessed for the city, the city, inclusive of its populations and assets, is most vulnerable to the potential impacts of increased temperatures and extreme heat. However, the city is still vulnerable to the other three climate hazards that were assessed – extreme precipitation and flooding, drought, and wildfires – though to a lesser degree.

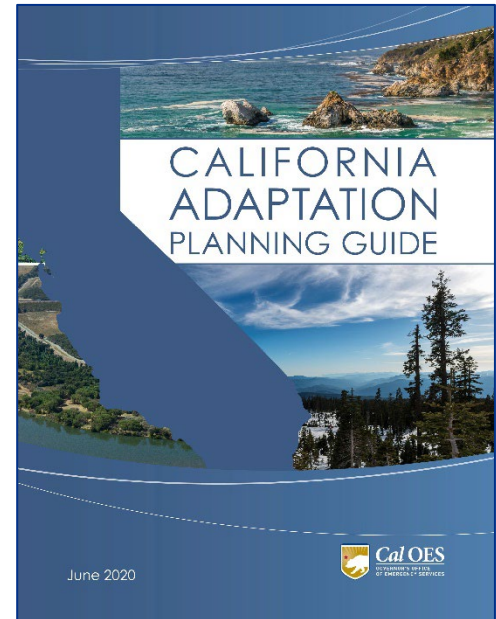
In addition to reducing its emissions that contribute to climate change, the City is also improving community resilience to climate change impacts, known as climate change adaptation. Community resilience refers to the capacity of a community to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from disruptive experiences, especially in the context of climate change. Though climate change is a global issue, its impacts are felt locally. Because of this, local adaptation planning efforts are critical in building community resilience and can lead to a greater understanding of climate risks and strategies to minimize their impacts.

ADAPTATION PLANNING PROCESS

The goal of the adaptation planning process is to improve community resilience in the context of climate change. A resilient community is one that is prepared for current and future hazards and experiences minimal harm when they occur. Resilient communities can recover from hazards more quickly and rebuild in a manner that accounts for continued capacity for adapting to climate change.

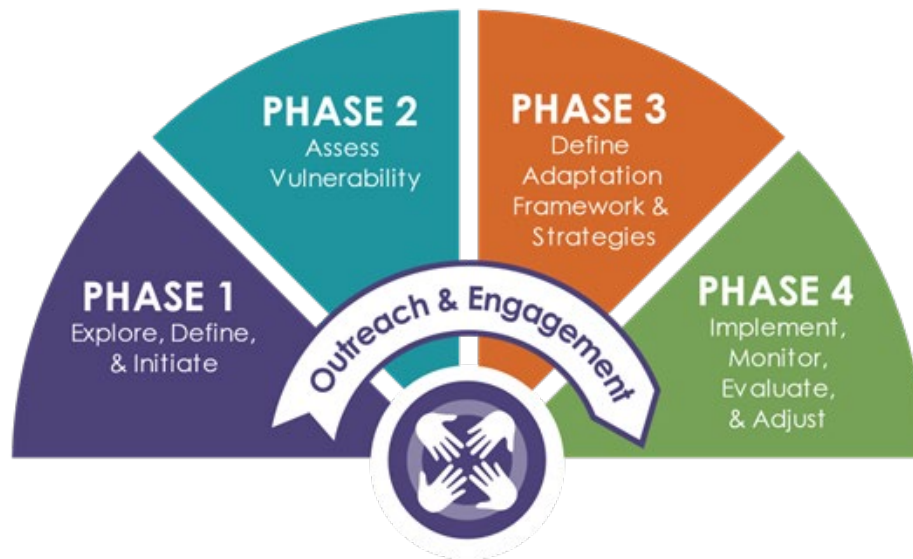
To assist local governments, the California Governor's Office of Emergency Services (CalOES) prepared the California Adaptation Planning Guide (APG), which provides communities with vulnerability assessment and adaptation planning guidance (CalOES 2020). Most recently updated in June 2020, the APG includes a step-by-step process that communities may use to help plan for the impacts of climate change. The APG provides a framework for communities to identify potential climate change effects and important physical, social, and natural assets; create adaptation strategies to address climate change impacts; and develop a monitoring and implementation framework for climate change adaptation. The APG was followed to prepare the adaptation components of this Plan.

This guide includes a four-phase process, illustrated in Figure 4.1, which allows communities to assess their specific climate vulnerabilities and provides a menu of strategies for communities to reduce climate-related risks and prepare for current and future impacts of climate change.



Source: CalOES 2020.

- ▶ Phase 1, “Explore, Define, and Initiate,” includes scoping and defining the adaptation planning effort. This involves identifying key stakeholders, potential climate change effects, and important populations and assets in the community.
- ▶ Phase 2, “Assess Vulnerability,” includes an analysis of the potential impacts and adaptive capacity associated with climate change hazards to determine the vulnerability of populations and community assets. The vulnerability assessment is composed of four steps: exposure, sensitivity and potential impacts, adaptive capacity, and vulnerability scoring.
- ▶ Phase 3, “Define Adaptation Framework and Strategies,” focuses on developing adaptation strategies to address the risks posed by climate change hazards based on the results of the vulnerability assessment.
- ▶ In Phase 4, “Implement, Monitor, Evaluate, and Adjust,” the adaptation framework is implemented, consistently monitored and evaluated, and adjusted based on continual learning, feedback, or triggers.



Source: CalOES 2020; adapted by Ascent Environmental in 2022.

Figure 4.1 Adaptation Planning Process

VULNERABILITY ASSESSMENT OVERVIEW

The City's VA provides a comprehensive analysis of community vulnerabilities to climate change. It identifies and characterizes climate hazards that are anticipated to impact the community. The VA follows the steps in Phase 2 of the APG and aims to answer the following questions:

- ▶ **Exposure:** what climate hazards does the city currently face? How are these climate hazards projected to change in the future?
- ▶ **Sensitivity and Potential Impacts:** what aspects of the community (for example, population, built environment, community functions) will be affected by climate hazards, and to what degree?
- ▶ **Adaptive Capacity:** what is currently being done to address climate hazards and their associated impacts? What ability does the City have to address impacts in the future?
- ▶ **Vulnerability Scoring:** how vulnerable is the city to climate hazards?

Why

a Vulnerability Assessment?

To effectively adapt to climate change and improve community resilience, the City first needs to understand its vulnerability to climate hazards. This is determined through the Vulnerability Assessment.

The VA was conducted consistent with APG guidance using the steps described above. To summarize historic data and determine future projections for climate hazards in and around the city, Cal-Adapt – a tool developed by the California Energy Commission and the University of California, Berkeley that uses downscaled global climate model data – was used. The severity of future potential impacts from climate hazards on the city's populations, built environment, and community functions will largely depend on the level of current and future global GHG emissions. Two future GHG emissions scenarios, known as Representative Concentration Pathways (RCPs), were used in the VA: the RCP 8.5 scenario, which represents a higher GHG emissions scenario, and the RCP 4.5 scenario, which represents a medium GHG emissions scenario. Climate hazards were evaluated for changes to occur by near-term (2021-2050), midterm (2040-2070), and long-term (2070-2099) timescales.

In addition to Cal-Adapt, several existing resources were reviewed to obtain information about climate-related hazard risks that may threaten the city. Information from California's Fourth Climate Change Assessment: Sacramento Valley Region Report (OPR, CEC, and CNRA 2018), along with a variety of additional resources (see Appendix F), were reviewed to further assess climate hazards in the city.

VULNERABILITY ASSESSMENT SUMMARY

The VA was prepared to help the City understand its vulnerability to climate hazards, which includes increased temperatures and extreme heat, extreme precipitation and flooding, drought, and wildfires. Additionally, the results of the VA were used to inform adaptation strategies intended to improve the City's resilience to each identified climate hazard. The full VA, including detailed data, additional information, and references, is provided in Appendix F to this Plan.

Climate Hazards Facing the City



Source: City of Rancho Cordova

The following sections provide a snapshot of the city's projected exposure to climate hazards and potential impacts to the city's populations, built environment, and community functions. Populations include residents, visitors, and segments of the population that are particularly vulnerable to climate change impacts, such as children, pregnant people, the elderly, communities of color, low-income individuals, individuals with access or functional needs, individuals with preexisting health issues, individuals experiencing homelessness, and outdoor workers, among others. The built environment consists of a set of assets that are essential to the health and welfare of residents and visitors and are especially important during and proceeding climate

hazard events. This includes residential and commercial buildings; critical facilities; transportation infrastructure; and utility infrastructure. Community functions are the resources, assets, operations, economic sectors, and services that are created or influenced by the interaction between populations and the built environment, are essential to public health and welfare, and allow day-to-day activities to continue in the city and the region.

INCREASED TEMPERATURES AND EXTREME HEAT

The city has experienced, and is projected to continue experiencing, increases in average annual temperature and extreme heat, which could lead to an array of potential impacts, including negative public health outcomes, worsened air quality, increased demand for air conditioning, and deterioration of critical infrastructure. According to Cal-Adapt, the average annual maximum and minimum temperature in the city are both projected to rise between 5 and 9 °F by the end of the century as a result of climate change (CEC 2021a). Increased temperatures in the city will also lead to a significant increase in extreme heat events. For the city, an extreme heat day is defined as a day when the maximum temperature is above the extreme heat threshold of 103.6 °F, which is notably high compared to other regions of the State. Heat waves refer to a period of four or more consecutive extreme heat days (CEC 2021b). The average annual number of extreme heat days, heat waves, and the number of days in the longest stretch of consecutive extreme heat days are all projected to rise through the end of the century.

Extreme heat thresholds are unique to every location. Rancho Cordova's threshold is 103.6 °F, which means that 98% of daily maximum temperatures in the city between the months of April and October from 1961 to 1990 were below this temperature.

Tables 4.1 and 4.2 display historic data and future projections for increased temperatures and extreme heat in the city across each timescale through 2099.

Table 4.1 Changes in Average Annual Temperature in the City of Rancho Cordova

Average Annual Temperature	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Maximum Temperature (°F)	74.2	78.3	79.8	80.2	83.1
Minimum Temperature (°F)	49.3	52.9	54.1	54.3	57.7

Note: °F = degrees Fahrenheit.

Source: CEC 2021a.

Table 4.2 Changes in Extreme Heat in the City of Rancho Cordova

Annual Averages	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Number of Extreme Heat Days	4	19	32	29	48
Number of Heat Waves	0.2	1.4	4.8	4.0	7.8
Number of Days in Longest Stretch of Consecutive Extreme Heat Days	2.5	6.3	7.2	8.5	14.2

Source: CEC 2021b.

Regarding potential impacts, the city's populations are at significant risk of being harmed by increased temperatures and extreme heat. Extreme heat can be harmful to public health, especially for vulnerable populations, such as persons over the age of 65, infants and children, individuals with chronic health conditions, low-income individuals, people experiencing homelessness, and outdoor workers, among others. Notably, extreme heat can worsen local air quality and may cause heat-related illnesses, such as heat cramps or heat stroke. Additionally, increased temperatures and extreme heat may lead to a large increase in air conditioning demand across the city, placing more stress on the electricity grid, leading to higher-cost electricity bills for residents who have air conditioning access, and causing disproportionate impacts on individuals or families residing in units that do not have air conditioning. Further, the city's transportation systems are at risk of being adversely affected by increased temperatures and extreme heat. During prolonged periods of increased temperatures or extreme heat, pavement may deteriorate, rail lines may buckle, the structural integrity of bridges may be compromised, air conditioning in buses could fail, and overall transportation maintenance costs may increase. Further details on the potential impacts of increased temperatures and extreme heat can be found in the VA, located in Appendix F.

EXTREME PRECIPITATION AND FLOODING

Sacramento County, inclusive of the city, is projected to experience an increase in average annual precipitation through the end of the century, and much of the precipitation is likely to occur during extreme precipitation events, which can lead to flood impacts throughout the city. According to Cal-Adapt, the historic average annual precipitation in Sacramento County is 18.3 inches. As shown in Table 4.3, the average annual precipitation in the county is projected to increase between roughly 2 and 4 inches by the end of the century (CEC 2021a).



Source: City of Rancho Cordova

In general, California's climate oscillates between extremely dry and extremely wet periods with annual precipitation varying widely from year to year. Like other California regions, the high year-to-year variability of precipitation in the city is severely affected by the meteorological phenomenon known as an atmospheric river, which accumulates moisture from tropical regions in the Pacific and moves water vapor towards California. In California, atmospheric rivers vary in intensity; some are beneficial for water supply and replenish snowpack that naturally melts during the summer, serving as water supply for people and agriculture, while others are responsible for widespread adverse impacts (NOAA 2021). Extreme precipitation from these atmospheric rivers in the future may prove to be more variable, volatile, and potentially more severe. Noting this, the city may experience changes in the frequency and/or intensity of flood events, though the exact frequency, intensity, and duration of these events will vary annually.

Table 4.3 Changes in Average Annual Precipitation in Sacramento County

Annual Averages	Historic (1961-1990)	Near Term (2021–2050)	Midterm (2040–2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Average Annual Precipitation	18.3	20.1	20.2	20.3	22.1
Percent Change from Historic Period	NA	+10%	+10%	+11%	+21%

Source: CEC 2021a.

Regarding potential impacts of extreme precipitation and flooding, there is an array of facilities and properties in the city that are at direct risk from flooding, as they lie within the city's 100- and 500-year floodplains. Most notably, this includes over 1,000 residential properties, but also multiple other facility types in or near the city's floodplains, including retail and utilities. Figure 4.2 displays critical facilities within the city and their proximity to the 100- and 500-year floodplains. Additionally, there are currently two levees in the city which protect residential neighborhoods: Cordova Meadows Levee and Sunriver Levee. These levee systems will be at increased risk of failure due to the potential for more intense and frequent extreme precipitation events in the future. A more comprehensive analysis of precipitation and flooding can be found in the VA, located in Appendix F.

DROUGHT AND WATER SUPPLY



Source: City of Rancho Cordova

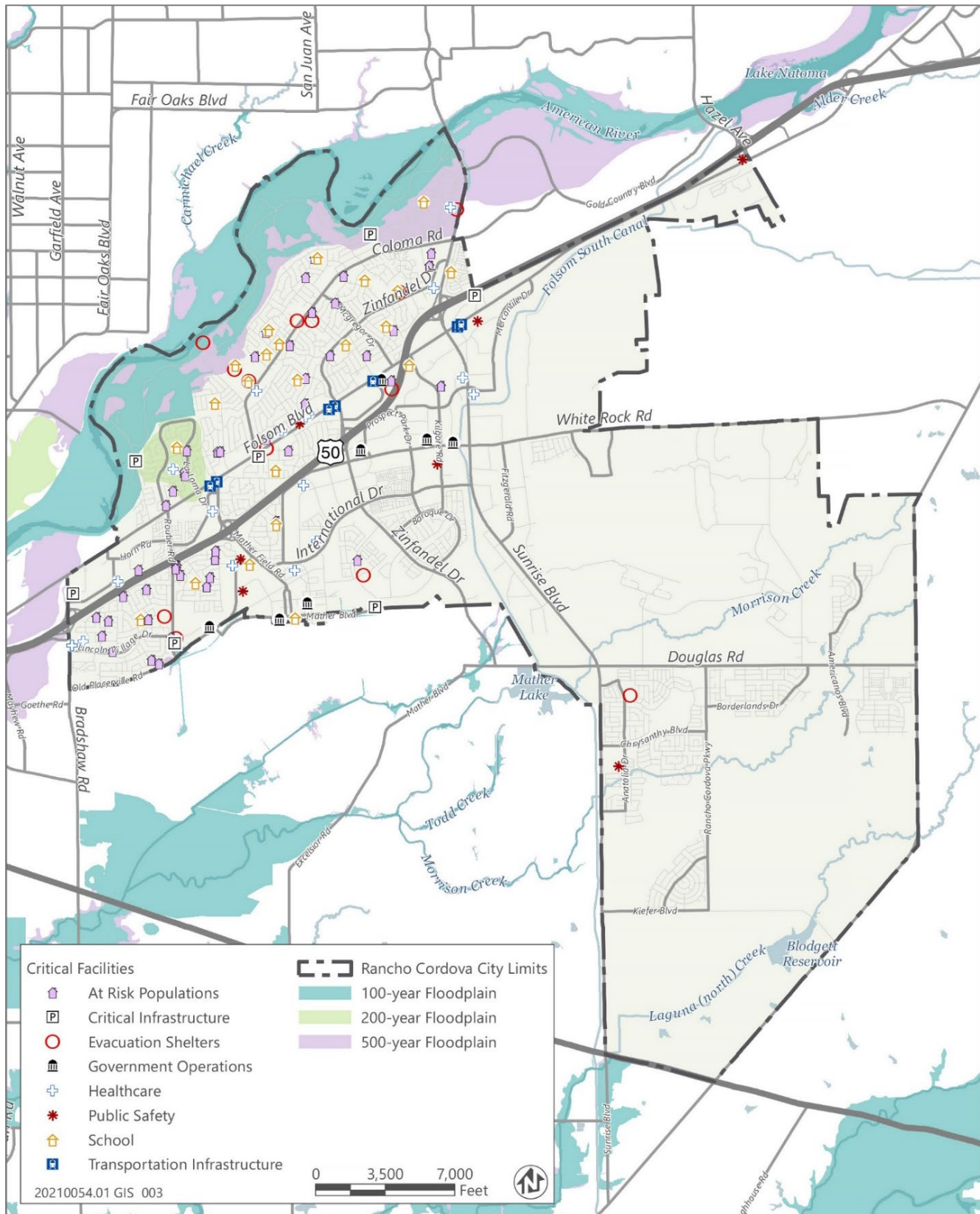
The city and State have a highly variable climate that is susceptible to prolonged periods of drought, and recent research suggests that extended drought occurrences (or “mega-droughts”) could become more pervasive in future decades, which may result in major impacts on the city’s water supplies and other secondary impacts (CEC 2021c). While this may seem contradictory to the projections that the city is expected to see more average annual precipitation in future years as a result of climate change, overall precipitation patterns are projected to change, with precipitation variability expected to increase substantially. In other words, some years, compared to average, may be

abnormally wet, while other years may be extremely dry. With the oscillation between wet and dry years and the potential for precipitation to occur over shorter, more intense time periods, there will be reduced opportunities for groundwater recharge, as these are not favorable conditions for soil infiltration and deep percolation. The City’s water supplies are currently dependent upon a combination of ground- and surface-water resources and are provided by three primary water purveyors providing services within the City’s planning area: Sacramento County Water Agency; Golden State Water Company; and California-American Water Company (City of Rancho Cordova 2006). It should be noted that actual occurrence and duration of droughts are difficult to predict, but the city and surrounding regions are expected to experience extended drought periods as a result of climate change, and without effective adaptation actions or initiatives, future droughts may challenge the management of the region’s water supplies, inclusive of the city.

Regarding potential impacts of drought, in the event of a severe and sustained drought lasting multiple years, water supplies provided to the city could be severely affected and result in the need for increased water conservation efforts to be implemented by the city and other surrounding jurisdictions. In addition to adverse impacts on water supplies, droughts may create cascading effects on community functions. For example, extended drought periods in the future may result in decreases in tourism and recreation opportunities in nearby water bodies, such as the American River and Folsom Lake. Decreased tourism and recreation opportunities could result in less pass-through visitors, leading to impacts on local businesses and the economy. Additionally, potential drought-induced water shortages can endanger ecological systems, as well as residents through related mental health issues, increased dust particle concentration, and favorable conditions for valley fever. Further details related to the potential impacts of drought on the city can be found in the VA (see Appendix F).

WILDFIRE

The Sacramento Valley Region, inclusive of the city, is projected to continue experiencing increases in average annual area burned by wildfire, which can result in an array of cascading impacts on the city. Climate change is exacerbating many of the factors that contribute to wildfire risk. Increased variability in precipitation may lead to wetter winters and increased vegetative growth in the spring, and potentially longer and hotter summer periods will lead to the drying of vegetative growth, which may ultimately result in a greater amount of fuel for wildfire ignition and spread. This has already been seen across the State in recent years, with the area burned by wildfires increasing in parallel with rising air temperatures (OEHHA 2018).



Source: Sacramento County 2021; critical facilities data provided by City of Rancho Cordova staff.

Figure 4.2 Floodplains and Critical Facilities in the City of Rancho Cordova

These factors, combined with intense wind conditions, cause wildfires to spread rapidly and irregularly, making it difficult to predict wildfires' paths and effectively deploy fire suppression forces. Relative humidity is also an important wildfire-related weather factor; as humidity levels drop, dry air causes vegetation moisture levels to decrease, which consequently increases the likelihood that plant material will ignite and burn. With an increase in hotter and drier landscapes, humidity levels may continue to drop and result in higher fuel levels, increasing the risk of wildfire (Schwartz et al., 2015).



Source: City of Rancho Cordova

Though there does exist “Moderate” Fire Hazard Severity Zones (FHSZs) in the city, the likelihood of wildfires burning within city limits is relatively low. However, it has been shown in the past that the city can be impacted by regional wildfire impacts, such as wildfire smoke, and this trend is projected to continue into the future. According to Cal-Adapt, and as shown in Table 4.4, the total area burned annually by wildfire within the Sacramento Valley region is expected increase from the historic (1961-1990) annual average of 20,956 hectares to 23,942 hectares in the near-term and 28,759 hectares in the midterm. In the long-term, average annual area burned in the region is projected to increase to 31,670 hectares under the medium emissions scenario, and to 41,784 hectares under the high emissions scenarios (CEC 2021d).

Table 4.4 Changes in Annual Average Area Burned in the Sacramento Valley Region

Annual Averages	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2035-2064)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Average Annual Area Burned (hectares)	20,956	23,942	28,759	31,670	41,784

Note: Observed historical average annual area burned data was not available from Cal-Adapt; the modeled historical average annual area burned data under the medium emissions scenario (RCP 4.5) was available and used as proxy data.

Source: CEC 2021d.

The potential impacts on the city related to wildfire in the context of climate change are primarily indirect impacts but can still have severe outcomes. These potential impacts can range from wildfire smoke-related human health impacts to disruptions to transportation behavior and the increased prevalence of Public Safety Power Shutoff (PSPS) events. Exposure to wildfire smoke, particularly by vulnerable populations, can result in worsening respiratory symptoms, increased rates of emergency room visits, hospitalizations, and even death (Rappold et al. 2017). If wildfire evacuations were to ever occur in the city or surrounding regions, vulnerable populations, such as linguistically isolated households, senior citizens, and individuals experiencing homelessness, would be adversely affected due to: inability to access, receive, or understand warning messages and evacuation notices; limited ability to evacuate due to lack of mobility; limited situational understanding from cognitive conditions; and reliance on medication or treatment devices. Additionally, there may be increases in traffic congestion due to wildfire-related road closures. PSPS events, which are enacted during high wildfire risk conditions, can result in communities experiencing no electricity for several days at a time, which can adversely affect certain populations within the city, especially when coupled with extreme heat. Further details on potential wildfire impacts to the city can be found in the VA (see Appendix F).

City's Adaptive Capacity

The third step in the vulnerability assessment process is to evaluate the city's adaptive capacity, which refers to a community's current and future ability to cope with potential impacts from climate hazards. Within the VA, a review of existing local policies, plans, programs, and resources, as well as those from relevant regional and State agencies and organizations, was conducted to evaluate the city's adaptive capacity to each climate hazard. Table 4.5 below displays a snapshot of existing plans and reports that contribute to the City's adaptive capacity to address the anticipated impacts of climate hazards.

Table 4.5 Summary of Existing Plans that Contribute to the City's Adaptive Capacity

Plan or Report	Climate Hazard			
	Increased Temperatures and Extreme Heat	Extreme Precipitation and Flooding	Drought and Water Supply	Wildfire
Sacramento County LHMP Annex	✓	✓	✓	✓
City's General Plan		✓	✓	✓
California's Fourth Climate Change Assessment Sacramento Valley Regional Report	✓	✓	✓	✓
Caltrans Climate Change Vulnerability Assessment District 3	✓	✓		✓
City Water Purveyor's Urban Water Management Plans		✓		
City's Emergency Operations Plan		✓	✓	✓

Source: Ascent Environmental 2021.

Vulnerability Scoring

The final step in the vulnerability assessment process is to characterize the city's vulnerability to each climate hazard, which is assessed based on the magnitude of risk to and potential impacts on populations, the built environment, and community functions while considering the current adaptive capacity in place to mitigate these impacts. An overall vulnerability score was assigned for each climate hazard based on their associated scores for potential impacts and adaptive capacity. The scoring rubrics for potential impacts and adaptive capacity, along with justifications for the scores, can be found in the VA (see Appendix F). Vulnerability scoring can help the City understand which climate hazards should be prioritized in future planning efforts. Table 4.6 presents the rubric used to determine overall vulnerability scores based on the ratings for potential impacts and adaptive capacity.

Table 4.6 Vulnerability Scoring Rubric

Vulnerability Score				
Adaptive Capacity	Low	3	4	5
	Medium	2	3	4
	High	1	2	3
		Low	Medium	High
Potential Impacts				

Source: CalOES 2020; adapted by Ascent Environmental in 2023.

Vulnerability scoring for each identified climate hazard – increased temperatures and extreme heat, extreme precipitation and flooding, drought and water supply, and wildfire – is included in Table 4.7 below. The table shows that increased temperatures and extreme heat is assigned a vulnerability score of 5 and therefore should be a high priority for the City. Extreme precipitation and flooding was assigned a vulnerability score of 4, and drought and water supply was assigned a vulnerability score of 3. These climate hazards are likely to have significant impacts on the City’s populations, built environment, and community functions in the near-term, and although a variety of adaptive efforts related to both climate hazards are in place and underway, the magnitude of the risks posed by these hazards contributes to increased vulnerability for the City. Increased wildfire risk is characterized as having a vulnerability score of 2. This climate hazard will likely have lower priority impacts on the City and is currently being addressed adequately based on existing conditions, but additional adaptation and resilience planning will be required in the future to mitigate impacts and protect the city.

Table 4.7 Vulnerability Scoring Summary for the City of Rancho Cordova

Climate Hazard	Vulnerability Score		
	Adaptive Capacity	Potential Impacts	Vulnerability
Increased Temperatures and Extreme Heat	Low	High	5
Extreme Precipitation and Flooding	Medium	High	4
Drought and Water Supply	Medium	Medium	3
Wildfire	High	Medium	2

Source: Ascent Environmental 2023.

ADAPTATION STRATEGIES

This section includes a set of adaptation strategies that are intended to help the City prepare for and become more resilient to the impacts of climate change. The strategies have been developed based on the findings of the vulnerability assessment, discussed above, and are designed to complement the existing set of local and regional plans that address natural hazards in the city. There are five separate overarching adaptation strategies:

- ▶ **Strategy Adaptation-1:** Improve resilience to increased temperatures and extreme heat.
- ▶ **Strategy Adaptation-2:** Improve resilience to extreme precipitation and flooding.
- ▶ **Strategy Adaptation-3:** Improve resilience to drought.
- ▶ **Strategy Adaptation-4:** Improve resilience to wildfires.
- ▶ **Strategy Adaptation-5:** Promote holistic community resilience in the context of climate change.

Similar to the GHG reduction strategies presented in Chapter 3, the adaptation strategies are further broken down by objectives, and then actions. In some instances, specific actions mirror some of the actions already underscored in other local plans, such as the City’s Annex to the Sacramento County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). These actions are also included in this Plan to emphasize the climate resilience benefit of implementing the action. Each of the strategies, measures, and actions are presented in Table 4.8 below.

Table 4.8 Adaptation Strategies

Strategy Adaptation-1. Improve resilience to increased temperatures and extreme heat.	
Objectives:	
▶ Reduce the urban heat island effect. ▶ Protect populations from extreme heat.	
Actions:	
1a. Promote the use of “cool” roofs on both new and existing residential and nonresidential buildings. 1b. Pilot and monitor benefits of “cool” pavement in residential neighborhoods. 1c. Conduct a mapping exercise to determine locations around the city that experience the greatest impact from the urban heat island effect and utilize this information to prioritize locations for increased tree planting and sustained tree management. 1d. Continue hosting community tree-planting events, and collaborating with other government agencies, such as the Cordova Recreation and Park District, to co-sponsor such events on properties owned by those other agencies, and offering free trees for residents, businesses, and community-based organizations through the City’s Urban Forest program. Develop a tree planting program for increasing tree planting at City-owned sites. 1e. Explore opportunities to further increase shading of buildings and parking lots using trees and/or solar canopies. 1f. Preserve, enhance, increase, and establish community green areas, such as parks, recreational facilities, and open space. 1g. Expand cooling center access during extreme heat events through extended hours, more locations, and less stringent criteria for opening. 1h. Partner with community-based organizations, faith-based organizations, businesses, and other public agencies to develop a “Community Cool Zone Network” comprised of air-conditioned spaces that are made available to vulnerable populations during extreme heat events to prevent heat-related illnesses. 1i. Support employers to protect worker health from extreme heat, especially those working in vulnerable occupations, through targeted outreach and information-sharing about extreme heat risks, applicable regulations, and strategies to reduce risk. 1j. Develop a “Cool Buddy” program where local volunteers are trained to build neighborhood networks, identify heat-vulnerable neighbors, and set up systems to check in on each other during extreme heat events. 1k. Develop public awareness campaigns that bolster extreme heat event preparedness actions and adaptation strategies. 1l. Support a comprehensive outreach campaign to prevent heat-related illnesses among vulnerable populations, including, but not limited to, children, seniors, people experiencing homelessness, people with disabilities in the care of licensed facilities, and workers in vulnerable occupations.	

Strategy Adaptation-2. Improve resilience to extreme precipitation and flooding.

Objectives:

- ▶ Promote climate-smart flood management.
- ▶ Add redundancy to the City's flood management system.

Actions:

- 2a. Prioritize the implementation and use of green infrastructure to manage future flood risk.
- 2b. Coordinate with landowners to manage stormwater runoff through sustainable land conservation practices.
- 2c. Utilize vacant lots to build flood control detention basins and replace undersized culverts to better address flooding from future extreme precipitation events.
- 2d. Encourage the use of porous pavement and vegetative buffers in large parking areas.
- 2e. Seek funding to purchase and install battery-powered generators for each of the City's six pump stations, which serve to convey stormwater during precipitation events.
- 2f. Implement flood control projects identified in the Stormwater Capital Improvement Program Master Plan to help resolve existing flooding issues and prevent future impacts from extreme precipitation events.
- 2g. Encourage residents located within the 100- and 500-year floodplain to obtain flood insurance through the National Flood Insurance Program.
- 2h. Continue to enforce the requirements of the Parkway Corridor overlay zoning district (Municipal Code Section 23.325.070) to regulate property along the American River in the city.

Strategy Adaptation-3. Improve resilience to drought.

Objectives:

- ▶ Reduce water consumption.
- ▶ Ensure long-term sustainability and reliability of the City's water supplies.

Actions:

- 3a. Continue promoting water conservation tips and measures across the City's websites and social media platforms.
- 3b. Continue offering assistance to residents for drought-tolerant landscapes through the City's beautification program, and seek to expand assistance through other actions, such as developing a "Cash for Grass" lawn replacement program.
- 3c. Update MWEL0 to go beyond State requirement to plan drought-tolerant and water-conserving landscaping in new development projects.
- 3d. Coordinate with local water suppliers to establish and monitor progress on a citywide per capita water use reduction target.
- 3e. Educate the public about the benefits and water conservation potential of rainwater catchment and greywater systems.
- 3f. Promote the installation of water-efficient fixtures, appliances, and equipment in new development and as part of retrofits for existing development.
- 3g. Support the development of extended drought scenario analyses as part of future updates to Urban Water Management Plans and Water Shortage Contingency Plans of local water suppliers.
- 3h. Coordinate with local water suppliers to support the development of recycled water systems.

Strategy Adaptation-4. Improve resilience to wildfires.

Objectives:

- ▶ Protect populations from wildfire smoke and poor air quality.
- ▶ Mitigate the impacts from potential Public Safety Power Shutoff events during high wildfire risk conditions.

Actions:

- 4a. Develop and implement a wildfire smoke protection outreach strategy.
- 4b. Monitor employers to ensure compliance with California Code of Regulations, Title 8, Section 5141.1, which requires employers to protect workers who may be exposed to wildfire smoke.
- 4c. Take steps to ensure that the City's building stock is outfitted with indoor air purification systems capable of enhancing and protecting public health from wildfire smoke and poor air quality.
- 4d. Support the installation of battery storage systems in existing residential and nonresidential development.
- 4e. Coordinate with and promote SMUD's battery storage incentives for residents and businesses.

Strategy Adaptation-5. Promote holistic community resilience in the context of climate change.

Objectives:

- ▶ Coordinate equitable education, outreach, and engagement.
- ▶ Promote robust emergency services and other planning activities.
- ▶ Protect the built environment from climate hazards.

Actions:

- 5a. Through a multi-pronged approach, enhance public education and awareness of climate hazards and public understanding of disaster preparedness, prioritizing engagement with vulnerable populations (for example, workshops, displays, websites, public-private partnerships).
- 5b. Provide tailored, preparedness-oriented outreach to vulnerable populations across the city regarding climate hazards that are most applicable and specific to them (for example, flood preparedness outreach for residents residing within the city's 100- and 500-year floodplains).
- 5c. Embed climate resiliency and adaptation across City plans, programs, and activities to account for changing hazard profiles and their associated impacts.
- 5d. Prioritize making emergency services more accessible, especially for vulnerable populations.
- 5e. Encourage residents to enroll in the Sacramento Region Emergency Notification System.
- 5f. Maintain up-to-date emergency preparedness and evacuation plans and procedures in coordination with appropriate State, regional, county, and local agencies and departments.
- 5g. Encourage roundabouts in place of traffic signals where appropriate for increased ability to evacuate and traffic flow.
- 5h. Ensure interconnectivity and road standards are maintained for evacuation routes and disaster preparedness purposes.
- 5i. Develop a clean energy microgrid for essential City facilities to support resilient emergency operations.
- 5j. Integrate climate-smart natural resource management into City operations, incorporating climate projection data, risk modeling, and adaptive management, as appropriate, to account for future changes in climate hazards in natural resource projects.

- 5k. Evaluate and update the City's building and engineering standards to account for climate hazards that are likely to affect critical infrastructure, such as extreme heat and extreme precipitation and flooding.
- 5l. Identify and upgrade vulnerable critical infrastructure (for example, utility, transportation, and so on) through the City's Capital Improvement Projects planning process.
- 5m. Promote building retrofits to include climate resilience features (for example, home hardening improvements, weatherization improvements, adequate climate control equipment with air filtration systems).



CHAPTER 5:

Implementation and Monitoring





CHAPTER 5: Implementation and Monitoring

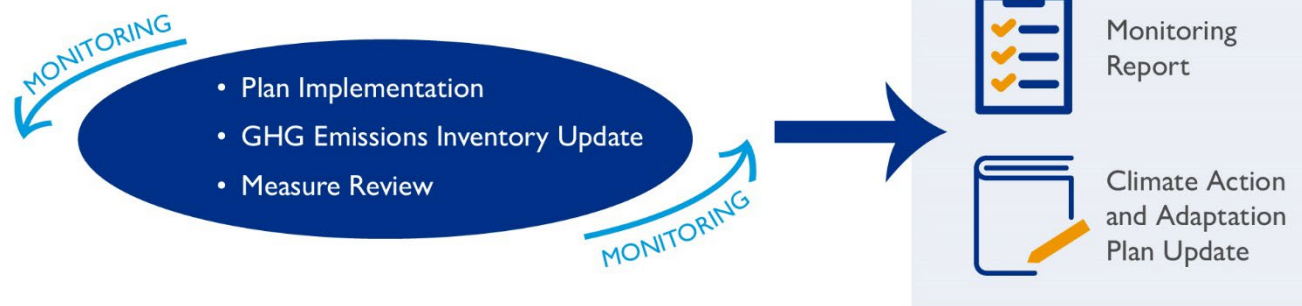
5.1 OVERVIEW

This chapter summarizes the last component of the Plan development process – implementation and monitoring. To achieve the GHG emissions reductions described in Chapter 3, measures should be regularly assessed and monitored to determine if:

- (1) they are effective;
- (2) the Plan is on track to achieve the GHG reduction targets; and
- (3) desired outcomes are achieved.

This chapter describes how the City will implement the strategies and measures identified in this Plan, and how the City will assess and monitor the progress. Along with sharing the City's implementation and monitoring strategy, this chapter also states the California Environmental Quality Act (CEQA) streamlining requirement of this Plan. Figure 5.1 highlights the key components of implementing and monitoring the plan.

ADOPT A CLIMATE ACTION AND ADAPTATION PLAN



Source: Ascent Environmental 2023.

Figure 5.1 Key Components of Implementing and Monitoring the Plan

5.2 IMPLEMENTATION STRATEGY

After the adoption of this Plan, the City will develop an implementation strategy for the Plan measures. The implementation plan will be based on several factors such as budget capacity and availability of funding opportunities. Potential funding opportunities to support Plan implementation are summarized below.

Implementing this Plan will involve the City Council, Planning Commission, and coordination with other boards, commissions, and City departments. Implementation will involve collaboration with the Sacramento Municipal Utility District (“SMUD”), the County of Sacramento, other public and private agencies, and neighboring cities to implement strategies and measures requiring regional collaboration. The success of Plan implementation will also depend on the participation of residents, businesses, and other stakeholders in the city and region.

The City will implement the measures of the Plan through several types of programs and activities that may include changes in municipal operations; new ordinances or code updates; development conditions of approval; advanced planning efforts; provision of incentives or financing; public agency or private partnerships; and education and outreach. While each measure identified in the Plan would fall into these categories, some measures overlap and belong to more than one category. Descriptions of each implementation category are provided below.

- ▶ **Municipal Operations:** City specific actions to update and make municipal operations more efficient. These measures would be implemented by the City and would reduce emissions specifically related to municipal operations.
- ▶ **New Ordinances and Code Updates:** Implementation of several measures in the Plan would occur through new ordinances adopted by the City or through amendments to the Municipal Code.
- ▶ **Planning:** The Plan identifies measures that are more programmatic in nature and require visioning and long-term planning efforts to allow for GHG reductions.
- ▶ **Financing and Incentives:** Successful implementation of Plan measures requires identifying mechanisms for funding and allocating resources. Further, several measures identified in the Plan would be implemented by community residents, business owners, other local agencies, and developers.
- ▶ **Partnerships:** Interagency coordination and collaboration with other organizations are critical to ensuring the implementation of certain measures.
- ▶ **Education and Outreach:** Education and outreach efforts about the goals of the Plan will help create support for the Plan and involve the community in its implementation. These efforts would be intended to increase participation and awareness and could include informing residents about potential GHG reductions and co-benefits of various measures.

The Plan’s effective implementation will require a process to prioritize its strategies and measures periodically. Implementation priority is determined by a variety of factors, including the timeframe of implementation, the effectiveness of measures in reducing GHG emissions, the impact on neighborhoods, staff resources needed, and the required level of department/agency collaboration.

5.3 MONITORING AND UPDATES

The City will begin implementing Plan measures and actions after Plan adoption. The Plan will be monitored over time to assess the progress by tracking performance metrics for each strategy. Changing circumstances, such as State and federal laws and programs, updates to climate science, changes in technology, or evolving local, State, federal, or even global economic and social conditions, may necessitate changes to the Plan.

If the Plan is not achieving the desired outcomes, the measures or actions will need to be altered or amended. This will require periodic updates to the GHG emissions inventories and vulnerability assessment, as well as analyzing individual action performance.

City staff will evaluate the performance of the GHG reduction strategies and measures over time. Evaluating the performance requires monitoring the level of community participation, costs, and potential barriers to implementation, as well as activities that result in GHG emissions reductions like actual reductions in fuel consumption, vehicle miles traveled, energy usage, water usage, landfilled waste, and so on. In addition to considering these factors, assessing the performance of Plan adaptation actions will be informed by resilience-related improvements in the community. The City staff will regularly monitor and report on adaptation and climate hazards and will update the strategies and actions when needed. By evaluating whether the implementation of an action is on track to achieve its objective, the City can identify successful actions and reevaluate or replace underperforming measures. Continued implementation of the City's GHG reduction efforts would support overall GHG reductions and Plan implementation. Periodically, City staff will present a summary of Plan implementation progress to date to the Planning Commission and City Council.

Why

a monitoring strategy?

- to evaluate the performance of CAP
- to understand which measures or actions need to be amended
- to understand and mitigate any barriers to implementation

To provide updates on Plan implementation progress, City staff will prepare a monitoring report every two years. This process will provide updates on the Plan implementation progress, including the status of actions implemented to achieve GHG reductions and improve resilience as well as other important milestones in the implementation process. As technologies and markets change and the City implements the actions identified in the Plan, the monitoring report will be used to track progress and identify actions that need to be improved, adjusted, or removed. The report will also be used for periodic presentations to the City Council about implementation progress on actions and overall progress towards Plan objectives. It would also serve to provide transparency and promote engagement with the public for Plan implementation. At a minimum, the report prepared every two years will include:

- ▶ Metrics illustrating Plan measure performance, individually and in aggregate (for example, GHG emissions reductions, participation rates, activity data, percent work completed);
- ▶ Implementation costs and funding needs;
- ▶ Community benefits realized;
- ▶ Any barriers to implementation;
- ▶ Recommendations, if any, for removal or changes to individual measures or identification of new measures; and
- ▶ Recommendations, if any, for changes to this Plan and/or preparation of a new Plan.

Finally, the City will prepare a GHG emissions inventory and an update to the plan every five years, with the first update due in 2028. The Plan Update would reflect the findings and recommendations of the monitoring reports and inventory updates. Table 5.1 shows the City's implementation and monitoring timeframe.

Table 5.1 City's Implementation and Monitoring Timeframe

Year	Milestone	Description
2023	Plan adopted	City Council adopts the Plan.
2023	Develop Implementation Strategy	City staff begins to develop the implementation strategy.
2023	Plan Implementation	City staff begins to implement Plan measures.
2025	Monitoring Report	City staff will prepare a monitoring report every two years and present the report to City Council and Planning Commission. The first monitoring report will be completed two years from Plan adoption. Each monitoring report will evaluate implementation status of the Plan's GHG reduction measures. The monitoring report will identify whether any of the measures require amendment to maintain progress toward achieving the emissions reductions identified in the Plan.
2028	GHG Emissions Inventory Update	An updated GHG inventory will be prepared to track the Plan implementation progress by assessing the City's progress towards achieving the emissions reductions identified in the Plan.
2028	Plan Update	Based on the results of the monitoring report and updated GHG emissions inventory, the City will update the Plan to include new or amended measures, remove, or update any ineffective measures, and incorporate new technologies and methodologies as necessary to ensure the Plan is on track to achieve the City's target and goal.

5.4 CALIFORNIA ENVIRONMENTAL QUALITY ACT AND THE PLAN

The California Environmental Quality Act (CEQA) is a statute that requires local agencies to identify significant environmental impacts of their actions and avoid or mitigate those impacts, if feasible. The 2022 Scoping Plan emphasizes the use of CEQA as a tool by local jurisdictions for supporting the State's climate priorities. When a local Plan complies with CEQA requirements, individual projects that comply with the Plan are allowed to streamline the project-specific GHG analysis. With a CEQA Qualified Plan, local governments enable project developers to use this streamlined approach and save time and resources, while ensuring more consistency in applying GHG reduction measures across projects. The City plans to utilize this tool for ensuring that new development is constructed with more sustainable and low-carbon features than existing development. By following this approach, the Plan has been prepared consistent with the provisions of CEQA Guidelines Section 15183.5 ("Qualified Plan"). Table 5.2 summarizes how the Plan meets the requirements of a CEQA Qualified Plan.

As a result, the Plan provides new development project applicants in the city the opportunity to use CEQA streamlining tools for projects that are consistent with this Plan. Demonstrating consistency with the Plan establishes that a project will not result in an "additional environmental effect" related to GHG emissions. A project's consistency with the Plan will be determined through a Consistency Checklist ("Checklist"). The Checklist will contain GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to achieve the City's 2030 reduction target and make substantial progress toward the 2045 goal. New development projects will need to incorporate all potentially applicable Plan measures to demonstrate consistency with the Plan. By incorporating applicable GHG reduction measures in the Checklist into project designs or conditions of approval, the City will ensure that new development is consistent with applicable GHG reduction measures in the Plan and will contribute its "fair share" in achieving the identified GHG reduction targets. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements.

Table 5.2 Summary of Compliance with CEQA Requirements for a Qualified Greenhouse Gas Reduction Plan

CEQA Required Elements for a “Qualified” Climate Action Plan (CEQA Guidelines Section 15183.5[b][1])	Summary of CAAP Compliance
(a) Quantify greenhouse gas emissions, both existing and projected over a specified time period	The City conducted a 2019 baseline communitywide emissions inventory and developed emissions forecasts for 2030 and 2045 (Sections 2.2 and 2.3). Appendix A and B present details of the City’s 2019 inventory and Appendix B and C present forecast details.
(b) Establish a level below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable	The City has set an emissions reduction target for 2030 and a 2045 goal to align with the statewide emissions reduction targets for 2030 and 2045 (Section 2.4). Appendix C presents details of the GHG targets technical memorandum and Appendix D presents the target worksheet.
(c) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area	The 2019 baseline communitywide emissions inventory and 2030 and 2045 forecasts include the following emissions sectors representing emissions-generating activities and sources throughout the city (Sections 2.2 and 2.3): ▶ On-Road Transportation ▶ Building Energy ▶ Solid Waste ▶ Off-Road Vehicles and Equipment ▶ Water Supply ▶ Wastewater Treatment Appendices A, B, and C present details of the City’s inventory and forecasts by sector.
(d) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level	To achieve the 2030 target and to make substantial progress toward the 2045 goal, the Plan proposes a Strategy Framework consisting of 14 GHG reduction strategies, 34 GHG emission reduction measures, and supporting actions (Chapter 3). Appendix E presents details on strategies and measures.
(e) Establish a mechanism to monitor the plan’s progress toward achieving the level and to require amendment if the plan is not achieving specified level	The City is committed to monitoring the performance of GHG reduction strategies and measures over time to assess the progress by tracking performance metrics for each strategy and identifying actions that need to be improved, adjusted, or removed. Chapter 3 provides details on City’s emissions reduction strategy framework and performance metrics and Chapter 4 details the strategies, objectives, and actions. Sections 5.2 and 5.3 present City’s implementation strategy and monitoring strategy respectively.

CEQA Required Elements for a “Qualified” Climate Action Plan (CEQA Guidelines Section 15183.5[b][1])	Summary of CAAP Compliance
(f) Be adopted in a public process following environmental review	The City, as lead agency for this Plan under CEQA, has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environment impacts of implementing the Plan, which the City Council will consider adopting before it considers adoption of this Plan.

5.5 FUNDING SOURCES

The increased energy efficiency and reduced use of non-renewable resources resulting from Plan implementation will result in substantial cost-savings for the City and its residents in the long term. However, the initial set-up, administration work, staffing, and enforcement will require funding and investments. After the Plan is adopted, the City will be proactive in seeking cost-effective implementation and strategic funding opportunities and developing partnerships to share costs. This section presents the spectrum of financial mechanisms that are available for the City to explore for implementing the Plan. This list is ordered by the increasing amount of debt load that would be incurred by the City: starting with free capital from grants and partnerships, continuing to the capital borrowed from loans and bonds, and concluding with City funding from budget, taxes, and fees. Additionally, a detailed list of potential funding and financing options to help implement the Plan is provided in Appendix G. As the Plan is updated and monitored, the City will need to reevaluate its overall costs and funding sources available. Leveraging funding opportunities would facilitate the successful implementation of the GHG reduction measures.

- ▶ **Grants** can provide a substantial source of repayment-free capital. To take advantage of a grant, the City staff will need to track grant opportunities, craft meaningful proposals that link to the goals and mission of the funding agency or entity, submit applications, and track results required for ongoing reporting.
- ▶ **Partnerships** tap resources, and secure capital, from non-governmental and private sector actors. Partnerships will allow the City to share ownership of the Plan implementation, while also sharing possible cost savings and revenue generation with a third party. Partnerships also spread financial risk across multiple public, private, and/or nonprofit entities.
- ▶ **Loans** can give the City access to upfront capital, whose principal and interest must be repaid over the duration of the loan. While the City will first consider grants and private partners when possible, to access repayment-free capital, when those pathways are unavailable loans can be a dependable alternative.
- ▶ **Bonds** can provide dependable, predictable financing for capitalizing large infrastructure projects. The City can issue a bond directly or apply for funds from a state bonding program. These bonds can be backed either by general City funds, or specific revenue sources. There are multiple types of bond structures including general obligation, revenue, and conduit bonds, as well as certifications like “green” bonds for climate and sustainability that communicate what types of projects bond proceeds are being used for.
- ▶ **Budget** refers to using money in the City’s general fund to capitalize projects. Every year the City collects tax revenue and other fees to populate its general fund, portions of which are appropriated to new capital projects and infrastructure investments. Plan implementation can be incorporated into the City’s budgeting processes and City budgets can be used to fund Plan implementation expenditures.
- ▶ **New taxes and fees**, as well as cost savings and other revenues, can create new flows of capital to fund Plan implementation.

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Appendix A

Greenhouse Gas Inventory (Technical Memorandum)

Memo



455 Capitol Mall, Unit 300
Sacramento, CA 95814
916.444.7301

Date: March 29, 2022

To: Stefan Heisler and Darcy Goulart (City of Rancho Cordova)

From: Alyssa Way, Andrew Martin, and Honey Walters (Ascent Environmental)

Subject: City of Rancho Cordova Climate Action Plan, Greenhouse Gas Emissions Inventory
Technical Memorandum

INTRODUCTION

In 2009, the County of Sacramento prepared a baseline inventory for the unincorporated county and the incorporated cities, including specifically a 2005 baseline year inventory for the City of Rancho Cordova (City). The Sacramento Area Council of Governments (SACOG) 2020 Metropolitan Transportation Plan / Sustainable Communities Strategy (MTP/SCS) Draft Environmental Impact Report included a greenhouse gas (GHG) emissions inventory and forecast for 2016, 2030, 2040, and 2050 that included the City. Though the City was considered in both efforts, an updated communitywide GHG emissions inventory using the latest methodologies with a more recent 2019 baseline year has been prepared for the City's Climate Action Plan (CAP).

The CAP is intended to reduce GHG emissions for the 2030 target year and 2045 goal. This initial preparation of a GHG emissions inventory provides a foundation for the forthcoming phases of the CAP process, which includes forecasting future emissions, developing GHG emissions reduction targets, defining GHG emissions reduction measures, and preparing a CAP to reduce GHG emissions from activities occurring in the city. This technical memorandum provides the results of the 2019 GHG emissions inventory, as well as associated methods, assumptions, emissions factors, and data sources.

ORGANIZATION OF THIS MEMORANDUM

This memorandum consists of two main parts:

- ▶ Section 1: Summary of Inventory Results presents an overview of the 2019 community inventories for each sector.
- ▶ Section 2: Data, Methods, and Assumptions summarizes data, methods, and assumptions used in the 2019 inventory and provides activity data and GHG emissions estimates by sector.

1 SUMMARY OF INVENTORY RESULTS

1.1 COMMUNITY INVENTORY

The city's GHG emissions inventory for 2019 was estimated based on methodologies and guidance provided by ICLEI – Local Governments for Sustainability (ICLEI) (discussed further in Section 2.2.1). Based on the modeling conducted, community activities in 2019 generated approximately 679,706 metric tons of carbon dioxide equivalent (MTCO₂e). Major emissions sectors included on-road transportation, residential and nonresidential building energy use, solid waste, water use, and wastewater generation. The 2019 inventory will serve as the City's GHG emissions baseline, which will be used to set future emissions reductions targets. A description of each emissions sector, including key sources, is provided in further detail in Section 2, "Data, Methods, and Assumptions". Table 1 and Figure 1 present the overall 2019 community inventory and the contributions from each key sector.

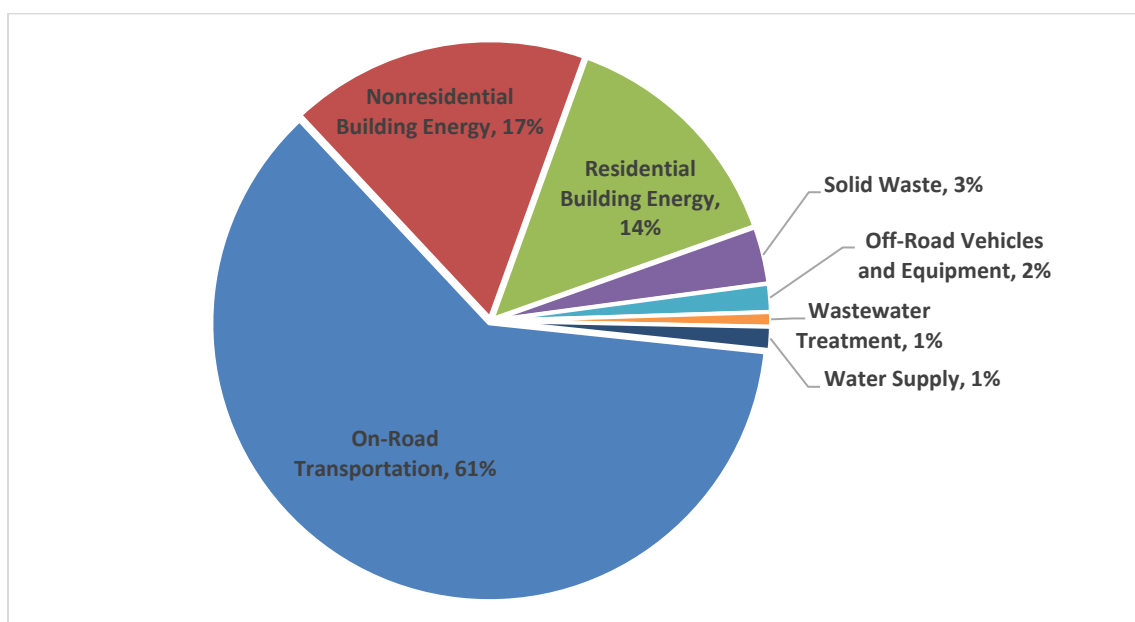
Table 1 2019 City of Rancho Cordova Community Greenhouse Gas Emissions Inventory

Sectors	MTCO ₂ e/year	Percent of Total
On-Road Transportation	417,145	61%
Nonresidential Building Energy	118,801	17%
Residential Building Energy	95,575	14%
Solid Waste	22,397	3%
Off-Road Vehicles and Equipment	11,027	2%
Water Supply	9,071	1%
Wastewater Treatment	5,690	1%
Total	679,706	100%

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalent per year

Source: Ascent Environmental 2021

Figure 1 2019 City of Rancho Cordova Community Greenhouse Gas Emissions Inventory



Source: Ascent Environmental 2021

2 DATA, METHODS, AND ASSUMPTIONS

2.1 OVERALL ASSUMPTIONS AND DATA

2.1.1 Utility Emissions Factors

Emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) per unit of electricity and natural gas can vary by location and from year to year depending on numerous factors. Utility-specific factors for GHG emissions were obtained and used in the 2019 inventory to estimate GHG emissions from electricity and natural gas consumption. Sources for electricity and natural gas emissions factors are shown below.

- Electricity: Utility electricity emissions factors for CO₂, CH₄, and N₂O were obtained from the Sacramento Municipal Utility District (SMUD) and the U.S. Environmental Protection Agency's (EPA's) Emissions & Generation Resource Integrated Database (eGRID). For 2019, SMUD's CO₂ emissions factor was interpolated using the 2018 emissions factor provided by SMUD and the requirements of the Renewables Portfolio Standard included in Senate Bill (SB) 100. The same approach was taken for CH₄ and N₂O emissions factors from eGRID's 2018 Annual Output Emissions Rates (EPA 2020).
- Natural Gas: Utility natural gas emissions factors for CO₂, CH₄, and N₂O were obtained from The Climate Registry's (TCR's) 2020 Default Emission Factors (TCR 2020).

Specific utility emissions factors used in the inventory calculations are shown below in Table 3.

Table 3 2019 City of Rancho Cordova Utility Emissions Factors

Source and Unit	2019 Emissions Factor
SMUD – Electricity	
g CO ₂ /kWh	232.10
g CH ₄ /kWh	0.015
g N ₂ O/kWh	0.002
g CO ₂ e/MWh	233.01
PG&E – Natural Gas	
g CO ₂ /therm	5306
g CH ₄ /therm	0.47
g N ₂ O/therm	0.01
g CO ₂ e/therm	5322

Notes: CH₄ = methane; CO₂ = carbon dioxide; g= grams, MWh = megawatt-hours; N₂O = nitrous oxide; SMUD = Sacramento Municipal Utility District; PG&E = Pacific Gas and Electric Company.

Source: Utility emissions factors provided by SMUD, EPA, The Climate Registry (TCR). Ascent Environmental 2021

2.1.2 Global Warming Potentials

GHG emissions other than CO₂ generally have a stronger insulating effect and thus, a greater ability to warm the earth's atmosphere through the greenhouse effect. This effect is measured in terms of a pollutant's Global Warming

Potential (GWP). CO₂ has a GWP factor of one while all other GHGs have GWP factors measured in multiples of one relative to the GWP of CO₂. This conversion of non-CO₂ gases to one unit enables the reporting of all emissions in terms of carbon dioxide equivalent (CO₂e), which allows consideration of all GHGs in comparable terms and makes it easier to communicate how various sources and types of emissions contribute to climate change. MTCO₂e is the standard unit for reporting emissions.

Consistent with the best available science, these inventories use GWP factors published in the Sixth Assessment Report (AR6) from the Intergovernmental Panel on Climate Change (IPCC), where CH₄ and N₂O have GWP factors of 27.9 and 273, respectively (IPCC 2021). This means that CH₄ and N₂O are approximately 28 and 273 times stronger than CO₂ in their potential to warm Earth's atmosphere, respectively. It should be noted that the California Air Resources Board's (CARB) Statewide GHG Inventory which is associated with the 2017 Scoping Plan uses the Fourth Assessment Report (AR4). Under AR4 CH₄ is approximately 24 times stronger than CO₂ and N₂O is 298 times stronger than CO₂. The GWP can be toggled in the GHG Inventory and Forecast Workbook to compare the change in emissions between the Assessment Reports.

2.1.3 Population and Employment

Population and employment data were used to scale activity levels for certain emissions sources and sectors. Population and employment data were obtained from the California Department of Finance and the Employment Development Department 2019.

2.2 COMMUNITY INVENTORIES DATA AND ASSUMPTIONS

2.2.1 Sector-Specific Assumptions and Methods for Community Inventories

Several inventory protocols have been developed to provide guidance for communities and local governments to account for emissions accurately and consistently. In coordination with other partners, ICLEI has developed guidance for local-scale accounting of emissions that many local governments use to develop their GHG inventories. The most recent guidance for community-scale emissions inventories is ICLEI's Community Protocol, Version 1.2, published in July 2019 (ICLEI 2019). GHG emissions from livestock were not included in the inventory due to a lack of available information about the number of cattle grazing within City limits.

The following summarizes data sources and methods used in estimating community GHG emissions in 2019:

- ▶ **Building Energy:** Annual electricity and natural gas usage data for the city were provided by SMUD and Pacific Gas and Electric (PG&E) (see Table 3 above). Emissions factors were obtained from SMUD, eGRID, and TCR. Annual nonresidential backup generator usage was provided by Sacramento Metropolitan Air Quality Management District (SMAQMD). Emissions factors for backup generator fuels was obtained from TCR.
- ▶ **Transportation:** For the on-road transportation sector, daily vehicle miles traveled (VMT) were obtained from Fehr & Peers for the city, using the SB 375 Regional Technical Advisory Committee's (RTAC's) origin-destination method. Vehicle emissions factors were derived from CARB's 2021 Emissions FACTor (EMFAC2021) model. Off-road vehicle emissions were estimated from CARB's OFFROAD2007 and OFFROAD2021 models and scaled by population, employment, or share of road miles.
- ▶ **Solid Waste:** Emissions associated with waste generated by residents and businesses in the city were estimated using disposal data available from the California Department of Resources Recycling and Recovery (CalRecycle) for landfills receiving waste from the city. Landfill gas (LFG) collection information was available from EPA.

- ▶ **Water Supply:** Using guidance provided by ICLEI, water supply emissions were estimated using approximate water consumption volumes obtained from the Sacramento County Water Agency, Golden State Water Company, and California American Water in combination with region-specific energy intensity factors obtained from the California Public Utilities Commissions (CPUC).
- ▶ **Wastewater:** Emissions from wastewater treatment depend on the types of treatment processes and equipment that centralized wastewater treatment plants (WWTPs) use. Emissions in this sector are also generated from onsite wastewater treatment systems. Data regarding treatment processes, population served, digester gas combustion, and daily nitrogen load were obtained from Sacramento Area Sewer District and Regional San to estimate emissions from centralized WWTPs.

2.2.2 Building Energy

Residential and nonresidential building energy use in 2019 resulted in approximately 214,376 MTCO₂e. This sector generated approximately 32 percent of the City's emissions in 2019 and represents the second largest emissions sector in the inventory. Most of these emissions were a result of electricity and natural gas use in homes and businesses, primarily for lighting and heating, ventilation, air condition, and cooling (HVAC), as well as to power appliances. A small proportion of nonresidential building energy emissions are associated with diesel consumption in backup generators. In 2019, electricity from both residential and nonresidential buildings accounted for approximately 67 percent of emissions from the building energy sector. Natural gas use accounted for approximately 32 percent, and backup generators accounted for less than 1 percent, of emissions from the building sector in 2019. Annual electricity, natural gas, and backup generator usage and GHG emissions are shown in Table 4.

Table 4 2019 City of Rancho Cordova Community Building Energy Use Greenhouse Gas Emissions

Source	Quantity	GHG Emissions	Percentage
Electricity	MWh/year	MTCO ₂ e/year	% of Energy Total
Residential	202,727	47,238	22
Nonresidential	416,664	97,089	45
<i>Electricity Total</i>	<i>619,391</i>	<i>144,327</i>	<i>67</i>
Natural Gas	therms/year	MTCO ₂ e/year	% of Energy Total
Residential	9,082,624	48,336	23
Nonresidential	3,902,601	20,769	10
<i>Natural Gas Total</i>	<i>12,985,225</i>	<i>69,105</i>	<i>32</i>
Backup Generators	gallons	MTCO ₂ e/year	% of Energy Total
Nonresidential	92,209	943	<1
Energy Combined		MTCO ₂ e/year	% of Energy Total
Residential	NA	95,575	45
Nonresidential	NA	118,801	55
Grand Total	NA	214,376	100

Notes: Totals in columns may not sum exactly due to independent rounding. GHG = greenhouse gas; MTCO₂e/year = metric tons of carbon dioxide equivalent per year; MWh = megawatt-hours; NA = not applicable.

Source: Ascent Environmental 2021

RESIDENTIAL ENERGY

Residential energy emissions result indirectly from electricity consumption and directly from onsite combustion of natural gas. SMUD and PG&E are the providers of residential energy in the city. Annual residential electricity usage data for 2019 in the city were obtained from SMUD, expressed as MWh per year (MWh/year). To calculate the MTCO₂e of residential electricity consumption, emissions factors (shown in Table 3) for CO₂, CH₄, and N₂O were applied to electricity consumption data.

Annual residential natural gas consumption for 2019 in the city was obtained from PG&E, expressed as therms per year (therms/year). CO₂, CH₄, and N₂O emissions factors for natural gas were applied to consumption data to estimate MTCO₂e from residential natural gas usage.

NONRESIDENTIAL ENERGY

Nonresidential energy emissions, which are generated by commercial and industrial uses, result indirectly from electricity consumption and directly from onsite combustion of natural gas. SMUD provided nonresidential electricity in the city. Nonresidential natural gas in the city was provided by PG&E in 2019.

Annual nonresidential electricity usage data for 2019 were obtained from SMUD, expressed as MWh/year, and annual nonresidential natural gas consumption in the city was obtained from PG&E, expressed as therms/year. PG&E natural gas usage data for industrial customers could not be provided to the City because of the 15/15 Rule, which is statewide requirement protecting the privacy of utility customer data¹. Emissions associated with nonresidential energy consumption were quantified using the same methods as described above for residential energy calculations.

Data for annual nonresidential backup generators were obtained from SMAQMD, expressed as gallons per year (gallons/year) for diesel fuel. Emissions factors obtained from TCR were applied to fuel consumption data to estimate GHG emissions associated with nonresidential backup generator usage.

2.2.3 On-Road Transportation

The on-road transportation sector represents the largest emissions-generator sector in the city. Based on modeling conducted, on-road transportation in the city resulted in approximately 417,145 MTCO₂e, or 61 percent of the City's 2019 inventory. The on-road transportation sector represents the largest emissions sector in the city. Annual VMT and GHG emissions from on-road transportation are shown in Table 5 broken down by EMFAC vehicle category.

Table 5 2019 City of Rancho Cordova Community On-Road Transportation Greenhouse Gas Emissions

EMFAC Vehicle Category	EMFAC Vehicle Category Description	VMT/year ^a	GHG Emissions (MTCO ₂ e/year)
LDA	Passenger Cars	465,261,020	148,453
LDT2	Light-Duty Trucks (GVWR <6000 lb)	191,143,033	78,535
MDV	Medium-Duty Trucks (GVWR 5751-8500 lb)	130,832,664	65,206
LDT1	Light-Duty Trucks (GVWR <6000 lb)	45,762,151	17,554
LHD1	Light-Heavy-Duty Trucks (GVWR 8501- 10000 lbs)	33,974,541	29,056

¹ The 15/15 Rule originates from a California Public Utilities Commission (CPUC) ruling in 1997 that enacted privacy standards for utilities to help ensure customer anonymity when energy data is released to third parties without customer consent. The 15/15 Rule requires that aggregated data include a minimum of 15 customers with no one customer's load exceeding 15 percent of the group's energy consumption.

EMFAC Vehicle Category	EMFAC Vehicle Category Description	VMT/year ^a	GHG Emissions (MTCO ₂ e/year)
T7 Trucks	Heavy-Heavy Duty Trucks	19,391,641	38,318
T6 Trucks	Medium-Heavy Duty Trucks	16,550,426	23,818
LHD2	Light-Heavy-Duty Trucks (GVWR 10001- 14000 lb)	7,751,499	7,083
MCY	Motorcycles	3,695,927	891
MH	Motor Homes	1,034,081	1,826
UBUS	Urban Buses	960,288	1,597
OBUS	Other Buses	803,554	1,515
SBUS	School Buses	728,388	897
All Other Buses	All Other Buses	563,571	749
PTO	Power Take Off	500,107	1,138
Motor Coach	Motor Coach	265,909	511
Total	N/A	919,218,798	417,145

Notes: GHG = greenhouse gas; GVWR = gross vehicle weight rating; lb= pounds; MTCO₂e/year = metric tons of carbon dioxide equivalent per year; N/A = not applicable; VMT/year = vehicle miles traveled per year.

^a VMT by vehicle category based on the modeled vehicle fleet mix in EMFAC2021 for Sacramento County in 2019 using EMFAC2011 vehicle categories applied to the city's total annual VMT.

Source: Ascent Environmental 2021

On-road transportation emissions are primarily the result of the combustion of gasoline and diesel fuels in passenger vehicles (i.e., cars, light-duty trucks, and motorcycles), medium- and heavy-duty trucks, and other types of vehicles permitted to operate "on-road." To a smaller degree, emissions from on-road electric vehicles also result from upstream electricity generation; these emissions are represented in annual electricity emissions in the city. Due to lack of available data, emissions from the combustion of natural gas and other non-electric alternative fuels in on-road vehicles were not included in the community inventory and are assumed to have minimal contribution to total emissions.

Fehr & Peers conducted a study that provides daily VMT by city for the years 2016, 2027, 2035, and 2040. These VMT estimates are associated with trips that begin or end in the city. VMT estimates included 100 percent of vehicle trips that both originate from and end in the city (i.e., fully internal trips), 50 percent of trips that either end in or depart from the city (i.e., internal-external or external-internal trips), and zero percent of vehicle trips that are simply passing through the city boundaries (i.e., external-external, or "pass-through," trips). This vehicle trip accounting method is consistent with the RTAC origin-destination method established through SB 375 and CARB recommendations.

An overall emissions rate for countywide VMT was derived from EMFAC2021, CARB's statewide mobile source emissions inventory model. EMFAC2021 was used to generate emission rates for the county for the calendar year 2019 with all vehicle classes, model years, speeds, and fuel types. The countywide MTCO₂e per mile emissions factor was calculated based on the distribution of VMT for each vehicle class and its emissions factor.

OFF-ROAD VEHICLES AND EQUIPMENT

Based on modeling conducted, off-road vehicles and equipment operating in the city emitted approximately 11,027 MTCO₂e, or 2 percent of the 2019 inventory. The largest emissions-generating off-road transportation categories include construction and mining equipment, portable equipment, and industrial equipment. The estimated annual emissions and scaling factors used are presented in Table 6 below by equipment type.

Table 6 2019 City of Rancho Cordova Community Off-Road Vehicles-Equipment Greenhouse Gas Emissions

Off-Road Vehicles and Equipment Type	GHG Emissions (MTCO ₂ e)	Scaling Method
Construction and Mining Equipment	5,350	service population
Entertainment Equipment	54	employment
Industrial Equipment	1,426	employment
Lawn and Garden Equipment	138	population
Light Commercial Equipment	839	employment
Portable Equipment	2,478	employment
Recreational Equipment	81	population
Transportation Refrigeration Units	661	service population
Total	11,027	N/A

Notes: GHG = greenhouse gas; MTCO₂e/year = metric tons of carbon dioxide equivalent per year; N/A = not applicable.

Source: Ascent Environmental 2021; based on modeling from OFFROAD2007 and OFFROAD2021.

Emissions from the off-road vehicles and equipment sector result from fuel combustion in off-road vehicles and equipment. Data associated with this sector were available from CARB's OFFROAD2007 and OFFROAD2021 models. These models provide emissions details at the State, air basin, or county level. Sacramento County emissions data from OFFROAD2007 and OFFROAD2021 were apportioned to the city using custom scaling factors depending on the off-road fleet type. For example, due to the likely correlation between commercial activity and employment, the city's portion of emissions from light commercial equipment in the county is assumed to be proportional to the number of jobs in the city as compared to the county as a whole.

OFFROAD2007 provides emissions details for all off-road vehicle and equipment types, but OFFROAD2017 only provides details for certain types of off-road vehicles and equipment that are relevant to the city (i.e., construction and mining equipment, industrial equipment, and transport refrigeration units). CARB recommends using OFFROAD2007 where desired information is unavailable from the OFFROAD2021 model, so data from both models were used (CARB 2020). Additionally, while OFFROAD2021 provides estimates of CO₂ emissions, it does not provide estimates for CH₄ and N₂O emissions. To estimate CH₄ and N₂O emissions from the vehicle and equipment types included in OFFROAD2017, ratios of CH₄ to CO₂ and N₂O to CO₂ were obtained from OFFROAD2007 and applied to CO₂ data from OFFROAD2021 to calculate CH₄ and N₂O emissions.

2.2.4 Solid Waste

Based on modeling conducted, the solid waste sector was responsible for approximately 22,397 MTCO₂e in 2019, or 3 percent of the 2019 community GHG inventory. Community-generated solid waste emissions are result primarily from decomposition of solid waste generated by the city in landfills, while a smaller proportion of emissions are produced by the decomposition of alternative daily cover (ADC) generated by the county. Table 7 summarizes emissions from the solid waste sector. Additional details regarding calculation methods and assumptions are discussed below.

Table 7 2019 City of Rancho Cordova Community Solid Waste Greenhouse Gas Emissions

Source	Quantity (tons/year)	GHG Emissions (MTCO ₂ e/year)
Community-Generated Solid Waste	59,464	22,397

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2021

COMMUNITY-GENERATED SOLID WASTE

CH₄ emissions generated by community-generated solid waste occur from decay of landfill disposed waste generated annually by residences and businesses in the city. A total of 56,877 tons of landfilled waste was reported for the city in 2019. In addition to landfilled waste, communities send ADC to landfills. ADC is non-earthen material used to cover an active landfill surface at the end of each operating day to control for vectors, fires, odors, blowing litter, and scavenging. This material can include compost, construction and demolition waste, sludge, green material, shredded tires, spray-on cement, and fabric. Given that ADC can also include organic material, CH₄ emissions from landfills result from organic decomposition in both waste disposal and ADC. ADC from the city was 2,587 tons in 2019. Data for landfilled waste and ADC were obtained from CalRecycle (CalRecycle 2021).

The amount of CH₄ released from community-generated waste depends on the LFG management systems of the landfills at which the waste is disposed. Information regarding the use of an LFG capture system was available from EPA's Landfill Methane Outreach Program. All facilities included an LFG capture system; therefore, the default LFG collection efficiency of 0.75 was applied to adjust emissions estimates, as recommended by the Community Protocol. Default waste characterization emissions factors obtained from EPA were used in calculations.

2.2.5 Water Supply

Based on modeling conducted, water supply emissions accounted for approximately 9,071 MTCO₂e in 2019. GHG emissions associated with water supply occur from the indirect use of energy associated with water extraction, conveyance, treatment, and distribution to the point of use (e.g., residences, businesses). Energy consumption for supplying water was estimated by applying energy intensity factors (i.e., the total amount of energy required to produce a unit of water for a particular use) to water supply consumption values. Water supply emissions are estimated by applying electricity emissions factors to water consumption values. Table 8 presents water supply volume and energy consumption, as well as associated GHG emissions for the county in 2019. The methods used are explained in more detail below.

Table 8 2019 City of Rancho Cordova Community Water Supply Greenhouse Gas Emissions

	Quantity (AF)	GHG Emissions (MTCO ₂ e/year)
Water Supply	65,645	9,071

Notes: AF = acre feet; GHG = greenhouse gas; MTCO₂e/year = metric tons of carbon dioxide equivalent per year..

Source: Ascent Environmental 2021

ENERGY INTENSITY FACTOR

An energy intensity factor, regarding water supply emissions, is defined by the amount of energy (e.g., electricity, natural gas) required to produce a unit of water for a particular use. Electricity is the primary source of energy used for water extraction, conveyance, treatment, and distribution in the Sacramento River hydrologic region. Other energy sources may include fossil fuel-powered pumps and backup generators at treatment plants, but these sources that may be used were considered negligible. Thus, for purposes of this analysis, energy intensity is based on electricity use only and is expressed as kilowatt-hours per acre-foot (kWh/AF).

In 2015, the CPUC commissioned a study of hydrologic zones in California and their relative energy intensities for water extraction, conveyance, treatment, and distribution. The city is within the Sacramento River hydrologic zone, which has specific energy intensities by supply type (e.g., local surface water, imported deliveries). According to the City's Water Supply Evaluation water in the city is either sourced from surface water, groundwater, recycled water, or wholesale purchases.

ENERGY CONSUMPTION

To estimate water supply emissions, the energy intensity factors discussed above were applied to total water consumption volumes reported by each water supplier. GHG emissions were estimated using electricity emissions factors in 2019 as described in the building energy sector.

2.2.6 Wastewater Treatment

Based on modeling conducted, wastewater generation in 2019 resulted in emissions of approximately 5,690 MTCO₂e, one percent of total emissions, primarily from fugitive CH₄. Wastewater emissions were estimated in two components: (1) pumping-related energy for wastewater conveyance from the source to the treatment facility, and (2) wastewater treatment process emissions. Each is discussed separately below. GHG emissions associated with the treatment of wastewater from the city is shown in Table 9.

Table 9 2019 City of Rancho Cordova Wastewater Treatment Greenhouse Gas Emissions

Wastewater Emission Type	GHG Emissions (MTCO ₂ e/year)
Treatment Plants	5,690

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Ascent Environmental 2021

Wastewater Conveyance

SASD and Regional San are the primary agencies responsible for sewer conveyance and wastewater treatment for the city. Emissions associated with wastewater conveyance are directly related to the energy required to convey the wastewater and the volume of water conveyed/pumped. To estimate GHG emissions, a regional wastewater conveyance energy intensity factor was calculated from total pumping energy data within SASD and Regional service area from 2015 and total wastewater treated in 2019. SASD pumping data were provided directly by SASD. Regional San pumping energy and treatment effluent volumes were provided directly by Regional San (pers. Comm. Steve Nebozuk, Regional San. 2016). Effluent volume was apportioned to the City of Rancho Cordova's population and the calculated energy intensity factor was applied to obtain total wastewater conveyance-related energy. GHG emissions were estimated using the same emissions factors described for the building sector.

According to the ICLEI Community Protocol, wastewater discharge and treatment energy intensities associated with septic tanks and other on-site systems are assumed negligible. Hauling emissions associated with maintenance of septic tanks are captured in the on-road vehicle sector and not included in this sector.

Wastewater Treatment Process Emissions

Wastewater generated by the city is treated at the Regional San WWTP. Treatment process emissions at the WWTP include electricity consumption for treatment, process N₂O, wastewater effluent containing N₂O, and emissions from biogas combustion. The analysis assumes the entire city population is served by the Regional San WWTP. As such, process wastewater emissions may be slightly overestimated as some portion of the city use onsite septic tanks for wastewater treatment.

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Appendix B

Greenhouse Gas Inventory and Forecast Worksheet

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Summary

Row Labels	Column Labels									
	2019		2030				2045			
	(blank)		BAU		Leg-Adjusted		BAU		Leg-Adjusted	
	Sum of MT CO2e	Percentage	Sum of MT CO2e	Percentage	Sum of MT CO2e	Percentage	Sum of MT CO2e	Percentage	Sum of MT CO2e	Percentage
OnRoad	417,145	61.4%	486,187	59.53%	387,784	75.25%	593,347	60.07%	384,651	72.60%
Building Energy	214,376	31.5%	266,866	32.67%	75,823	14.71%	315,909	31.98%	81,238	15.33%
Non-Residential	118,801	17.5%	141,055	17.27%	23,605	4.58%	161,388	16.34%	25,335	4.78%
Residential	95,575	14.1%	125,811	15.40%	52,217	10.13%	154,521	15.64%	55,903	10.55%
Solid Waste	22,397	3.3%	29,483	3.61%	29,483	5.72%	36,211	3.67%	36,211	6.83%
OffRoad	11,027	1.6%	14,772	1.81%	14,772	2.87%	18,488	1.87%	18,488	3.49%
Construction and Mining	5,350	0.79%	7,500	0.92%	7,500	1.46%	9,675	0.98%	9,675	1.83%
Entertainment Equipment	54	0.01%	67	0.01%	67	0.01%	80	0.01%	80	0.02%
Industrial	1,426	0.21%	1,787	0.22%	1,787	0.35%	2,129	0.22%	2,129	0.40%
Lawn and Garden Equipment	138	0.02%	211	0.03%	211	0.04%	287	0.03%	287	0.05%
Light Commercial Equipment	839	0.12%	1,052	0.13%	1,052	0.20%	1,253	0.13%	1,253	0.24%
Recreational Equipment	81	0.01%	123	0.02%	123	0.02%	168	0.02%	168	0.03%
Transport Refrigeration Units	661	0.10%	927	0.11%	927	0.18%	1,196	0.12%	1,196	0.23%
Portable Equipment	2,478	0.36%	3,105	0.38%	3,105	0.60%	3,699	0.37%	3,699	0.70%
Water	9,071	1.3%	11,940	1.46%	-	0.00%	14,665	1.48%	-	0.00%
Wastewater	5,690	0.8%	7,490	0.92%	7,490	1.45%	9,200	0.93%	9,200	1.74%
Grand Total	679,706	100.00%	816,738	100.00%	515,352	100.00%	987,820	100.00%	529,788	100.00%

Building Energy

Enter inventory data into the yellow table. Enter Forecast Data into the green table:

- Insert rows within the table as needed.
- Only input data in the colored cells.
- See comments in headers for specific input instructions.
- For the forecast data, copy the entries from the inventory and paste one set for each forecast year and BAU/Leg-Adjusted combination. (E.g., if you have 2 entries in the inventory and 3 forecast years, you should have 2*3*2=12 row entries in the forecast table.)

Year	Emissions Sector	Calculation Sector	Fuel Type	Utility (if applicable)	Sub-Sector	Activity	Activity Unit	Notes	Energy Use (kBtu)	MT CO2	MT CH4	MT N2O	MT CO2e	Activity Data Source
2019	Building Energy	Building Energy	Electricity	SMUD	Residential	202,726,752	kWh	Source: SMUD	691,732,360	47,053	3	0	47,238	SMUD
2019	Building Energy	Building Energy	Electricity	SMUD	Non-Residential	416,664,459	kWh	Source: SMUD	1,421,718,084	96,709	6	1	97,089	SMUD
2019	Building Energy	Building Energy	Natural Gas	PG&E	Residential	9,082,624	therm	Source: PG&E	908,045,548	48,192	4	0	48,336	PG&E
2019	Building Energy	Building Energy	Natural Gas	PG&E	Non-Residential	3,902,601	therm	Source: PG&E, CEC Industrial natural g	390,166,923	20,707	2	0	20,769	PG&E
2019	Building Energy	Building Energy	Diesel	NA	Non-Residential	97,209	gal	Source: SMAQMD	12,733,622	941	0	0	943	SMAQMD

Enter Forecast Data Here:

Year	Emissions Sector	Calculation Sector	Fuel Type	Utility (if applicable)	Sub-Sector	BAU or Leg-Adjusted?	Activity Growth Method	Activity Growth Factor	Legislative Adjustment	Activity	Activity Unit	Notes	Energy Use (kBtu)	MT CO2	MT CH4	MT N2O	MT CO2e	Activity Data Source
2030	Building Energy	Building Energy	Electricity	SMUD	Residential	BAU	Population	1.316362515	1	266,861,897	kWh		910,570,549	61,939	4	0	62,183	
2030	Building Energy	Building Energy	Electricity	SMUD	Non-Residential	BAU	Employment	1.187324608	1	494,715,965	kWh		1,688,040,866	114,824	7	1	115,276	
2030	Building Energy	Building Energy	Natural Gas	PG&E	Residential	BAU	Population	1.316362515	1	11,956,026	therm		1,195,317,121	63,439	6	0	63,628	
2030	Building Energy	Building Energy	Natural Gas	PG&E	Non-Residential	BAU	Employment	1.187324608	1	4,633,654	therm		463,254,789	24,586	2	0	24,660	
2030	Building Energy	Building Energy	Diesel	NA	Non-Residential	BAU	Employment	1.187324608	1	109,482	gal		15,118,943	1,118	0	0	1,120	
2045	Building Energy	Building Energy	Electricity	SMUD	Residential	BAU	Population	1.616762442	1	327,760,999	kWh		1,118,366,899	76,074	5	1	76,373	
2045	Building Energy	Building Energy	Electricity	SMUD	Non-Residential	BAU	Employment	1.358471102	1	566,026,627	kWh		1,931,362,931	131,376	8	1	131,892	
2045	Building Energy	Building Energy	Natural Gas	PG&E	Residential	BAU	Population	1.616762442	1	14,684,445	therm		1,468,093,937	77,916	7	0	78,148	
2045	Building Energy	Building Energy	Natural Gas	PG&E	Non-Residential	BAU	Employment	1.358471102	1	5,301,571	therm		530,030,490	28,130	2	0	28,214	
2045	Building Energy	Building Energy	Diesel	NA	Non-Residential	BAU	Employment	1.358471102	1	125,263	gal		17,298,258	1,279	0	0	1,281	
2030	Building Energy	Building Energy	Electricity	SMUD	Residential	Leg-Adjusted	Population	1.316362515	0.2538	219,004,252	kWh		747,273,492	-	-	-	-	
2030	Building Energy	Building Energy	Electricity	SMUD	Non-Residential	Leg-Adjusted	Employment	1.187324608	0.4655	452,997,435	kWh		1,545,691,339	-	-	-	-	
2030	Building Energy	Building Energy	Natural Gas	PG&E	Residential	Leg-Adjusted	Population	1.316362515	0.2538	9,811,893	therm		980,955,073	52,062	5	0	52,217	
2030	Building Energy	Building Energy	Natural Gas	PG&E	Non-Residential	Leg-Adjusted	Employment	1.187324608	0.4655	4,242,906	therm		424,189,325	22,513	2	0	22,580	
2030	Building Energy	Building Energy	Diesel	NA	Non-Residential	Leg-Adjusted	Employment	1.187324608	0.4655	100,250	gal		13,843,989	1,024	0	0	1,025	
2045	Building Energy	Building Energy	Electricity	SMUD	Residential	Leg-Adjusted	Population	1.616762442	0.2538	234,460,444	kWh		800,012,206	-	-	-	-	
2045	Building Energy	Building Energy	Electricity	SMUD	Non-Residential	Leg-Adjusted	Employment	1.358471102	0.4655	486,192,548	kWh		1,658,957,760	-	-	-	-	
2045	Building Energy	Building Energy	Natural Gas	PG&E	Residential	Leg-Adjusted	Population	1.616762442	0.2538	10,504,366	therm		1,050,185,829	55,736	5	0	55,903	
2045	Building Energy	Building Energy	Natural Gas	PG&E	Non-Residential	Leg-Adjusted	Employment	1.358471102	0.4655	4,553,821	therm		455,273,414	24,163	2	0	24,235	
2045	Building Energy	Building Energy	Diesel	NA	Non-Residential	Leg-Adjusted	Employment	1.358471102	0.4655	107,596	gal		14,858,460	1,099	0	0	1,101	

On-Road Transportation

Year	Emissions Sector	Calculation Sector	Sub-Sector	EMFAC Categories	Activity	Activity Unit	Notes	g CO2 per mi	g CH4 per mi	g N2O per mi	MT CO2	MT CH4	MT N2O	MT CO2e
2019	OnRoad	OnRoad	All Other Buses	All Other Buses		563,571 Annual VMT	Source: Fehr & Peer	1,269.96	0.13	0.20	715.71	0.07	0.12	749.18
2019	OnRoad	OnRoad	LDA	LDA		465,261,020 Annual VMT	Source: Fehr & Peer	315.30	0.02	0.01	146,697.14	8.06	5.61	148,452.56
2019	OnRoad	OnRoad	LDT1	LDT1		45,762,151 Annual VMT	Source: Fehr & Peer	376.90	0.03	0.02	17,247.93	1.53	0.96	17,553.89
2019	OnRoad	OnRoad	LDT2	LDT2		191,143,033 Annual VMT	Source: Fehr & Peer	406.09	0.02	0.02	77,620.79	3.75	2.96	78,534.80
2019	OnRoad	OnRoad	LHD1	LHD1		33,974,541 Annual VMT	Source: Fehr & Peer	837.15	0.03	0.06	28,441.89	0.87	2.16	29,056.45
2019	OnRoad	OnRoad	LHD2	LHD2		7,751,499 Annual VMT	Source: Fehr & Peer	888.58	0.02	0.09	6,887.84	0.14	0.70	7,082.70
2019	OnRoad	OnRoad	MCY	MCY		3,695,027 Annual VMT	Source: Fehr & Peer	218.68	0.31	0.05	808.21	1.13	0.19	890.59
2019	OnRoad	OnRoad	MDV	MDV		130,832,664 Annual VMT	Source: Fehr & Peer	491.58	0.03	0.02	64,314.27	3.85	2.87	65,206.26
2019	OnRoad	OnRoad	MH	MH		1,034,081 Annual VMT	Source: Fehr & Peer	1,747.51	0.02	0.07	1,807.06	0.02	0.07	1,826.09
2019	OnRoad	OnRoad	Motor Coach	Motor Coach		265,909 Annual VMT	Source: Fehr & Peer	1,841.22	0.01	0.29	489.60	0.00	0.08	510.71
2019	OnRoad	OnRoad	OBUS	OBUS		803,554 Annual VMT	Source: Fehr & Peer	1,870.91	0.04	0.05	1,503.38	0.03	0.04	1,534.68
2019	OnRoad	OnRoad	PTO	PTO		500,107 Annual VMT	Source: Fehr & Peer	2,181.06	0.02	0.34	1,090.76	0.01	0.17	1,137.87
2019	OnRoad	OnRoad	SBUS	SBUS		728,388 Annual VMT	Source: Fehr & Peer	1,181.28	0.09	0.17	860.43	0.07	0.13	896.76
2019	OnRoad	OnRoad	T6 CAIRP heavy	T6 CAIRP heavy		347,437 Annual VMT	Source: Fehr & Peer	1,058.54	0.00	0.17	367.78	0.00	0.06	383.62
2019	OnRoad	OnRoad	T6 CAIRP small	T6 CAIRP small		92,040 Annual VMT	Source: Fehr & Peer	1,136.97	0.00	0.18	104.65	0.00	0.02	109.15
2019	OnRoad	OnRoad	T6 instate heavy	T6 instate heavy		1,885,072 Annual VMT	Source: Fehr & Peer	1,192.82	0.02	0.19	2,248.55	0.03	0.35	2,346.18
2019	OnRoad	OnRoad	T6 instate small	T6 instate small		6,793,663 Annual VMT	Source: Fehr & Peer	1,248.13	0.01	0.20	8,478.37	0.09	1.33	8,846.16
2019	OnRoad	OnRoad	T6 OOS heavy	T6 OOS heavy		203,526 Annual VMT	Source: Fehr & Peer	1,057.42	0.00	0.17	215.21	0.00	0.03	224.49
2019	OnRoad	OnRoad	T6 OOS small	T6 OOS small		46,511 Annual VMT	Source: Fehr & Peer	1,136.97	0.00	0.18	52.88	0.00	0.01	55.16
2019	OnRoad	OnRoad	T6 Public	T6 Public		4,167,560 Annual VMT	Source: Fehr & Peer	1,373.70	0.05	0.22	5,724.99	0.19	0.91	5,978.15
2019	OnRoad	OnRoad	T6 Utility	T6 Utility		52,319 Annual VMT	Source: Fehr & Peer	1,188.75	0.01	0.19	62.19	0.00	0.01	64.88
2019	OnRoad	OnRoad	T6T5	T6T5		2,962,296 Annual VMT	Source: Fehr & Peer	1,944.20	0.07	0.06	5,759.28	0.22	0.16	5,810.16
2019	OnRoad	OnRoad	T7 CAIRP	T7 CAIRP		3,869,997 Annual VMT	Source: Fehr & Peer	1,719.11	0.03	0.27	6,652.95	0.10	1.05	6,942.51
2019	OnRoad	OnRoad	T7 NNOOS	T7 NNOOS		4,458,408 Annual VMT	Source: Fehr & Peer	1,719.53	0.01	0.27	7,666.38	0.04	1.21	7,996.95
2019	OnRoad	OnRoad	T7 NDOOS	T7 NDOOS		1,621,110 Annual VMT	Source: Fehr & Peer	1,732.19	0.01	0.27	2,868.07	0.01	0.44	2,929.06
2019	OnRoad	OnRoad	T7 Other Port	T7 Other Port		37,384 Annual VMT	Source: Fehr & Peer	1,783.29	0.01	0.28	66.67	0.00	0.01	69.54
2019	OnRoad	OnRoad	T7 POAK	T7 POAK		73,221 Annual VMT	Source: Fehr & Peer	1,826.99	0.01	0.29	133.77	0.00	0.02	139.54
2019	OnRoad	OnRoad	T7 Public	T7 Public		3,927,667 Annual VMT	Source: Fehr & Peer	2,047.21	0.04	0.32	8,040.78	0.14	1.27	8,391.21
2019	OnRoad	OnRoad	T7 Single	T7 Single		2,518,637 Annual VMT	Source: Fehr & Peer	1,759.53	0.04	0.28	4,431.63	0.10	0.70	4,625.86
2019	OnRoad	OnRoad	T7 SWCV	T7 SWCV		1,270,032 Annual VMT	Source: Fehr & Peer	3,200.41	2.78	0.54	4,064.62	3.52	0.69	4,351.77
2019	OnRoad	OnRoad	T7 Tractor	T7 Tractor		1,567,486 Annual VMT	Source: Fehr & Peer	1,684.27	0.03	0.27	2,640.08	0.04	0.42	2,755.00
2019	OnRoad	OnRoad	T7 Utility	T7 Utility		28,454 Annual VMT	Source: Fehr & Peer	1,810.33	0.00	0.28	51.51	0.00	0.01	53.73
2019	OnRoad	OnRoad	T7T5	T7T5		19,245 Annual VMT	Source: Fehr & Peer	3,079.83	1.10	0.50	59.27	0.02	0.01	62.50
2019	OnRoad	OnRoad	UBUS	UBUS		960,288 Annual VMT	Source: Fehr & Peer	1,577.52	0.89	0.22	1,514.87	0.85	0.21	1,597.11

Year	Emissions Sector	Calculation Sector	Sub-Sector	EMFAC Categories	BAU or Leg-Adjusted?	Activity Growth Method	Activity Growth Factor	Activity	Activity Unit	Notes	g CO2 per mi	g CH4 per mi	g N2O per mi	MT CO2	MT CH4	MT N2O	MT CO2e
2030	OnRoad	OnRoad	All Other Buses	All Other Buses	BAU	FehrPeers VMT	1.166	656,847 Annual VMT			1,269.96	0.13	0.20	834.17	0.08	0.13	873.18
2030	OnRoad	OnRoad	LDA	LDA	BAU	FehrPeers VMT	1.166	542,265,838 Annual VMT			315.30	0.02	0.01	170,976.82	9.40	6.53	173,022.77
2030	OnRoad	OnRoad	LDT1	LDT1	BAU	FehrPeers VMT	1.166	53,336,192 Annual VMT			376.90	0.03	0.02	20,102.62	1.78	1.12	20,459.21
2030	OnRoad	OnRoad	LDT2	LDT2	BAU	FehrPeers VMT	1.166	222,778,897 Annual VMT			406.09	0.02	0.02	90,467.72	4.37	3.46	91,533.00
2030	OnRoad	OnRoad	LHD1	LHD1	BAU	FehrPeers VMT	1.166	39,597,628 Annual VMT			837.15	0.03	0.06	33,149.27	1.02	2.52	33,865.55
2030	OnRoad	OnRoad	LHD2	LHD2	BAU	FehrPeers VMT	1.166	9,034,440 Annual VMT			888.58	0.02	0.09	8,027.84	0.16	0.82	8,254.95
2030	OnRoad	OnRoad	MCY	MCY	BAU	FehrPeers VMT	1.166	4,307,636 Annual VMT			218.68	0.31	0.05	941.98	1.32	0.22	1,037.99
2030	OnRoad	OnRoad	MDV	MDV	BAU	FehrPeers VMT	1.166	152,486,628 Annual VMT			491.58	0.03	0.02	74,958.85	4.48	3.35	75,998.48
2030	OnRoad	OnRoad	MH	MH	BAU	FehrPeers VMT	1.166	1,205,231 Annual VMT			1,747.51	0.02	0.07	2,106.15	0.03	0.08	2,128.33
2030	OnRoad	OnRoad	Motor Coach	Motor Coach	BAU	FehrPeers VMT	1.166	309,919 Annual VMT			1,841.22	0.01	0.29	570.63	0.00	0.09	595.24
2030	OnRoad	OnRoad	OBUS	OBUS	BAU	FehrPeers VMT	1.166	936,550 Annual VMT			1,870.91	0.04	0.05	1,752.20	0.04	0.04	1,765.37
2030	OnRoad	OnRoad	PTO	PTO	BAU	FehrPeers VMT	1.166	582,879 Annual VMT			2,181.06	0.02	0.34	1,271.29	0.01	0.20	1,326.20
2030	OnRoad	OnRoad	SBUS	SBUS	BAU	FehrPeers VMT	1.166	848,943 Annual VMT			1,181.28	0.09	0.17	1,002.83	0.08	0.15	1,045.18
2030	OnRoad	OnRoad	T6 CAIRP heavy	T6 CAIRP heavy	BAU	FehrPeers VMT	1.166	404,940 Annual VMT			1,058.54	0.00	0.17	428.65	0.00	0.07	447.11
2030	OnRoad	OnRoad	T6 CAIRP small	T6 CAIRP small	BAU	FehrPeers VMT	1.166	107,274 Annual VMT			1,136.97	0.00	0.18	121.97	0.00	0.02	127.22
2030	OnRoad	OnRoad	T6 instate heavy	T6 instate heavy	BAU	FehrPeers VMT	1.166	2,197,069 Annual VMT			1,192.82	0.02	0.19	2,620.70	0.03	0.41	2,734.50
2030	OnRoad	OnRoad	T6 instate small	T6 instate small	BAU	FehrPeers VMT	1.166	7,918,075 Annual VMT			1,248.13	0.01	0.20	9,882.79	0.10	1.56	10,310.28
2030	OnRoad	OnRoad	T6 OOS heavy	T6 OOS heavy	BAU	FehrPeers VMT	1.166	237,212 Annual VMT			1,057.42	0.00	0.17	250.83	0.00	0.04	261.64
2030	OnRoad	OnRoad	T6 OOS small	T6 OOS small	BAU	FehrPeers VMT	1.166	54,209 Annual VMT			1,136.97	0.00	0.18	61.63	0.00	0.01	64.29
2030	OnRoad	OnRoad	T6 Public	T6 Public	BAU	FehrPeers VMT	1.166	4,857,328 Annual VMT			1,373.70	0.05	0.22	6,672.52	0.22	1.06	6,967.58
2030	OnRoad	OnRoad	T6 Utility	T6 Utility	BAU	FehrPeers VMT	1.166	60,979 Annual VMT			1,188.75	0.01	0.19	72.49	0.00	0.01	75.62
2030	OnRoad	OnRoad	T6T5	T6T5	BAU	FehrPeers VMT	1.166	3,452,582 Annual VMT			1,944.20	0.07	0.06	6,712.49	0.25	0.19	6,771.79
2030	OnRoad	OnRoad	T7 CAIRP	T7 CAIRP	BAU	FehrPeers VMT	1.166	4,510,516 Annual VMT			1,719.11	0.03	0.27	7,754.07	0.12	1.22	8,091.56
2030	OnRoad	OnRoad	T7 NNOOS	T7 NNOOS	BAU	FehrPeers VMT	1.166	5,196,314 Annual VMT			1,719.53	0.01	0.27	8,935.23	0.05	1.41	9,320.51
2030	OnRoad	OnRoad	T7 NDOOS	T7 NDOOS	BAU	FehrPeers VMT	1.166	1,889,418 Annual VMT			1,732.19	0.01	0.27	3,272.83	0.01	0.52	3,413.85
2030	OnRoad	OnRoad	T7 Other Port	T7 Other Port	BAU	FehrPeers VMT	1.166	43,572 Annual VMT			1,783.29	0.01	0.28	77.70	0.00	0.01	81.05
2030	OnRoad	OnRoad	T7 POAK	T7 POAK	BAU	FehrPeers VMT	1.166	85,339 Annual VMT			1,826.99	0.01	0.29	155.91	0.00	0.02	162.63
2030	OnRoad	OnRoad	T7 Public	T7 Public	BAU	FehrPeers VMT	1.166	4,577,731 Annual VMT			2,047.21	0.04	0.32	9,371.60	0.16	1.48	9,780.02
2030	OnRoad	OnRoad	T7 Single	T7 Single	BAU	FehrPeers VMT	1.166	2,935,494 Annual VMT			1,759.53	0.04	0.28	5,165.10	0.12	0.82	5,391.48
2030	OnRoad	OnRoad	T7 SWCV	T7 SWCV	BAU	FehrPeers VMT	1.166	1,480,233 Annual VMT			3,200.41	2.78	0.54	4,737.35	4.11	0.81	5,072.03
2030	OnRoad	OnRoad	T7 Tractor	T7 Tractor	BAU	FehrPeers VMT	1.166	1,826,919 Annual VMT			1,684.27	0.03	0.27	3,077.03	0.05	0.49	3,210.98
2030	OnRoad	OnRoad	T7 Utility	T7 Utility	BAU	FehrPeers VMT	1.166	33,163 Annual VMT			1,810.33	0.00	0.28	60.04	0.00	0.01	62.62
2030	OnRoad	OnRoad	T7T5	T7T5	BAU	FehrPeers VMT	1.166	22,431 Annual VMT			3,079.83	1.10	0.50	69.08	0.02	0.01	72.85
2030	OnRoad	OnRoad	UBUS	UBUS	BAU	FehrPeers VMT	1.166	1,119,224 Annual VMT			1,577.52	0.89	0.22	1,765.59	0.99	0.25	1,861.45
2045	OnRoad	OnRoad	All Other Buses	All Other Buses	BAU	FehrPeers VMT	1.422	801,622 Annual VMT			1,269.96	0.13	0.20	1,018.02	0.10	0.16	1,065.64
2045	OnRoad	OnRoad	LDA	LDA	BAU	FehrPeers VMT	1.422	661,786,548 Annual VMT			315.30	0.02	0.01	208,661.79	11.47	7.97	211,158.69
2045	OnRoad	OnRoad	LDT1	LDT1	BAU	FehrPeers VMT	1.422	65,092,012 Annual VMT			376.90	0.03	0.02	24,533.43	2.18	1.37	24,968.62
2045	OnRoad	OnRoad	LDT2	LDT2	BAU	FehrPeers VMT	1.422	271,881,551 Annual VMT			406.09	0.02	0.02	110,407.69	5.34	4.22	111,707.78
2045	OnRoad	OnRoad	LHD1	LHD1	BAU	FehrPeers VMT	1.422	48,325,334 Annual VMT			837.15	0.03	0.06	40,455.70	1.24	3.07	41,329.85
2045	OnRoad	OnRoad	LHD2	LHD2	BAU	FehrPeers VMT	1.422	11,025,720 Annual VMT			888.58	0.02	0.09	9,797.25	0.19	1.00	10,074.42
2045	OnRoad	OnRoad	MCY	MCY	BAU	FehrPeers VMT	1.422	5,257,081 Annual VMT			218.68	0.31	0.05	1,149.60	1.61	0.26	1,266.78
2045	OnRoad	OnRoad	MDV	MDV	BAU	FehrPeers VMT	1.422	186,096.176 Annual VMT			491.58	0.03	0.02	91,480.51	5.47	4.09	92,749.29

2045 OnRoad	OnRoad	MH	MH	BAU	FehrPeers VMT	1.422	1,470,875	Annual VMT			1,747.51	0.02	0.07	2,570.36	0.03	0.10	2,597.43
2045 OnRoad	OnRoad	Motor Coach	Motor Coach	BAU	FehrPeers VMT	1.422	378,228	Annual VMT			1,841.22	0.01	0.29	696.40	0.00	0.11	726.44
2045 OnRoad	OnRoad	OBUS	OBUS	BAU	FehrPeers VMT	1.422	1,142,974	Annual VMT			1,870.91	0.04	0.05	2,138.40	0.05	0.05	2,154.48
2045 OnRoad	OnRoad	PTO	PTO	BAU	FehrPeers VMT	1.422	711,351	Annual VMT			2,181.06	0.02	0.34	1,951.50	0.01	0.24	1,618.51
2045 OnRoad	OnRoad	SBUS	SBUS	BAU	FehrPeers VMT	1.422	1,036,058	Annual VMT			1,181.28	0.09	0.17	1,223.87	0.10	0.18	1,275.54
2045 OnRoad	OnRoad	T6 CAIRP heavy	T6 CAIRP heavy	BAU	FehrPeers VMT	1.422	494,193	Annual VMT			1,058.54	0.00	0.17	523.12	0.00	0.08	545.66
2045 OnRoad	OnRoad	T6 CAIRP small	T6 CAIRP small	BAU	FehrPeers VMT	1.422	130,918	Annual VMT			1,136.97	0.00	0.18	148.85	0.00	0.02	155.26
2045 OnRoad	OnRoad	T6 instate heavy	T6 instate heavy	BAU	FehrPeers VMT	1.422	2,681,324	Annual VMT			1,192.62	0.02	0.19	3,198.33	0.04	0.50	3,337.20
2045 OnRoad	OnRoad	T6 instate small	T6 instate small	BAU	FehrPeers VMT	1.422	9,663,296	Annual VMT			1,248.13	0.01	0.20	12,061.05	0.12	1.90	12,582.76
2045 OnRoad	OnRoad	T6 OOS heavy	T6 OOS heavy	BAU	FehrPeers VMT	1.422	289,495	Annual VMT			1,057.42	0.00	0.17	306.12	0.00	0.05	319.31
2045 OnRoad	OnRoad	T6 OOS small	T6 OOS small	BAU	FehrPeers VMT	1.422	66,157	Annual VMT			1,136.97	0.00	0.18	75.22	0.00	0.01	78.46
2045 OnRoad	OnRoad	T6 Public	T6 Public	BAU	FehrPeers VMT	1.422	5,927,931	Annual VMT			1,373.70	0.05	0.22	8,143.21	0.27	1.29	8,503.31
2045 OnRoad	OnRoad	T6 Utility	T6 Utility	BAU	FehrPeers VMT	1.422	74,419	Annual VMT			1,188.75	0.01	0.19	98.47	0.00	0.01	92.28
2045 OnRoad	OnRoad	T6T5	T6T5	BAU	FehrPeers VMT	1.422	4,213,565	Annual VMT			1,944.20	0.07	0.06	8,191.99	0.31	0.23	8,264.36
2045 OnRoad	OnRoad	T7 CAIRP	T7 CAIRP	BAU	FehrPeers VMT	1.422	5,504,678	Annual VMT			1,719.11	0.03	0.27	9,463.14	0.14	1.49	9,875.02
2045 OnRoad	OnRoad	T7 NNOOS	T7 NNOOS	BAU	FehrPeers VMT	1.422	6,341,633	Annual VMT			1,719.53	0.01	0.27	10,904.65	0.06	1.72	11,374.85
2045 OnRoad	OnRoad	T7 NDOOS	T7 NDOOS	BAU	FehrPeers VMT	1.422	2,305,864	Annual VMT			1,732.19	0.01	0.27	3,994.19	0.02	0.63	4,166.30
2045 OnRoad	OnRoad	T7 Other Port	T7 Other Port	BAU	FehrPeers VMT	1.422	53,175	Annual VMT			1,783.29	0.01	0.28	94.83	0.00	0.01	98.91
2045 OnRoad	OnRoad	T7 POAK	T7 POAK	BAU	FehrPeers VMT	1.422	104,149	Annual VMT			1,826.99	0.01	0.29	190.28	0.00	0.03	198.48
2045 OnRoad	OnRoad	T7 Public	T7 Public	BAU	FehrPeers VMT	1.422	5,586,707	Annual VMT			2,047.21	0.04	0.32	11,437.19	0.20	1.81	11,935.64
2045 OnRoad	OnRoad	T7 Single	T7 Single	BAU	FehrPeers VMT	1.422	3,582,506	Annual VMT			1,759.53	0.04	0.28	6,303.54	0.15	1.00	6,579.81
2045 OnRoad	OnRoad	T7 SWCV	T7 SWCV	BAU	FehrPeers VMT	1.422	1,806,491	Annual VMT			3,200.41	2.78	0.54	5,781.50	5.01	0.98	6,189.96
2045 OnRoad	OnRoad	T7 Tractor	T7 Tractor	BAU	FehrPeers VMT	1.422	2,229,590	Annual VMT			1,684.27	0.03	0.27	3,755.24	0.06	0.59	3,918.71
2045 OnRoad	OnRoad	T7 Utility	T7 Utility	BAU	FehrPeers VMT	1.422	40,472	Annual VMT			1,810.33	0.00	0.28	73.27	0.00	0.01	76.42
2045 OnRoad	OnRoad	T7T5	T7T5	BAU	FehrPeers VMT	1.422	27,374	Annual VMT			3,079.83	1.10	0.50	84.31	0.03	0.01	88.90
2045 OnRoad	OnRoad	UBUS	UBUS	BAU	FehrPeers VMT	1.422	1,365,912	Annual VMT			1,577.52	0.89	0.22	2,154.75	1.21	0.30	2,271.73
2030 OnRoad	OnRoad	All Other Buses	All Other Buses	Leg-Adjusted	FehrPeers VMT	1.166	656,847	Annual VMT			1,079.67	0.12	0.18	709.18	0.08	0.12	742.83
2030 OnRoad	OnRoad	LDA	LDA	Leg-Adjusted	FehrPeers VMT	1.166	542,265,838	Annual VMT			241.88	0.01	0.01	131,162.67	4.16	3.63	132,269.21
2030 OnRoad	OnRoad	LDT1	LDT1	Leg-Adjusted	FehrPeers VMT	1.166	53,336,192	Annual VMT			322.04	0.01	0.01	17,176.58	0.78	0.58	17,355.68
2030 OnRoad	OnRoad	LDT2	LDT2	Leg-Adjusted	FehrPeers VMT	1.166	222,778,897	Annual VMT			327.27	0.01	0.01	72,909.63	2.15	1.88	73,483.03
2030 OnRoad	OnRoad	LHD1	LHD1	Leg-Adjusted	FehrPeers VMT	1.166	39,597,628	Annual VMT			705.67	0.05	0.05	27,943.01	0.58	2.06	28,521.54
2030 OnRoad	OnRoad	LHD2	LHD2	Leg-Adjusted	FehrPeers VMT	1.166	9,034,440	Annual VMT			756.59	0.01	0.08	6,835.39	0.09	0.74	7,040.73
2030 OnRoad	OnRoad	MCY	MCY	Leg-Adjusted	FehrPeers VMT	1.166	4,307,636	Annual VMT			210.75	0.24	0.04	907.82	1.04	0.18	987.10
2030 OnRoad	OnRoad	MDV	MDV	Leg-Adjusted	FehrPeers VMT	1.166	152,486,628	Annual VMT			395.07	0.01	0.01	60,243.51	1.83	1.58	60,724.52
2030 OnRoad	OnRoad	MH	MH	Leg-Adjusted	FehrPeers VMT	1.166	1,205,231	Annual VMT			1,667.75	0.01	0.07	2,030.03	0.01	0.08	2,032.67
2030 OnRoad	OnRoad	Motor Coach	Motor Coach	Leg-Adjusted	FehrPeers VMT	1.166	309,919	Annual VMT			1,736.15	0.00	0.27	538.07	0.00	0.08	561.13
2030 OnRoad	OnRoad	OBUS	OBUS	Leg-Adjusted	FehrPeers VMT	1.166	936,550	Annual VMT			1,608.57	0.03	0.03	1,506.50	0.03	0.03	1,516.04
2030 OnRoad	OnRoad	PTO	PTO	Leg-Adjusted	FehrPeers VMT	1.166	582,879	Annual VMT			1,729.53	0.00	0.27	1,008.11	0.00	0.16	1,051.48
2030 OnRoad	OnRoad	SBUS	SBUS	Leg-Adjusted	FehrPeers VMT	1.166	848,943	Annual VMT			1,060.36	0.07	0.14	900.19	0.06	0.12	934.72
2030 OnRoad	OnRoad	T6 CAIRP heavy	T6 CAIRP heavy	Leg-Adjusted	FehrPeers VMT	1.166	404,940	Annual VMT			880.40	0.00	0.14	360.56	0.00	0.06	376.07
2030 OnRoad	OnRoad	T6 CAIRP small	T6 CAIRP small	Leg-Adjusted	FehrPeers VMT	1.166	107,274	Annual VMT			927.73	0.00	0.15	99.52	0.00	0.02	103.80
2030 OnRoad	OnRoad	T6 instate heavy	T6 instate heavy	Leg-Adjusted	FehrPeers VMT	1.166	2,197,069	Annual VMT			1,047.02	0.01	0.17	2,300.36	0.03	0.36	2,400.35
2030 OnRoad	OnRoad	T6 instate small	T6 instate small	Leg-Adjusted	FehrPeers VMT	1.166	7,918,075	Annual VMT			1,042.48	0.00	0.16	8,254.44	0.01	1.30	8,609.62
2030 OnRoad	OnRoad	T6 OOS heavy	T6 OOS heavy	Leg-Adjusted	FehrPeers VMT	1.166	237,212	Annual VMT			942.00	0.00	0.15	224.45	0.00	0.04	233.07
2030 OnRoad	OnRoad	T6 OOS small	T6 OOS small	Leg-Adjusted	FehrPeers VMT	1.166	54,209	Annual VMT			1,025.54	0.00	0.16	55.59	0.00	0.01	57.99
2030 OnRoad	OnRoad	T6 Public	T6 Public	Leg-Adjusted	FehrPeers VMT	1.166	4,857,328	Annual VMT			1,117.92	0.11	0.18	5,430.12	0.54	0.88	5,684.48
2030 OnRoad	OnRoad	T6 Utility	T6 Utility	Leg-Adjusted	FehrPeers VMT	1.166	60,979	Annual VMT			942.23	0.00	0.15	57.46	0.00	0.01	59.93
2030 OnRoad	OnRoad	T6T5	T6T5	Leg-Adjusted	FehrPeers VMT	1.166	3,452,582	Annual VMT			1,613.64	0.03	0.02	5,571.22	0.10	0.09	5,597.47
2030 OnRoad	OnRoad	T7 CAIRP	T7 CAIRP	Leg-Adjusted	FehrPeers VMT	1.166	4,510,516	Annual VMT			1,376.20	0.02	0.22	6,207.37	0.10	0.98	6,478.10
2030 OnRoad	OnRoad	T7 NNOOS	T7 NNOOS	Leg-Adjusted	FehrPeers VMT	1.166	5,196,314	Annual VMT			1,414.86	0.00	0.22	7,351.08	0.01	1.16	7,668.69
2030 OnRoad	OnRoad	T7 NDOOS	T7 NDOOS	Leg-Adjusted	FehrPeers VMT	1.166	1,889,418	Annual VMT			1,461.93	0.00	0.23	2,762.20	0.01	0.44	2,881.17
2030 OnRoad	OnRoad	T7 Other Port	T7 Other Port	Leg-Adjusted	FehrPeers VMT	1.166	43,572	Annual VMT			1,465.50	0.00	0.23	63.85	0.00	0.01	66.60
2030 OnRoad	OnRoad	T7 POAK	T7 POAK	Leg-Adjusted	FehrPeers VMT	1.166	85,339	Annual VMT			1,550.84	0.00	0.24	132.35	0.00	0.02	138.04
2030 OnRoad	OnRoad	T7 Public	T7 Public	Leg-Adjusted	FehrPeers VMT	1.166	4,577,711	Annual VMT			1,689.69	0.05	0.27	7,734.99	0.21	1.23	8,075.38
2030 OnRoad	OnRoad	T7 Single	T7 Single	Leg-Adjusted	FehrPeers VMT	1.166	2,935,494	Annual VMT			1,504.62	0.04	0.24	4,416.81	0.13	0.70	4,611.68
2030 OnRoad	OnRoad	T7 SWCV	T7 SWCV	Leg-Adjusted	FehrPeers VMT	1.166	1,480,233	Annual VMT			1,998.96	1.62	0.37	2,958.93	2.40	0.55	3,175.10
2030 OnRoad	OnRoad	T7 Tractor	T7 Tractor	Leg-Adjusted	FehrPeers VMT	1.166	1,826,919	Annual VMT			1,503.74	0.02	0.24	2,747.20	0.04	0.43	2,866.68
2030 OnRoad	OnRoad	T7 Utility	T7 Utility	Leg-Adjusted	FehrPeers VMT	1.166	33,163	Annual VMT			1,554.79	0.00	0.24	51.56	0.00	0.01	53.78
2030 OnRoad	OnRoad	T7T5	T7T5	Leg-Adjusted	FehrPeers VMT	1.166	22,451	Annual VMT			1,804.61	0.11	0.17	40.48	0.00	0.00	41.56
2030 OnRoad	OnRoad	UBUS	UBUS	Leg-Adjusted	FehrPeers VMT	1.166	1,119,224	Annual VMT			1,140.81	2.08	0.14	1,276.82	2.32	0.15	1,383.67
2045 OnRoad	OnRoad	All Other Buses	All Other Buses	Leg-Adjusted	FehrPeers VMT	1.422	801,622	Annual VMT			1,011.36	0.12	0.16	810.73	0.09	0.13	849.47
2045 OnRoad	OnRoad	LDA	LDA	Leg-Adjusted	FehrPeers VMT	1.422	661,786,548	Annual VMT			213.59	0.00	0.01	141,351.70	3.02	3.67	142,438.82
2045 OnRoad	OnRoad	LDT1	LDT1	Leg-Adjusted	FehrPeers VMT	1.422	65,092,012	Annual VMT			275.82	0.01	0.01	17,993.75	0.37	0.44	18,063.13
2045 OnRoad	OnRoad	LDT2	LDT2	Leg-Adjusted	FehrPeers VMT	1.422	271,881,551	Annual VMT			292.90	0.01	0.01	79,632.89	1.79	1.97	80,219.73
2045 OnRoad	OnRoad	LHD1	LHD1	Leg-Adjusted	FehrPeers VMT	1.422	48,325,334	Annual VMT			403.53	0.01	0.03	19,500.72	0.28	1.39	19,886.63
2045 OnRoad	OnRoad	LHD2	LHD2	Leg-Adjusted	FehrPeers VMT	1.422	11,025,720	Annual VMT			444.34	0.00	0.05	4,899.17	0.05	0.56	5,053.13
2045 OnRoad	OnRoad	MCY	MCY	Leg-Adjusted	FehrPeers VMT	1.422	5,257,081	Annual VMT			204.81	0.20	0.04	1,076.73	1.04	0.20	1,160.66
2045 OnRoad	OnRoad	MDV	MDV	Leg-Adjusted	FehrPeers VMT	1.422	186,096,176	Annual VMT			348.23	0.01	0.01	64,804.22	1.32	1.47	65,243.63
2045 OnRoad	OnRoad	MH	MH	Leg-Adjusted	FehrPeers VMT	1.422	1,470,875	Annual VMT			1,638.61	0.00	0.07	2,410.19	0.01	0.11	2,439.91
2045 OnRoad	OnRoad	Motor Coach	Motor Coach	Leg-Adjusted	FehrPeers VMT	1.422	378,228	Annual VMT			1,597.21	0.00	0.25	604.11	0.00	0.10	630.12
2045 OnRoad	OnRoad	OBUS	OBUS	Leg-Adjusted	FehrPeers VMT	1.422	1,142,974	Annual VMT			795.15	0.02	0.02	908.84	0.02	0.02	914.88
2045 OnRoad	OnRoad	PTO	PTO	Leg-Adjusted	FehrPeers VMT	1.422	711,351	Annual VMT			887.43	0.00	0.14	631.27	0.00	0.10	658.43
2045 OnRoad	OnRoad	SBUS	SBUS	Leg-Adjusted	FehrPeers VMT	1.422	1,036,058	Annual VMT			620.28	0.06	0.08	642.65	0.06	0.08	666.58
2045 OnRoad	OnRoad	T6 CAIRP heavy	T6 CAIRP heavy	Leg-Adjusted	FehrPeers VMT	1.4											

EMFAC Categories	Annual VMT	Notes	g CO2 per mi	g CH4 per mi	g N2O per mi	MT CO2	MT CH4	MT N2O	MT CO2e
All Other Buses	563,571	Source: Fehr & Peers	1,269.96	0.13	0.20	715.71	0.07	0.12	749.18
LDA	465,261,020	Source: Fehr & Peers	315.30	0.02	0.01	146,697.14	8.06	5.61	148,452.56
LDT1	45,762,151	Source: Fehr & Peers	376.90	0.03	0.02	17,247.93	1.53	0.96	17,553.89
LDT2	191,143,033	Source: Fehr & Peers	406.09	0.02	0.02	77,620.79	3.75	2.96	78,534.80
LHD1	33,974,541	Source: Fehr & Peers	837.15	0.03	0.06	28,441.89	0.87	2.16	29,056.45
LHD2	7,751,499	Source: Fehr & Peers	888.58	0.02	0.09	6,887.84	0.14	0.70	7,082.70
MCY	3,695,927	Source: Fehr & Peers	218.68	0.31	0.05	808.21	1.13	0.19	890.59
MDV	130,832,664	Source: Fehr & Peers	491.58	0.03	0.02	64,314.27	3.85	2.87	65,206.26
MH	1,034,081	Source: Fehr & Peers	1,747.51	0.02	0.07	1,807.06	0.02	0.07	1,826.09
Motor Coach	265,909	Source: Fehr & Peers	1,841.22	0.01	0.29	489.60	0.00	0.08	510.71
OBUS	803,554	Source: Fehr & Peers	1,870.91	0.04	0.05	1,503.38	0.03	0.04	1,514.68
PTO	500,107	Source: Fehr & Peers	2,181.06	0.02	0.34	1,090.76	0.01	0.17	1,137.87
SBUS	728,388	Source: Fehr & Peers	1,181.28	0.09	0.17	860.43	0.07	0.13	896.76
T6 CAIRP heavy	347,437	Source: Fehr & Peers	1,058.54	0.00	0.17	367.78	0.00	0.06	383.62
T6 CAIRP small	92,040	Source: Fehr & Peers	1,136.97	0.00	0.18	104.65	0.00	0.02	109.15
T6 instate heavy	1,885,072	Source: Fehr & Peers	1,192.82	0.02	0.19	2,248.55	0.03	0.35	2,346.18
T6 instate small	6,793,663	Source: Fehr & Peers	1,248.13	0.01	0.20	8,479.37	0.09	1.33	8,846.16
T6 OOS heavy	203,526	Source: Fehr & Peers	1,057.42	0.00	0.17	215.21	0.00	0.03	224.49
T6 OOS small	46,511	Source: Fehr & Peers	1,136.97	0.00	0.18	52.88	0.00	0.01	55.16
T6 Public	4,167,560	Source: Fehr & Peers	1,373.70	0.05	0.22	5,724.99	0.19	0.91	5,978.15
T6 Utility	52,319	Source: Fehr & Peers	1,188.75	0.01	0.19	62.19	0.00	0.01	64.88
T6TS	2,962,296	Source: Fehr & Peers	1,944.20	0.07	0.06	5,759.28	0.22	0.16	5,810.16
T7 CAIRP	3,869,997	Source: Fehr & Peers	1,719.11	0.03	0.27	6,652.95	0.10	1.05	6,942.51
T7 NNOOS	4,458,408	Source: Fehr & Peers	1,719.53	0.01	0.27	7,666.38	0.04	1.21	7,996.95
T7 NOOS	1,621,110	Source: Fehr & Peers	1,732.19	0.01	0.27	2,808.07	0.01	0.44	2,929.06
T7 Other Port	37,384	Source: Fehr & Peers	1,783.29	0.01	0.28	66.67	0.00	0.01	69.54
T7 POAK	73,221	Source: Fehr & Peers	1,826.99	0.01	0.29	133.77	0.00	0.02	139.54
T7 Public	3,927,667	Source: Fehr & Peers	2,047.21	0.04	0.32	8,040.78	0.14	1.27	8,391.21
T7 Single	2,518,637	Source: Fehr & Peers	1,759.53	0.04	0.28	4,431.63	0.10	0.70	4,625.86
T7 SWCV	1,270,032	Source: Fehr & Peers	3,200.41	2.78	0.54	4,064.62	3.52	0.69	4,351.77
T7 Tractor	1,567,486	Source: Fehr & Peers	1,684.27	0.03	0.27	2,640.08	0.04	0.42	2,755.00
T7 Utility	28,454	Source: Fehr & Peers	1,810.33	0.00	0.28	51.51	0.00	0.01	53.73
T7IS	19,245	Source: Fehr & Peers	3,079.83	1.10	0.50	59.27	0.02	0.01	62.50
UBUS	960,288	Source: Fehr & Peers	1,577.52	0.89	0.22	1,514.87	0.85	0.21	1,597.11
TOTAL	919,218,798	-	48903.93116	5.854847144	6.73948816	409630.496	24.89998124	24.98193776	417145.2745

Off-Road Vehicles and Equipment														
Year	Emissions Sector	Calculation Sector	Sub-Sector	Jurisdiction Scaling Method	Jurisdiction Scaling Factor	Notes	CO2 (tons/day)	CH4 (tons/day)	N2O (tons/day)	MT CO2	MT CH4	MT N2O	MT CO2e	Activity Activity Unit
2019	Offroad	Offroad Equipment	Construction and Mining	Service Population	0.062645243		16.14441404	7.50E-05	4.22E-06		14.64572259	6.81E-05	3.83E-06	5,350 MT CO2e
2019	Offroad	Offroad Equipment	Entertainment Equipment	Employment	0.087580708		0.162151987	5.32E-07	0.00E+00		0.147283288	4.83E-07	0.00E+00	54 MT CO2e
2019	Offroad	Offroad Equipment	Industrial	Employment	0.087580708		4.293360574	1.29E-04	2.17E-05		3.894872312	1.17E-04	1.97E-05	1,426 MT CO2e
2019	Offroad	Offroad Equipment	Lawn and Garden Equipment	Population	0.051034532		0.411382392	3.09E-05	1.35E-05		0.373199935	2.80E-05	1.22E-05	138 MT CO2e
2019	Offroad	Offroad Equipment	Light Commercial Equipment	Employment	0.087580708		2.520745477	5.81E-05	3.60E-05		2.286782485	5.27E-05	3.27E-05	839 MT CO2e
2019	Offroad	Offroad Equipment	Portable Equipment	Employment	0.087580708	New from OFFROAD2021	7.475228813	1.62E-05	5.14E-06		6.781415451	1.47E-05	4.67E-06	2,478 MT CO2e
2019	Offroad	Offroad Equipment	Recreational Equipment	Population	0.051034532		0.235511218	9.30E-05	1.97E-05		0.213652245	1.79E-05		81 MT CO2e
2019	Offroad	Offroad Equipment	Transport Refrigeration Units	Service Population	0.062645243		1.995956464	9.10E-06	5.95E-07		1.810701765	8.26E-06	5.39E-07	661 MT CO2e

Year	Emissions Sector	Calculation Sector	Sub-Sector	BAU or Leg-Adjusted?	Jurisdiction Scaling Method	Activity Growth Method	Jurisdiction Scaling Factor	Activity Growth Factor	Legislative Adjustment	Notes	CO2 (tons/day)	CH4 (tons/day)	N2O (tons/day)	MT CO2	MT CH4	MT N2O	MT CO2e	Activity	Activity Unit
2030	Offroad	Offroad Equipment	Construction and Mining	BAU	Service Population	Service Population	0.0697454	1.250409328	1		22.63003146	1.05E-04	5.92E-06	20.5296251	9.54E-05	5.37E-06	7,500	7,500	MT CO2e
2030	Offroad	Offroad Equipment	Entertainment Equipment	BAU	Employment	Employment	0.092452151	1.187324608	1		0.203486521	6.67E-07	0.00E+00	0.18459992	6.05E-07	0.00E+00	67	67	MT CO2e
2030	Offroad	Offroad Equipment	Industrial	BAU	Employment	Employment	0.092452151	1.187324608	1		5.38115376	1.61E-04	2.72E-05	4.88170197	1.46E-04	2.47E-05	1,787	1,787	MT CO2e
2030	Offroad	Offroad Equipment	Lawn and Garden Equipment	BAU	Population	Population	0.059256014	1.316362515	1		0.628766661	4.72E-05	2.06E-05	0.57040768	4.28E-05	1.87E-05	211	211	MT CO2e
2030	Offroad	Offroad Equipment	Light Commercial Equipment	BAU	Employment	Employment	0.092452151	1.187324608	1		3.159417609	7.28E-05	4.51E-05	2.86617626	6.61E-05	4.09E-05	1,052	1,052	MT CO2e
2030	Offroad	Offroad Equipment	Portable Equipment	BAU	Employment	Employment	0.092452151	1.187324608	1		9.369200407	2.03E-05	6.45E-06	8.49959807	1.84E-05	5.85E-06	3,105	3,105	MT CO2e
2030	Offroad	Offroad Equipment	Recreational Equipment	BAU	Population	Population	0.059256014	1.316362515	1		0.359960964	1.42E-04	3.01E-05	0.32655119	1.29E-04	2.73E-05	123	123	MT CO2e
2030	Offroad	Offroad Equipment	Transport Refrigeration Units	BAU	Service Population	Service Population	0.0697454	1.250409328	1		2.797829718	1.28E-05	8.34E-07	2.53814915	1.16E-05	7.56E-07	927	927	MT CO2e
2045	Offroad	Offroad Equipment	Construction and Mining	BAU	Service Population	Service Population	0.07541485	1.502040341	1		29.19209819	1.36E-04	7.63E-06	26.4826336	1.23E-04	6.92E-06	9,675	9,675	MT CO2e
2045	Offroad	Offroad Equipment	Entertainment Equipment	BAU	Employment	Employment	0.096265046	1.358471102	1		0.242419853	7.94E-07	0.00E+00	0.21991965	7.21E-07	0.00E+00	80	80	MT CO2e
2045	Offroad	Offroad Equipment	Industrial	BAU	Employment	Employment	0.096265046	1.358471102	1		6.41073667	1.92E-04	3.24E-05	5.81572415	1.74E-04	2.94E-05	2,129	2,129	MT CO2e
2045	Offroad	Offroad Equipment	Lawn and Garden Equipment	BAU	Population	Population	0.065840207	1.616762442	1		0.858062584	6.44E-05	2.81E-05	0.77842151	5.84E-05	2.55E-05	287	287	MT CO2e
2045	Offroad	Offroad Equipment	Light Commercial Equipment	BAU	Employment	Employment	0.096265046	1.358471102	1		3.76391295	8.68E-05	5.37E-05	3.41456537	7.87E-05	4.88E-05	1,253	1,253	MT CO2e
2045	Offroad	Offroad Equipment	Portable Equipment	BAU	Employment	Employment	0.096265046	1.358471102	1		11.16182129	2.41E-05	7.68E-06	10.1258368	2.19E-05	6.97E-06	3,699	3,699	MT CO2e
2045	Offroad	Offroad Equipment	Recreational Equipment	BAU	Population	Population	0.065840207	1.616762442	1		0.491229982	1.94E-04	4.11E-05	0.44563647	1.76E-04	3.73E-05	168	168	MT CO2e
2045	Offroad	Offroad Equipment	Transport Refrigeration Units	BAU	Service Population	Service Population	0.07541485	1.502040341	1		3.609120915	1.65E-05	1.08E-06	3.27414036	1.49E-05	9.75E-07	1,196	1,196	MT CO2e
2030	Offroad	Offroad Equipment	Construction and Mining	Leg-Adjusted	Service Population	Service Population	0.0697454	1.250409328	1		22.63003146	1.05E-04	5.92E-06	20.5296251	9.54E-05	5.37E-06	7,500	7,500	MT CO2e
2030	Offroad	Offroad Equipment	Entertainment Equipment	Leg-Adjusted	Employment	Employment	0.092452151	1.187324608	1		0.203486521	6.67E-07	0.00E+00	0.18459992	6.05E-07	0.00E+00	67	67	MT CO2e
2030	Offroad	Offroad Equipment	Industrial	Leg-Adjusted	Employment	Employment	0.092452151	1.187324608	1		5.38115376	1.61E-04	2.72E-05	4.88170197	1.46E-04	2.47E-05	1,787	1,787	MT CO2e
2030	Offroad	Offroad Equipment	Lawn and Garden Equipment	Leg-Adjusted	Population	Population	0.059256014	1.316362515	1		0.628766661	4.72E-05	2.06E-05	0.57040768	4.28E-05	1.87E-05	211	211	MT CO2e
2030	Offroad	Offroad Equipment	Light Commercial Equipment	Leg-Adjusted	Employment	Employment	0.092452151	1.187324608	1		3.159417609	7.28E-05	4.51E-05	2.86617626	6.61E-05	4.09E-05	1,052	1,052	MT CO2e
2030	Offroad	Offroad Equipment	Portable Equipment	Leg-Adjusted	Employment	Employment	0.092452151	1.187324608	1		9.369200407	2.03E-05	6.45E-06	8.49959807	1.84E-05	5.85E-06	3,105	3,105	MT CO2e
2030	Offroad	Offroad Equipment	Recreational Equipment	Leg-Adjusted	Population	Population	0.059256014	1.316362515	1		0.359960964	1.42E-04	3.01E-05	0.32655119	1.29E-04	2.73E-05	123	123	MT CO2e
2030	Offroad	Offroad Equipment	Transport Refrigeration Units	Leg-Adjusted	Service Population	Service Population	0.0697454	1.250409328	1		2.797829718	1.28E-05	8.34E-07	2.53814915	1.16E-05	7.56E-07	927	927	MT CO2e
2045	Offroad	Offroad Equipment	Construction and Mining	Leg-Adjusted	Service Population	Service Population	0.07541485	1.502040341	1		29.19209819	1.36E-04	7.63E-06	26.4826336	1.23E-04	6.92E-06	9,675	9,675	MT CO2e
2045	Offroad	Offroad Equipment	Entertainment Equipment	Leg-Adjusted	Employment	Employment	0.096265046	1.358471102	1		0.242419853	7.94E-07	0.00E+00	0.21991965	7.21E-07	0.00E+00	80	80	MT CO2e
2045	Offroad	Offroad Equipment	Industrial	Leg-Adjusted	Employment	Employment	0.096265046	1.358471102	1		6.41073667	1.92E-04	3.24E-05	5.81572415	1.74E-04	2.94E-05	2,129	2,129	MT CO2e
2045	Offroad	Offroad Equipment	Lawn and Garden Equipment	Leg-Adjusted	Population	Population	0.065840207	1.616762442	1		0.858062584	6.44E-05	2.81E-05	0.77842151	5.84E-05	2.55E-05	287	287	MT CO2e
2045	Offroad	Offroad Equipment	Light Commercial Equipment	Leg-Adjusted	Employment	Employment	0.096265046	1.358471102	1		3.76391295	8.68E-05	5.37E-05	3.41456537	7.87E-05	4.88E-05	1,253	1,253	MT CO2e
2045	Offroad	Offroad Equipment	Portable Equipment	Leg-Adjusted	Employment	Employment	0.096265046	1.358471102	1		11.16182129	2.41E-05	7.68E-06	10.1258368	2.19E-05	6.97E-06	3,699	3,699	MT CO2e
2045	Offroad	Offroad Equipment	Recreational Equipment	Leg-Adjusted	Population	Population	0.065840207	1.616762442	1		0.491229982	1.94E-04	4.11E-05	0.44563647	1.76E-04	3.73E-05	168	168	MT CO2e
2045	Offroad	Offroad Equipment	Transport Refrigeration Units	Leg-Adjusted	Service Population	Service Population	0.07541485	1.502040341	1		3.609120915	1.65E-05	1.08E-06	3.27414036	1.49E-05	9.75E-07	1,196	1,196	MT CO2e

Water																	
Year	Emissions Sector	Sub-Sector	Water District/Provider	Location	Extraction and Conveyance	Treatment	Water Use (M/Year)	Percent of Source Inside Jurisdiction	Utility (if applicable)	Notes	Activity	Activity Unit	Energy Use (Btu)	MT CO2	MT CH4	MT N2O	MT CO2e
2019	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	14,016	0%	SMUD	Source: City of Rancho Cordova Water Supply	7,106,007	kWh	24,246,701	1,649	0.106	0	1,655.80
2019	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	11,174	0%	SMUD	Source: City of Rancho Cordova Water Supply	7,687,375	kWh	26,230,410	1,784	0	0	1,791
2019	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Tertiary Treatment + Conventional Potable	1,289	0%	SMUD	Source: City of Rancho Cordova Water Supply	741,124	kWh	2,528,819	172	0	0	173
2019	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	15,000	0%	SMUD	Source: City of Rancho Cordova Water Supply	7,605,000	kWh	25,949,336	1,765	0	0	1,772
2019	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	10,751	0%	SMUD	Source: City of Rancho Cordova Water Supply	7,396,688	kWh	25,238,546	1,717	0	0	1,724
2019	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	8,773	0%	SMUD	Source: City of Rancho Cordova Water Supply	6,036,145	kWh	20,596,180	1,401	0	0	1,407
2019	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	4,642	0%	SMUD	Source: City of Rancho Cordova Water Supply	2,353,443	kWh	8,030,279	546	0	0	548

Year	Emissions Sector	Sub-Sector	Water District/Provider	Location	Extraction and Conveyance	Treatment	Activity Growth Method	Activity Growth Factor	BAU or Leg-Adjusted?	Legislative Adjustment (AF/Year)	Water Use (M/Year)	Percent of Source Inside Jurisdiction	Utility (if applicable)	Notes	Activity	Activity Unit	Energy Use (Btu)	MT CO2	MT CH4	MT N2O	MT CO2e	
2030	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	BAU		1	18,450	0%	SMUD		9,354,081	kWh	31,917,448	2,171	0	0	2,180
2030	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	BAU		1	14,708	0%	SMUD		10,119,371.89	kWh	34,528,728.58	2,349	0	0	2,357.96
2030	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.316362515	BAU		1	1,697	0%	SMUD		975,587.52	kWh	3,328,842.65	226	0	0	227.33
2030	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	BAU		1	19,745	0%	SMUD		10,010,936.93	kWh	34,158,733.15	2,324	0	0	2,332.69
2030	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	BAU		1	14,152	0%	SMUD		9,736,722.82	kWh	33,223,075.81	2,260	0	0	2,268.80
2030	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	BAU		1	11,549	0%	SMUD		7,945,754.71	kWh	27,112,039.23	1,844	0	0	1,851.48
2030	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	BAU		1	6,110	0%	SMUD		3,097,983.54	kWh	10,570,758	719	0	0	722
2045	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	BAU		1	22,660	0%	SMUD		11,488,725	kWh	39,201,155	2,667	0	0	2,677
2045	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	BAU		1	18,065	0%	SMUD		12,428,658.69	kWh	42,408,341.85	2,885	0	0	2,896.06
2045	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.616762442	BAU		1	2,084	0%	SMUD		1,198,221.04	kWh	4,088,499.72	278	0	0	279.20
2045	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	BAU		1	24,251	0%	SMUD		12,295,478.37	kWh	41,953,911.77	2,854	0	0	2,865.03
2045	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	BAU		1	17,382	0%	SMUD		11,958,687.35	kWh	40,804,733.17	2,776	0	0	2,786.55
2045	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	BAU		1	14,185	0%	SMUD		9,759,012.16	kWh	33,299,130.18	2,265	0	0	2,273.95
2045	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	BAU		1	7,505	0%	SMUD		3,804,957.50	kWh	12,983,053	883	0	0	887
2050	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	BAU		1	24,846	0%	SMUD		12,596,804	kWh	42,882,078	2,924	0	0	2,935
2050	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	BAU		1	19,807	0%	SMUD		13,627,393.74	kWh	46,498,595.43	3,163	0	0	3,175.38
2050	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.772697998	BAU		1	2,285	0%	SMUD		1,313,788.59	kWh	4,482,832.53	305	0	0	306.13
2050	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	BAU		1	26,590	0%	SMUD		13,481,368.28	kWh	46,000,335.90	3,129	0	0	3,141.36
2050	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	BAU		1	19,058	0%	SMUD		13,112,094.01	kWh	44,740,319.86	3,043	0	0	3,055.31
2050	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	BAU		1	15,553	0%	SMUD		10,700,261.75	kWh	36,510,806.95	2,484	0	0	2,493.32
2050	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	BAU		1	8,229	0%	SMUD		4,171,942.87	kWh	14,235,259	968	0	0	972
2030	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	18,450	0%	SMUD		9,354,081.01	kWh	31,917,447.83	-	-	-	-
2030	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	14,708	0%	SMUD		10,119,371.89	kWh	34,528,728.58	-	-	-	-
2030	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.316362515	Leg-Adjusted		1	1,697	0%	SMUD		975,587.52	kWh	3,328,842.65	-	-	-	-
2030	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	19,745	0%	SMUD		10,010,936.93	kWh	34,158,733.15	-	-	-	-
2030	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	14,152	0%	SMUD		9,736,722.82	kWh	33,223,075.81	-	-	-	-
2030	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	11,549	0%	SMUD		7,945,754.71	kWh	27,112,039.23	-	-	-	-
2030	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.316362515	Leg-Adjusted		1	6,110	0%	SMUD		3,097,983.54	kWh	10,570,758.13	-	-	-	-
2045	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	22,660	0%	SMUD		11,488,724.94	kWh	39,201,154.93	-	-	-	-
2045	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	18,065	0%	SMUD		12,428,658.69	kWh	42,408,341.85	-	-	-	-
2045	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.616762442	Leg-Adjusted		1	2,084	0%	SMUD		1,198,221.04	kWh	4,088,499.72	-	-	-	-
2045	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	24,251	0%	SMUD		12,295,478.37	kWh	41,953,911.77	-	-	-	-
2045	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	17,382	0%	SMUD		11,958,687.35	kWh	40,804,733.17	-	-	-	-
2045	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	14,185	0%	SMUD		9,759,012.16	kWh	33,299,130.18	-	-	-	-
2045	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.616762442	Leg-Adjusted		1	7,505	0%	SMUD		3,804,957.50	kWh	12,983,053.32	-	-	-	-
2050	Water	Water	Sacramento County Water Agency Zone 40	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	24,846	0%	SMUD		12,596,804.07	kWh	42,882,077.67	-	-	-	-
2050	Water	Water	Sacramento County Water Agency Zone 41	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	19,807	0%	SMUD		13,627,393.74	kWh	46,498,595.43	-	-	-	-
2050	Water	Water	Sacramento County Water Agency Zone 42	Sacramento River	Recycled Water	Recycled Water - Tertiary Treatment + Disinfection	Population	1.772697998	Leg-Adjusted		1	2,285	0%	SMUD		1,313,788.59	kWh	4,482,832.53	-	-	-	-
2050	Water	Water	Golden State Water Company	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	26,590	0%	SMUD		13,481,368.28	kWh	46,000,335.90	-	-	-	-
2050	Water	Water	Golden State Water Company	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	19,058	0%	SMUD		13,112,094.01	kWh	44,740,319.86	-	-	-	-
2050	Water	Water	California American Water	Sacramento River	Groundwater	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	15,553	0%	SMUD		10,700,261.75	kWh	36,510,806.95	-	-	-	-
2050	Water	Water	California American Water	Sacramento River	Local Deliveries	Conventional Potable Treatment	Population	1.772697998	Leg-Adjusted		1	8,229	0%	SMUD		4,171,942.87	kWh	14,235,259.32	-	-	-	-

Wastewater Process Emissions																										
Year	Emissions Sector	Sub-Sector	WWTP Name	WWTP Process	WW Equation	Digester Gas (Btu/day)	Fraction of CH ₄ in Biogas	Population Served	BTU Content of Biogas	Mass of Incinerated Biosolids	PP	RDS Load (kg RDS/day)	N Load (kg N/day)	Method Load (MT CH ₂ O/day)	Sludge Treatment Type	P _{ind-com}	FF _{effluent}	N uptake	Natural Gas (therms)	Electricity (MWh)	Utility (if appl): MT CO ₂	MT CH ₄	MT H ₂ O	MT CO _{2e}		
2019	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.La	139,571	60%	139,571									1.25				-	0.509	-	3.0		
2019	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.8																-	-	0.56	152		
2019	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.12									3,529.84			0.005				1,484	5MJD	346,513	0.022	0.003	2,843.05
2019	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15																					
2019	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15																10,068	5MJD	2,937	0	0	2,346
Year	Emissions Sector	Sub-Sector	WWTP Name	WWTP Process	WW Equation	Activity Growth Factor	Activity Growth Factor	BAU or Leg-Adjusted Notes	MT CO ₂	MT CH ₄	MT H ₂ O	MT CO _{2e}														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.La	Population	Population	1.316362515 BAU	-	0.14	-	4.00														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.8	Population	Population	1.316362515 BAU	-	-	0.73	200.63														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.12	Population	Population	1.316362515 BAU	-	-	13.71	3,742.49														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15	Population	Population	1.316362515 BAU	3,529.45	0.23	0.03	3,543.93														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.La	Population	Population	1.616762442 BAU	-	0.18	-	4.92														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.8	Population	Population	1.616762442 BAU	-	-	0.90	246.41														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.12	Population	Population	1.616762442 BAU	-	-	16.84	4,596.54														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15	Population	Population	1.616762442 BAU	4,334.89	0.28	0.03	4,951.94														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.La	Population	Population	1.316362515 Leg-Adjusted	-	0.14	-	4.00														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.8	Population	Population	1.316362515 Leg-Adjusted	-	-	0.73	200.63														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.12	Population	Population	1.316362515 Leg-Adjusted	-	-	13.71	3,742.49														
2030	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15	Population	Population	1.316362515 Leg-Adjusted	3,529.45	0.23	0.03	3,543.93														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.La	Population	Population	1.616762442 Leg-Adjusted	-	0.18	-	4.92														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.8	Population	Population	1.616762442 Leg-Adjusted	-	-	0.90	246.41														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants without Effluent Discharge	WW.12	Population	Population	1.616762442 Leg-Adjusted	-	-	16.84	4,596.54														
2045	Wastewater	WWTP	SASD/WRCD	Wastewater Treatment Plants with Wastewater Collection and Energy-related Emissions Associated with Wastewater Collection and Treatment	WW.15	Population	Population	1.616762442 Leg-Adjusted	4,334.89	0.28	0.03	4,951.94														

Waste Generation																			
Year	Emissions Sector	Sub-Sector	Landfill Name	Annual Waste Tonnage Delivered from Jurisdiction	Annual ADC Tonnage Delivered from Jurisdiction	Activity	Activity Unit	Percent of year under LFG collection	LFG Collection Efficiency	Oxidation Rate	Notes	MT CO2	MT CH4	MT N2O	MT CO2e				
	2019 Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	56,877		2587	59,464 tons	100%	75%	10%			802.76		22,397				
Year	Emissions Sector	Sub-Sector	Landfill Name	BAU or Leg-Adjusted?	Activity Growth Method	Activity Growth Factor	Legislative Adjustment	Annual Waste Tonnage Delivered from Jurisdiction	Annual ADC Tonnage Delivered from Jurisdiction	Activity	Activity Unit	Percent of year under LFG collection	LFG Collection Efficiency	Oxidation Rate	Notes	MT CO2	MT CH4	MT N2O	MT CO2e
2030	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	BAU	Population	1.316362515	1	74,871	3,405	78,276	tons	100%	75%	10%	Total of all tonnage sent to		1,056.73		29,483
2045	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	BAU	Population	1.616762442	1	91,957	4,183	96,139	tons	100%	75%	10%	Total of all tonnage sent to		1,297.88		36,211
2050	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	BAU	Population	1.772697998	1	100,826	4,586	105,412	tons	100%	75%	10%	Total of all tonnage sent to		1,423.06		39,703
2030	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	Leg-Adjusted	Population	1.316362515	1	74,871	3,405	78,276	tons	100%	75%	10%	Total of all tonnage sent to		1,056.73		29,483
2045	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	Leg-Adjusted	Population	1.616762442	1	91,957	4,183	96,139	tons	100%	75%	10%	Total of all tonnage sent to		1,297.88		36,211
2050	Solid Waste	Waste Generation	Community-Generated Solid Waste Disposed of Outside Jurisdiction	Leg-Adjusted	Population	1.772697998	1	100,826	4,586	105,412	tons	100%	75%	10%	Total of all tonnage sent to		1,423.06		39,703

Assumptions and Emission Factors						
Conversion Factors		Value	Source/notes			
g/MT		1000000				
g/ton		907184.74				
g/lb		453.592				
lb/ton		2000				
lb/MT		2204.622622				
kg/MT		1000				
lb/kg		2.20462				
MT/ton		0.907185				
kWh/MWh		1000				
MWh/GWh		1000				
Btu/therm		100000				
kBTU/MMBTU		1000				
MMBtu/therm		0.1				
MMBtu/MWh		3.41214148	Onlineconversion.com			
gal/cubic foot		7.480519481	Onlineconversion.com			
gal/Liter		3.785411784	Onlineconversion.com			
Liter/gal		0.264172052				
gallon/acrefoot		325851.429	Onlineconversion.com			
million gal/acre-feet		0.325851429	Onlineconversion.com			
gal/barrel		42	Onlineconversion.com			
kBTU/MJ		0.947817078	Onlineconversion.com			
days/year		365.25				
Energy Type	KBTU	per Unit				
Electricity		3.41 kWh	Onlineconversion.com			
Electricity		3412.14 MWh				
Natural Gas		99.98 therm	Onlineconversion.com			
Natural Gas		1.03 scf	https://www.theclimateregistry.org/wp-content/uploads/2021/05/2021-Default-Emission-Factor-Document.pdf?mc_cid=4b45d12237&mc_eid=5f138d1baa			
CNG		99.98 therm	Onlineconversion.com			
LPG		91.33 gal				
LPG		2.52 scf	https://www.theclimateregistry.org/wp-content/uploads/2021/05/2021-Default-Emission-Factor-Document.pdf?mc_cid=4b45d12237&mc_eid=5f138d1baa			
Propane		91.00 gal				
Diesel		138.10 gal	Calculated from Table 13.1 in 2017 Climate Registry Default Emission Factors			
Gasoline		125.00 gal	Calculated from Table 13.1 in 2017 Climate Registry Default Emission Factors			
Hydrogen		113.74 kg				
Renewable Diesel		122.88 gal	CARB LCFS Quarterly Summary April 2018 (129.65 MJ/gal)			
Heating Oil		139.00 gal	https://www.engineeringtoolbox.com/energy-content-d_868.html			
Fuel Wood		1000.00 MMBTU				
B2		137.90 gal	Calculated from Diesel and B100 energy densities, assuming 2 percent biodiesel			
B5		137.60 gal	Calculated from Diesel and B100 energy densities, assuming 5 percent biodiesel			
B20		136.10 gal	Calculated from Diesel and B100 energy densities, assuming 20 percent biodiesel			
B100		128.10 gal	Calculated from Table 13.1 in 2017 Climate Registry Default Emission Factors			
GWP Factors		Value	Comment			
CO2	1	Carbon Dioxide				included in CARB Inventory
CH4	27.9	Methane	Short Lived Climate Pollutant			included in CARB Inventory
N2O	273	Nitrous Oxide				included in CARB Inventory
SF6	22800	Sulphur Hexafluoride				included in CARB Inventory
NF3	17200	Nitrogen Trifluoride				included in CARB Inventory
C2F6	12200	Hexafluoroethane (PFC-116)				included in CARB Inventory
C3F8	8830	Octafluoropropane (PFC-218)				included in CARB Inventory
C4F8	10300	Octafluorocyclobutane (PFC-318)				included in CARB Inventory
CF4	7390	Tetrafluoromethane (PFC-14)				included in CARB Inventory
HFC-125	3500	Hydrofluorocarbon 125	Short Lived Climate Pollutant			included in CARB Inventory
HFC-134a	1430	Hydrofluorocarbon 134a	Short Lived Climate Pollutant			included in CARB Inventory
HFC-143a	4470	Hydrofluorocarbon 143a	Short Lived Climate Pollutant			included in CARB Inventory
HFC-152a	124	Hydrofluorocarbon 152a	Short Lived Climate Pollutant			included in CARB Inventory
HFC-227ea	3220	Hydrofluorocarbon 227ea	Short Lived Climate Pollutant			included in CARB Inventory
HFC-23	14800	Hydrofluorocarbon 23	Short Lived Climate Pollutant			included in CARB Inventory
HFC-236fa	9810	Hydrofluorocarbon 236fa				included in CARB Inventory
HFC-245fa	1030	Hydrofluorocarbon 245fa	Short Lived Climate Pollutant			included in CARB Inventory
HFC-32	675	Hydrofluorocarbon 32	Short Lived Climate Pollutant			included in CARB Inventory
HFC-365mfc	794	Hydrofluorocarbon 365mfc	Short Lived Climate Pollutant			included in CARB Inventory
HFC-43-10mee	1640	Hydrofluorocarbon 43-10mee	Short Lived Climate Pollutant			included in CARB Inventory
BC	900	Black Carbon	Short Lived Climate Pollutant	CARB uses AR5 values.		included in CARB Inventory
SO2F2	4630	Sulfuryl Flouride	Short Lived Climate Pollutant (unofficial)			Not in CARB Inventory
CH3Br	2.43	Methyl Bromide				Not in CARB Inventory
CFC-11	4660	Trifluorchloromethane				Not in CARB Inventory
Source for GWP factors except for CH4 and N2O: https://ww2.arb.ca.gov/ghg-gwps (100-year IPCC AR4 GWP Values)						
Source	CO2 GWP	CH4 GWP	N2O GWP			
IPCC Fourth Assessment Report (w/o climate	1	25	265			
IPCC Fourth Assessment Report (with climate	1	34	298			
IPCC Fourth Assessment Report (Avg)	1	25	298			
IPCC Fifth Assessment Report (Avg)	1	28	265			
IPCC Third Assessment Report	1	23	296			
IPCC Second Assessment Report	1	21	310			
IPCC Sixth Assessment Report	1	27.9	273	Source: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_07_Supplementary_Material.pdf		

Building Energy Efficiency Assumptions							
Sector	% Reduction	Code	Notes	Source			
Residential	25%	Energy efficiency improvement of 2013 code above 2008 code		http://www.energy.ca.gov/releases/2014_releases/2014-07-01_new_title24_standards_nr.html			
	28%	Energy efficiency improvement of 2016 code above 2013 code	Lighting, heating, cooling, ventilation, and water heating	http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf			
	53%	Energy efficiency improvement of 2019 code above 2016 code	Includes onsite solar requirement				
Commercial	30%	Energy efficiency improvement of 2013 code above 2008 code		http://www.energy.ca.gov/commission/accomplishments/2014_cec_accomplishments.pdf			
	5%	Energy efficiency improvement of 2016 code above 2013 code		http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf			
	30%	Energy efficiency improvement of 2019 code above 2016 code					
Combined % Reduction from 2008 code							
Residential	75%						
Non-Residential	53%						
Agricultural Emission Factors							
Activity							
Lime Fertilizer							
Emission Factor MT C/MT lime	0.12						
Molecular Mass of CO2	44.01						
Atomic Mass of C	12.01						
Molecular Mass Ratio	3.66						
g CO2 per Ton of Lime Applied	398,886.47						
Source: IPCC 2006 Equation 11.12 and 11.13. Note, the IPCC 2019 Refinement did not update these equations or emission factor							
Nitrogen Fertilizer							
Nitrogen Volatilization (g N2O/g N)	0.0125						
g N2O per ton of Nitrogen applied	11,339.81						
Open Burning							
g CO2 per ton of open burning ¹	1,454,669.54						
g CH4 per ton of open burning ¹	7,529.63						
g CO2 per acre of open burning ²							
g CH4 per acre of open burning ²							
g CH4 per acre of open burning ²							
Sources: 1. Emission factors from National Wildfire Coordinating Group, 2018, Smoke Management Guide for Prescribed Fire							
Diesel Irrigation Pumps							
MBARD Emissions (CO2 tons/day) (CARB 2006)	122						
MBARD Number of Pumps (CARB 2006)	647						
MBARD Emission Factor (avg tpd/pump)	0.1886						
Source: California Air Resources Board 2006. Rulemaking to Consider Proposed Amendments to the Stationary Diesel Engine Control Measure - Appendix D: Emission Inventory Methodology Agricultural Irrigation Pumps - Diesel. Available at: http://www.arb.ca.gov/regact/agen06/append.pdf . Table D-2							
Waste Emission Factors							
Table SW.5 CH4 Yield for Solid Waste Components							
Waste Component	Emissions Factor, EF _i (mt CH ₄ /wet short	Source					
Mixed MSW*	0.06	U.S. EPA AP-42					
* – Mixed MSW factor may be used for entire MSW waste stream if waste composition data is unavailable. U.S. EPA AP-42 – U.S. EPA Emission Factor Database, Chapter 2.4 Municipal Solid Waste Landfills (1998) WARM—Documentation for Greenhouse Gas Emissions and Energy Factors Used in the Waste Reduction Model (WARM) 2006							

City of Rancho Cordova Greenhouse Gas Inventory and Forecasts



	Population					Employment					Service Population					VMT				
Growth Rates	2016	2019	2030	2040	2045	2016	2019	2030	2040	2045	2016	2019	2030	2040	2045	2016	2019	2030	2045	
Percent Growth from 2019	NA	NA	31.64%	47.45%	62%	NA	NA	18.73%	28.10%	36%	NA	NA	25.90%	38.86%	50.20%	NA	NA	-	16.55%	42%
Percent of Total County	4.90%	5.10%	5.93%	6.27%	7%	8.64%	8.76%	9.25%	9.45%	10%	6.09%	6.26%	6.97%	7.27%	7.54%	-	-	-	-	-

Year	Fuel Type	Utility (if applicable)	Percent GHG-Free	Unit	MT CO2 per unit	MT CH4 per unit	MT N2O per unit	MTCO2e per unit	MT CO2 per kBTU	MT CH4 per kBTU	MT N2O per kBTU	Notes	Source
2009	Electricity	eGRID CAMX		MWh	4.11E-01	2.30E-05	3.31E-06	4.13E-01	1.21E-04	6.73E-09	9.70E-10	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid	
2010	Electricity	eGRID CAMX	55%	MWh	3.97E-01	2.38E-05	3.45E-06	3.98E-01	1.16E-04	6.98E-09	1.01E-09	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid	
2011	Electricity	eGRID CAMX	55%	MWh	3.97E-01	2.38E-05	3.45E-06	3.98E-01	1.16E-04	6.98E-09	1.01E-09	2010 values	
2012	Electricity	eGRID CAMX	62%	MWh	4.00E-01	2.31E-05	3.13E-06	4.01E-01	1.17E-04	6.77E-09	9.17E-10	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid	
2013	Electricity	eGRID CAMX	62%	MWh	4.00E-01	2.31E-05	3.13E-06	4.01E-01	1.17E-04	6.77E-09	9.17E-10	2012 values	
2014	Electricity	eGRID CAMX	62%	MWh	3.83E-01	2.35E-05	2.86E-06	3.85E-01	1.12E-04	6.87E-09	8.37E-10	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid	
2015	Electricity	eGRID CAMX	62%	MWh	3.83E-01	2.35E-05	2.86E-06	3.85E-01	1.12E-04	6.87E-09	8.37E-10	2014 values	
2016	Electricity	eGRID CAMX	50%	MWh	2.05E-01	1.18E-05	1.36E-06	2.06E-01	6.02E-05	3.46E-09	3.99E-10	https://www.epa.gov/sites/production/files/2018-02/egrid2016_summarytables.xlsx	
2017	Electricity	eGRID CAMX	50%	MWh	2.05E-01	1.18E-05	1.36E-06	2.06E-01	6.02E-05	3.46E-09	3.99E-10	2016 values	
2018	Electricity	eGRID CAMX	50%	MWh	2.25E-01	1.54E-05	1.81E-06	2.26E-01	6.60E-05	4.52E-09	5.32E-10	https://www.epa.gov/sites/production/files/2020-01/documents/egrid2018_summary_tables.pdf	
2019	Electricity	eGRID CAMX	52%	MWh	2.06E-01	1.50E-05	1.81E-06	2.06E-01	6.02E-05	4.39E-09	5.32E-10	2019 values	
2020	Electricity	eGRID CAMX	54%	MWh	1.98E-01	1.44E-05	1.74E-06	1.99E-01	5.79E-05	4.22E-09	5.11E-10		
2021	Electricity	eGRID CAMX	56%	MWh	1.90E-01	1.38E-05	1.67E-06	1.91E-01	5.56E-05	4.05E-09	4.91E-10		
2022	Electricity	eGRID CAMX	58%	MWh	1.82E-01	1.32E-05	1.61E-06	1.83E-01	5.33E-05	3.88E-09	4.70E-10		
2023	Electricity	eGRID CAMX	60%	MWh	1.74E-01	1.27E-05	1.54E-06	1.75E-01	5.10E-05	3.71E-09	4.50E-10		
2024	Electricity	eGRID CAMX	61%	MWh	1.66E-01	1.21E-05	1.47E-06	1.67E-01	4.87E-05	3.54E-09	4.29E-10		
2025	Electricity	eGRID CAMX	63%	MWh	1.58E-01	1.15E-05	1.40E-06	1.59E-01	4.63E-05	3.37E-09	4.09E-10		
2026	Electricity	eGRID CAMX	65%	MWh	1.50E-01	1.09E-05	1.33E-06	1.51E-01	4.40E-05	3.21E-09	3.89E-10		
2027	Electricity	eGRID CAMX	67%	MWh	1.42E-01	1.04E-05	1.26E-06	1.43E-01	4.17E-05	3.04E-09	3.68E-10		
2028	Electricity	eGRID CAMX	69%	MWh	1.34E-01	9.79E-06	1.19E-06	1.35E-01	3.94E-05	2.87E-09	3.48E-10		
2029	Electricity	eGRID CAMX	71%	MWh	1.27E-01	9.21E-06	1.12E-06	1.27E-01	3.71E-05	2.70E-09	3.27E-10		
2030	Electricity	eGRID CAMX	72%	MWh	1.19E-01	8.64E-06	1.05E-06	1.19E-01	3.48E-05	2.53E-09	3.07E-10		
2031	Electricity	eGRID CAMX	74%	MWh	1.11E-01	8.06E-06	9.77E-07	1.11E-01	3.24E-05	2.36E-09	2.86E-10		
2032	Electricity	eGRID CAMX	76%	MWh	1.03E-01	7.48E-06	9.07E-07	1.03E-01	3.01E-05	2.19E-09	2.66E-10		
2033	Electricity	eGRID CAMX	78%	MWh	9.49E-02	6.91E-06	8.37E-07	9.53E-02	2.78E-05	2.02E-09	2.45E-10		
2034	Electricity	eGRID CAMX	80%	MWh	8.70E-02	6.33E-06	7.68E-07	8.74E-02	2.55E-05	1.86E-09	2.25E-10		
2035	Electricity	eGRID CAMX	82%	MWh	7.91E-02	5.76E-06	6.98E-07	7.94E-02	2.32E-05	1.69E-09	2.05E-10		
2036	Electricity	eGRID CAMX	83%	MWh	7.12E-02	5.18E-06	6.28E-07	7.15E-02	2.09E-05	1.52E-09	1.84E-10		
2037	Electricity	eGRID CAMX	85%	MWh	6.33E-02	4.61E-06	5.58E-07	6.35E-02	1.85E-05	1.35E-09	1.64E-10		
2038	Electricity	eGRID CAMX	87%	MWh	5.53E-02	4.03E-06	4.88E-07	5.56E-02	1.62E-05	1.18E-09	1.43E-10		
2039	Electricity	eGRID CAMX	89%	MWh	4.73E-02	3.45E-06	4.19E-07	4.77E-02	1.39E-05	1.01E-09	1.23E-10		
2040	Electricity	eGRID CAMX	91%	MWh	3.95E-02	2.88E-06	3.49E-07	3.97E-02	1.16E-05	8.44E-10	1.02E-10		
2041	Electricity	eGRID CAMX	93%	MWh	3.16E-02	2.30E-06	2.79E-07	3.18E-02	9.27E-06	6.75E-10	8.18E-11		
2042	Electricity	eGRID CAMX	94%	MWh	2.37E-02	1.73E-06	2.09E-07	2.38E-02	6.95E-06	5.06E-10	6.14E-11		
2043	Electricity	eGRID CAMX	96%	MWh	1.58E-02	1.15E-06	1.40E-07	1.59E-02	4.63E-06	3.37E-10	4.09E-11		
2044	Electricity	eGRID CAMX	98%	MWh	7.91E-03	5.76E-07	6.98E-08	7.94E-03	2.32E-06	1.69E-10	2.05E-11		
2045	Electricity	eGRID CAMX	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SB100	
2016	Electricity	SMUD	43%	MWh	3.05E-01	1.18E-05	1.36E-06	3.06E-01	8.94E-05	3.46E-09	3.99E-10		
2017	Electricity	SMUD	54%	MWh	2.33E-01	1.18E-05	1.36E-06	2.34E-01	6.84E-05	3.46E-09	3.99E-10		
2018	Electricity	SMUD	36%	MWh	2.39E-01	1.54E-05	1.81E-06	2.40E-01	7.02E-05	4.52E-09	5.32E-10		
2019	Electricity	SMUD	69%	MWh	0.232101704	1.49685E-05	1.81437E-06	0.233014649	6.80E-05	4.39E-09	5.32E-10		
2020	Electricity	SMUD	72%	MWh	2.11E-01	1.35E-05	1.65E-06	2.12E-01	6.18E-05	3.99E-09	4.83E-10		
2021	Electricity	SMUD	75%	MWh	1.90E-01	1.22E-05	1.48E-06	1.91E-01	5.57E-05	3.59E-09	4.35E-10		
2022	Electricity	SMUD	78%	MWh	1.69E-01	1.09E-05	1.32E-06	1.69E-01	4.95E-05	3.19E-09	3.87E-10		
2023	Electricity	SMUD	81%	MWh	1.48E-01	9.53E-06	1.15E-06	1.48E-01	4.33E-05	2.79E-09	3.38E-10		
2024	Electricity	SMUD	83%	MWh	1.27E-01	8.16E-06	9.90E-07	1.27E-01	3.71E-05	2.39E-09	2.90E-10		
2025	Electricity	SMUD	86%	MWh	1.06E-01	6.80E-06	8.25E-07	1.06E-01	3.09E-05	1.99E-09	2.42E-10		
2026	Electricity	SMUD	89%	MWh	8.44E-02	5.44E-06	6.60E-07	8.47E-02	2.47E-05	1.60E-09	1.93E-10		
2027	Electricity	SMUD	92%	MWh	6.33E-02	4.08E-06	4.95E-07	6.35E-02	1.86E-05	1.20E-09	1.45E-10		
2028	Electricity	SMUD	94%	MWh	4.22E-02	2.72E-06	3.30E-07	4.24E-02	1.24E-05	7.98E-10	9.67E-11		
2029	Electricity	SMUD	97%	MWh	2.11E-02	1.36E-06	1.65E-07	2.12E-02	6.18E-06	3.99E-10	4.83E-11		
2030	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2031	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2032	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2033	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2034	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2035	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2036	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2037	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2038	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2039	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2040	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2041	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2042	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2043	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2044	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2045	Electricity	SMUD	100%	MWh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
2019	Electricity	TPPA	not available	MWh	2.25E-01	1.50E-05	1.81E-06	2.26E-01	6.60E-05	4.39E-09	5.32E-10	Same as eGRID	
2030	Electricity	TPPA	not available	MWh	1.23E-01	8.64E-06	1.05E-06	1.24E-01	3.62E-05	2.53E-09	3.07E-10	Same as eGRID	
2040	Electricity	TPPA	not available	MWh	3.95E-02	2.88E-06	3.49E-07	3.97E-02	1.16E-05	8.44E-10	1.02E-10	Same as eGRID	
2050	Electricity	TPPA	not available	MWh	3.95E-02	2.88E-06	3.49E-07	3.97E-02	1.16E-05	8.44E-10	1.02E-10	Same as eGRID	
2019	Heating Oil	NA	not available	gal	7.27E-04	6.87E-09	1.59E-09	7.28E-04	5.23E-06	4.94E-11	1.14E-11	3. The Climate Registry, 2020 Default Emission Factors	
2030	Heating Oil	NA	not available	gal	7.27E-04	6.87E-09	1.59E-09	7.28E-04	5.23E-06	4.94E-11	1.14E-11	3. The Climate Registry, 2020 Default Emission Factors	
2040	Heating Oil	NA	not available	gal	7.27E-04	6.87E-09	1.59E-09	7.28E-04	5.23E-06	4.94E-11	1.14E-11	3. The Climate Registry, 2020 Default Emission Factors	
2045	Heating Oil	NA	not available	gal	7.27E-04	6.87E-09	1.59E-09	7.28E-04	5.23E-06	4.94E-11	1.14E-11	3. The Climate Registry, 2020 Default Emission Factors	
2050	Heating Oil	NA	not available	gal	7.27E-04	6.87E-09	1.59E-09	7.28E-04	5.23E-06	4.94E-11	1.14E-11	3. The Climate Registry, 2020 Default Emission Factors	
2019	Fuel Wood	NA	not available	MMBTU	6.79E-01	1.83E-03	2.46E-05	7.37E-01	6.79E-04	1.83E-06	2.46E-08	3. The Climate Registry, 2020 Default Emission Factors	
2030	Fuel Wood	NA	not available	MMBTU	6.79E-01	1.83E-03	2.46E-05	7.37E-01	6.79E-04	1.83E-06	2.46E-08	3. The Climate Registry, 2020 Default Emission Factors	
2040	Fuel Wood	NA	not available	MMBTU	6.79E-01	1.83E-03	2.46E-05	7.37E-01	6.79E-04	1.83E-06	2.46E-08	3. The Climate Registry, 2020 Default Emission Factors	
2045	Fuel Wood	NA	not available	MMBTU	6.79E-01	1.83E-03	2.46E-05	7.37E-01	6.79E-04	1.83E-06	2.46E-08	3. The Climate Registry, 2020 Default Emission Factors	
2050	Fuel Wood	NA	not available	MMBTU	6.79E-01	1.83E-03	2.46E-05	7.37E-01	6.79E-04	1.83E-06	2.46E-08	3. The Climate Registry, 2020 Default Emission Factors	
2019	Propane	NA	not available	gal	4.00E-04	7.13E-09	2.85E-08	4.08E-04	4.40E-06	7.84E-11	3.14E-10	2. The Climate Registry, 2020 Default Emission Factors	
2030	Propane	NA	not available	gal	4.00E-04	7.13E-09	2.85E-08	4.08E-04	4.40E-06	7.84E-11	3.14E-10	2. The Climate Registry, 2020 Default Emission Factors	

Water Energy Intensity Factors (kWh/AF)

Extraction and Conveyance

Water Activity	Activity Type	North Coast	San Francisco	Central Coast	South Coast	Sacramento River	San Joaquin River	Tulare Lake	North Lahontan	South Lahontan	Colorado River	Source
Extraction and Conveyance	Ocean Water Desalination	342	342	342	342	342	342	342	342	342	342	1
Extraction and Conveyance	Brackish Desalination	168	342	461	566	181	231	389	167	352	466	1
Extraction and Conveyance	Recycled Water	0	0	0	0	0	0	0	0	0	0	1
Extraction and Conveyance	Groundwater	178	352	471	576	191	241	399	177	362	476	1
Extraction and Conveyance	Local Deliveries	10	10	10	10	10	10	10	10	10	10	1
Extraction and Conveyance	Local Imported	10	43	n/a	10	n/a	n/a	n/a	n/a	n/a	n/a	1
Extraction and Conveyance	Colorado River Aqueduct	n/a	n/a	n/a	2500	n/a	n/a	n/a	n/a	n/a	0	1
Extraction and Conveyance	Central Valley Project and OtherFederal Deliveries	0	273	254	0	15	75	174	n/a	n/a	n/a	1
Extraction and Conveyance	State Water Project	n/a	926	2155	3214	0	287	495	n/a	3495	4468	1

1: Table 7: Navigant CPUC Water/Energy Cost-Effectiveness Analysis 2015

Treatment and Distribution

Water Activity	Activity Type	North Coast	San Francisco	Central Coast	South Coast	Sacramento River	San Joaquin River	Tulare Lake	North Lahontan	South Lahontan	Colorado River	Source
Treatment	Conventional Potable Treatment	443	443	443	443	443	443	443	443	443	443	2
Treatment	Chlorination	3	3	3	3	3	3	3	3	3	3	2
Treatment	Recycled Water - Membrane Treatment	1303	1303	1303	1303	1303	1303	1303	1303	1303	1303	2
Treatment	Recycled Water - Tertiary Treatment + Disinfection	521	521	521	521	521	521	521	521	521	521	2
Treatment	Brackish Desalination	2715	2715	2715	2715	2715	2715	2715	2715	2715	2715	2
Treatment	Ocean Desalination	4546	4546	4546	4546	4546	4546	4546	4546	4546	4546	2
Distribution	Distribution	501	977	501	501	54	54	54	54	501	54	3

2: Table 8: Navigant CPUC Water/Energy Cost-Effectiveness Analysis 2015

3: Table 9: Navigant CPUC Water/Energy Cost-Effectiveness Analysis 2015

Wastewater Equations																				
ICLEI Wastewater Equation	WW.1.a	WW.1.b	WW.1.(alt)	WW.2.a	WW.2.b	WW.2.(alt)	WW.4	WW.5	WW.6	WW.6 (alt)	WW.7	WW.8	WW.9	WW.11	WW.11(alt)	WW.12	WW.12(alt)	WW.15	WW.152	WW.153
Digester Gas (ft3/day)	x	x		x	x															
Fraction of CH4 in Biogas	x			x																
Population Served			x			x				x	x	x			x		x			
BTU Content of biogas		x			x															
Mass of incinerated biosolids							x	x												
BOD5 Load (kg BOD5/day)									x					x						
FP									x											
N Load (kg N/day)																x				
Methanol Load (MT CH3OH/day)													x							
Sludge Treatment Type													x							
F_ind-com									x		x	x								
EF_effluent																x				
N Uptake																	x			
Pollutant	CH4	CH4	CH4	N2O	N2O	N2O	CH4	N2O	CH4	CH4	N2O	N2O	CO2	CH4	CH4	N2O	N2O	CO2	CH4	N2O
Natural Gas (therms)																		x	x	x
Electricity (kWh)																		x	x	x

- WW.1a Stationary Methane Emissions from Combustion of Digester Gas (Fraction CH4 known)
WW.1b Stationary Methane Emissions from Combustion of Digester Gas (Heat Content known)
WW.1(alt) Stationary Methane Emissions from Combustion of Digester Gas (population method)
WW.2a Stationary Nitrous Oxide Emissions from Combustion of Digester Gas (Fraction CH4 known)
WW.2b Stationary Nitrous Oxide Emissions from Combustion of Digester Gas (Heat Content known)
WW.2(alt) Stationary Nitrous Oxide Emissions from Combustion of Digester Gas (population method)
WW.3 Stationary CO2 Emissions from Digester Gas Combustion
WW.4 Stationary Methane Emissions from Combustion of Biosolids and Sludges
WW.5 Stationary Nitrous Oxide Emissions from Combustion of Biosolids and Sludges
WW.6 Process Methane Emissions from Wastewater Treatment Lagoons (BOD5 Load and Fraction BOD5 Removed in Primary Treatment Known)
WW.6(alt) Process Methane Emissions from Wastewater Treatment Lagoons (population method)
WW.7 Process Nitrous Oxide Emissions from Wastewater Treatment Plants with Nitrification or Denitrification
WW.8 Process Nitrous Oxide Emissions from Wastewater Treatment Plants without Nitrification or Denitrification
WW.9 Process Carbon Dioxide Emissions from the Use of Fossil-Fuel-Derived Methanol for Biological Nitrogen Removal
WW.11 Fugitive Methane Emissions from Septic Systems (BOD5 Load Known)
WW.11(alt) Fugitive Methane Emissions from Septic Systems (population method)
WW.12 Fugitive Nitrous Oxide Emissions from Effluent Discharge
WW.12(alt) Fugitive Nitrous Oxide Emissions from Effluent Discharge (population method)
WW.15 Energy-related Emissions Associated with Wastewater Collection and Treatment

agricultural of Gasoline	2019 Annual	Mon-Sun	2265005010 2-Wheel Tractors	G4	25 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	8.135E-01	7.422E-01	7.402E-01	5.715E-05	2.19E-03	3.72E-05	3.49E-03	8.88E-08	2.92E-05	2.67E-06	3.23E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005015 Agricultural Tractors	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	9.75E-04	1.47E-01	1.725E-01	1.17E-03	3.62E-02	2.86E-03	6.38E-01	6.17E-06	4.99E-05	9.51E-05	6.63E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005015 Agricultural Tractors	G4	175 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.34E-04	2.02E-01	1.43E-01	1.47E-04	4.87E-03	6.73E-04	1.30E-01	1.29E-06	1.03E-05	1.72E-05	8.31E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005020 Combines	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.44E-04	8.37E-01	5.93E-01	2.99E-05	1.03E-03	5.45E-03	5.27E-02	6.11E-05	5.49E-06	2.59E-06	2.55E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005020 Combines	G4	175 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.36E-04	4.65E-01	5.11E-01	1.58E-05	1.05E-03	5.84E-05	4.66E-07	3.73E-06	2.66E-06	8.93E-07	8.93E-07
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005020 Combines	G4	250 Agricultural Equipment	U	N	NH	NP	Sacrament SV	SAC	2.50E-01	8.59E-02	1.09E-01	2.88E-06	3.34E-05	3.04E-05	9.95E-03	1.02E-07	8.16E-07	8.77E-07	1.63E-07
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005025 Balers	G4	50 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	3.55E-01	6.64E-04	1.29E-01	2.00E-04	8.74E-03	3.54E-04	1.10E-01	1.34E-06	8.84E-06	2.72E-05	1.13E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005025 Balers	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.02E-01	3.40E-03	1.10E-01	9.82E-05	1.10E-06	3.59E-04	1.08E-02	9.86E-07	8.92E-06	1.40E-05	5.90E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005030 Agricultural Mowers	G4	15 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.71E-01	1.34E-01	5.01E-01	3.77E-04	1.44E-02	2.80E-04	2.43E-02	6.94E-07	7.04E-04	3.02E-05	2.13E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005030 Agricultural Mowers	G4	25 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.22E-01	1.09E-01	9.51E-01	7.32E-04	2.81E-02	4.77E-04	4.48E-02	1.14E-06	1.37E-04	3.65E-05	4.14E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005035 Sprayers	G4	5 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.02E-02	2.76E-01	4.64E-01	6.26E-04	1.03E-02	2.83E-04	2.62E-07	8.53E-06	4.25E-05	3.54E-05	
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005035 Sprayers	G4	15 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	3.30E-01	8.60E-04	2.99E-01	2.43E-04	8.72E-03	1.55E-04	1.43E-02	4.06E-07	1.19E-04	1.80E-05	1.37E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005040 Swathers	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.25E-01	1.09E-01	9.51E-01	7.32E-04	2.81E-02	4.77E-04	4.48E-02	1.14E-06	1.37E-04	3.65E-05	4.14E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005045 Swathers	G4	50 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	6.70E-01	1.47E-01	2.46E-01	3.87E-05	1.71E-03	6.79E-05	2.10E-02	2.55E-07	1.60E-06	4.67E-06	2.19E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005035 Sprayers	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.13E-01	2.48E-01	7.78E-01	7.08E-05	1.81E-03	5.57E-04	7.19E-02	6.95E-07	5.57E-06	1.08E-05	4.00E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005035 Sprayers	G4	175 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.55E-04	5.59E-01	3.54E-01	2.00E-05	1.04E-03	1.30E-04	3.25E-02	3.23E-07	2.59E-06	3.75E-06	1.13E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005045 Swathers	G4	15 Agricultural Equipment	U	N	NH	NP	Sacrament SV	SAC	3.50E-01	6.21E-02	9.32E-02	2.01E-02	1.29E-02	1.60E-04	4.57E-05	9.69E-04	1.45E-03	1.14E-03	
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005045 Swathers	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	3.65E-01	9.51E-01	4.02E-01	2.95E-05	1.07E-03	3.37E-03	3.72E-01	3.59E-06	2.86E-06	4.87E-05	2.12E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005045 Swathers	G4	175 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	2.80E-01	7.29E-04	4.43E-01	2.57E-04	1.31E-02	1.64E-03	4.06E-01	4.03E-06	3.23E-05	4.81E-05	1.45E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005050 Hydro Power Units	G4	5 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	6.20E-01	2.98E-04	6.89E-01	9.66E-05	1.49E-03	4.36E-05	3.94E-03	1.29E-06	5.56E-06	5.46E-06	
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005050 Hydro Power Units	G4	15 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.24E-01	1.57E-01	6.89E-01	5.33E-04	1.98E-02	3.97E-04	3.34E-02	9.52E-07	2.80E-04	3.93E-05	3.02E-05
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005050 Hydro Power Units	G4	25 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	3.34E-01	4.12E-01	9.08E-01	1.01E-05	7.33E-04	1.44E-05	7.58E-03	9.21E-08	5.80E-07	1.22E-06	5.73E-07
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005050 Hydro Power Units	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	4.17E-02	5.15E-02	1.74E-01	7.67E-07	3.43E-05	1.76E-06	1.63E-03	1.57E-08	1.26E-07	1.51E-07	4.34E-08
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	5 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	4.32E-01	1.72E-01	3.18E-01	4.26E-05	7.09E-04	1.92E-05	1.79E-03	6.18E-08	5.84E-07	2.78E-06	2.41E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	15 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	3.78E-04	1.50E-01	8.06E-01	6.00E-05	2.31E-03	4.44E-05	3.91E-03	1.12E-07	3.28E-05	4.09E-06	3.48E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	25 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	9.63E-01	3.63E-01	9.29E-01	4.04E-05	1.57E-03	2.63E-05	2.49E-03	6.31E-08	2.09E-07	1.53E-06	2.18E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	50 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	1.11E-04	3.76E-01	6.12E-01	8.60E-06	4.37E-04	1.38E-05	5.16E-03	6.30E-08	3.97E-07	1.07E-06	4.86E-07
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	120 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	6.41E-01	2.18E-01	7.40E-01	5.62E-05	1.67E-03	1.72E-04	6.86E-02	6.63E-07	5.31E-06	8.31E-06	3.18E-06
agricultural of Gasoline	2019 Annual	Mon-Sun	2265005055 Other Agricultural Equipment	G4	175 Agricultural Equipment	U	P	NH	NP	Sacrament SV	SAC	7.30E-01	2.49E-01	1.68E-01	8.20E-06	5.00E-04	4.35E-05	1.54E-02	1.53E-07	1.23E-06	1.44E-06	4.64E-07
agricultural of Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	250 Light Commercial Equipment	C	N	NH	P	Sacrament SV	SAC	2.31E-02	9.21E-01	3.10E-01	4.50E-06	1.36E-02	1.10E-02	2.00E-07	2.40E-07	6.41E-06	1.54E-07	
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	5 Light Commercial Equipment	C	N	NH	P	Sacrament SV	SAC	7.72E-02	2.84E-02	6.29E-01	9.95E-03	1.29E-01	2.62E-03	3.66E-01	1.26E-05	1.29E-03	4.11E-04	5.63E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	5 Light Commercial Equipment	R	N	NH	P	Sacrament SV	SAC	6.07E-02	1.50E-02	3.41E-01	5.69E-03	7.25E-02	1.49E-03	1.93E-01	6.68E-06	6.84E-04	3.71E-05	3.72E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	15 Light Commercial Equipment	C	N	NH	P	Sacrament SV	SAC	2.12E-03	7.80E-02	4.63E-02	2.68E-02	1.34E-01	1.91E-02	2.26E-04	6.45E-05	1.24E-03	1.91E-03	1.52E-03
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	15 Light Commercial Equipment	R	N	NH	P	Sacrament SV	SAC	1.67E-03	4.12E-02	2.50E-02	1.81E-02	7.33E-01	1.09E-02	1.19E-04	6.65E-04	1.05E-03	1.05E-03	1.02E-03
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	25 Light Commercial Equipment	C	N	NH	P	Sacrament SV	SAC	1.14E-03	4.19E-02	5.40E-02	2.99E-02	2.23E-02	2.56E-05	6.50E-05	1.41E-03	1.55E-03	1.69E-03	
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	50 Light Commercial Equipment	R	N	NH	P	Sacrament SV	SAC	8.96E-02	2.22E-02	2.90E-02	1.98E-02	8.70E-01	1.22E-02	1.36E-04	3.43E-05	7.54E-04	8.36E-04	1.12E-03
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	50 Light Commercial Equipment	U	N	NH	P	Sacrament SV	SAC	3.79E-02	1.19E-02	2.70E-02	4.34E-03	2.18E-01	8.38E-03	2.24E-04	2.73E-05	1.74E-04	4.89E-04	2.46E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	120 Light Commercial Equipment	U	N	NH	P	Sacrament SV	SAC	7.33E-01	2.31E-01	1.21E-02	1.12E-03	3.35E-02	5.02E-03	1.11E-04	1.07E-05	8.61E-05	1.72E-04	6.35E-05
Light Common Gasoline	2019 Annual	Mon-Sun	2265006005 Generator Sets	G4	175 Light Commercial Equipment	U	N	NH	P	Sacrament SV	SAC	6.82E-01	6.82E-01	1.96E-01	1.54E-01	9.17E-02	1.78E-03	1.48E-03	2.87E-05	1.45E-05	6.28E-05	
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	5 Light Commercial Equipment	C	N	NH	P	Sacrament SV	SAC	2.70E-02	1.91E-02	3.15E-02	2.05E-02	1.04E-02	1.90E-03	1.90E-03	3.22E-05	1.22E-04	2.18E-04	2.86E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	5 Light Commercial Equipment	R	P	NH	P	Sacrament SV	SAC	2.15E-02	1.02E-02	1.72E-01	2.92E-03	3.47E-02	1.19E-03	1.00E-01	3.46E-06	7.42E-05	1.69E-04	1.65E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	15 Light Commercial Equipment	C	P	NH	P	Sacrament SV	SAC	2.97E-02	2.10E-02	1.13E-02	8.73E-03	3.24E-01	6.50E-03	5.48E-01	1.56E-05	4.66E-03	4.93E-04	8.74E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	15 Light Commercial Equipment	R	P	NH	P	Sacrament SV	SAC	2.23E-02	1.11E-02	5.99E-01	4.70E-03	1.72E-04	3.44E-03	2.90E-01	8.26E-06	2.43E-03	3.09E-04	2.66E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	25 Light Commercial Equipment	C	P	NH	P	Sacrament SV	SAC	7.61E-01	5.17E-01	6.35E-01	6.34E-01	1.75E-01	1.23E-01	2.98E-01	1.98E-05	2.11E-05	3.71E-05	4.55E-05
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	25 Light Commercial Equipment	R	P	NH	P	Sacrament SV	SAC	5.98E-01	2.84E-01	3.51E-01	2.63E-03	9.89E-02	1.71E-03	1.58E-01	3.99E-06	1.32E-03	1.13E-04	1.94E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	50 Light Commercial Equipment	U	P	NH	P	Sacrament SV	SAC	3.03E-01	1.83E-01	4.17E-01	6.84E-04	3.89E-02	1.01E-03	3.39E-01	4.12E-06	2.59E-05	6.33E-05	3.87E-05
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	120 Light Commercial Equipment	U	P	NH	P	Sacrament SV	SAC	3.84E-01	2.32E-01	1.40E-02	1.29E-03	4.34E-02	3.69E-03	1.27E-04	1.23E-05	9.87E-05	1.33E-04	7.32E-05
Light Common Gasoline	2019 Annual	Mon-Sun	2265006010 Pumps	G4	175 Light Commercial Equipment	U	P	NH	P	Sacrament SV	SAC	1.16E-01	7.01E-01	6.33E-01	4.01E-05	1.96E-03	1.88E-04	5.74E-07	4.61E-06	5.25E-06	2.27E-06	
Light Common Gasoline	2019 Annual	Mon-Sun	2265006015 Air Compressors	G4	5 Light Commercial Equipment	C	P	NH	P	Sacrament SV	SAC	2.45E-02	1.33E-02	4.37E-02	2.45E-02	1.04E-02	7.01E-02	2.08E-02	2.08E-02	3.09E-02	8.81E-02	1.16E-02
Light Common Gasoline	2019 Annual	Mon-Sun	2265006015 Air Compressors	G4	5 Light Commercial Equipment	R	P	NH	P	Sacrament SV	SAC	7.89E-01	8.09E-01	1.78E-01	2.87E-03	3.40E-02	1.30E-03	1.07E-06	3.70E-06	3.50E-05	1.59E-04	2.62E-04
Light Common Gasoline	2019 Annual	Mon-Sun	2																			

Construction / Diesel	2019 Annual	Mon-Sun	2270002045	Cranes	D	9999 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	3,255+00	1,144+00	5,011+02	4,011+03	1,306+02	4,222+02	5,535+00	5,565+05	1,121+03	0,000+00	3,622+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002048	Graders	D	50 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	7,626+01	1,988+00	2,511+00	6,121+05	2,786+04	2,202+04	2,722+02	5,535+02	1,391+05	0,000+00	5,526+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002048	Graders	D	120 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	5,081+01	1,321+02	4,521+02	5,271+03	3,371+02	3,261+02	4,941+00	5,801+05	2,341+03	0,000+00	4,751+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002048	Graders	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,704+02	4,511+01	2,541+03	2,271+02	1,641+01	1,431+01	2,781+01	3,141+04	2,791+01	0,000+00	2,911+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002048	Graders	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,081+02	2,801+02	2,181+03	1,481+02	1,521+02	1,051+01	2,711+04	3,601+03	0,000+00	0,000+00	4,751+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002048	Graders	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,051+00	7,911+02	8,221+01	5,341+04	2,001+03	3,541+03	9,071+01	8,001+06	1,271+04	0,000+00	4,821+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,581+02	1,031+01	2,271+00	1,481+05	5,541+05	1,011+04	2,511+02	2,521+07	3,531+06	0,000+00	1,341+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	175 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,541+00	1,921+01	1,091+02	8,671+04	7,231+03	5,001+03	3,201+00	1,351+05	2,451+04	0,000+00	5,421+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,611+01	1,421+02	1,071+03	6,951+03	2,511+02	4,111+02	1,181+01	1,331+04	1,401+03	0,000+00	6,271+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,681+01	2,001+02	2,461+03	1,561+02	5,491+02	8,511+02	2,671+01	2,721+01	3,091+03	0,000+00	1,411+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,921+00	4,541+01	9,061+02	5,771+03	2,021+02	3,201+02	1,001+01	1,011+04	1,151+03	0,000+00	5,211+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002051	Off-Highway Trucks	D	1000 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	8,351+00	2,131+01	6,011+02	4,061+03	1,391+02	4,361+02	6,631+00	6,671+05	1,061+03	0,000+00	3,671+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	50 Construction and Mining Equipment	U	P	NHHP	P	Sacrament SV	SAC	3,251+01	1,131+01	2,441+02	1,481+05	2,401+03	1,941+01	5,011+01	6,401+06	2,381+04	0,000+00	8,481+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	120 Construction and Mining Equipment	U	P	NHHP	P	Sacrament SV	SAC	2,451+01	6,431+01	2,441+02	2,441+03	1,761+02	1,661+02	2,671+00	3,131+05	1,131+03	0,000+00	2,201+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	175 Construction and Mining Equipment	U	P	NHHP	P	Sacrament SV	SAC	1,041+01	2,721+01	2,071+02	1,581+03	1,291+02	1,081+02	2,271+00	2,561+05	5,671+04	0,000+00	1,421+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	250 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	1,031+00	2,711+00	2,991+01	1,771+04	6,601+04	1,341+03	3,311+01	3,721+06	4,311+05	0,000+00	1,601+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	500 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	1,511+01	1,511+01	2,581+02	1,581+03	1,021+02	1,021+02	2,731+05	3,561+04	2,351+04	0,000+00	1,331+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	750 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	6,641+02	1,741+01	4,831+00	2,651+05	9,771+05	1,881+04	5,311+02	5,471+07	6,401+04	0,000+00	2,931+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002054	Crushing/Proc. Equipment	D	9999 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	6,641+02	1,741+01	1,031+01	6,901+05	2,351+04	7,851+04	1,141+01	1,141+06	1,961+05	0,000+00	6,231+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002057	Rough Terrain Forklifts	D	50 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	6,041+00	1,871+01	2,911+01	5,401+04	3,011+03	2,471+03	3,171+01	4,091+06	1,331+04	0,000+00	4,871+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002057	Rough Terrain Forklifts	D	120 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,891+02	8,971+02	2,551+03	2,411+02	1,861+01	1,621+01	2,801+04	3,281+04	1,031+02	0,000+00	2,131+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002057	Rough Terrain Forklifts	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	3,711+01	1,151+02	6,531+02	4,841+03	4,151+02	3,071+02	2,717+00	8,061+05	1,611+03	0,000+00	4,371+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002057	Rough Terrain Forklifts	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,091+02	6,411+00	4,951+01	2,981+04	1,111+03	1,981+03	5,471+01	6,131+06	6,671+05	0,000+00	2,691+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002057	Rough Terrain Forklifts	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,361+00	4,221+00	4,891+01	2,881+04	1,051+03	1,751+03	5,401+01	5,301+06	6,351+05	0,000+00	2,601+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	25 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	7,621+01	2,001+00	1,541+00	2,041+05	6,961+05	1,291+04	1,691+02	2,151+07	4,811+06	0,000+00	1,841+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	50 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,441+01	3,941+01	5,661+01	1,331+03	6,131+03	4,931+03	6,131+01	7,931+06	3,061+04	0,000+00	1,201+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	120 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,081+02	1,071+01	2,881+03	2,271+02	1,541+01	2,041+01	3,151+01	3,731+04	1,441+02	0,000+00	2,951+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,771+02	6,041+02	2,921+03	2,501+02	1,881+01	1,601+01	3,211+01	3,611+04	8,701+03	0,000+00	2,251+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,261+02	6,011+02	4,051+03	2,691+02	9,581+02	1,921+01	4,471+01	5,031+04	6,551+03	0,000+00	2,431+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	9,391+01	2,501+02	2,681+03	1,771+02	6,401+02	1,131+01	2,961+01	2,911+04	4,071+03	0,000+00	1,541+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,341+01	2,281+01	2,421+02	1,341+03	2,241+04	1,071+01	1,041+00	1,341+05	1,451+04	0,000+00	1,441+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002060	Rubber Tired Loaders	D	1000 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,731+01	4,591+01	1,231+01	8,461+05	3,121+04	9,671+04	1,361+01	1,371+06	2,481+05	0,000+00	7,641+06
Construction / Diesel	2019 Annual	Mon-Sun	2270002063	Rubber Tired Dozers	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	5,441+01	2,411+00	1,961+01	1,921+04	9,841+04	1,291+03	1,561+01	1,761+06	7,291+05	0,000+00	1,741+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002063	Rubber Tired Dozers	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,331+01	5,921+01	4,931+02	5,301+03	1,611+02	4,111+02	5,421+00	6,101+05	1,651+03	0,000+00	4,871+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002063	Rubber Tired Dozers	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,051+01	9,101+01	1,101+03	1,091+02	4,441+02	8,241+02	1,201+01	1,141+04	3,311+03	0,000+00	9,871+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002063	Rubber Tired Dozers	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,771+01	7,841+01	4,421+02	1,421+03	1,091+02	1,561+00	1,571+05	2,341+04	2,001+04	0,000+00	1,281+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002063	Rubber Tired Dozers	D	1000 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,191+01	5,301+01	1,431+01	1,511+04	6,281+04	1,521+03	1,571+01	1,581+06	4,731+05	0,000+00	1,341+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	25 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,531+01	3,961+01	2,861+01	3,791+04	1,291+03	2,401+03	3,141+01	3,991+06	9,091+05	0,000+00	3,621+05
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	50 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	9,171+01	2,411+02	3,361+02	5,411+03	3,371+02	2,721+02	3,661+00	4,731+05	1,241+03	0,000+00	4,881+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	120 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	4,231+01	8,971+01	7,621+03	6,941+03	4,321+03	4,831+02	5,501+01	6,381+04	2,491+03	0,000+00	3,091+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	9,151+01	2,411+02	1,111+03	9,131+03	1,031+02	4,451+01	1,371+01	2,251+03	2,001+04	0,000+00	6,711+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,961+01	7,791+01	6,051+02	3,351+03	1,351+02	2,001+02	6,691+00	7,521+05	6,781+04	0,000+00	3,021+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,781+01	1,261+02	1,961+03	1,061+02	4,211+02	5,871+02	2,211+01	2,441+04	2,111+03	0,000+00	9,601+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	8,031+00	2,121+01	4,951+02	2,691+03	1,061+02	1,511+02	5,471+00	6,151+05	5,381+04	0,000+00	2,431+04
Construction / Diesel	2019 Annual	Mon-Sun	2270002066	Tractors/Loaders/Backhoes	D	1000 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	7,181+01	2,111+00	4,321+01	2,351+04	1,041+01	2,351+04	4,051+01	4,751+04	2,521+02	0,000+00	4,941+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002069	Crawler Tractors	D	25 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,461+02	4,161+02	2,301+03	2,491+02	1,521+01	1,631+01	2,521+01	2,841+04	9,131+03	0,000+00	2,251+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002069	Crawler Tractors	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,261+02	3,581+02	2,691+03	2,251+02	7,261+02	1,711+01	2,971+01	3,341+04	6,241+03	0,000+00	2,031+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002069	Crawler Tractors	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,061+01	2,451+02	2,881+03	2,271+02	8,461+02	1,641+01	1,381+01	1,121+04	1,611+03	0,000+00	2,051+03
Construction / Diesel	2019 Annual	Mon-Sun	2270002069	Crawler Tractors	D	750 Construction and Mining Equipment	U	N	NHHP														

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Airport Ground Diesel	2019	Annual	Mon-Sun	2270008030 Air Start Unit	D	500	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	6.384+00	5.836+00	1.14E+02	4.26E+04	2.24E+03	4.38E+03	1.26E+00	1.24E+05	1.35E+04	0.00E+00	8.84E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008030 Air Start Unit	D	750	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	9.19E+01	8.40E+01	2.47E+01	9.36E+05	4.84E+04	9.73E+04	2.73E+01	2.68E+06	2.99E+05	0.00E+00	8.85E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008035 Baggage Tug	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	2.59E+01	9.90E+01	2.22E+02	4.20E+03	1.77E+02	1.77E+02	2.42E+00	2.84E+05	2.10E+03	0.00E+00	3.79E+04
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008040 Belt Loader	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	1.25E+01	3.34E+03	5.20E+00	6.80E+03	5.02E+03	5.02E+03	5.68E+00	6.66E+04	6.66E+04	0.00E+00	7.70E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008045 Bottal	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	9.19E+01	1.72E+00	6.13E+00	9.65E+05	4.58E+04	5.85E+04	6.69E+02	7.85E+07	4.99E+05	0.00E+00	8.70E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008050 Cargo Loader	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	1.52E+01	3.79E+01	1.09E+02	1.39E+03	8.07E+03	8.78E+03	1.20E+00	1.40E+05	6.91E+04	0.00E+00	1.25E+04
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008065 Forklift	D	175	Airport Ground Support Equipment	U	P	NH#	NP	Sacrament SV	SAC	2.11E+01	4.30E+00	1.14E+01	8.21E+05	7.00E+04	6.03E+04	1.26E+01	1.41E+06	3.12E+05	0.00E+00	7.41E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008070 Fuel Truck	D	250	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	8.14E+00	2.94E+00	9.25E+00	2.69E+05	1.11E+04	2.36E+04	5.92E+02	1.41E+07	7.41E+05	0.00E+00	8.73E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008075 Ground Power Unit	D	175	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	2.69E+01	4.50E+01	3.14E+02	2.26E+03	1.96E+02	1.52E+02	3.45E+00	3.88E+05	8.04E+04	0.00E+00	2.04E+04
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008085 Lay Truck	D	175	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	2.70E+01	9.70E+01	2.32E+00	1.91E+05	1.49E+04	1.24E+04	2.54E+02	2.86E+07	6.74E+06	0.00E+00	1.73E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008090 Lift	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	2.81E+00	6.10E+00	2.01E+01	1.97E+04	1.43E+03	1.39E+03	2.20E+01	2.58E+06	9.60E+05	0.00E+00	1.73E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008100 Other GSE	D	175	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	5.03E+00	1.27E+01	5.11E+01	5.89E+04	3.30E+03	4.13E+03	5.66E+01	7.23E+06	2.37E+04	0.00E+00	5.31E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008110 Passenger Stand	D	120	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	4.33E+01	8.31E+01	2.80E+01	1.58E+06	1.72E+05	1.71E+05	3.08E+03	3.61E+08	8.40E+07	0.00E+00	1.43E+07
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008102 Sweeper	D	120	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	1.24E+00	9.87E+01	1.47E+00	6.44E+06	9.23E+05	7.07E+05	1.62E+02	1.82E+07	3.03E+06	0.00E+00	5.81E+07
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008103 Generator	D	120	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	8.11E+01	1.63E+00	1.36E+01	1.51E+04	1.02E+03	6.61E+04	1.49E+01	1.68E+06	6.74E+05	0.00E+00	1.37E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008103 Generator	D	175	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	4.43E+00	1.98E+01	1.40E+02	1.19E+03	9.10E+03	7.53E+03	1.53E+00	1.73E+05	4.08E+04	0.00E+00	1.07E+04
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008103 Generator	D	250	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	4.40E+00	2.00E+01	2.08E+02	1.41E+03	4.92E+03	9.77E+03	2.59E+03	3.25E+04	2.59E+04	0.00E+00	1.27E+04
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008103 Generator	D	500	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	4.87E+01	2.18E+00	3.50E+01	2.30E+04	7.65E+04	4.65E+04	3.88E+01	4.45E+05	5.22E+05	0.00E+00	2.08E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008103 Generator	D	750	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	6.49E+01	2.90E+00	7.53E+01	4.97E+04	1.65E+03	3.22E+03	8.31E+01	9.93E+06	1.14E+04	0.00E+00	4.49E+05
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008105 Service Truck	D	175	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	1.78E+00	2.47E+00	4.90E+00	3.01E+05	2.87E+04	2.49E+04	5.38E+02	6.05E+07	1.20E+05	0.00E+00	2.71E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008106 Catering Truck	D	250	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	4.33E+01	4.39E+01	3.10E+00	9.23E+06	5.94E+05	8.30E+05	3.43E+02	3.86E+07	2.37E+06	0.00E+00	8.33E+07
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008115 Hydrant Truck	D	175	Airport Ground Support Equipment	U	N	NH#	NP	Sacrament SV	SAC	8.65E+01	1.48E+00	1.03E+01	7.74E+05	6.25E+04	5.97E+04	1.14E+01	1.28E+06	3.08E+05	0.00E+00	6.98E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008115 Compressor (GSE)	D	120	Airport Ground Support Equipment	U	P	NH#	NP	Sacrament SV	SAC	2.70E+01	6.04E+01	1.57E+00	1.56E+05	1.12E+04	1.09E+04	1.72E+02	2.02E+07	7.55E+06	0.00E+00	1.40E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008115 Compressor (GSE)	D	250	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	5.41E+02	1.21E+01	6.37E+01	3.70E+06	1.40E+05	2.95E+05	7.04E+03	7.92E+08	9.56E+07	0.00E+00	3.34E+07
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008115 Compressor (GSE)	D	500	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	2.16E+01	4.83E+01	5.26E+00	2.95E+05	1.10E+04	2.16E+04	5.81E+02	5.70E+07	7.54E+06	0.00E+00	2.66E+06
Airport Ground Diesel	2019	Annual	Mon-Sun	2270008115 Compressor (GSE)	D	750	Airport Ground Support Equipment	U	N	NH#	P	Sacrament SV	SAC	7.03E+01	1.57E+00	2.52E+01	1.42E+04	5.31E+04	1.06E+03	2.79E+01	2.89E+06	3.67E+05	0.00E+00	1.28E+05
Transport Ref Diesel	2019	Annual	Mon-Sun	2270009005 Transport Refrigeration Units	D	15	Transport Refrigeration Units	U	N	NH#	NP	Sacrament SV	SAC	4.98E+02	3.34E+03	1.05E+02	5.74E+03	3.88E+02	4.03E+02	7.02E+05	1.58E+03	1.58E+03	0.00E+00	5.18E+04
Transport Ref Diesel	2019	Annual	Mon-Sun	2270009005 Transport Refrigeration Units	D	25	Transport Refrigeration Units	U	N	NH#	NP	Sacrament SV	SAC	1.54E+02	4.38E+02	2.72E+02	3.60E+03	1.23E+02	2.99E+07	3.79E+05	8.54E+04	0.00E+00	3.25E+04	
Transport Ref Diesel	2019	Annual	Mon-Sun	2270009005 Transport Refrigeration Units	D	50	Transport Refrigeration Units	U	N	NH#	NP	Sacrament SV	SAC	3.75E+03	1.51E+04	1.78E+04	1.48E+01	1.54E+00	1.20E+00	1.95E+02	2.52E+03	1.98E+02	0.00E+00	1.33E+02
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	25	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	1.54E+01	3.45E+01	2.27E+01	3.24E+06	1.10E+05	2.01E+05	2.49E+03	3.16E+08	9.46E+07	0.00E+00	2.92E+07
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	120	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	1.51E+01	3.24E+00	8.45E+00	9.74E+05	6.43E+04	4.37E+04	8.44E+03	1.12E+07	4.51E+07	0.00E+00	4.79E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	175	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	4.63E+01	1.56E+00	8.20E+00	7.08E+05	5.27E+04	4.65E+04	8.99E+02	1.01E+06	2.54E+05	0.00E+00	6.93E+06
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	250	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	1.93E+01	6.51E+01	4.77E+00	3.26E+05	1.10E+04	2.36E+04	5.26E+02	5.87E+07	8.01E+06	0.00E+00	2.94E+06
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	500	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	1.04E+00	3.51E+00	4.92E+01	3.26E+04	1.08E+03	2.17E+03	5.43E+01	5.33E+06	7.91E+05	0.00E+00	2.94E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	750	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	1.12E+00	3.78E+00	5.40E+01	3.59E+04	1.19E+03	2.44E+03	5.85E+06	8.79E+05	1.00E+06	0.00E+00	3.24E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010005 Compressors (Worker)	D	1000	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	3.86E+02	1.33E+01	3.35E+00	2.39E+05	2.69E+04	2.69E+04	3.69E+02	7.07E+06	1.00E+06	0.00E+00	2.15E+06
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010010 Pump (Worker)	D	120	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	1.54E+00	5.21E+00	1.75E+01	1.98E+04	1.30E+03	1.28E+03	1.92E+01	2.25E+06	9.15E+05	0.00E+00	1.78E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010010 Pump (Worker)	D	175	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	1.85E+00	6.25E+00	3.11E+01	2.68E+04	2.00E+03	1.76E+03	3.41E+01	3.84E+06	9.63E+05	0.00E+00	2.42E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010010 Pump (Worker)	D	250	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	4.21E+00	1.42E+01	9.96E+01	6.81E+04	2.31E+03	4.94E+03	1.10E+00	1.24E+05	1.67E+04	0.00E+00	6.15E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010010 Pump (Worker)	D	500	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	1.76E+01	4.82E+00	1.51E+01	3.21E+05	1.56E+03	2.65E+03	2.65E+03	3.68E+06	5.46E+04	0.00E+00	1.56E+04
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010010 Pump (Worker)	D	999	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	2.51E+00	8.47E+00	4.46E+02	2.41E+03	1.06E+02	6.23E+02	4.89E+02	4.93E+04	0.00E+00	0.00E+00	3.07E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	120	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	2.43E+00	8.21E+00	2.65E+01	2.99E+04	1.97E+03	1.94E+03	2.90E+01	3.40E+06	1.38E+04	0.00E+00	2.70E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	175	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	1.24E+00	4.17E+00	2.07E+01	1.79E+04	1.33E+03	1.18E+03	2.27E+01	2.56E+06	6.42E+05	0.00E+00	1.61E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	250	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	3.47E+01	1.17E+00	7.35E+00	5.02E+02	1.70E+04	3.64E+04	8.11E+02	9.13E+07	1.23E+05	0.00E+00	4.53E+06
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	500	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	1.43E+00	4.00E+01	1.37E+01	8.19E+04	3.39E+04	1.39E+04	7.81E+02	9.90E+06	1.17E+05	0.00E+00	2.07E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	750	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	5.79E+01	1.95E+00	2.85E+01	1.89E+04	6.28E+04	2.9E+03	3.34E+01	3.09E+06	4.63E+05	0.00E+00	1.71E+05
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010015 Generator (Worker)	D	999	Oil Drilling	U	N	NH#	P	Sacrament SV	SAC	7.72E+02	2.61E+01	1.20E+01	9.15E+05	2.83E+04	9.73E+04	1.32E+01	1.30E+06	2.53E+05	0.00E+00	8.25E+06
Oil Drilling Diesel	2019	Annual	Mon-Sun	2270010020 Swivel	D	120	Oil Drilling	U	P	NH#	P	Sacrament SV	SAC	7.33E+01	2.48E+00	8.84E+00	9.97E+05	6.57E+04	6.46E+04	9.68E+02	1.14E			

Light Commier Gasoline	2030	Annual	Mon-Sun	226500825 Welders	G4	175 Light Commercial Equipment	U	P	NHHP	P	Sacrament SV	SAC	4,16E+00	2,37E+00	1,42E+01	6,87E+05	4,40E+03	2,21E-04	1,30E-01	1,29E-06	1,04E-05	1,13E-05	2,89E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008015 A/C Tug Narrow Body	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,64E+00	7,25E+00	6,90E+01	3,80E-04	2,46E-02	2,23E-03	6,26E-01	6,22E-06	4,99E-05	6,81E-05	2,15E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008020 A/C Tug Wide Body	G4	500 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,20E+00	1,69E+00	5,98E+01	1,97E-04	1,91E-02	1,72E-03	5,44E-01	5,58E-06	4,48E-05	5,30E-05	1,12E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008025 Air Conditioner	G4	175 Airport Ground Support Equipment	U	N	NHHP	P	Sacrament SV	SAC	1,15E-01	6,19E-01	1,33E+02	1,66E-05	1,44E-07	5,57E-03	1,66E-06	5,61E-09	4,47E-07	5,70E-08	8,17E-07
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008030 Air Start Unit	G4	175 Airport Ground Support Equipment	U	N	NHHP	P	Sacrament SV	SAC	2,64E+00	5,46E-01	5,78E+00	1,51E-05	1,70E-03	1,59E-04	5,30E-02	5,27E-07	4,22E-06	5,01E-06	8,54E-07
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008070 Fuel Truck	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,60E+00	2,18E-01	6,39E-01	1,51E-06	1,85E-04	1,73E-05	5,87E-03	5,83E-08	4,68E-07	9,99E-07	8,52E-08
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008075 Ground Power Unit	G4	175 Airport Ground Support Equipment	U	N	NHHP	P	Sacrament SV	SAC	4,59E+00	1,00E+01	1,02E+02	3,48E-04	3,23E-02	2,90E-03	9,36E-01	9,30E-06	7,44E-05	9,18E-05	1,97E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008085 Lav Truck	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	5,01E+00	3,90E+01	3,55E+01	2,88E-04	1,99E-02	1,27E-03	3,20E-01	3,50E-05	9,28E-05	6,00E-05	6,80E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008095 Maint. Truck	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	7,18E+00	8,85E+00	5,23E+01	1,96E-04	1,69E-02	1,51E-03	4,78E-01	4,75E-06	3,81E-05	6,12E-05	1,11E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008101 Passenger Stand	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,89E+00	2,52E+00	1,68E+01	5,23E-05	5,13E-03	4,78E-04	1,54E-01	1,37E-06	1,23E-05	1,84E-05	2,96E-06
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008105 Service Truck	G4	250 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,07E+01	4,77E+01	1,53E+02	9,48E-04	5,79E-02	1,39E+00	1,42E-05	1,14E-04	2,58E-04	5,35E-05	4,35E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008106 Catering Truck	G4	250 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,17E+00	1,16E+01	1,10E+02	7,71E-04	4,36E-02	3,92E-03	9,95E-01	8,69E-06	8,15E-05	1,14E-04	4,35E-05
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008107 Fuel Truck	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,57E-01	7,09E-01	2,75E+00	8,47E-07	5,70E-04	1,25E-05	1,84E-03	0,00E+00	1,64E-06	0,00E+00	7,10E-06
Airport Ground Gasoline	2030	Annual	Mon-Sun	2265008111 Hydrant Truck	G4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,50E+00	1,47E+01	1,16E+02	1,05E-03	5,04E-02	4,45E-03	1,04E+00	8,79E-06	8,24E-05	1,35E-04	5,89E-05
Industrial CNG	2030	Annual	Mon-Sun	226603020 Forklifts	C4	175 Industrial Equipment	U	N	NHHP	NP	Sacrament SV	SAC	8,53E+00	4,21E+01	2,06E+02	7,98E-05	4,78E-02	4,06E-03	1,37E+00	0,00E+00	1,22E-04	0,00E+00	6,69E-04
Light Commier CNG	2030	Annual	Mon-Sun	2266060005 Generator Sets	C4	175 Light Commercial Equipment	U	N	NHHP	P	Sacrament SV	SAC	4,44E+00	1,40E+00	1,52E+01	2,70E-06	2,67E-03	2,62E-04	1,03E-01	0,00E+00	9,17E-06	0,00E+00	2,26E-05
Light Commier CNG	2030	Annual	Mon-Sun	2266060020 A/C Compressors	C4	175 Light Commercial Equipment	U	P	NHHP	P	Sacrament SV	SAC	3,64E+00	2,64E+00	9,95E+01	5,74E-05	2,17E-02	5,37E-03	5,60E-01	5,36E-05	0,00E+00	0,00E+00	4,82E-05
Light Commier CNG	2030	Annual	Mon-Sun	2266060022 Gas Compressors	C4	250 Light Commercial Equipment	U	N	NHHP	P	Sacrament SV	SAC	2,22E-01	5,17E+00	1,03E+02	4,42E-05	2,50E-02	2,10E-03	6,88E-01	0,00E+00	0,00E+00	0,00E+00	3,70E-04
Light Commier CNG	2030	Annual	Mon-Sun	2266060620 Gas Compressors	C4	500 Light Commercial Equipment	U	N	NHHP	P	Sacrament SV	SAC	1,94E-01	4,52E+00	1,45E+02	6,22E-05	3,52E-02	2,96E-03	9,66E-01	0,00E+00	8,59E-05	0,00E+00	5,22E-04
Airport Ground CNG	2030	Annual	Mon-Sun	2266060810 Cargo Tractor	C4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,94E+00	1,76E+00	1,63E+01	2,96E-06	2,89E-03	2,78E-04	1,10E+01	0,00E+00	8,90E-06	0,00E+00	2,48E-05
Airport Ground CNG	2030	Annual	Mon-Sun	2266060825 Air Conditioner	C4	175 Airport Ground Support Equipment	U	N	NHHP	P	Sacrament SV	SAC	6,88E-01	4,16E-02	4,44E-01	6,20E-08	7,43E-05	2,72E-06	3,01E-03	0,00E+00	2,68E-07	0,00E+00	5,20E-07
Airport Ground CNG	2030	Annual	Mon-Sun	2266060885 Lav Truck	C4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,15E-01	4,35E-01	1,56E+00	3,95E-07	3,04E-04	2,84E-05	1,05E-02	0,00E+00	9,35E-07	0,00E+00	3,31E-06
Airport Ground CNG	2030	Annual	Mon-Sun	22660608101 Passenger Stand	C4	175 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,77E-01	5,82E-03	6,22E-02	8,48E-09	1,04E-05	1,01E-06	4,22E-04	0,00E+00	3,75E-08	0,00E+00	7,71E-08
Airport Ground CNG	2030	Annual	Mon-Sun	22660608105 Service Truck	C4	250 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,03E+00	7,23E+00	2,90E+01	1,16E-05	6,84E-03	5,79E-04	1,94E-01	0,00E+00	1,72E-05	0,00E+00	9,74E-05
Airport Ground CNG	2030	Annual	Mon-Sun	22660608106 Catering Truck	C4	250 Airport Ground Support Equipment	U	N	NHHP	NP	Sacrament SV	SAC	7,75E-01	9,61E-01	1,13E+01	3,10E-06	2,26E-03	2,10E-04	7,62E-02	0,00E+00	6,77E-06	0,00E+00	2,60E-05
Construction C Diesel	2030	Annual	Mon-Sun	2270020020 Pavers	D	175 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	9,11E-01	9,19E-01	1,33E+02	4,30E-03	1,47E-02	1,47E-02	6,58E-01	7,67E-04	6,53E-05	0,00E+00	2,80E-04
Construction C Diesel	2030	Annual	Mon-Sun	2270020023 Pavers	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,84E+00	1,10E+01	9,67E+01	4,89E-04	2,24E-03	2,35E-03	1,07E+00	1,20E-05	8,60E-05	0,00E+00	4,41E-05
Construction C Diesel	2030	Annual	Mon-Sun	2270020023 Rollers	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,97E+00	1,13E+01	1,19E+02	5,87E-04	2,73E-03	2,64E-03	1,32E+00	1,29E-05	1,00E-04	0,00E+00	5,30E-05
Construction C Diesel	2030	Annual	Mon-Sun	2270020023 Rollers	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,52E-01	2,90E-01	2,01E+02	1,64E-04	4,30E-03	9,29E-03	2,91E+00	2,50E-04	9,60E-05	0,00E+00	4,30E-05
Construction C Diesel	2030	Annual	Mon-Sun	2270020023 Rollers	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,06E+01	2,04E+01	2,02E+02	7,58E-04	4,14E-03	2,74E-03	2,23E+00	2,19E-05	9,37E-05	0,00E+00	6,84E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200218 Scrapers	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,25E-01	6,80E-01	4,58E+02	2,67E-03	2,03E-02	1,17E-02	5,03E+00	5,66E-05	6,05E-04	0,00E+00	2,41E-04
Construction C Diesel	2030	Annual	Mon-Sun	22700200218 Scrapers	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,19E+01	6,63E+01	6,28E+02	3,23E-03	1,47E-02	1,41E-02	6,93E+00	7,80E-05	5,16E-04	0,00E+00	2,91E-04
Construction C Diesel	2030	Annual	Mon-Sun	22700200218 Scrapers	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	6,03E-01	1,82E-02	2,65E+03	1,34E-02	6,11E-02	5,45E-02	2,93E+01	2,78E-04	2,07E-03	0,00E+00	1,21E-03
Construction C Diesel	2030	Annual	Mon-Sun	22700200221 Scraping Equipment	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,41E+00	7,29E+00	1,88E+02	9,24E-04	4,32E-02	4,83E-03	2,02E+00	1,44E-04	0,00E+00	0,00E+00	8,34E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200221 Paving Equipment	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	9,38E+00	2,14E+01	9,84E+01	5,53E-04	6,29E-03	2,60E-03	1,08E+00	1,22E-05	1,34E-04	0,00E+00	4,99E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200221 Paving Equipment	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	2,64E+00	6,04E+00	3,34E+01	7,60E-04	6,70E-04	7,64E-04	3,69E-01	4,65E-06	2,75E-05	0,00E+00	1,47E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200224 Surfacing Equipment	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	1,89E-01	2,33E-01	9,07E-01	3,44E-06	5,39E-05	1,65E-05	9,97E-03	1,12E-07	7,67E-07	0,00E+00	1,33E-07
Construction C Diesel	2030	Annual	Mon-Sun	22700200224 Surfacing Equipment	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	5,86E+00	1,30E+01	2,84E+02	5,86E-07	3,49E-02	5,86E-05	3,40E-02	0,00E+00	0,00E+00	0,00E+00	3,30E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200224 Surfacing Equipment	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,15E+00	3,88E+00	1,98E+01	7,79E-04	5,25E-04	4,29E-04	1,94E-01	0,00E+00	0,00E+00	0,00E+00	1,10E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200224 Surfacing Equipment	D	750 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	4,61E-01	5,68E-01	8,90E+00	2,94E-05	1,79E-04	1,30E-04	8,95E-02	9,90E-07	4,48E-06	0,00E+00	2,65E-06
Construction C Diesel	2030	Annual	Mon-Sun	22700200227 Signal Boards	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	8,93E+00	1,31E+01	9,20E+01	2,80E-04	5,74E-04	1,04E-03	1,14E-05	4,43E-05	0,00E+00	0,00E+00	2,53E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200227 Signal Boards	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,89E+00	2,77E+00	3,19E+01	9,05E-05	6,45E-04	3,06E-04	3,97E-06	1,03E-05	0,00E+00	0,00E+00	1,97E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200230 Trechners	D	175 Construction and Mining Equipment	U	P	NHHP	NP	Sacrament SV	SAC	2,89E-01	4,81E-01	2,89E+02	3,31E-03	1,89E-02	9,31E-03	1,46E+01	1,89E-03	1,22E-05	0,00E+00	3,38E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200230 Trechners	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	3,22E+00	5,50E+00	7,74E+01	3,75E-04	1,82E-03	1,86E-03	8,55E-01	8,40E-06	7,03E-05	0,00E+00	3,38E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200230 Trechners	D	500 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	9,21E-02	1,58E-01	4,19E+00	2,03E-05	9,85E-05	1,02E-04	4,63E-02	4,66E-07	3,84E-06	0,00E+00	1,84E-06
Construction C Diesel	2030	Annual	Mon-Sun	22700200233 Bore/Drill Rigs	D	175 Construction and Mining Equipment	U	P	NHHP	P	Sacrament SV	SAC	5,85E+00	1,34E+01	8,60E+01	2,12E-04	5,06E-03	4,65E-04	9,44E-01	1,06E-07	1,70E-05	0,00E+00	1,91E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200233 Bore/Drill Rigs	D	250 Construction and Mining Equipment	U	N	NHHP	NP	Sacrament SV	SAC	1,05E+00	2,54E+01	2,38E+02	2,89E-04	1,43E-04	1,22E-03	2,98E-02	1,98E-03	0,00E+00	0,00E+00	1,73E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200233 Bore/Drill Rigs	D	500 Construction and Mining Equipment	U	N	NHHP	P	Sacrament SV	SAC	1,32E-01	2,57E+01	3,61E+02	8,94E-07	7,08E-03	1,93E-03	4,00E-03	3,92E-05	7,06E-05	0,00E+00	8,96E-05
Construction C Diesel	2030	Annual	Mon-Sun	22700200233 Bore/																			

Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010015 Generator (Workover)	D	750 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	5.79E-01	1.95E+00	2.84E+01	1.14E-04	5.98E-04	2.95E-04	3.14E-01	3.09E-06	1.08E-05	0.00E+00	1.03E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010015 Generator (Workover)	D	9999 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	7.72E-02	2.61E-01	1.20E+01	5.09E-05	2.52E-04	6.21E-04	1.32E-01	1.30E-06	8.42E-06	0.00E+00	4.59E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010020 Swivel	D	175 Oil Drilling	U	P	NHH	P	Sacrament SV	SAC	1.97E+00	6.65E+00	3.00E+01	1.28E-04	1.93E-03	1.85E-04	1.30E-01	3.71E-06	1.75E-05	0.00E+00	1.16E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010020 Swivel	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	4.25E-01	1.43E+00	1.05E+01	4.20E-05	2.31E-04	1.14E-04	1.16E-01	1.30E-06	4.03E-06	0.00E+00	3.79E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010020 Swivel	D	500 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	1.16E-01	2.70E-02	3.58E-01	5.56E-07	6.52E-06	3.96E-03	3.89E-08	9.98E-08	0.00E+00	0.00E+00	5.02E-08
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010030 Other Workover Equipment	D	175 Oil Drilling	U	P	NHH	P	Sacrament SV	SAC	1.93E+00	6.51E+00	3.37E+01	1.44E-04	2.17E-03	4.32E-04	3.70E-01	4.16E-06	1.96E-05	0.00E+00	1.30E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010030 Other Workover Equipment	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	6.56E-01	2.22E+00	1.62E+01	6.50E-05	3.57E-04	1.76E-04	1.79E-01	2.01E-06	6.22E-06	0.00E+00	5.86E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010030 Other Workover Equipment	D	750 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	3.05E+00	1.03E+01	1.44E+02	5.77E-04	3.03E-03	1.50E-03	1.59E+00	1.56E-05	5.49E-05	0.00E+00	5.20E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010030 Other Workover Equipment	D	1000 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	7.72E-01	2.60E+00	8.70E+01	3.55E-04	1.83E-03	4.52E-03	9.62E-01	9.44E-06	6.13E-05	0.00E+00	3.20E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010035 Lift (Drilling)	D	175 Oil Drilling	U	P	NHH	P	Sacrament SV	SAC	7.72E-02	2.60E-01	1.31E+00	5.61E-06	8.46E-05	1.69E-05	1.44E-02	1.62E-07	7.65E-07	0.00E+00	5.06E-07
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010035 Lift (Drilling)	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	3.86E-01	1.30E+00	9.97E+00	4.00E-05	2.20E-04	1.08E-04	1.10E-01	1.24E-06	3.83E-06	0.00E+00	3.61E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010035 Lift (Drilling)	D	500 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	2.66E+00	8.98E+00	1.17E+02	4.68E-04	2.46E-03	1.20E-03	1.29E+00	1.27E-05	4.43E-05	0.00E+00	4.22E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010040 Pump (Drilling)	D	175 Oil Drilling	U	P	NHH	P	Sacrament SV	SAC	1.62E+00	5.47E+00	2.70E+01	1.15E-04	1.74E-03	3.46E-04	2.96E-01	3.33E-06	1.57E-05	0.00E+00	1.04E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010040 Pump (Drilling)	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	2.51E+00	8.47E+00	6.62E+01	2.66E-04	1.46E-03	7.21E-04	7.32E-01	8.24E-06	2.55E-05	0.00E+00	2.40E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010040 Pump (Drilling)	D	500 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	5.48E+00	1.85E+01	2.46E+02	9.82E-04	5.17E-03	2.52E-03	2.72E+00	3.06E-05	9.31E-05	0.00E+00	8.86E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010040 Pump (Drilling)	D	750 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	5.25E+00	1.77E+01	3.54E+02	1.41E-03	7.44E-03	3.67E-03	3.91E+00	3.84E-05	1.35E-04	0.00E+00	1.28E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010040 Pump (Drilling)	D	9999 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	5.40E-01	1.82E+00	6.55E+01	2.79E-04	1.38E-03	4.40E-03	7.24E-01	7.11E-06	4.63E-06	0.00E+00	2.51E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010045 Generator (Drilling)	D	175 Oil Drilling	U	P	NHH	P	Sacrament SV	SAC	1.20E+00	4.04E+00	1.88E+01	8.02E-05	1.21E-03	2.41E-04	2.06E-01	2.32E-06	1.09E-05	0.00E+00	7.24E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010045 Generator (Drilling)	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	8.49E-01	2.87E+00	1.87E+01	7.51E-05	4.13E-04	2.04E-04	2.07E-01	2.33E-06	7.19E-06	0.00E+00	6.78E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010045 Generator (Drilling)	D	500 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	4.25E-01	2.48E+00	3.13E+01	1.37E-04	6.73E-04	3.24E-04	3.46E-01	3.39E-06	1.21E-05	0.00E+00	1.24E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010045 Generator (Drilling)	D	750 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	4.63E-01	1.56E+00	2.06E+01	8.25E-05	4.34E-04	2.14E-04	2.28E-01	2.24E-06	7.86E-06	0.00E+00	7.44E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010055 Drill Rig	D	175 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	1.75E-01	3.37E+01	9.44E+01	1.52E-04	5.15E-03	4.79E-04	1.04E+00	1.17E-05	1.68E-05	0.00E+00	1.37E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010055 Drill Rig	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	5.10E+00	1.01E+01	9.25E+01	1.49E-04	1.73E-03	4.71E-04	1.02E+00	1.15E-05	1.63E-05	0.00E+00	1.35E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010055 Drill Rig	D	500 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	1.39E+01	2.76E+01	4.57E+02	7.39E-04	8.46E-03	2.33E-03	5.06E+00	4.97E-05	8.05E-05	0.00E+00	6.67E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010055 Drill Rig	D	750 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	3.55E+00	7.06E+00	1.81E+02	2.93E-04	3.35E-03	9.25E-04	2.01E+00	2.02E-05	3.19E-05	0.00E+00	2.64E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010055 Drill Rig (Mobile)	D	175 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	1.43E-01	2.84E-01	1.85E+03	2.98E-03	3.42E-02	8.21E-02	2.04E-01	2.06E-04	6.63E-04	0.00E+00	2.69E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010057 Drill Rig (Mobile)	D	175 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	7.72E-02	6.00E-01	3.86E+00	3.33E-05	2.67E-04	1.73E-04	4.23E-02	4.76E-07	9.64E-06	0.00E+00	3.00E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010057 Drill Rig (Mobile)	D	250 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	3.86E-02	3.00E-01	2.55E+00	1.86E-05	6.91E-05	1.05E-04	2.82E-02	3.17E-07	4.07E-06	0.00E+00	1.68E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010057 Drill Rig (Mobile)	D	500 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	1.16E-01	9.00E-01	1.27E+01	8.85E-05	3.80E-04	4.71E-04	1.40E-01	1.37E-06	1.85E-05	0.00E+00	7.99E-06
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010057 Drill Rig (Mobile)	D	750 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	7.72E-02	6.00E-01	1.67E+01	1.17E-04	5.00E-04	4.33E-04	1.84E-01	1.95E-06	2.46E-05	0.00E+00	1.05E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010057 Drill Rig (Mobile)	D	1000 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	1.16E-01	8.99E-01	3.78E+01	2.77E-04	1.19E-03	2.88E-03	4.37E-01	4.19E-06	6.96E-05	0.00E+00	2.50E-05
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010058 Workover Rig (Mobile)	D	175 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	3.17E-01	2.46E+01	1.58E+02	1.36E-03	1.09E-02	7.10E-03	1.73E+00	1.95E-05	3.95E-04	0.00E+00	1.23E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010058 Workover Rig (Mobile)	D	250 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	2.74E+00	2.13E+01	1.81E+02	1.32E-03	4.90E-03	7.43E-03	2.00E+00	2.25E-05	2.89E-04	0.00E+00	1.19E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010058 Workover Rig (Mobile)	D	500 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	6.06E+00	4.71E+01	6.64E+02	4.63E-03	1.99E-02	2.47E-02	7.32E+00	7.19E-05	9.69E-04	0.00E+00	4.18E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010058 Workover Rig (Mobile)	D	750 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	3.17E+00	2.46E+01	6.85E+02	4.79E-03	2.05E-02	2.95E-02	7.56E+00	7.60E-05	1.01E-03	0.00E+00	4.33E-04
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010058 Workover Rig (Mobile)	D	1000 Oil Drilling	U	N	NHH	NP	Sacrament SV	SAC	5.33E+00	4.14E+01	1.74E+03	1.28E-02	5.47E-02	1.32E-01	1.92E+01	1.93E-04	3.20E-03	0.00E+00	1.15E-03
Oil Drilling	Diesel	2030 Annual	Mon-Sun	2270010060 Pressure Washers	D	250 Oil Drilling	U	N	NHH	P	Sacrament SV	SAC	3.86E-02	1.30E-01	8.44E-01	1.63E-06	1.62E-05	9.34E-03	1.05E-07	1.55E-07	0.00E+00	0.00E+00	1.47E-07
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011005 A/C unit	D	250 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	1.42E-01	1.17E-01	8.26E-01	1.87E-06	1.59E-05	8.40E-06	9.14E-03	1.03E-07	2.67E-07	0.00E+00	1.69E-07	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011005 A/C unit	D	500 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	5.61E-02	4.62E-02	4.84E-01	1.11E-06	9.36E-06	5.47E-06	3.74E-03	5.36E-08	1.57E-07	0.00E+00	1.00E-07	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011010 Aircraft Support	D	175 Military Tactical Support Equip	U	P	NHH	P	Sacrament SV	SAC	1.32E-01	1.09E-01	5.20E-01	1.28E-06	2.93E-05	6.24E-06	5.72E-03	6.44E-08	2.45E-07	0.00E+00	1.15E-07	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011015 Cart	D	175 Military Tactical Support Equip	U	P	NHH	P	Sacrament SV	SAC	9.90E-03	8.15E-03	4.26E-02	1.05E-07	2.40E-06	5.11E-07	4.69E-04	5.27E-09	2.01E-08	0.00E+00	9.44E-09	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011015 Cart	D	250 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	3.30E-02	2.72E-02	1.82E-01	4.12E-07	3.51E-06	1.85E-06	2.01E-03	2.26E-08	5.87E-08	0.00E+00	3.72E-08	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011025 Compressor (Military)	D	175 Military Tactical Support Equip	U	P	NHH	P	Sacrament SV	SAC	1.32E-02	1.09E-02	6.20E-02	1.52E-07	3.49E-06	7.44E-07	6.82E-04	7.68E-09	2.92E-08	0.00E+00	1.37E-08	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011025 Compressor (Military)	D	250 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	2.64E-02	2.11E-02	1.65E-01	3.73E-07	3.18E-06	1.67E-06	1.82E-03	2.05E-08	5.32E-08	0.00E+00	3.17E-08	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011025 Compressor (Military)	D	500 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	9.24E-02	7.61E-02	9.64E-01	2.17E-06	1.83E-05	9.25E-06	1.07E-02	1.06E-07	3.07E-07	0.00E+00	1.95E-07	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011030 Crane	D	175 Military Tactical Support Equip	U	P	NHH	P	Sacrament SV	SAC	9.90E-03	8.15E-03	3.92E-02	6.43E-08	2.14E-06	2.06E-07	4.32E-04	4.86E-09	7.03E-09	0.00E+00	5.80E-09	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011030 Crane	D	250 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	6.60E-03	5.43E-03	3.95E-02	6.47E-08	7.39E-07	2.02E-07	4.37E-04	4.92E-09	6.97E-09	0.00E+00	5.84E-09	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011050 Generator (Military)	D	175 Military Tactical Support Equip	U	P	NHH	P	Sacrament SV	SAC	1.79E+00	1.47E+00	7.38E+00	1.81E-05	4.16E-04	8.86E-05	8.12E-02	9.14E-07	3.48E-06	0.00E+00	1.64E-06	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011050 Generator (Military)	D	250 Military Tactical Support Equip	U	N	NHH	P	Sacrament SV	SAC	4.72E-01	3.89E-01	2.94E+00	6.67E-06	5.68E-05	9.99E-05	3.26E-02	3.66E-07	9.51E-07	0.00E+00	6.02E-07	
Military Tactic Diesel	2030 Annual	Mon-Sun	2270011050 Generator (Military)																				

Model Output: OFFROAD2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2019, 2030

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

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OFFROADClass	Region	CalYr	VehClass	MidYr	HP_Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel_gpy	Total_Activity_h	h_tpd	Horsepower_Hours_khpyr
Construction and Mi Sacramento		2019	Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	0.00070134	0.00084862	0.0010099	0.00810989	0.01098517	2.720429631	0.000399518	0.0003676	2.531E-05	2.2204E-05	88261.34337	15469.76233	44.72691956	3409958.368
Construction and Mi Sacramento		2019	Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	0.00438525	0.00530615	0.0063148	0.03449744	0.06044235	6.47405953	0.002784457	0.0025617	5.9724E-05	5.284E-05	210043.7316	60960.69814	134.557096	14107844.38
Construction and Mi Sacramento		2019	Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	0.01034099	0.01251261	0.014891	0.07283891	0.13953573	16.00087506	6.87E-03	6.32E-03	0.00014763	0.00013036	519030.7694	110113.8625	247.8522667	23382846.04
Construction and Mi Sacramento		2019	Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	0.01015172	0.01228358	0.0146185	0.10323653	0.1267606	28.79110011	0.005285521	0.0048627	0.00026588	0.00023499	934095.5354	298219.2549	481.7322684	47025996.09
Construction and Mi Sacramento		2019	Construction and Mining - Graders	Aggregate	Aggregate	Diesel	0.00726288	0.00923084	0.0109855	0.04434349	0.10393655	10.83116584	0.004518532	0.004157	9.9911E-05	8.8403E-05	351405.2473	88096.67927	155.7355279	16601213.98
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	0.00029129	0.00027718	0.0003206	0.01326808	0.00044156	0.111894359	4.81263E-05	3.636E-05	1.2729E-06	1.7709E-06	5054.666987	1697.25	5.27819755	71777.25
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Gasoline	0.00011459	0.00010771	0.0001261	0.00406783	0.00038261	0.098990876	1.79E-05	1.35E-05	9.92E-07	1.40E-06	3989.264491	616.85	6.455500574	52786.3
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	7.2362E-06	8.7036E-06	1.04E-05	3.185E-05	5.4934E-05	1.27572E-07	1.85317E-06	1.4E-06	7.86E-07	6.77E-10	2.695424578	0	0.439806219	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	0.00164915	0.00166564	0.0018148	0.04601248	0.0008973	1.66812E-06	0.000401207	0.0003031	7.62E-07	1.05E-06	2911.505609	0	146.8867824	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	8.8424E-06	1.0635E-05	1.271E-05	5.1381E-05	6.6275E-05	1.5762E-07	2.39208E-06	1.807E-06	1.15E-09	9.87E-10	3.928420222	0	3.018082304	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	0.00138429	0.00137997	0.0015233	0.05204422	0.00120806	0.264204045	0.000471415	0.0003562	3.49E-06	4.64E-06	13243.35002	3117.1	25.63521335	144288.15
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	5.1519E-05	6.1327E-05	7.418E-05	0.00037864	0.00035806	0.045708748	1.98E-05	1.82E-05	5.91E-07	3.87E-07	1537.084898	1102.3	1.990953975	36375.9
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	1.45E-04	1.33E-04	1.59E-04	0.00588125	3.71E-04	0.087998157	6.13E-06	4.63E-06	8.94E-07	1.29E-06	3682.85	1262.9	2.97	80004.35
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	8.10E-06	8.18E-06	8.91E-06	2.84E-04	5.61E-06	1.04E-08	3.38E-06	2.56E-06	4.50E-09	6.21E-09	17.6762011	0	0.119784516	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	0.00094513	0.00088493	0.0010401	0.0307938	0.00064277	5.10E-02	0.000343323	0.0002594	1.42E-06	1.36E-06	3878.385472	9880.55	76.00824684	91622.3
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	8.81E-07	1.06E-06	1.27E-06	3.61E-06	6.70E-06	1.54E-08	2.31E-07	1.74E-07	9.18E-11	7.91E-11	0.314603218	0	0.127124071	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	6.3001E-06	7.5776E-06	9.056E-06	2.5864E-05	4.7885E-05	1.10528E-07	1.61031E-06	1.217E-06	6.57E-10	5.66E-10	2.251644511	0	0.200153491	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	5.47E-05	5.04E-05	6.02E-05	4.66E-03	1.82E-04	0.141263295	1.01E-05	7.65E-06	1.40E-06	1.97E-06	5624.65	1029.3	2.959643544	129691.8
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	1.89E-04	2.26E-04	2.73E-04	0.00311677	1.68E-03	0.210126339	6.47E-05	5.87E-05	3.16E-06	1.76E-06	7095.366073	14537.95	22.97034646	197402.95
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	1.65E-06	1.99E-06	2.38E-06	6.7815E-06	1.26E-05	2.90E-08	4.38E-07	3.31E-07	1.72E-10	1.48E-10	0.590750265	0	0.078621841	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	0.00267996	0.00269678	0.0029491	0.08327192	0.0019566	0.100826816	0.000794502	6.00E-04	2.38E-06	3.19E-06	9050.229051	1682.65	113.8728066	72207.95
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	2.81E-06	3.38E-06	4.04E-06	1.16E-05	2.14E-05	4.94E-08	7.16E-07	5.41E-07	2.93E-10	2.53E-10	1.005653868	0	0.195981905	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	6.49E-03	6.07E-03	0.0071408	2.03E-01	4.45E-03	3.28E-01	2.06E-03	1.56E-03	1.05E-05	8.93E-06	25463.64101	74945.45	444.2981438	459958.4
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	5.62E-05	6.70E-05	8.09E-05	0.00041705	4.98E-04	0.062120168	1.93E-05	1.75E-05	9.67E-07	5.22E-07	2076.009954	10519.3	19.26866819	84154.4
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	1.16E-03	1.11E-03	1.28E-03	0.04473046	0.00180751	0.317633662	2.10E-04	1.59E-04	3.50E-06	5.20E-06	14830.9636	3540.5	16.20616008	218795.6
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	4.15E-05	5.00E-05	5.97E-05	2.18E-04	3.14E-04	7.43E-07	1.08E-05	8.17E-06	5.04E-09	4.34E-09	17.28416958	0	5.293564991	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	0.00092783	0.00085342	0.001021	0.03221088	0.00269562	0.636943162	4.44566E-05	3.359E-05	6.22E-06	9.15E-06	2612.76	5139.2	12.32	433364.5
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	5.08E-04	4.67E-04	5.59E-04	0.01979474	1.29E-03	3.31E-01	2.31E-05	1.74E-05	3.27E-06	4.83E-06	13786.05	3850.75	7.498680088	261252.4
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	1.0264E-06	1.2345E-06	1.475E-06	4.2137E-06	7.8014E-06	1.80072E-08	2.62321E-07	1.982E-07	1.07E-10	9.22E-11	0.36683678	0	0.04619326	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	1.64E-04	1.53E-04	1.80E-04	0.00649922	0.00012929	0.00963988	8.03E-05	6.07E-05	2.91E-07	2.72E-07	776.9988139	1255.6	5.413976362	9814.85
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	0.00090031	0.00107264	0.0012862	0.00067972	0.007934	0.991098228	0.000309737	0.0002809	1.54E-05	8.32E-06	33091.03346	115387.45	169.1954637	705110.65
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	1.45E-03	1.40E-03	1.59E-03	0.07048887	0.0012506	9.10E-01	3.30E-04	2.49E-04	1.01E-05	1.36E-05	38773.22092	13362.65	50.8942052	667804
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	0.00033503	0.00040297	0.0004816	0.00135952	0.002523	5.75913E-06	9.06E-05	6.84E-05	3.47E-08	2.99E-08	118.9273143	0	20.80542839	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	1.39E-03	1.40E-03	1.53E-03	0.03657478	0.00099305	1.38416E-06	4.16E-04	3.14E-04	5.95E-07	8.22E-07	2324.719353	0	28.14863484	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	8.34E-04	7.78E-04	9.17E-04	3.77E-02	7.02E-04	6.20E-02	5.38E-04	4.06E-04	2.56E-06	4.709.954835	20593.3	129.9647081	86899.2	
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	2.00E-04	1.84E-04	2.21E-04	0.01229016	5.13E-04	0.214097499	1.49E-05	1.13E-05	2.07E-06	3.10E-06	8862.2	3025.85	3.544438504	190628.5
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	3.0022E-05	3.611E-05	4.316E-05	0.00012323	0.00022822	5.26631E-07	7.80E-06	5.89E-06	3.13E-09	2.70E-09	10.72894335	0	1.464682002	0
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	0.00210747	0.00201817	0.0023191	0.09051532	0.00301079	0.05324077	0.000383508	0.0002898	6.94E-06	9.71E-06	27.7179.5243	9632.35	32.21787457	375431.7
Construction and Mi Sacramento		2019	Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	3.7903E-05	4.5589E-05	5.449E-05	0.00017457	0.0002875	6.70E-07	9.76764E-06	7.38E-06	4.23E-09	3.65E-09	14.51284163	0	2.293359269	

Construction and Mi Sacramento	2030 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	2.29E-03	2.77E-03	3.30E-03	0.04034501	2.35E-02	6.821916695	9.13E-04	8.40E-04	6.30E-05	5.57E-05	221329.5742	138822.2689	386.903596	11151774
Construction and Mi Sacramento	2030 Construction and Mining - Rough Terrain Forklifts	Aggregate	Aggregate	Diesel	0.00132542	0.00160375	1.91E-03	0.04365606	0.02053388	7.41E+00	0.000494127	4.55E-04	6.84E-05	6.05E-05	240330.5817	114759.8014	389.77639	11531946.35
Construction and Mi Sacramento	2030 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	0.00225428	0.00272768	0.0032462	0.02293308	0.0231384	4.362702324	0.001068302	0.0009828	4.03E-05	3.56E-05	141543.0722	27683.79845	34.4611044	6863122.199
Construction and Mi Sacramento	2030 Construction and Mining - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	1.72E-02	2.08E-02	2.47E-02	0.21038354	0.12326782	6.03E+01	4.81E-03	0.0044223	5.57E-04	4.92E-04	1955163.52	517028.7392	505.1746682	104700342.4
Construction and Mi Sacramento	2030 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	0.01158205	0.01401428	0.0166782	0.12013713	0.10853046	39.22223939	0.004567902	0.0042025	3.62E-04	3.20E-04	1272522.361	138719.5296	283.8312112	50935064.34
Construction and Mi Sacramento	2030 Construction and Mining - Skid Steer Loaders	Aggregate	Aggregate	Diesel	0.00159716	0.00193257	0.0022999	0.04363949	0.0249121	7.18285566	0.000547084	0.0005033	6.6361E-05	5.8626E-05	233039.8414	183596.2095	505.4477356	12009452.96
Construction and Mi Sacramento	2030 Construction and Mining - Surfacing Equipment	Aggregate	Aggregate	Diesel	0.000142	0.00017182	0.0002045	0.00220997	0.00172841	0.824448401	5.66825E-05	5.215E-05	7.62E-06	6.73E-06	26748.3204	6512.016158	23.210728	1714112.388
Construction and Mi Sacramento	2030 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	0.01512145	0.01829696	0.0217749	0.31573369	0.16347133	55.05266434	4.80E-03	4.41E-03	5.09E-04	4.49E-04	1786123.065	951614.7255	1524.541967	93242553.61
Construction and Mi Sacramento	2030 Construction and Mining - Trenchers	Aggregate	Aggregate	Diesel	0.0010726	0.00129785	0.0015445	0.01239908	0.01149524	2.265649572	5.00E-04	4.60E-04	2.09E-05	1.85E-05	73506.5052	34650.45125	91.5868202	2724378.704
Construction and Mi Sacramento	2045 Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	5.85E-04	7.08E-04	8.43E-04	1.26E-02	5.59E-03	4.37E+00	1.09E-04	1.00E-04	4.04E-05	3.56E-05	141696.9118	24691.02019	62.01663684	5459400.391
Construction and Mi Sacramento	2045 Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	2.40E-03	2.91E-03	3.46E-03	3.28E-02	1.89E-02	1.03E+01	7.77E-04	7.15E-04	9.54E-05	8.43E-05	335071.524	97296.97922	186.5717254	22486431.47
Construction and Mi Sacramento	2045 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	5.68E-03	6.87E-03	8.18E-03	8.59E-02	4.25E-02	2.55E+01	1.56E-03	1.44E-03	2.36E-04	2.08E-04	827515.4514	157546.9597	343.6624872	37280079.97
Construction and Mi Sacramento	2045 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	8.06E-03	9.76E-03	1.16E-02	1.56E-01	5.34E-02	4.60E+01	1.15E-03	1.06E-03	4.25E-04	3.75E-04	1490953.49	475973.8292	667.9515477	75017787.8
Construction and Mi Sacramento	2045 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	4.00E-03	4.84E-03	5.76E-03	6.04E-02	2.06E-02	1.73E+01	8.55E-04	7.86E-04	1.59E-04	1.41E-04	560109.2595	140610.2887	215.9369295	26450596.72
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	2.59E-04	2.50E-04	2.85E-04	1.50E-02	3.04E-04	1.12E-01	6.10E-05	4.61E-05	1.29E-06	1.80E-06	5148.708436	1689.95	5.530873302	71226.1
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Gasoline	7.64E-05	7.31E-05	8.40E-05	3.89E-03	1.36E-04	9.90E-02	2.07E-05	1.56E-05	9.95E-07	1.40E-06	3989.60079	620.5	6.65117814	53173.2
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	9.28E-06	1.12E-05	1.33E-05	4.09E-05	7.05E-05	1.64E-07	2.38E-06	1.80E-06	1.01E-09	8.70E-10	3.461256104	0	0.565255746	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	2.00E-03	2.02E-03	2.20E-03	6.11E-02	1.30E-03	2.29E-06	5.52E-04	4.17E-04	9.90E-07	1.37E-06	3841.303662	0	201.9518295	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	1.14E-05	1.37E-05	1.63E-05	6.66E-05	8.58E-05	2.05E-07	2.99E-06	2.26E-06	1.48E-09	1.28E-09	5.077855962	0	3.925908282	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	1.82E-03	1.82E-03	2.01E-03	6.63E-02	1.52E-03	2.64E-01	6.39E-04	4.83E-04	3.71E-06	4.96E-06	14138.48353	3117.1	33.250906	144288.15
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	2.86E-05	3.40E-05	4.12E-05	4.42E-04	3.31E-04	5.94E-02	1.93E-06	1.71E-06	7.67E-07	4.99E-07	1982.472469	1434.45	2.589268419	47336.85
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	7.80E-05	7.18E-05	8.59E-05	5.98E-03	1.66E-04	8.80E-02	6.13E-06	4.63E-06	8.94E-07	1.29E-06	3690.15	1270.2	2.94	80460.6
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	1.06E-05	1.07E-05	1.17E-05	3.72E-04	7.35E-06	1.37E-08	4.44E-06	3.35E-06	5.90E-09	8.15E-09	23.18758841	0	0.157082028	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	8.28E-04	7.81E-04	9.11E-04	2.83E-02	5.99E-04	4.49E-02	3.20E-04	2.42E-04	1.27E-06	1.23E-06	3513.402192	8562.9	70.96325294	79179.45
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	1.15E-06	1.38E-06	1.65E-06	4.72E-06	8.74E-06	2.02E-08	2.94E-07	2.22E-07	1.20E-10	1.03E-10	0.410883853	0	0.166076794	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	8.19E-06	9.85E-06	1.18E-05	3.36E-05	6.23E-05	1.44E-07	2.09E-06	1.58E-06	8.54E-10	7.36E-10	2.928064315	0	0.260281885	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	5.48E-05	5.04E-05	6.03E-05	4.66E-03	1.82E-04	1.41E-01	1.01E-05	7.65E-06	1.40E-06	1.97E-06	5628.3	1029.3	2.968029832	129691.8
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	2.47E-04	2.94E-04	3.55E-04	1.71E-03	2.19E-03	2.73E-01	8.42E-05	7.64E-05	4.11E-06	2.29E-06	9110.4803	18881.45	29.85371668	256394.25
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	2.18E-06	2.62E-06	3.14E-06	8.95E-06	1.66E-05	3.83E-08	5.58E-07	4.21E-07	2.27E-10	1.96E-10	0.779547405	0	0.103812079	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	3.62E-03	3.65E-03	3.99E-03	1.12E-01	2.56E-03	1.01E-01	1.09E-03	8.22E-04	2.84E-06	3.82E-06	10845.6452	1686.3	152.8155563	72448.85
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	3.58E-06	4.30E-06	5.14E-06	1.47E-05	2.72E-05	6.27E-08	9.14E-07	6.91E-07	3.73E-10	3.21E-10	1.278298219	0	0.249114859	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	6.13E-03	5.77E-03	6.75E-03	1.92E-01	4.17E-03	2.84E-01	1.92E-03	1.45E-03	9.34E-06	8.09E-06	23056.69505	64973.65	414.5281825	398769.8
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	7.30E-05	8.70E-05	1.05E-04	5.42E-04	6.47E-04	8.07E-02	2.50E-05	2.27E-05	1.26E-06	6.78E-07	2693.703576	13665.6	25.01108702	109234.8
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	1.05E-03	1.02E-03	1.15E-03	5.27E-02	1.20E-03	3.18E-01	2.81E-04	2.12E-04	3.59E-06	5.36E-06	15284.4422	3536.85	20.13177643	218383.15
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	5.28E-05	6.35E-05	7.59E-05	2.77E-04	3.99E-04	9.44E-07	1.37E-05	1.04E-05	6.41E-09	5.52E-09	21.96207814	0	6.727274732	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	4.63E-04	4.26E-04	5.10E-04	3.14E-02	1.14E-03	6.37E-01	4.45E-05	3.36E-05	6.22E-06	9.12E-06	26031.8	5088.1	12.24	425830.9
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	2.80E-04	2.57E-04	3.08E-04	2.06E-02	6.58E-04	3.31E-01	2.31E-05	1.74E-05	3.27E-06	4.84E-06	13807.95	3869	7.572102584	262566.4
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	1.46E-06	1.75E-06	2.10E-06	5.99E-06	1.11E-05	2.56E-08	3.72E-07	2.82E-07	1.52E-10	1.31E-10	0.521552253	0	0.065675527	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	1.54E-04	1.45E-04	1.70E-04	6.08E-03	1.21E-04	8.36E-03	7.48E-05	5.66E-05	2.59E-07	2.46E-07	702.3978173	1080.4	0.555004428	8457.05
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	1.15E-03	1.37E-03	1.66E-03	8.65E-03	1.02E-02	1.29E+00	3.92E-04	3.55E-04	2.00E-05	1.08E-05	42966.51801	149821.55	219.7396723	915336.05
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	1.69E-03	1.64E-03	1.86E-03	7.77E-02	1.98E-03	9.10E-01	4.14E-04	3.13E-04	1.02E-05	1.37E-05	39239.30244	13359	53.35954038	667336.8
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	4.04E-04	4.86E-04	5.81E-04	1.66E-03	3.07E-06	7.09E-06	1.03E-04	7.81E-05	4.22E-08	3.63E-08	144.4953846	0	25.62398604	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	1.91E-03	1.93E-03	2.10E-03	5.03E-02	1.37E-03	1.90E-06	5.72E-04	4.32E-04	8.19E-07	1.13E-06	3196.531497	0	38.70358871	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	7.85E-04	7.38E-04	8.64E-04	3.52E-02	6.58E-04	5.38E-02	5.01E-04	3.79E-04	2.26E-06	1.49E-06	4236.454604	17852.15	121.255463	75332.35
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	1.76E-04	1.62E-04	1.94E-04	1.24E-02	4.53E-04	2.14E-01	1.49E-05	1.13E-05	2.07E-06	3.10E-06	8862.2	3033.15	3.509623104	191088.45
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	3.93E-05	4.73E-05	5.66E-05	1.63E-04	2.99E-04	6.90E-07	1.01E-05	7.60E-06	4.10E-09	3.53E-09	14.06091029	0	1.91965234	0
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	1.95E-03	1.90E-03	2.15E-03	1.05E-01	2.03E-03	5.83E-01	5.12E-04	3.87E-04	7.11E-06	1.00E-05	28559.84241	9628.7	35.33529092	375190.8
Construction and Mi Sacramento	2045 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	4.26E-05	5.13E-05	6.13E-05	1.96E-04	3.23E-04	7.54E-07	1.10E-05	8.30E-06	4.75E-09	4.10E-09	16.29542441	0	2.555681596	0
Construction and Mi Sacramento	2045 Construction and Mining - Off-Highway Tractors	Aggregate	Aggregate	Diesel	2.21E-03	2.68E-03	3.19E-03	3.97E-02	1.68E-02	9.73E+00	3.07E-04	2.83E-04	8.99E-05	7.94E-05	315542.4887	111579.3076	152.0571115	1383333.55
Construction and Mi Sacramento	2045 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	1.36E-02	1.65E-02	1.96E-02	1.38E-01	1.06E-01	5.85E+01	2.00E-03	1.84E-03	5.40E-04	4.77E-04	1896760.189	237492.5298	159.147676	96219994.31
Construction and Mi Sacramento	2045 Construction and Mining - Other	Aggregate	Aggregate	Diesel	3.62E-03	3.21E-03	3.82E-03	4.52E-02	2.20E-02	1.30E+01	6.33E-04	5.82E-04	1.20E-04	1.06E-04	422686.7752	113466.405	230.1243989	19540486.65
Construction and Mi Sacramento	2045 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	5.41E-04	6.55E-04	7.80E-04	1.42E-02	4.47E-03	3.06E+00	1.21E-04	1.11E-04	2.83E-05	2.50E-05	99386.66304	35652.09153	81.67500341	4615198.362</

Original OFFROAD Classifications	Consolidated Classes
Agricultural	agricultural offroad
Agricultural Equipment	agricultural offroad
Airport Ground Support Equipment	Airport Ground Support
Commercial Harbor Craft	Commercial Harbor Craft
Construction and Mining	Construction and Mining
Construction and Mining Equipment	Construction and Mining
Entertainment Equipment	Entertainment Equipment
Industrial	Industrial
Industrial Equipment	Industrial
Lawn and Garden Equipment	Lawn and Garden Equipment
Light Commercial Equipment	Light Commercial Equipment
Locomotive - Line haul	Railyard Operations
Locomotive - Passenger	Railyard Operations
Locomotive - Short line	Railyard Operations
Logging Equipment	Logging
Military Tactical Support Equip	Military Tactical Support
Ocean Going Vessels	Ocean Going Vessels
OFFROAD - Airport Ground Support	Airport Ground Support
OFFROAD - Agricultural	agricultural offroad
OFFROAD - Construction and Mining	Construction and Mining
OFFROAD - Industrial	Industrial
OFFROAD - Light Commercial	Light Commercial Equipment
OFFROAD - Logging	Logging
OFFROAD - Military Tactical Support	Military Tactical Support
Oil Drilling	Oil Drilling
Pleasure Craft	Pleasure Craft
Portable Equipment	Portable Equipment
Other Portable Equipment	Other Portable Equipment
Railyard Operations	Railyard Operations
Recreational Equipment	Recreational Equipment
Transport Refrigeration Units	Transport Refrigeration Units
Transportation Refridgeration Unit	Transport Refrigeration Units
Agricultural - Agricultural Tractors	agricultural offroad
Agricultural - ATVs	agricultural offroad
Agricultural - Bale Wagons (Self Propelled)	agricultural offroad
Agricultural - Balers (Self Propelled)	agricultural offroad
Agricultural - Combine Harvesters	agricultural offroad
Agricultural - Construction Equipment	agricultural offroad
Agricultural - Cotton Pickers	agricultural offroad
Agricultural - Forage & Silage Harvesters	agricultural offroad
Agricultural - Forklifts	agricultural offroad
Agricultural - Hay Squeeze/Stack Retriever	agricultural offroad
Agricultural - Nut Harvester	agricultural offroad
Agricultural - Other Harvesters	agricultural offroad
Agricultural - Sprayers/Spray Rigs	agricultural offroad
Agricultural - Swathers/Windrowers/Hay Conditior	agricultural offroad

Airport Ground Support - A/C Tug Narrow Body	Airport Ground Support
Airport Ground Support - A/C Tug Wide Body	Airport Ground Support
Airport Ground Support - Baggage Tug	Airport Ground Support
Airport Ground Support - Belt Loader	Airport Ground Support
Airport Ground Support - Bobtail	Airport Ground Support
Airport Ground Support - Cargo Loader	Airport Ground Support
Airport Ground Support - Cargo Tractor	Airport Ground Support
Airport Ground Support - Forklift	Airport Ground Support
Airport Ground Support - Lift	Airport Ground Support
Airport Ground Support - Misc - A/C Tug Narrow B	Airport Ground Support
Airport Ground Support - Misc - A/C Tug Wide Boc	Airport Ground Support
Airport Ground Support - Misc - Air Conditioner	Airport Ground Support
Airport Ground Support - Misc - Air Start Unit	Airport Ground Support
Airport Ground Support - Misc - Baggage Tug	Airport Ground Support
Airport Ground Support - Misc - Belt Loader	Airport Ground Support
Airport Ground Support - Misc - Bobtail	Airport Ground Support
Airport Ground Support - Misc - Cargo Loader	Airport Ground Support
Airport Ground Support - Misc - Cargo Tractor	Airport Ground Support
Airport Ground Support - Misc - Cart	Airport Ground Support
Airport Ground Support - Misc - Catering Truck	Airport Ground Support
Airport Ground Support - Misc - Deicer	Airport Ground Support
Airport Ground Support - Misc - Forklift	Airport Ground Support
Airport Ground Support - Misc - Fuel Truck	Airport Ground Support
Airport Ground Support - Misc - Generator	Airport Ground Support
Airport Ground Support - Misc - Ground Power Uni	Airport Ground Support
Airport Ground Support - Misc - Hydrant Truck	Airport Ground Support
Airport Ground Support - Misc - Lav Cart	Airport Ground Support
Airport Ground Support - Misc - Lav Truck	Airport Ground Support
Airport Ground Support - Misc - Lift	Airport Ground Support
Airport Ground Support - Misc - Maint. Truck	Airport Ground Support
Airport Ground Support - Misc - Other	Airport Ground Support
Airport Ground Support - Misc - Passenger Stand	Airport Ground Support
Airport Ground Support - Misc - Service Truck	Airport Ground Support
Airport Ground Support - Misc - Sweeper	Airport Ground Support
Airport Ground Support - Misc - Water Truck	Airport Ground Support
Airport Ground Support - Other	Airport Ground Support
Airport Ground Support - Passenger Stand	Airport Ground Support
Commercial Harbor Craft - AE - Commercial Fishing	Commercial Harbor Craft
Commercial Harbor Craft - AE - Commercial Passer	Commercial Harbor Craft
Commercial Harbor Craft - AE - Excursion	Commercial Harbor Craft
Commercial Harbor Craft - AE - Research Boat	Commercial Harbor Craft
Commercial Harbor Craft - AE - Tugboat-Push/Tow	Commercial Harbor Craft
Commercial Harbor Craft - AE - Work Boat	Commercial Harbor Craft
Commercial Harbor Craft - ME - Commercial Fishin	Commercial Harbor Craft
Commercial Harbor Craft - ME - Commercial Passe	Commercial Harbor Craft
Commercial Harbor Craft - ME - Dredge	Commercial Harbor Craft
Commercial Harbor Craft - ME - Excursion	Commercial Harbor Craft

Commercial Harbor Craft - ME - Research Boat	Commercial Harbor Craft
Commercial Harbor Craft - ME - Tugboat-Push/Tow	Commercial Harbor Craft
Commercial Harbor Craft - ME - Work Boat	Commercial Harbor Craft
Construction and Mining - Bore/Drill Rigs	Construction and Mining
Construction and Mining - Cranes	Construction and Mining
Construction and Mining - Crawler Tractors	Construction and Mining
Construction and Mining - Excavators	Construction and Mining
Construction and Mining - Graders	Construction and Mining
Construction and Mining - Misc - Asphalt Pavers	Construction and Mining
Construction and Mining - Misc - Bore/Drill Rigs	Construction and Mining
Construction and Mining - Misc - Cement And Mor	Construction and Mining
Construction and Mining - Misc - Concrete/Industri	Construction and Mining
Construction and Mining - Misc - Cranes	Construction and Mining
Construction and Mining - Misc - Crushing/Proc. Ec	Construction and Mining
Construction and Mining - Misc - Dumpers/Tender	Construction and Mining
Construction and Mining - Misc - Excavators	Construction and Mining
Construction and Mining - Misc - Other	Construction and Mining
Construction and Mining - Misc - Pavers	Construction and Mining
Construction and Mining - Misc - Paving Equipmen	Construction and Mining
Construction and Mining - Misc - Plate Compactors	Construction and Mining
Construction and Mining - Misc - Rollers	Construction and Mining
Construction and Mining - Misc - Rough Terrain Fo	Construction and Mining
Construction and Mining - Misc - Rubber Tired Loa	Construction and Mining
Construction and Mining - Misc - Signal Boards	Construction and Mining
Construction and Mining - Misc - Skid Steer Loader	Construction and Mining
Construction and Mining - Misc - Surfacing Equipm	Construction and Mining
Construction and Mining - Misc - Tampers/Ramme	Construction and Mining
Construction and Mining - Misc - Tractors/Loaders,	Construction and Mining
Construction and Mining - Misc - Trenchers	Construction and Mining
Construction and Mining - Off-Highway Tractors	Construction and Mining
Construction and Mining - Off-Highway Trucks	Construction and Mining
Construction and Mining - Other	Construction and Mining
Construction and Mining - Pavers	Construction and Mining
Construction and Mining - Paving Equipment	Construction and Mining
Construction and Mining - Rollers	Construction and Mining
Construction and Mining - Rough Terrain Forklifts	Construction and Mining
Construction and Mining - Rubber Tired Dozers	Construction and Mining
Construction and Mining - Rubber Tired Loaders	Construction and Mining
Construction and Mining - Scrapers	Construction and Mining
Construction and Mining - Skid Steer Loaders	Construction and Mining
Construction and Mining - Surfacing Equipment	Construction and Mining
Construction and Mining - Tractors/Loaders/Backh	Construction and Mining
Construction and Mining - Trenchers	Construction and Mining
Industrial - Aerial Lifts	Industrial
Industrial - Forklifts	Industrial
Industrial - Misc - Aerial Lifts	Industrial
Industrial - Misc - Forklifts	Industrial

Industrial - Misc - Other General Industrial Equipment	Industrial
Industrial - Misc - Other Material Handling Equipment	Industrial
Industrial - Misc - Sweepers/Scrubbers	Industrial
Industrial - Other General Industrial Equipment	Industrial
Industrial - Other Material Handling Equipment	Industrial
Lawn and Garden - Misc - Chainsaws	Lawn and Garden Equipment
Lawn and Garden - Misc - Chainsaws Preempt	Lawn and Garden Equipment
Lawn and Garden - Misc - Chippers/Stump Grinder	Lawn and Garden Equipment
Lawn and Garden - Misc - Lawn Mowers	Lawn and Garden Equipment
Lawn and Garden - Misc - Leaf Blowers/Vacuums	Lawn and Garden Equipment
Lawn and Garden - Misc - Other	Lawn and Garden Equipment
Lawn and Garden - Misc - Rear Engine Riding Mow	Lawn and Garden Equipment
Lawn and Garden - Misc - Snowblowers	Lawn and Garden Equipment
Lawn and Garden - Misc - Tillers	Lawn and Garden Equipment
Lawn and Garden - Misc - Trimmers/Edgers/Brush	Lawn and Garden Equipment
Lawn and Garden - Misc - Wood Splitters	Lawn and Garden Equipment
Light Commercial - Misc - Air Compressors	Light Commercial Equipment
Light Commercial - Misc - Gas Compressors	Light Commercial Equipment
Light Commercial - Misc - Generator Sets	Light Commercial Equipment
Light Commercial - Misc - Pressure Washers	Light Commercial Equipment
Light Commercial - Misc - Pumps	Light Commercial Equipment
Light Commercial - Misc - Welders	Light Commercial Equipment
Locomotive - Line Haul	Railyard Operations
Locomotive - Passenger	Railyard Operations
Locomotive - Switcher	Railyard Operations
Military Tactical Support - Misc - A/C Unit	Military Tactical Support
Military Tactical Support - Misc - Aircraft Support	Military Tactical Support
Military Tactical Support - Misc - Cart	Military Tactical Support
Military Tactical Support - Misc - Communications	Military Tactical Support
Military Tactical Support - Misc - Compressor	Military Tactical Support
Military Tactical Support - Misc - Crane	Military Tactical Support
Military Tactical Support - Misc - Deicer	Military Tactical Support
Military Tactical Support - Misc - Generator	Military Tactical Support
Military Tactical Support - Misc - Hydraulic Unit	Military Tactical Support
Military Tactical Support - Misc - Lift	Military Tactical Support
Military Tactical Support - Misc - Light	Military Tactical Support
Military Tactical Support - Misc - Other Tactical Support	Military Tactical Support
Military Tactical Support - Misc - Pressure Washers	Military Tactical Support
Military Tactical Support - Misc - Pump	Military Tactical Support
Military Tactical Support - Misc - Start Cart	Military Tactical Support
Military Tactical Support - Misc - Test Stand	Military Tactical Support
Military Tactical Support - Misc - Welder	Military Tactical Support
Ocean Going Vessels - Vessels (Other)	Ocean Going Vessels
Oil Drilling - Drill Rig (Mobile)	Oil Drilling
Oil Drilling - Workover Rig (Mobile)	Oil Drilling
Oil Drilling - Misc - Compressors (Workover)	Oil Drilling
Oil Drilling - Misc - Generator (Drilling)	Oil Drilling

Pleasure Craft - Personal Water Craft	Pleasure Craft
Pleasure Craft - Sailboat Auxiliary Inboard Engine	Pleasure Craft
Pleasure Craft - Vessels W/Inboard Engines	Pleasure Craft
Pleasure Craft - Vessels W/Inboard Jet Engines	Pleasure Craft
Pleasure Craft - Vessels W/Outboard Engines	Pleasure Craft
Pleasure Craft - Vessels W/Sterndrive Engines	Pleasure Craft
Portable Equipment - Non-Rental Compressor	Portable Equipment
Portable Equipment - Non-Rental Generator	Portable Equipment
Portable Equipment - Non-Rental Other	Portable Equipment
Portable Equipment - Non-Rental Pump	Portable Equipment
Portable Equipment - Rental Compressor	Portable Equipment
Portable Equipment - Rental Generator	Portable Equipment
Portable Equipment - Rental Other	Portable Equipment
Portable Equipment - Rental Pump	Portable Equipment
Recreational - All Terrain Vehicles (Atvs) Active	Recreational Equipment
Recreational - Golf Carts	Recreational Equipment
Recreational - Minibikes	Recreational Equipment
Recreational - Off-Road Motorcycles Active	Recreational Equipment
Recreational - Snowmobiles Active	Recreational Equipment
Transportation Refridgeration Unit - Instate Gense	Transport Refrigeration Units
Transportation Refridgeration Unit - Instate Trailer	Transport Refrigeration Units
Transportation Refridgeration Unit - Instate Truck	Transport Refrigeration Units
Transportation Refridgeration Unit - Out-Of-State	Transport Refrigeration Units
Transportation Refridgeration Unit - Out-Of-State 1	Transport Refrigeration Units
Transportation Refridgeration Unit - Railcar TRU	Transport Refrigeration Units

OFFROAD 2007 Fuel Type	Fuel Type
G2	Gasoline
G4	Gasoline
C4	CNG
D	Diesel

EMFAC2011 Categories
All Other Buses
LDA
LDT1
LDT2
LHD1
LHD2
MCY
MDV
MH
Motor Coach
OBUS
PTO
SBUS
T6 CAIRP heavy
T6 CAIRP small
T6 instate construction heavy
T6 instate construction small
T6 instate heavy
T6 instate small
T6 OOS heavy
T6 OOS small
T6 Public
T6 utility
T6TS
T7 Ag
T7 CAIRP
T7 CAIRP construction
T7 NNOOS
T7 NOOS
T7 POAK
T7 Public
T7 Single
T7 single construction
T7 SWCV
T7 tractor
T7 tractor construction
T7 utility
T7IS
UBUS

Project Vehicle Category	EMFAC2011 Category Match
Countywide	All Other Buses
Countywide	LDA
Countywide	LDT1
Countywide	LDT2
Countywide	LHD1
Countywide	LHD2
Countywide	MCY
Countywide	MDV
Countywide	MH
Countywide	Motor Coach
Countywide	OBUS
Countywide	PTO
Countywide	SBUS
Countywide	T6 CAIRP heavy
Countywide	T6 CAIRP small
Countywide	T6 instate construction heavy
Countywide	T6 instate construction small
Countywide	T6 instate heavy
Countywide	T6 instate small
Countywide	T6 OOS heavy
Countywide	T6 OOS small
Countywide	T6 Public
Countywide	T6 utility
Countywide	T6TS
Countywide	T7 Ag
Countywide	T7 CAIRP
Countywide	T7 CAIRP construction
Countywide	T7 NNOOS
Countywide	T7 NOOS
Countywide	T7 POAK
Countywide	T7 Public
Countywide	T7 Single
Countywide	T7 single construction
Countywide	T7 SWCV
Countywide	T7 tractor
Countywide	T7 tractor construction
Countywide	T7 utility
Countywide	T7IS
Countywide	UBUS
TCT Annual Vehicle Revenue Miles	OBUS
TCT Annual Vehicle Revenue Miles	UBUS
TCT Annual Vehicle Revenue Miles	SBUS
TCT Annual Vehicle Revenue Miles	All Other Buses
YART Annual Vehicle Revenue Miles	OBUS
YART Annual Vehicle Revenue Miles	UBUS
YART Annual Vehicle Revenue Miles	SBUS
YART Annual Vehicle Revenue Miles	All Other Buses

Source: EMFAC2011 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2019, 2030, 2045, 2050
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	CH4_TOTEX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	N2O_TOTEX	
Sacramento	2019	All Other Buses	Aggregate	Aggregate	Diesel	515.8184894	7047726.976	7047726.976		0	1340509.09	9915.727421	109.9576472	0	10025.68507	0.451942592	0.004254504	0	0.456197096	1.56088221	0.017308294	0	1.578130394
Sacramento	2019	All Other Buses	Aggregate	Aggregate	Natural Gas	6.91029722	722042.3756	722042.3756		0	95922.48043	837.0939162	14.01176977	0	851.111686	0.805797892	0.056999573	0	0.63779465	0.170647071	0.002857614	0	0.173504685
Sacramento	2019	LDA	Aggregate	Aggregate	Gasoline	515366.5271	6218099742	6218099742		0	827884031.7	2134014.771	0	71444.42294	2205459.194	31.6801791	0	90.30339429	121.9835734	449.4062203	0	34.51448841	83.96069071
Sacramento	2019	LDA	Aggregate	Aggregate	Diesel	2136.879467	2235885.932	2235885.932		0	6045.307422	6045.307422	0.043685604	0	0	0	0	0	0.043685604	0.951584198	0	0	0.951584198
Sacramento	2019	LDA	Aggregate	Aggregate	Plug-in Hyt	6541.801432	75639907.03	0	75639907.03	0	11488535.71	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2019	LDA	Aggregate	Aggregate	Gasoline	6433.377117	98305951.6	53098395.79	45216555.81	9230898.989	17182.90286	0	700.2788223	17883.18168	0.05815011	0	0.430213592	0.488363703	0.073574102	0	0.212928838	0.286502939	0
Sacramento	2019	LD1T	Aggregate	Aggregate	Gasoline	59235.93728	629669815.3	629669815.3		0	90911643.7	252293.2986	0	9762.638254	262055.9368	7.789485033	0	15.47070127	23.2601863	10.032144	0	0.462356715	14.64450072
Sacramento	2019	LD1T	Aggregate	Aggregate	Diesel	35.36231965	133798.0977	133798.0977		0	38689.86836	63.10668469	0	0	63.10668469	0.002047049	0	0	0.002047049	0.009933543	0	0	0.009933543
Sacramento	2019	LD1T	Aggregate	Aggregate	Electricity	124.6165284	1096520.274	0	1096520.274	0	200804.8894	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2019	LD1T	Aggregate	Aggregate	Plug-in Hyt	0.506744026	7967.212037	4317.206189	3650.005848	727.0991318	1.397306062	0	0.063032144	1.460338206	4.7454E-06	0	3.40259E-05	3.87713E-05	6.02278E-06	0	1.69017E-05	2.29244E-05	0
Sacramento	2019	LD1T	Aggregate	Aggregate	Gasoline	213897.0762	2624094168	2624094168		0	346109598.2	1138291.537	0	37925.46192	1176216.999	14.31011378	0	42.696079	57.00619278	26.93775216	0	17.66987527	44.60762742
Sacramento	2019	LD1T	Aggregate	Aggregate	Diesel	542.3295588	7418531.542	7418531.542		0	907661.7691	2759.944237	0	0	2759.944237	0.007791172	0	0	0.007791172	0.434439328	0	0	0.434439328
Sacramento	2019	LD1T	Aggregate	Aggregate	Electricity	13.79122798	145870.3313	0	145870.3313	23309.54822	0	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2019	LD2T	Aggregate	Aggregate	Plug-in Hyt	216.3666897	3569150.691	1898414.002	1670736.648	310452.6629	614.4402946	0	28.30922715	642.7495236	0.002094109	0	0.014578412	0.016672521	0.00266015	0	0.007263918	0.009292933	0
Sacramento	2019	LHD1	Aggregate	Aggregate	Gasoline	24545.37007	284248894.1	284248894.1		0	11950447.4	297560.3668	1091.882998	3411.598578	320263.8438	4.440027312	1.093632329	5.274508878	10.80816852	5.212590262	0.027410704	7.122989191	12.36299016
Sacramento	2019	LHD1	Aggregate	Aggregate	Diesel	15788.07032	184147210.1	184147210.1		0	49480258.69	129379.751	793.8116483	0	130173.5626	2.449833964	0.029012939	0	2.478846903	20.36550281	0.124952887	0	20.4904557
Sacramento	2019	LHD2	Aggregate	Aggregate	Gasoline	3308.554868	40758587.61	40758587.61		0	16118659.86	46498.0193	168.7808203	469.3458676	47136.13861	0.50470558	0.14892611	0.663164179	1.352556347	0.615080808	0.003820803	0.958975859	1.577864742
Sacramento	2019	LHD2	Aggregate	Aggregate	Diesel	5186.061845	66108839.15	66108839.15		0	21331561.8	57125.79275	414.0021506	0	75379.7949	0.715074015	0.009530164	0	0.724604179	8.992098715	0.065167554	0	9.05726627
Sacramento	2019	MCV	Aggregate	Aggregate	Gasoline	26524.19585	50954561.7	50954561.7		0	18407791.92	11075.46163	0	1207.065951	12282.52758	12.55010242	0	4.643782679	17.1938851	2.602249326	0	0.226608726	2.828858052
Sacramento	2019	MCV	Aggregate	Aggregate	Diesel	154831.5932	1764478605	1764478605		0	245782569.7	927486.2709	0	37985.47052	960471.7415	16.21743424	0	26.4763614	58.40365102	26.4763614	0	14.69436425	41.17072565
Sacramento	2019	MDV	Aggregate	Aggregate	Diesel	2386.724958	33353364.42	33353364.42		0	4033592.066	15839.05534	0	0	15839.05534	0.027875304	0	0	0.027875304	2.494205649	0	0	2.493205649
Sacramento	2019	MDV	Aggregate	Aggregate	Electricity	7.846547449	61783.9147	0	61783.9147	10084.07965	0	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2019	MDV	Aggregate	Aggregate	Plug-in Hyt	367.2485072	5872240.655	2699045.897	2526944.684	55.0035526	0	59.78035808	1086.815884	0.003493992	0	0.024699114	0.028193106	0.00441235	0	0.01228602	0.0167277256	0	0
Sacramento	2019	MH	Aggregate	Aggregate	Gasoline	18951.95406	10915753.17	10915753.17		0	124590.7301	23485.39089	0	4.625926248	23490.01681	0.305867216	0	0.005929651	0.314561367	0.394137346	0	0.005316477	0.399453823
Sacramento	2019	MH	Aggregate	Aggregate	Diesel	1114.195752	338961.539	338961.539		0	36732.306202	0.024958549	0	0	0.024958549	0.002458549	0	0	0.024958549	0.62527569	0	0	0.62527569
Sacramento	2019	Motor Coach	Aggregate	Aggregate	Diesel	93.17619434	3665996.794	3665996.794		0	625227.1728	7107.421385	333.0904337	0	7440.511819	0.03331188	0.008795636	0	0.042107516	1.118770202	0.052431343	0	1.171201546
Sacramento	2019	OBUS	Aggregate	Aggregate	Gasoline	702.177799	11078346.09	11078346.09		0	459480.953	22582.72107	98.39769202	166.031668	22847.15393	0.27371487	0.048793978	0.192050392	0.514565061	0.48645812	0.001283554	0.156623959	0.57653325
Sacramento	2019	OBUS	Aggregate	Aggregate	Diesel	0	6894811.075	6894811.075		0	16576.54929	0	0	0	16576.54929	0.128971538	0	0	0.128971538	2.609293638	0	0	2.609293638
Sacramento	2019	PSTO	Aggregate	Aggregate	Gasoline	173.0249428	2779900.44	2779900.44		0	226316.6252	2671.3988	165.6177999	17.38092561	2854.397525	0.484986837	0.130689827	0.026891184	0.642567848	0.284795126	0.004100038	0.009866158	0.298761321
Sacramento	2019	SBUS	Aggregate	Aggregate	Diesel	945.1029375	7136443.497	7136443.497		0	4475024.605	9247.754107	790.6932765	0	10038.44738	0.030561136	0.003006288	0	0.0333567424	1.455677266	0.124462028	0	1.580139294
Sacramento	2019	SBUS	Aggregate	Aggregate	Natural Gas	14.04165549	126516.9311	126516.9311		0	646486.6708	159.8117461	23.9300315	0	183.2420661	0.304407243	0.057741602	0	0.362148865	0.02476742	0.004878261	0	0.0237355993
Sacramento	2019	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	72.36919576	4789996.17	4789996.17		0	518157.1572	5272.950495	16.22738516	0	5589.177884	0.00779593	0.000131212	0	0.020930613	0.877210883	0.002554332	0	0.877978415
Sacramento	2019	T6 CAIRP small	Aggregate	Aggregate	Diesel	61.93200968	1268932.566	1268932.566		0	442037.6457	1576.386218	13.96381032	0	1590.350028	0.005199942	0.000100335	0	0.005300276	0.248136959	0.002198026	0	0.250334985
Sacramento	2019	T6 instate heavy	Aggregate	Aggregate	Diesel	1597.805117	2579103.312	2579103.312		0	5921033.312	32631.32971	1319.6901	0	9531.01981	0.24494904	0.01784394	0	0.262784928	5.136456299	0.207730748	0	5.344187047
Sacramento	2019	T6 instate heavy	Aggregate	Aggregate	Natural Gas	9.520495241	197854.6711	197854.6711		0	36004.0669	206.6663104	13.98240703	0	220.6487174	0.132213404	0.053230274	0	0.185538737	0.042130279	0.002850405	0	0.044980684
Sacramento	2019	T6 instate small	Aggregate	Aggregate	Diesel	7785.752606	93662058.04	93662058.04		0	29987276.35	122473.3176	6389.538978	0	128862.8566	1.242088183	0.067321774	0	1.309409957	19.27369988	0.105769241	0	20.28413912
Sacramento	2019	T6 OOS heavy	Aggregate	Aggregate	Diesel	36.52038804	2809551.143	2809551.143		0	261842.0589	3622.432314	14.98842368	0	3270.632057	0.013485956	6.72288E-05	0	0.013553185	0.513535482	0.001290569	0	0.514826051
Sacramento	2019	T6 OOS small	Aggregate	Aggregate	Diesel	31.296258	641232.8804	641232.8804		0	242386.6588	796.5992069	7.056367321	0	803.6555742	0.0026277	5.07024E-05	0	0.002678402	0.125391673	0.001110734	0	0.125602407
Sacramento	2019	T6 Public	Aggregate	Aggregate	Diesel	4888.602273	55744636.09	55744636.09		0	7824501.254	78991.25257	5790.15682	0	84781.40939	0.830740512	0.04167943	0	0.422389492	12.43391307	0.911421255	0	13.34533432
Sacramento	2019	T6 POAK	Aggregate	Aggregate	Natural Gas	51.34240465	5143475099	5143475099		0	17119.15676	1978.244606	243.5274248	0	2122.452031	1.578209508	0.878591756	0	2.456801627	0.403416726	0.049644659	0	0.453061687
Sacramento	2019	T6 Utility	Aggregate	Aggregate	Diesel	71783.7451	71783.7451	71783.7451		0	18189.3416	906.8096733	4944.827457	0	940.8004297	0.000976976	0.000124952	0	0.001101898	0.042779745	0.005378793	0	0.041818538
Sacramento	2019	T6 Utility	Aggregate	Aggregate	Natural Gas	0.260820318	3497.360406	3497.360406		0	1041.622804	3.907490608	0.300057971	0	4.20754858	0.002520951	0.001184038	0	0.00370499	0.000795658	0.11688E-05	0	0.000857736
Sacramento	2019	T6T5	Aggregate	Aggregate	Gasoline	2835.77863	4084022.72	4084022.72		0	18553405.62	85867.41455	569.3417039	1088.279098	87525.0335	1.776830877	0.241712298	1.251057216	3.269600392	1.865216549	0.006329633	0.626395315	2.497941497
Sacramento	2019	T7 CAIRP	Aggregate	Aggregate	Diesel	785.3769669	52669803.62	52669803.62		0	5630964.362	93011.34547	7029.790979	0	10004.11364	0.233450388	0.132109649	0	0.365560337	14.64079814	1.106550498	0	

Sacramento	2045 LH01	Aggregate	Aggregate	Gasoline	11112.3676	121791867.4	121791867.4	0	54137374.4	101982.7279	437.6868955	1432.367088	103852.7819	0.178732959	0.351427782	1.290461968	1.820622709	0.285655974	0.009981613	2.435053393	2.730690981
Sacramento	2045 LH01	Aggregate	Aggregate	Diesel	7390.372525	80466760.94	80466760.94	0	30398439.69	53412.29167	313.5598306	0	53725.8515	0.389742954	0.013580914	0	0.403323868	8.451528304	0.049401479	0	8.464529783
Sacramento	2045 LH01	Aggregate	Aggregate	Electricity	10404.56153	151997340.3	0	151997340.3	47624775.89	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 LH02	Aggregate	Aggregate	Gasoline	1392.810684	14870716.71	14870716.71	0	6785512.875	13970.64152	63.14686213	176.1110333	14209.89942	0.019059196	0.039969412	0.142363871	0.201392479	0.037634007	0.00114163	0.274647698	0.313423335
Sacramento	2045 LH02	Aggregate	Aggregate	Diesel	3701.239324	38396730.65	38396730.65	0	15221477.59	29842.32113	256.683834	0	30099.04597	0.231682643	0.00681558	0	0.238484224	4.701676307	0.040440643	0	4.742116949
Sacramento	2045 LH02	Aggregate	Aggregate	Electricity	2639.138043	37195695.98	0	37195695.98	11421345.51	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 MCY	Aggregate	Aggregate	Gasoline	27876.32411	48867203.44	48867203.44	0	19426168.93	10190.6004	0	842.1417724	11032.74217	7.70270131	0	2.983449421	10.68615073	1.950072682	0	10.08000138	2.05807282
Sacramento	2045 MOV	Aggregate	Aggregate	Gasoline	167214.7714	1980400645	1980400645	0	262282006	785303.0775	0	25037.11256	810340.1901	3.33179131	0	13.23464678	16.56643809	8.041453992	0	9.274769196	17.31622319
Sacramento	2045 MOV	Aggregate	Aggregate	Diesel	1908.737889	21908970.47	21908970.47	0	2966610.974	8491.440465	0	0	0	0	0	0	0.006370806	1.337829903	0	1.337829903	0
Sacramento	2045 MOV	Aggregate	Aggregate	Electricity	9909.867326	94040163.42	0	94040163.42	16087447.63	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 MOV	Aggregate	Aggregate	Plug-in Hyt	4715.307036	59015948.09	24089709.3	34926238.79	676734.724	7869.449827	0	652.334406	8521.784233	0.02533691	0	0.296311683	0.321648594	0.030268638	0	0.138297619	0.168566257
Sacramento	2045 MH	Aggregate	Aggregate	Gasoline	1369.578995	4746179.627	4746179.627	0	4805.14721	10188.70245	0	1.481954554	10190.18441	0.021126828	0	0.001609219	0.022826047	0.094316431	0	0.002242972	0.096559403
Sacramento	2045 MH	Aggregate	Aggregate	Diesel	873.9505978	2670581.153	2670581.153	0	28578.18455	3206.371922	0	0	0	0	0	0	0.01203082	0.505165202	0	0	0.505165202
Sacramento	2045 Motor Coach	Aggregate	Aggregate	Diesel	113.125157	4195116.079	4195116.079	0	759087.9036	7081.548302	304.4867782	0	7386.035081	0.002261586	0.006756388	0	0.009017974	1.115700819	0.047972016	0	1.163672835
Sacramento	2045 OBUS	Aggregate	Aggregate	Gasoline	214.195088	1961928.737	1961928.737	0	1401395.28	3395.819853	27.70294997	44.66451535	3468.187318	0.012963686	0.014260814	0.048149907	0.075374407	0.035969627	0.000296468	0.040432281	0.076698376
Sacramento	2045 OBUS	Aggregate	Aggregate	Electricity	90.80876558	1994903.035	0	1994903.035	594126.9088	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 PTO	Aggregate	Aggregate	Diesel	0	6288485.835	6288485.835	0	12085.81407	0	0	0	12085.81407	0.004594042	0	0.004594042	1.904124928	0	0	1.904124928	0
Sacramento	2045 PTO	Aggregate	Aggregate	Electricity	0	6066374.077	0	6066374.077	0	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 SBUS	Aggregate	Aggregate	Gasoline	118725565	1989221.824	1989221.824	0	154321.184	1628.690302	101.7655503	8.774531158	1739.230383	0.004153277	0.1067871	0.011804765	0.122745143	0.027870473	0.003011174	0.012399393	0.04327558
Sacramento	2045 SBUS	Aggregate	Aggregate	Diesel	587.840374	3963075.967	3963075.967	0	2783400.657	4556.932954	397.1661445	0	4954.099099	0.001166645	0.001643855	0	0.003060501	0.717946643	0.062573688	0	0.802520331
Sacramento	2045 SBUS	Aggregate	Aggregate	Electricity	436.0055779	4040656.93	0	4040656.93	187693.154	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 SBUS	Aggregate	Aggregate	Natural Ga	28.6458293	187985.8911	187985.8911	0	356355.2158	221.7586104	46.06474366	0	267.823354	0.452305208	0.117794988	0	0.570100196	0.045206943	0.009390599	0	0.054597543
Sacramento	2045 T6 CAIRP heavy	Aggregate	Aggregate	Diesel	121.9853599	8053760.864	8053760.864	0	874593.1349	7956.756345	21.05837973	0	7977.814725	0.002336414	9.61288E-05	0	0.004232542	1.253590202	0.003317756	0	1.256907959
Sacramento	2045 T6 CAIRP heavy	Aggregate	Aggregate	Electricity	38.00946058	2605842.97	0	2605842.97	27518170.01	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 CAIRP small	Aggregate	Aggregate	Diesel	64.63228181	1155981.328	1155981.328	0	463397.9488	1292.712936	11.40312091	0	1304.116057	0.000312028	5.09335E-05	0	0.000362972	0.203667449	0.001796566	0	0.205464016
Sacramento	2045 T6 CAIRP small	Aggregate	Aggregate	Electricity	87.81096843	1667886.616	0	1667886.616	629583.0528	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 instate heavy	Aggregate	Aggregate	Diesel	2434.270515	3794161.133	3794161.133	0	3966207.047	48086.69393	1613.564241	0	42420.25817	0.012812251	0.00692433	0	0.01973658	6.42911247	0.254217703	0	6.6832895
Sacramento	2045 T6 instate heavy	Aggregate	Aggregate	Electricity	1063.749239	19490331.69	0	19490331.69	986204.734	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 instate heavy	Aggregate	Aggregate	Natural Ga	26.53319265	403431.0899	403431.0899	0	39120.97364	397.5939529	40.3920859	0	437.9860388	0.305643747	0.124261012	0	0.429904759	0.081052128	0.008234191	0	0.089286319
Sacramento	2045 T6 instate small	Aggregate	Aggregate	Diesel	8093.827693	9535266.33	9535266.33	0	31155471.01	107322.9971	5150.014267	0	112473.0114	0.027030915	0.022668414	0	0.046999329	16.9087819	0.811386845	0	17.72016875
Sacramento	2045 T6 instate small	Aggregate	Aggregate	Electricity	8621.572856	113081200.9	0	113081200.9	3319383.69	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 OOS heavy	Aggregate	Aggregate	Diesel	69.0734837	6244331.416	6244331.416	0	495239.3302	5895.755338	11.4081623	0	5907.163501	0.001770584	5.44329E-05	0	0.001825017	0.928878655	0.001797361	0	0.930676015
Sacramento	2045 T6 OOS small	Aggregate	Aggregate	Diesel	77.07908853	1426992.28	1426992.28	0	558374.7338	1496.115541	12.89648047	0	1509.012021	0.00037665	6.13737E-05	0	0.000438023	0.235713613	0.002031845	0	0.237745459
Sacramento	2045 T6 Public	Aggregate	Aggregate	Diesel	2884.741492	34783329.29	34783329.29	0	4617201.842	43176.90786	2743.220637	0	44120.13093	0.019763214	0.01191287	0	0.031676092	6.518948684	0.632195911	0	6.951144596
Sacramento	2045 T6 Public	Aggregate	Aggregate	Electricity	2056.421444	29035724.88	0	29035724.88	3355448.307	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 Public	Aggregate	Aggregate	Natural Ga	352.7236025	4260401.142	4260401.142	0	356555.2893	4607.262525	802.8346068	0	5410.097132	0.138319059	2.17952037	0	0.41873943	0.939220605	0.163663087	0	1.102883692
Sacramento	2045 T6 Utility	Aggregate	Aggregate	Diesel	27.4378641	351167.0099	351167.0099	0	109559.5694	393.8261108	13.27848811	0	407.1045989	9.1433E-05	5.94159E-05	0	0.000150849	0.062047464	0.002092031	0	0.064139495
Sacramento	2045 T6 Utility	Aggregate	Aggregate	Electricity	37.58702881	502583.4796	0	502583.4796	150107.5583	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 Utility	Aggregate	Aggregate	Natural Ga	0.07162865	916.8851433	916.8851433	0	286.0561369	0.925452268	0.085688797	0	1.011141005	0.000787789	0.000228593	0	0.001016382	0.000188659	1.7468E-05	0	0.000206128
Sacramento	2045 T6T5	Aggregate	Aggregate	Gasoline	702.560779	10104620.92	10104620.92	0	4596658.393	17320.24521	119.8859259	192.8644457	17632.99559	0.034908175	0.067620671	0.189651304	0.29218015	0.070937329	0.001451274	0.149802167	0.23105477
Sacramento	2045 T6T5	Aggregate	Aggregate	Electricity	517.1622639	11132182.5	0	11132182.5	3383594.103	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 CAIRP	Aggregate	Aggregate	Diesel	1355.680715	8940136.878	8940136.878	0	137629.871	126089.594	9373.53076	0	135463.124	0.051988477	0.226026632	0	0.278015108	19.86546689	1.476803589	0	21.34227046
Sacramento	2045 T6 CAIRP	Aggregate	Aggregate	Electricity	387.2002509	2646637.32	0	2646637.32	7776706.452	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T6 CAIRP	Aggregate	Aggregate	Natural Ga	13.93391544	918149.8175	918149.8175	0	99002.8296	1035.402307	230.0119788	0	1265.414286	0.946550021	0.699705408	0	1.646255659	0.210735334	0.046899447	0	0.25796298
Sacramento	2045 T6 NNOOS	Aggregate	Aggregate	Diesel	1469.231412	134542468.4	134542468.4	0	1054036.61	181520.7062	12074.39247	0	193595.0987	0.076035527	0.303941213	0	0.379976741	28.59866119	1.903212545	0	30.50098664
Sacramento	2045 T6 NNOOS	Aggregate	Aggregate	Diesel	632.1628816	48920634.17	48920634.17	0	5234546.142	65969.43593	5192.412292	0	71161.84822	0.028507774	0.130776109	0	0.159283883	10.3935115	0.081066671	0	11.21157817
Sacramento	2045 T7 Other Port	Aggregate	Aggregate	Diesel	10.2344223	771595.3137	771595.3137	0	45239.76641	1166.459477	22.97198629	0	1189.431275	0.00039637	0.000558894	0	0.000952564	0.183777616	0.036919216	0	0.187395382
Sacramento	2045 T7 Other Port	Aggregate	Aggregate	Electricity	2.356467841	195103.2607	0	195103.2607	12028.16593	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T7 POAK	Aggregate	Aggregate	Diesel	38.8532018	1406865.518	1406865.518	0	198319.175	2119.777329	87.22471107	0	2207.002041	0.000737254	0.002121743	0	0.002858997	0.333971782	0.013742289	0	0.34771407
Sacramento	2045 T7 POAK	Aggregate	Aggregate	Electricity	8.988371547	321739.4303	0	321739.4303	45879.52466	0	0	0	0	0	0	0	0	0	0	0	0
Sacramento	2045 T7 Public	Aggregate	Aggregate	Diesel	3021.519398	37719945.69	37719945.69	0	4836122.087	673											

CY	Season	AvgDays	Code	Equipmen t	Fuel	MaxHP	Class	C/R	Pre	Hand	Port	County	Air Basin	Air Dist.	Population	Activity	Consumption	ROG Exhaust	CO Exhaust	NOX Exhaust	CO2 Exhaust	SO2 Exhaust	PM Exhaust	N2O Exhaust	CH4 Exhaust
2019 Annual	Mon-Sun	Mon-Sun	2260001011	Off-Road M/G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.23E+02	4.57E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001011	Off-Road M/G2		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.06E+02	3.93E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001011	Off-Road M/G2		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		8.65E+02	3.20E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001011	Off-Road M/G2		120	Recreation U	N	NHH	NP	Monterey NCC	MBU		4.14E+02	1.53E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001021	Snowmobi G2		25	Recreation U	N	NHH	P	Monterey NCC	MBU		1.96E+00	3.10E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001021	Snowmobi G2		50	Recreation U	N	NHH	P	Monterey NCC	MBU		9.26E+00	1.46E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001021	Snowmobi G2		120	Recreation U	N	NHH	P	Monterey NCC	MBU		1.68E+01	2.65E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001031	All Terrain G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.02E+02	3.78E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001031	All Terrain G2		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		6.65E+01	2.46E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001031	All Terrain G2		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		8.76E+01	3.24E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001011	Off-Road M/G4		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		2.41E+02	8.91E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001011	Off-Road M/G4		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		3.88E+02	1.44E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001011	Off-Road M/G4		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		4.05E+02	1.50E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001031	All Terrain G4		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		8.34E+01	3.09E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001031	All Terrain G4		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.16E+03	4.30E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2265001031	All Terrain G4		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		5.24E+01	1.94E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2019 Annual	Mon-Sun	Mon-Sun	2260001010	Off-Road M/G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		3.08E+02	1.14E+03	4.32E+01	4.35E-02	6.81E-02	1.33E-05	1.45E-01	1.17E-04	5.28E-04	4.88E-05	2.71E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001010	Off-Road M/G2		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		2.65E+02	9.82E+02	3.72E+01	3.75E-02	5.86E-02	1.14E-05	1.24E-01	1.88E-04	4.55E-04	4.20E-05	2.33E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001010	Off-Road M/G2		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		2.16E+03	7.99E+03	3.03E+02	3.05E-01	4.77E-01	9.30E-05	1.01E+00	2.42E-03	3.70E-03	3.42E-04	1.90E-02	
2019 Annual	Mon-Sun	Mon-Sun	2260001020	Snowmobi G2		120	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.03E+03	3.82E+03	1.45E+02	1.46E-01	2.28E-01	4.45E-05	4.84E-01	1.71E-03	1.77E-03	1.64E-04	9.07E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001020	Snowmobi G2		25	Recreation U	N	NHH	P	Monterey NCC	MBU		5.65E+00	8.89E-01	6.73E-01	3.91E-04	1.36E-03	3.19E-05	2.86E-03	4.99E-08	1.27E-05	2.76E-06	2.43E-05	
2019 Annual	Mon-Sun	Mon-Sun	2260001020	Snowmobi G2		50	Recreation U	N	NHH	P	Monterey NCC	MBU		2.66E+01	4.19E+00	6.03E+00	3.51E-03	1.22E-02	2.86E-04	2.56E-02	4.47E-07	1.14E-04	1.83E-05	2.18E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260001020	Snowmobi G2		120	Recreation U	N	NHH	P	Monterey NCC	MBU		4.84E+01	7.63E+00	1.86E+01	1.07E-02	3.76E-02	8.94E-04	7.98E-02	1.39E-06	3.53E-04	4.44E-05	6.67E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260001030	All Terrain G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		3.37E+02	1.25E+03	4.72E+01	4.76E-02	7.43E-02	1.45E-05	1.58E-01	1.57E-04	5.77E-04	5.33E-05	2.96E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001030	All Terrain G2		25	Recreation U	N	NHH	NP	Monterey NCC	MBU		2.19E+02	8.11E+02	3.08E+01	3.10E-02	4.84E-02	9.44E-06	1.03E-01	1.40E-04	3.76E-04	3.47E-05	1.92E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001030	All Terrain G2		50	Recreation U	N	NHH	NP	Monterey NCC	MBU		2.88E+02	1.07E+03	4.05E+01	4.08E-02	6.37E-02	1.24E-05	1.35E-01	2.42E-04	4.94E-04	4.57E-05	2.53E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001050	Golf Carts G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.02E+03	3.07E+03	1.16E+03	5.23E-02	3.15E+00	3.93E-02	6.02E+00	2.48E-04	2.81E-03	5.51E-03	3.25E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260001060	Specialty V/G2		15	Recreation U	N	NHH	NP	Monterey NCC	MBU		1.32E+03	4.22E+02	1.55E+02	5.59E-03	4.24E-01	4.26E-03	8.10E-01	3.34E-05	3.05E-04	6.66E-04	3.47E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260002006	Tampers/RG2		15	ConstructiU	P	NHH	NP	Monterey NCC	MBU		2.35E+01	1.17E+01	2.37E+00	1.49E-04	6.39E-03	1.15E-04	1.22E-02	5.03E-07	1.02E-04	1.82E-05	9.25E-06	
2019 Annual	Mon-Sun	Mon-Sun	2260002009	Plate Comj/G2		15	ConstructiU	P	NHH	NP	Monterey NCC	MBU		2.02E+00	1.14E+00	2.30E-01	1.44E-05	6.11E-04	1.12E-05	1.19E-03	4.89E-08	9.94E-06	1.77E-06	8.97E-07	
2019 Annual	Mon-Sun	Mon-Sun	2260003040	Other Genj/G2		15	Industrial EU	N	NHH	NP	Monterey NCC	MBU		4.58E-01	4.71E-01	1.85E-01	8.35E-06	5.04E-04	6.27E-06	9.64E-04	3.97E-08	4.49E-07	8.63E-07	5.19E-07	
2019 Annual	Mon-Sun	Mon-Sun	2260004010	Lawn MowG2		15	Lawn and (C	N	NHH	NP	Monterey NCC	MBU		4.02E+02	2.52E+02	8.25E+01	3.32E-03	5.79E-02	8.57E-04	1.72E-01	7.07E-06	5.42E-04	2.23E-04	2.00E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004010	Lawn MowG2		15	Lawn and (R	N	NHH	NP	Monterey NCC	MBU		3.02E+03	1.28E+02	1.63E+01	2.09E-03	3.94E-02	4.32E-04	8.74E-02	3.60E-06	2.48E-04	1.08E-04	1.30E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004020	Chainsaws G2		2	Lawn and (C	N	HH	NP	Monterey NCC	MBU		7.20E+02	5.71E+02	3.40E+01	2.85E-02	4.47E-04	1.39E-01	5.73E-06	8.10E-05	2.31E-04	1.77E-03		
2019 Annual	Mon-Sun	Mon-Sun	2260004020	Chainsaws G2		2	Lawn and (R	N	HH	NP	Monterey NCC	MBU		8.10E+03	1.09E+02	5.28E+00	2.05E-03	1.06E-02	8.78E-05	2.65E-02	1.09E-06	2.74E-05	4.45E-05	1.27E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004020	Chainsaws G2		15	Lawn and (C	N	HH	NP	Monterey NCC	MBU		5.07E+02	4.02E+02	5.80E+01	4.85E-02	8.77E-02	7.61E-04	2.37E-01	9.76E-06	1.38E-04	2.60E-04	3.01E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260004020	Chainsaws G2		15	Lawn and (R	N	HH	NP	Monterey NCC	MBU		5.71E+03	7.66E+01	8.88E+00	3.35E-03	1.77E-02	1.49E-04	4.51E-02	1.86E-06	4.97E-05	5.01E-05	2.08E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004021	Chainsaws G2		15	Lawn and (C	P	HH	NP	Monterey NCC	MBU		6.32E+02	5.00E+02	7.21E+01	6.03E-02	1.09E-01	9.48E-04	2.95E-01	1.21E-05	1.72E-04	3.24E-04	3.75E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260004021	Chainsaws G2		15	Lawn and (R	P	HH	NP	Monterey NCC	MBU		7.10E+03	9.53E+01	1.16E+01	4.81E-03	2.41E-02	1.72E-04	5.62E-02	2.31E-06	4.58E-05	6.00E-05	2.99E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004025	Trimmers/ G2		2	Lawn and (C	N	HH	NP	Monterey NCC	MBU		2.35E+03	7.81E+02	3.46E+01	1.87E-02	6.15E-02	5.34E-04	1.66E-01	6.85E-06	9.68E-05	2.94E-04	1.16E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260004025	Trimmers/ G2		2	Lawn and (R	N	HH	NP	Monterey NCC	MBU		2.62E+04	1.54E+03	6.55E+01	2.95E-02	1.21E-01	1.06E-03	3.28E-01	1.35E-05	1.91E-04	5.80E-04	1.84E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260004030	Leaf BlowE G2		2	Lawn and (C	N	HH	P	Monterey NCC	MBU		3.51E+03	1.89E+03	1.01E+02	6.95E-02	1.65E-01	1.43E-03	4.47E-01	1.84E-05	2.60E-04	7.51E-04	4.32E-03	
2019 Annual	Mon-Sun	Mon-Sun	2260004030	Leaf BlowE G2		2	Lawn and (R	N	HH	P	Monterey NCC	MBU		9.04E+03	1.19E+02	5.60E+00	2.16E-03	1.12E-02	9.32E-05	2.81E-02	1.16E-06	2.91E-05	4.79E-05	1.34E-04	
2019 Annual	Mon-Sun	Mon-Sun	2260004030	Leaf BlowE G2		15	Lawn and (C	P	NHH	NP	Monterey NCC	MBU		1.77E+01	6.59E+00	2.89E+00	1.63E-04	7.83E-03	1.26E-04	1.50E-02	6.17E-07	1.25E-04	1.46E-05	1.01E-05	
2019 Annual	Mon-Sun	Mon-Sun	2260004050	Shredders G2		15	Lawn and (R	P	NHH	NP	Monterey NCC	MBU		6.31E+02	1.56E+00	7.10E-01	7.79E-05	1.92E-03	2.46E-05	3.54E-03	1.46E-07	2.96E-05	3.10E-06	4.84E-06	
2019 Annual	Mon-Sun	Mon-Sun	2260004070	Commercial G2		15	Lawn and (C	N	NHH	NP	Monterey NCC	MBU		9.40E+00	2.06E+01	8.43E+00	3.80E-04	2.30E-02	2.86E-04	4.39E-02	1.81E-06	2.04E-05	3.85E-05	2.36E-05	
2019 Annual	Mon-Sun	Mon-Sun	2260004070	Commercial G2		25	Lawn and (C	N	NHH	NP	Monterey NCC	MBU		4.64E+00	1.02E+01	9.02E+00	3.90E-04	2.54E-02	3.01E-04	4.57E-02	1.88E-06	2.13E-05	2.85E-05	2.44E-05	
2019 Annual	Mon-Sun	Mon-Sun	2260004075	Other Lawj/G2		2	Lawn and (C	N	HH	NP	Monterey NCC	MBU		3.97E+00	7.46E-01										

2019 Annual	Mon-Sun	2265003030 Sweepers/ G4	175 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.08E-02	2.95E-02	2.67E-01	8.92E-07	9.06E-05	7.65E-06	2.43E-03	2.42E-08	1.94E-07	2.50E-07	4.66E-08
2019 Annual	Mon-Sun	2265003040 Other Geni/G4	15 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.09E+00	5.23E+00	2.30E+00	1.26E-04	7.00E-03	8.68E-05	1.07E-02	3.05E-07	5.68E-06	1.03E-05	6.61E-06
2019 Annual	Mon-Sun	2265003040 Other Geni/G4	25 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.67E+00	1.97E+00	2.00E+00	1.07E-04	6.28E-03	7.90E-05	9.04E-03	2.29E-07	4.96E-06	6.18E-06	5.62E-06
2019 Annual	Mon-Sun	2265003040 Other Geni/G4	50 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.47E+00	2.88E+00	5.24E+00	7.10E-05	6.33E-03	1.39E-04	4.03E-02	4.90E-07	3.09E-06	9.90E-06	3.71E-06
2019 Annual	Mon-Sun	2265003040 Other Geni/G4	120 Industrial EU	N	NHH	NP	Monterey NCC	MBU	4.84E-01	9.47E-01	3.82E+00	2.20E-05	1.48E-03	1.15E-04	3.45E-02	3.33E-07	2.67E-06	5.36E-06	1.15E-06
2019 Annual	Mon-Sun	2265003040 Other Geni/G4	175 Industrial EU	N	NHH	NP	Monterey NCC	MBU	4.69E-02	9.17E-02	7.87E-01	3.09E-06	2.78E-04	3.22E-05	7.15E-03	7.10E-08	5.70E-07	7.69E-07	1.61E-07
2019 Annual	Mon-Sun	2265003050 Other Mat/G4	50 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.08E-02	2.21E-02	5.43E-02	1.10E-06	6.77E-05	1.87E-06	4.14E-04	5.03E-09	3.17E-08	9.94E-08	5.76E-08
2019 Annual	Mon-Sun	2265003050 Other Mat/G4	120 Industrial EU	N	NHH	NP	Monterey NCC	MBU	9.22E-01	9.76E-01	2.67E+00	3.24E-05	1.17E-03	1.17E-04	2.38E-02	2.30E-07	1.85E-06	5.19E-06	1.70E-06
2019 Annual	Mon-Sun	2265004010 Lawn Mow/G4	5 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	2.38E+03	1.49F+03	1.84E+02	2.27E-02	4.29E-01	5.55E-03	1.02E+00	3.51E-05	3.21E-03	1.32E-03	1.19E-03
2019 Annual	Mon-Sun	2265004010 Lawn Mow/G4	5 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	3.78E+04	1.60E+03	2.22E+02	1.86E-02	6.21E-01	4.75E-03	1.09E+00	3.77E-05	2.63E-03	1.22E-03	9.69E-04
2019 Annual	Mon-Sun	2265004015 Tillers G4	5 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	2.47E+02	3.78E+01	5.58E+00	5.15E-04	1.48E-02	1.24E-04	2.87E-02	9.90E-07	7.58E-05	3.11E-05	2.70E-05
2019 Annual	Mon-Sun	2265004015 Tillers G4	5 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	9.60E+02	4.73E+01	7.19E+00	6.48E-04	1.98E-02	1.63E-04	3.58E-02	1.24E-06	9.00E-05	3.92E-05	3.39E-05
2019 Annual	Mon-Sun	2265004025 Trimmers/ G4	5 Lawn and (C	P	NHH	NP	Monterey NCC	MBU	4.35E+02	1.62E+02	5.15E+00	6.95E-04	1.24E-02	3.00E-04	2.75E-02	9.51E-07	8.98E-06	9.85E-05	3.64E-05
2019 Annual	Mon-Sun	2265004025 Trimmers/ G4	5 Lawn and (R	P	NHH	NP	Monterey NCC	MBU	2.03E+03	1.19E+02	4.05E+00	5.09E-04	1.07E-02	2.01E-04	2.03E-02	7.02E-07	1.22E-05	6.90E-05	2.67E-05
2019 Annual	Mon-Sun	2265004030 Leaf BlowE/G4	5 Lawn and (C	N	NHH	P	Monterey NCC	MBU	1.11E+02	1.88E+01	1.30E+00	9.95E-05	3.66E-03	2.36E-05	6.42E-03	2.22E-07	1.51E-05	9.30E-06	5.21E-06
2019 Annual	Mon-Sun	2265004030 Leaf BlowE/G4	5 Lawn and (C	N	NHH	P	Monterey NCC	MBU	9.52E+01	1.25E+00	9.33E-02	6.93E-06	2.85E-04	1.75E-06	4.27E-04	1.47E-08	8.54E-07	6.34E-07	3.63E-07
2019 Annual	Mon-Sun	2265004040 Rear Engin G4	15 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	1.30E+03	9.69E+02	3.36E+02	1.61E-02	1.03E+00	1.11E-02	1.57E+00	4.47E-05	7.28E-04	1.56E-03	8.41E-04
2019 Annual	Mon-Sun	2265004040 Rear Engin G4	15 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	1.14E+03	8.83E+01	3.05E+01	1.28E-03	9.34E-02	9.00E-04	1.43E-01	4.08E-06	5.73E-05	1.33E-04	6.72E-05
2019 Annual	Mon-Sun	2265004040 Rear Engin G4	25 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	5.96E+00	4.43E+00	2.99E+00	1.38E-04	9.40E-03	9.71E-05	1.36E-02	3.44E-07	6.29E-06	1.01E-05	7.22E-06
2019 Annual	Mon-Sun	2265004040 Rear Engin G4	25 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	5.14E+00	3.97E-01	2.67E-01	1.11E-05	8.42E-04	7.41E-06	1.22E-03	3.08E-08	4.87E-07	8.26E-07	5.83E-07
2019 Annual	Mon-Sun	2265004045 Front Mow/G4	15 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	5.98E+01	4.44E+01	2.46E+01	1.18E-03	7.50E-02	8.14E-04	1.15E-01	3.27E-06	5.33E-05	0.19E-05	6.16E-05
2019 Annual	Mon-Sun	2265004045 Front Mow/G4	15 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	1.93E+03	1.49E+02	8.24E+01	3.46E-03	2.52E-01	2.43E-03	3.86E-01	1.10E-05	1.55E-04	2.89E-04	1.81E-04
2019 Annual	Mon-Sun	2265004045 Front Mow/G4	25 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	4.68E+01	3.48E+01	2.59E+01	1.20E-03	8.16E-02	8.43E-04	1.18E-01	2.98E-06	5.46E-05	8.35E-05	6.27E-05
2019 Annual	Mon-Sun	2265004045 Front Mow/G4	25 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	1.51E+03	1.17E+02	8.70E+01	3.62E-03	2.74E-01	2.41E-03	3.95E-01	1.00E-05	1.58E-04	2.56E-04	1.90E-04
2019 Annual	Mon-Sun	2265004050 Shredders G4	5 Lawn and (C	P	NHH	NP	Monterey NCC	MBU	4.69E+01	1.74E+01	4.94E+00	6.67E-04	1.19E-02	2.88E-04	2.64E-02	9.13E-07	8.62E-06	3.41E-05	3.49E-05
2019 Annual	Mon-Sun	2265004050 Shredders G4	5 Lawn and (R	P	NHH	NP	Monterey NCC	MBU	1.75E+03	4.30E+00	1.47E+00	1.24E-04	4.61E-03	4.73E-05	6.52E-03	2.25E-07	5.29E-06	6.78E-06	6.49E-06
2019 Annual	Mon-Sun	2265004055 Lawn & Ga G4	15 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	2.39E+02	8.42E+01	5.61E+01	2.26E-03	1.72E-01	1.58E-03	6.23E-01	7.50E-06	1.03E-04	1.76E-04	1.18E-04
2019 Annual	Mon-Sun	2265004055 Lawn & Ga G4	15 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	1.55E+03	6.21E+01	4.14E+01	1.58E-03	1.27E-01	1.11E-03	1.94E-01	5.53E-06	7.07E-05	1.27E-04	8.25E-05
2019 Annual	Mon-Sun	2265004055 Lawn & Ga G4	25 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	9.43E+01	3.32E+01	3.53E+01	1.40E-03	1.11E-01	9.34E-04	1.60E-01	4.06E-06	6.29E-05	8.63E-05	7.33E-05
2019 Annual	Mon-Sun	2265004055 Lawn & Ga G4	25 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	6.12E+02	2.45E+01	2.60E+01	9.93E-04	8.20E-02	6.42E-04	1.18E-01	3.00E-06	4.31E-05	6.12E-05	5.20E-05
2019 Annual	Mon-Sun	2265004055 Lawn & Ga G4	50 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	1.36E+00	3.89E-01	5.99E-01	8.12E-06	4.58E-04	1.50E-05	5.03E-03	6.12E-08	3.86E-07	1.15E-06	4.25E-07
2019 Annual	Mon-Sun	2265004060 Wood Split/G4	5 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	8.03E+01	2.83E+01	8.62E+00	9.45E-04	2.13E-02	2.30E-04	4.62E-02	1.59E-06	1.36E-04	3.78E-05	4.95E-05
2019 Annual	Mon-Sun	2265004060 Wood Split/G4	5 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	2.01E+03	6.05E+00	2.20E+00	1.35E-04	6.90E-03	3.58E-05	9.88E-03	3.41E-07	1.76E-05	6.62E-06	7.08E-06
2019 Annual	Mon-Sun	2265004065 Chippers/S/G4	15 Lawn and (C	P	NHH	P	Monterey NCC	MBU	1.13E+00	3.91E+00	3.48E+00	2.82E-04	1.10E-02	2.00E-04	1.59E-02	4.53E-07	1.33E-04	1.39E-05	1.45E-05
2019 Annual	Mon-Sun	2265004065 Chippers/S/G4	15 Lawn and (R	P	NHH	P	Monterey NCC	MBU	2.02E+00	9.13E-02	8.16E-02	5.49E-06	2.52E-04	3.33E-06	3.71E-04	1.06E-08	3.02E-06	2.72E-07	2.87E-07
2019 Annual	Mon-Sun	2265004065 Chippers/S/G4	25 Lawn and (C	P	NHH	P	Monterey NCC	MBU	6.43E+00	2.22E+01	3.34E+01	2.76E-03	1.04E-01	1.72E-03	1.48E-01	3.74E-06	1.24E-03	9.84E-05	1.43E-04
2019 Annual	Mon-Sun	2265004065 Chippers/S/G4	25 Lawn and (R	P	NHH	P	Monterey NCC	MBU	1.14E+01	5.17E-01	7.75E-01	5.16E-05	2.45E-03	2.83E-05	3.44E-03	8.71E-08	2.80E-05	1.92E-06	2.70E-06
2019 Annual	Mon-Sun	2265004070 Commercial/G4	15 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	8.46E+01	1.85E+02	1.04E+02	6.05E-03	3.18E-01	4.14E-03	4.83E-01	1.38E-05	2.70E-04	4.25E-04	3.15E-04
2019 Annual	Mon-Sun	2265004070 Commercial/G4	25 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	4.17E+01	9.13E+01	9.13E+01	5.00E-03	2.87E-01	3.69E-03	4.11E-01	1.04E-05	2.30E-04	2.87E-04	2.60E-04
2019 Annual	Mon-Sun	2265004070 Commercial/G4	50 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	1.68E+01	3.38E+01	5.82E+01	1.17E-03	9.50E-02	2.09E-03	4.08E-01	4.96E-06	3.13E-05	1.30E-04	6.10E-05
2019 Annual	Mon-Sun	2265004070 Commercial/G4	120 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	1.11E-01	2.23E-01	5.48E-01	2.65E-06	1.47E-04	1.52E-05	5.05E-03	4.88E-08	3.91E-07	9.28E-07	1.38E-07
2019 Annual	Mon-Sun	2265004075 Other Law/G4	5 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	7.43E+01	1.40E+01	2.99E+00	2.75E-04	7.93E-03	6.61E-05	1.53E-02	5.30E-07	4.04E-05	1.40E-05	1.44E-05
2019 Annual	Mon-Sun	2265004075 Other Law/G4	5 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	2.28E+03	2.68E+01	6.46E+00	4.69E-04	1.98E-02	1.19E-04	2.95E-02	1.02E-06	5.81E-05	2.52E-05	2.45E-05
2019 Annual	Mon-Sun	2265004075 Other Law/G4	15 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	3.30E+01	6.20E+00	2.91E+00	1.18E-04	8.90E-03	8.27E-05	1.36E-02	3.88E-07	5.41E-06	1.08E-05	6.19E-06
2019 Annual	Mon-Sun	2265004075 Other Law/G4	15 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	1.01E+03	1.19E+01	5.65E+00	2.43E-04	1.75E-02	1.60E-04	2.62E-02	7.46E-07	9.04E-06	2.08E-05	1.27E-05
2019 Annual	Mon-Sun	2265004075 Other Law/G4	25 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	6.97E-01	1.31E-01	1.35E-01	5.40E-06	4.24E-04	3.62E-06	6.12E-04	1.55E-08	2.43E-07	3.37E-07	2.83E-07
2019 Annual	Mon-Sun	2265004075 Other Law/G4	25 Lawn and (R	N	NHH	NP	Monterey NCC	MBU	2.15E+01	2.53E-01	2.63E-01	1.13E-05	8.33E-04	6.66E-06	1.18E-03	3.00E-08	4.08E-07	6.32E-07	5.90E-07
2019 Annual	Mon-Sun	2265004075 Other Law/G4	50 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	5.05E-02	8.44E-03	1.80E-02	2.58E-07	1.28E-05	4.85E-07	1.52E-04	1.85E-09	1.17E-08	3.05E-08	1.35E-08
2019 Annual	Mon-Sun	2265004075 Other Law/G4	120 Lawn and (C	N	NHH	NP	Monterey NCC	MBU	1.21E-01	2.03E-02	1.11E-01	8.56E-07	2.56E-05	4.27E-06	1.02E-03	9.89E-09	7.93E-08	1.45E-07	4.48E-08
2019 Annual	Mon-Sun	2265005010 2-Wheel Tr/G4	5 Agricultura U	P	NHH	NP	Monterey NCC	MBU	3.20E+01	1.41E+01	3.02E+00	4.32E-04	7.01E-03	1.87E-04	1.65E-02	5.70E-07	5.38E-06	2.45E-05	2.26E-05
2019 Annual	Mon-Sun	2265005010 2-Wheel Tr/G4	15 Agricultura U	P	NHH	NP	Monterey NCC	MBU	3.73E+01	3.40E+01	1.73E+01	1.34E-03	5.21E-02	9.51E-04	7.97E-02	2.27E-06	6.68E-04	8.81E-05	7.00E-05
2019 Annual	Mon-Sun	2265005010 2-Wheel Tr/G4	25 Agricultura U	P	NHH	NP	Monterey NCC	MBU	1.00E+00	9.11E-01	9.56E-01	7.57E-05	2.97E-03	4.72E-05	4.28E-03	1.08E-07	3.59E-05	3.28E-06	3.96E-06
2019 Annual	Mon-Sun	2265005015 Agricultura/G4	120 Agricultura U	P	NHH	NP	Monterey NCC	MBU	1.20E+01	1.80E+01	8.98E+01	1.56E-03	4.91E-02	6.62E-03	7.83E-01	7.57E-06	6.07E-05	1.17E-04	8.13E-05
2019 Annual	Mon-Sun	2265005015 Agricultura/G4	175 Agricultura U	P	NHH	NP	Monterey NCC	MBU	1.64E+00	2.47E+00	1.76E+01	1.95E-04	6.60E						

2019 Annual	Mon-Sun	2265008111	Hydrant triG4	175	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.22E-01	1.35E+00	1.08E+01	1.52E-04	5.13E-03	6.52E-04	9.54E-02	8.10E-07	7.60E-06	1.49E-05	7.87E-06
2019 Annual	Mon-Sun	2265009005	Transport IG4	15	Transport IU	N	NHH	NP	Monterey NCC	MBU	7.05E+01	1.45E+02	8.88E+01	5.15E-03	2.70E-01	3.52E-03	4.12E-01	1.18E-05	2.30E-04	3.49E-04	2.69E-04
2019 Annual	Mon-Sun	2266003010	Aerial Lifts C4	15	Industrial EU	P	NHH	NP	Monterey NCC	MBU	9.90E-02	1.02E-01	8.15E-02	1.89E-07	7.31E-05	2.00E-06	4.53E-04	0.00E+00	2.07E-07	0.00E+00	1.58E-06
2019 Annual	Mon-Sun	2266003010	Aerial Lifts C4	25	Industrial EU	P	NHH	NP	Monterey NCC	MBU	4.25E+00	4.37E+00	5.20E+00	1.82E-05	4.83E-03	1.33E-04	2.84E-02	0.00E+00	1.46E-05	0.00E+00	1.52E-04
2019 Annual	Mon-Sun	2266003020	Forklifts C4	25	Industrial EU	N	NHH	NP	Monterey NCC	MBU	4.17E-02	1.43E-01	1.40E-01	8.88E-07	1.41E-04	3.93E-06	7.33E-04	0.00E+00	4.82E-07	0.00E+00	7.44E-06
2019 Annual	Mon-Sun	2266003020	Forklifts C4	50	Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.82E+01	1.39E+02	1.86E+02	1.23E-04	2.04E-02	5.35E-03	1.27E+00	0.00E+00	1.13E-04	0.00E+00	1.03E-03
2019 Annual	Mon-Sun	2266003020	Forklifts C4	120	Industrial EU	N	NHH	NP	Monterey NCC	MBU	9.91E+01	4.89E+02	1.16E+03	7.28E-04	3.44E-01	3.45E-02	7.64E+00	0.00E+00	6.79E-04	0.00E+00	6.10E-03
2019 Annual	Mon-Sun	2266003020	Forklifts C4	175	Industrial EU	N	NHH	NP	Monterey NCC	MBU	3.63E+00	1.79E+01	8.74E+01	3.36E-05	2.02E-02	1.73E-03	5.83E-01	0.00E+00	5.18E-05	0.00E+00	2.81E-04
2019 Annual	Mon-Sun	2266006005	Generator C4	120	Light Comr U	N	NHH	P	Monterey NCC	MBU	2.80E+00	8.81E-01	5.52E+00	2.06E-06	1.16E-03	1.47E-04	3.70E-02	0.00E+00	3.29E-06	0.00E+00	1.73E-05
2019 Annual	Mon-Sun	2266006005	Generator C4	175	Light Comr U	N	NHH	P	Monterey NCC	MBU	2.32E+00	7.30E-01	7.97E+00	2.34E-06	1.39E-03	2.07E-04	5.39E-02	0.00E+00	4.80E-06	0.00E+00	1.96E-05
2019 Annual	Mon-Sun	2266006020	Gas ComprC4	50	Light Comr U	P	NHH	P	Monterey NCC	MBU	4.35E-01	1.01E+01	3.46E+01	1.97E-05	3.49E-03	7.16E-04	2.38E-01	0.00E+00	1.82E-05	0.00E+00	1.65E-04
2019 Annual	Mon-Sun	2266006020	Gas ComprC4	120	Light Comr U	P	NHH	P	Monterey NCC	MBU	8.99E-01	2.09E+01	2.03E+02	1.07E-04	5.59E-02	4.24E-03	1.34E+00	0.00E+00	1.04E-04	0.00E+00	9.01E-04
2019 Annual	Mon-Sun	2266006020	Gas ComprC4	175	Light Comr U	P	NHH	P	Monterey NCC	MBU	1.45E-01	3.38E+00	5.21E+01	3.00E-05	1.14E-02	1.13E-03	3.48E-01	0.00E+00	2.77E-05	0.00E+00	2.51E-04
2019 Annual	Mon-Sun	2266006020	Gas ComprC4	250	Light Comr U	N	NHH	P	Monterey NCC	MBU	1.16E-01	2.70E+00	5.39E+01	2.31E-05	1.31E-02	1.10E-03	3.59E-01	0.00E+00	3.19E-05	0.00E+00	1.93E-04
2019 Annual	Mon-Sun	2266006020	Gas ComprC4	500	Light Comr U	N	NHH	P	Monterey NCC	MBU	1.02E-01	2.36E+00	7.59E+01	3.25E-05	1.84E-02	1.55E-03	5.05E-01	0.00E+00	4.49E-05	0.00E+00	2.72E-04
2019 Annual	Mon-Sun	2266008010	Cargo TracC4	175	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.80E-01	1.63E-01	1.50E+00	4.48E-07	2.67E-04	3.72E-05	1.02E-02	0.00E+00	9.03E-07	0.00E+00	3.67E-06
2019 Annual	Mon-Sun	2266008025	Air CondiitiC4	175	Airport GrcU	N	NHH	P	Monterey NCC	MBU	6.34E-02	3.83E-03	4.10E-02	9.61E-09	6.85E-06	9.62E-07	2.78E-04	0.00E+00	2.47E-08	0.00E+00	8.06E-08
2019 Annual	Mon-Sun	2266008035	Baggage TL C4	120	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	8.98E-01	2.04E+00	1.28E+01	1.18E-05	3.72E-03	4.84E-04	8.36E-02	0.00E+00	7.44E-06	0.00E+00	9.88E-05
2019 Annual	Mon-Sun	2266008040	Belt LoadE C4	120	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	2.39E-01	3.61E-01	1.22E+00	8.57E-07	3.17E-04	4.03E-05	8.06E-03	0.00E+00	7.17E-07	0.00E+00	7.18E-06
2019 Annual	Mon-Sun	2266008045	Bobtail C4	120	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	2.05E-02	4.93E-02	3.03E-01	1.07E-07	7.26E-05	6.60E-06	2.02E-03	0.00E+00	1.79E-07	0.00E+00	8.96E-07
2019 Annual	Mon-Sun	2266008050	Cargo LoadC4	120	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	9.65E-02	2.73E-01	1.09E+00	1.18E-06	3.42E-04	4.53E-05	7.11E-03	0.00E+00	6.32E-07	0.00E+00	9.91E-06
2019 Annual	Mon-Sun	2266008065	Forklift C4	50	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.25E+00	2.50E+00	4.05E+00	1.29E-06	3.46E-04	9.36E-05	2.79E-02	0.00E+00	2.48E-06	0.00E+00	1.08E-05
2019 Annual	Mon-Sun	2266008070	Fuel Truck C4	175	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	4.21E-02	6.53E-02	2.53E-01	1.17E-07	5.28E-05	7.25E-06	1.70E-03	0.00E+00	1.51E-07	0.00E+00	9.83E-07
2019 Annual	Mon-Sun	2266008085	Lay Truck C4	175	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.78E-02	4.01E-02	1.44E-01	5.60E-08	2.81E-05	3.88E-06	9.69E-04	0.00E+00	8.62E-08	0.00E+00	4.69E-07
2019 Annual	Mon-Sun	2266008090	Lift C4	120	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.53E-02	3.30E-02	1.85E-01	9.82E-08	4.36E-05	5.41E-06	1.23E-03	0.00E+00	1.09E-07	0.00E+00	8.24E-07
2019 Annual	Mon-Sun	2266008100	Other C4	50	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.85E-01	5.16E-01	1.40E+00	1.53E-06	1.63E-04	6.09E-05	9.58E-03	0.00E+00	8.52E-07	0.00E+00	1.28E-05
2019 Annual	Mon-Sun	2266008101	Passenger C4	175	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.63E-02	5.37E-04	5.73E-03	1.32E-09	9.54E-07	1.34E-07	3.89E-05	0.00E+00	3.46E-09	0.00E+00	1.11E-08
2019 Annual	Mon-Sun	2266008102	Sweeper C4	50	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.63E-02	1.24E-02	3.07E-02	1.18E-08	2.55E-06	8.91E-07	2.12E-04	0.00E+00	1.89E-08	0.00E+00	9.93E-08
2019 Annual	Mon-Sun	2266008105	Service TruC4	250	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.87E-01	6.66E-01	2.68E+00	1.26E-06	6.30E-04	6.22E-05	1.78E-02	0.00E+00	1.59E-06	0.00E+00	1.06E-05
2019 Annual	Mon-Sun	2266008106	Catering Tr C4	250	Airport GrcU	N	NHH	NP	Monterey NCC	MBU	7.14E-02	8.85E-02	1.04E+00	4.34E-07	2.09E-04	2.88E-05	7.02E-03	0.00E+00	6.24E-07	0.00E+00	3.64E-06
2019 Annual	Mon-Sun	2270002003	Pavers D	25	ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.30E-01	2.93E-01	2.49E-01	3.30E-06	1.12E-05	2.09E-05	2.73E-03	3.46E-08	8.15E-07	0.00E+00	2.98E-07
2019 Annual	Mon-Sun	2270002003	Pavers D	50	ConstructiU	P	NHH	NP	Monterey NCC	MBU	7.56E+00	1.72E+01	2.24E+01	7.72E-04	2.68E-03	2.12E-03	2.41E-01	3.12E-06	1.72E-04	0.00E+00	6.97E-05
2019 Annual	Mon-Sun	2270002003	Pavers D	120	ConstructiU	P	NHH	NP	Monterey NCC	MBU	8.91E+00	2.03E+01	6.43E+01	9.81E-04	4.90E-03	5.91E-03	7.02E-01	8.24E-06	4.72E-04	0.00E+00	8.85E-05
2019 Annual	Mon-Sun	2270002003	Pavers D	175	ConstructiU	P	NHH	NP	Monterey NCC	MBU	5.54E+00	1.26E+01	7.39E+01	8.10E-01	4.48E-03	5.60E-03	8.10E-01	9.11E-06	3.14E-04	0.00E+00	7.33E-05
2019 Annual	Mon-Sun	2270002003	Pavers D	250	ConstructiU	N	NHH	NP	Monterey NCC	MBU	6.68E-01	1.52E+00	1.34E+01	1.13E-04	3.69E-04	9.18E-04	1.48E-01	1.66E-06	3.40E-05	0.00E+00	1.02E-05
2019 Annual	Mon-Sun	2270002003	Pavers D	500	ConstructiU	N	NHH	NP	Monterey NCC	MBU	6.85E-01	1.56E+00	1.65E+01	1.31E-04	5.13E-04	1.02E-03	1.82E-01	1.79E-06	3.84E-05	0.00E+00	1.18E-05
2019 Annual	Mon-Sun	2270002009	Plate ComgD	15	ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.79E+00	4.59E+00	9.04E-01	1.15E-05	6.04E-05	7.22E-05	9.90E-03	1.54E-07	2.82E-06	0.00E+00	1.04E-06
2019 Annual	Mon-Sun	2270002015	Rollers D	15	ConstructiU	P	NHH	NP	Monterey NCC	MBU	5.25E+00	1.00E+01	2.88E+00	3.67E-05	1.93E-04	2.30E-04	3.16E-02	4.91E-07	8.99E-06	0.00E+00	3.32E-06
2019 Annual	Mon-Sun	2270002015	Rollers D	25	ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.19E+00	4.18E+00	2.54E+00	3.36E-05	1.15E-04	2.12E-04	2.79E-02	3.54E-07	7.93E-06	0.00E+00	3.03E-06
2019 Annual	Mon-Sun	2270002015	Rollers D	50	ConstructiU	P	NHH	NP	Monterey NCC	MBU	6.82E+00	1.31E+01	1.57E+01	3.92E-04	1.63E-03	1.38E-03	1.70E-01	2.20E-06	9.32E-05	0.00E+00	3.54E-05
2019 Annual	Mon-Sun	2270002015	Rollers D	120	ConstructiU	P	NHH	NP	Monterey NCC	MBU	3.66E+01	7.04E+01	1.90E+02	2.20E-03	1.37E-02	1.44E-02	2.07E+00	2.43E-05	1.07E-03	0.00E+00	1.98E-04
2019 Annual	Mon-Sun	2270002015	Rollers D	175	ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.47E+01	2.83E+01	1.39E+02	1.18E-03	8.65E-03	8.37E-03	1.53E+00	1.72E-05	4.51E-04	0.00E+00	1.06E-04
2019 Annual	Mon-Sun	2270002015	Rollers D	250	ConstructiU	N	NHH	NP	Monterey NCC	MBU	2.09E+00	4.01E+00	2.78E+01	1.78E-04	6.52E-04	1.47E-03	3.07E-01	3.45E-06	4.96E-05	0.00E+00	1.60E-05
2019 Annual	Mon-Sun	2270002015	Rollers D	500	ConstructiU	N	NHH	NP	Monterey NCC	MBU	1.47E+00	2.82E+00	2.79E+01	1.69E-04	6.67E-04	1.31E-03	3.08E-01	3.02E-06	4.65E-05	0.00E+00	1.53E-05
2019 Annual	Mon-Sun	2270002018	Scrapers D	120	ConstructiU	P	NHH	NP	Monterey NCC	MBU	3.38E-01	1.03E+00	4.42E+00	6.65E-05	3.41E-04	3.92E-04	4.82E-02	5.66E-07	3.10E-05	0.00E+00	6.00E-06
2019 Annual	Mon-Sun	2270002018	Scrapers D	175	ConstructiU	P	NHH	NP	Monterey NCC	MBU	3.10E+00	9.41E+00	6.36E+01	6.98E-04	4.20E-03	6.96E-01	7.83E-06	2.59E-04	0.00E+00	0.00E+00	6.30E-05
2019 Annual	Mon-Sun	2270002018	Scrapers D	250	ConstructiU	N	NHH	NP	Monterey NCC	MBU	3.02E+00	9.18E+00	8.71E+01	7.37E-04	2.37E-03	5.68E-03	9.60E-01	1.08E-05	2.08E-04	0.00E+00	6.65E-05
2019 Annual	Mon-Sun	2270002018	Scrapers D	500	ConstructiU	N	NHH	NP	Monterey NCC	MBU	8.31E+00	2.53E+01	3.68E+02	2.94E-03	1.11E-02	2.15E-02	4.06E+00	3.98E-05	8.11E-04	0.00E+00	2.65E-04
2019 Annual	Mon-Sun	2270002018	Scrapers D	750	ConstructiU	N	NHH	NP	Monterey NCC	MBU	4.15E-01	1.26E+00	2.55E-04	2.55E-04	9.58E-04	1.90E-03	3.50E-01	3.52E-06	7.08E-05	0.00E+00	2.30E-05
2019 Annual	Mon-Sun	2270002021	Paving Equd	25	ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.25E-01	5.12E-01	2.94E-01	3.90E-06	1.33E-05	2.46E-05	3.23E-03	4.10E-08	9.20E-07	0.00E+00	3.52E-07
2019 Annual	Mon-Sun	2270002021	Paving Equd	50	ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.91E-01	4.37E-01	4.85E-01	1.65E-05	5.75E-05	5.22E-03	6.75E-08	3.72E-06	0.00E+00	0.00E+00	1.49E-06
2019 Annual	Mon-Sun	2270002021	Paving Equd	120	ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.75E+0										

2019 Annual	Mon-Sun	2270002069	Crawler TrcD	120 ConstructiU	P	NHH	NP	Monterey NCC	MBU	6.89E+01	1.96E+02	5.91E+02	8.67E-03	4.56E-02	5.12E-02	6.45E+00	7.57E-05	3.99E-03	0.00E+00	7.82E-04
2019 Annual	Mon-Sun	2270002069	Crawler TrcD	175 ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.33E+01	6.64E+01	3.67E+02	3.95E-03	2.59E-02	2.59E-02	4.02E+00	4.52E-05	1.45E-03	0.00E+00	3.57E-04
2019 Annual	Mon-Sun	2270002069	Crawler TrcD	250 ConstructiU	N	NHH	NP	Monterey NCC	MBU	2.00E+01	5.71E+01	4.29E+02	3.58E-03	1.16E-02	2.71E-02	4.74E+00	5.33E-05	9.93E-04	0.00E+00	3.23E-04
2019 Annual	Mon-Sun	2270002069	Crawler TrcD	500 ConstructiU	N	NHH	NP	Monterey NCC	MBU	1.37E+01	3.91E+01	4.59E+02	3.62E-03	1.35E-02	2.60E-02	5.06E+00	4.97E-05	9.80E-04	0.00E+00	3.27E-04
2019 Annual	Mon-Sun	2270002069	Crawler TrcD	750 ConstructiU	N	NHH	NP	Monterey NCC	MBU	2.12E-01	6.03E-01	1.27E+01	1.01E-04	3.74E-04	7.35E-04	1.40E-01	1.41E-06	2.74E-05	0.00E+00	9.07E-06
2019 Annual	Mon-Sun	2270002069	Crawler TrcD	1000 ConstructiU	N	NHH	NP	Monterey NCC	MBU	2.12E-01	6.02E-01	1.80E+01	1.53E-04	5.81E-04	1.64E-03	1.98E-01	1.99E-06	4.63E-05	0.00E+00	1.38E-05
2019 Annual	Mon-Sun	2270002072	Skid Steer D	25 ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.66E+01	3.81E+01	2.39E+01	3.30E-04	1.10E-03	2.04E-03	2.62E-01	3.33E-06	8.66E-05	0.00E+00	2.97E-05
2019 Annual	Mon-Sun	2270002072	Skid Steer D	50 ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.51E+02	3.52E+02	4.11E+02	4.30E-03	3.55E-02	3.02E-02	4.49E+00	5.80E-05	9.38E-04	0.00E+00	3.88E-04
2019 Annual	Mon-Sun	2270002072	Skid Steer D	120 ConstructiU	P	NHH	NP	Monterey NCC	MBU	7.91E+01	1.84E+02	3.59E+02	2.13E-03	2.46E-02	1.65E-02	3.94E+00	4.62E-05	7.24E-04	0.00E+00	1.93E-04
2019 Annual	Mon-Sun	2270002075	Off-HighwzD	120 ConstructiU	P	NHH	NP	Monterey NCC	MBU	8.67E-03	2.64E-02	1.13E-01	2.02E-06	9.01E-06	1.17E-05	1.24E-03	1.45E-08	9.54E-07	0.00E+00	1.83E-07
2019 Annual	Mon-Sun	2270002075	Off-HighwzD	175 ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.06E+01	3.23E+01	1.92E+02	2.47E-03	1.30E-02	2.10E+00	2.37E-05	9.47E-04	0.00E+00	2.23E-04	
2019 Annual	Mon-Sun	2270002075	Off-HighwzD	250 ConstructiU	N	NHH	NP	Monterey NCC	MBU	1.00E+01	3.05E+01	1.81E+02	1.84E-03	5.69E-03	1.45E-02	1.99E+00	2.24E-05	5.77E-04	0.00E+00	1.66E-04
2019 Annual	Mon-Sun	2270002075	Off-HighwzD	750 ConstructiU	N	NHH	NP	Monterey NCC	MBU	1.33E+00	4.04E+00	1.04E+02	9.94E-04	4.02E-03	7.71E-03	1.15E+00	1.15E-05	3.04E-04	0.00E+00	8.97E-05
2019 Annual	Mon-Sun	2270002075	Off-HighwzD	1000 ConstructiU	N	NHH	NP	Monterey NCC	MBU	1.40E-01	4.26E-01	1.58E+01	1.59E-04	6.64E-04	1.65E-03	1.73E-01	1.74E-06	5.04E-05	0.00E+00	1.44E-05
2019 Annual	Mon-Sun	2270002078	Dumpers/1D	25 ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.08E-01	3.78E-01	1.31E-01	1.74E-06	5.92E-06	1.10E-05	1.44E-03	1.83E-08	4.23E-07	0.00E+00	1.57E-07
2019 Annual	Mon-Sun	2270002081	Other Cons:D	15 ConstructiU	P	NHH	NP	Monterey NCC	MBU	2.87E+00	5.43E+00	2.50E+00	3.19E-05	1.67E-04	2.00E-04	2.74E-02	4.27E-07	7.81E-06	0.00E+00	2.88E-06
2019 Annual	Mon-Sun	2270002081	Other Cons:D	25 ConstructiU	P	NHH	NP	Monterey NCC	MBU	4.86E-01	9.19E-01	5.53E-01	7.32E-06	2.50E-05	4.62E-05	6.07E-03	7.70E-08	1.73E-06	0.00E+00	6.60E-07
2019 Annual	Mon-Sun	2270002081	Other Cons:D	50 ConstructiU	P	NHH	NP	Monterey NCC	MBU	7.46E-01	1.43E+00	1.83E+00	2.59E-05	1.64E-04	1.45E-04	2.00E-02	2.58E-07	6.57E-06	0.00E+00	2.34E-06
2019 Annual	Mon-Sun	2270002081	Other Cons:D	120 ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.23E+00	2.36E+00	8.69E+00	6.42E-05	6.01E-04	4.92E-04	9.53E-02	1.12E-06	2.77E-05	0.00E+00	5.79E-06
2019 Annual	Mon-Sun	2270002081	Other Cons:D	175 ConstructiU	P	NHH	NP	Monterey NCC	MBU	1.70E+00	3.26E+00	1.58E+01	9.15E-05	9.53E-04	6.37E-04	1.73E-01	1.95E-06	3.07E-05	0.00E+00	8.26E-06
2019 Annual	Mon-Sun	2270002081	Other Cons:D	500 ConstructiU	N	NHH	NP	Monterey NCC	MBU	3.95E+00	7.56E+00	8.69E+01	4.03E-04	1.78E-03	2.64E-03	9.60E-01	9.43E-06	9.17E-05	0.00E+00	3.64E-05
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	15 Industrial EU	P	NHH	NP	Monterey NCC	MBU	2.17E+00	2.37E+00	9.37E-01	1.19E-05	6.26E-05	7.48E-05	1.03E-02	1.60E-07	2.92E-06	0.00E+00	1.08E-06
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	25 Industrial EU	P	NHH	NP	Monterey NCC	MBU	3.54E+00	3.88E+00	1.93E+00	2.70E-05	8.95E-05	1.66E-04	2.12E-02	2.69E-07	7.09E-06	0.00E+00	2.44E-06
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	50 Industrial EU	P	NHH	NP	Monterey NCC	MBU	1.29E+01	1.36E+01	1.22E+01	1.89E-04	9.81E-04	9.87E-04	1.33E-01	1.73E-06	5.25E-05	0.00E+00	1.70E-05
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	120 Industrial EU	P	NHH	NP	Monterey NCC	MBU	1.15E+01	1.21E+01	2.09E+01	1.66E-04	1.38E-03	1.38E-03	2.30E-01	2.69E-06	8.36E-05	0.00E+00	1.50E-05
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	500 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.47E+00	1.55E+00	1.49E+01	5.95E-05	2.96E-04	5.83E-04	1.65E-01	1.62E-06	1.81E-05	0.00E+00	5.37E-06
2019 Annual	Mon-Sun	2270003010	Aerial Lifts D	750 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.18E-01	1.25E-01	2.16E+00	8.77E-06	4.30E-05	6.87E-05	2.39E-02	2.41E-07	2.66E-06	0.00E+00	7.91E-07
2019 Annual	Mon-Sun	2270003020	Forklifts D	50 Industrial EU	P	NHH	NP	Monterey NCC	MBU	3.92E+00	1.94E+01	1.30E+01	1.93E-04	1.35E-03	1.08E-03	1.42E-01	1.83E-06	4.36E-05	0.00E+00	1.75E-05
2019 Annual	Mon-Sun	2270003020	Forklifts D	120 Industrial EU	P	NHH	NP	Monterey NCC	MBU	6.15E+00	3.04E+01	4.32E+01	3.58E-04	3.18E-03	2.33E-03	4.74E-01	5.56E-06	1.29E-04	0.00E+00	3.23E-05
2019 Annual	Mon-Sun	2270003020	Forklifts D	175 Industrial EU	P	NHH	NP	Monterey NCC	MBU	6.18E+00	3.05E+01	7.79E+01	5.38E-04	5.04E-03	2.98E-03	8.55E-01	9.62E-06	1.54E-04	0.00E+00	4.86E-05
2019 Annual	Mon-Sun	2270003020	Forklifts D	250 Industrial EU	N	NHH	NP	Monterey NCC	MBU	6.14E+00	3.03E+01	1.06E+02	6.09E-04	2.34E-03	3.4E-03	1.17E+00	1.31E-05	1.11E-04	0.00E+00	5.49E-05
2019 Annual	Mon-Sun	2270003020	Forklifts D	500 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.63E+00	1.30E+01	6.51E+01	3.70E-04	1.73E-03	1.85E-03	7.19E-01	7.06E-06	6.67E-05	0.00E+00	3.34E-05
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	15 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.88E-01	5.13E-01	2.79E-01	3.17E-06	1.87E-05	2.23E-05	3.06E-03	4.76E-08	8.72E-07	0.00E+00	2.86E-07
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	25 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.88E-01	5.13E-01	4.58E-01	6.06E-06	2.07E-05	5.03E-03	6.38E-08	1.43E-06	0.00E+00	5.47E-07	
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	50 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.61E+00	1.88E+01	2.72E+01	4.27E-04	2.71E-03	2.27E-03	2.96E-01	3.82E-06	1.05E-04	0.00E+00	3.85E-05
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	120 Industrial EU	N	NHH	NP	Monterey NCC	MBU	9.28E+00	3.10E+01	1.06E+02	8.99E-04	7.67E-03	6.14E-03	1.16E+00	1.37E-05	3.70E-04	0.00E+00	8.11E-05
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	175 Industrial EU	N	NHH	NP	Monterey NCC	MBU	4.27E+00	1.43E+01	9.04E+01	6.25E-04	5.72E-03	3.78E-03	9.92E-01	1.12E-05	2.02E-04	0.00E+00	5.63E-05
2019 Annual	Mon-Sun	2270003030	Sweepers/SD	250 Industrial EU	N	NHH	NP	Monterey NCC	MBU	6.84E-01	2.29E+00	1.68E+01	9.47E-05	3.65E-04	5.75E-04	1.85E-01	2.08E-06	1.97E-05	0.00E+00	8.54E-06
2019 Annual	Mon-Sun	2270003040	Other GeniD	15 Industrial EU	N	NHH	NP	Monterey NCC	MBU	7.56E-01	2.95E+00	8.61E-01	9.78E-06	5.76E-05	6.88E-05	9.43E-03	1.47E-07	2.69E-06	0.00E+00	8.83E-07
2019 Annual	Mon-Sun	2270003040	Other GeniD	25 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.01E+00	3.96E+00	2.76E+00	3.66E-05	1.25E-04	2.31E-04	3.03E-02	3.85E-07	8.64E-06	0.00E+00	3.30E-06
2019 Annual	Mon-Sun	2270003040	Other GeniD	50 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.25E+00	4.90E+00	4.91E+00	1.12E-04	5.42E-04	4.35E-04	5.32E-02	6.88E-07	2.72E-05	0.00E+00	1.01E-05
2019 Annual	Mon-Sun	2270003040	Other GeniD	120 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.02E+00	1.96E+01	5.55E+01	6.19E-04	4.14E-03	3.94E-03	6.08E-01	7.13E-06	2.77E-04	0.00E+00	5.58E-05
2019 Annual	Mon-Sun	2270003040	Other GeniD	175 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.03E+00	1.97E+01	8.59E+01	7.31E-04	5.54E-03	4.68E-03	9.42E-01	1.06E-05	2.53E-04	0.00E+00	6.60E-05
2019 Annual	Mon-Sun	2270003040	Other GeniD	250 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.01E+00	1.96E+01	1.20E+02	7.95E-04	2.75E-03	5.66E-03	1.33E+00	1.49E-05	1.85E-04	0.00E+00	7.17E-05
2019 Annual	Mon-Sun	2270003040	Other GeniD	500 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.00E+00	1.95E+01	2.35E+02	1.51E-03	5.11E-03	9.83E-03	2.59E+00	2.54E-05	3.47E-04	0.00E+00	1.36E-04
2019 Annual	Mon-Sun	2270003040	Other GeniD	750 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.25E+00	4.88E+00	9.66E+01	6.22E-04	2.10E-03	4.14E-03	1.07E+00	1.07E-05	1.44E-04	0.00E+00	5.61E-05
2019 Annual	Mon-Sun	2270003040	Other GeniD	1000 Industrial EU	N	NHH	NP	Monterey NCC	MBU	7.61E-01	2.97E+00	7.52E+01	5.28E-04	1.77E-03	5.97E-03	8.30E-01	8.35E-06	1.53E-04	0.00E+00	4.76E-05
2019 Annual	Mon-Sun	2270003050	Other Mat:D	50 Industrial EU	N	NHH	NP	Monterey NCC	MBU	3.60E-02	1.30E-01	1.82E-01	4.11E-06	1.98E-05	1.60E-05	1.97E-03	2.55E-08	1.00E-06	0.00E+00	3.71E-07
2019 Annual	Mon-Sun	2270003050	Other Mat:D	120 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.16E-01	7.80E-01	2.16E+00	2.36E-02	1.60E-04	1.53E-04	2.36E-02	2.77E-07	1.08E-05	0.00E+00	2.15E-06
2019 Annual	Mon-Sun	2270003050	Other Mat:D	175 Industrial EU	N	NHH	NP	Monterey NCC	MBU	2.31E-01	8.36E-01	4.65E+00	3.91E-05	2.98E-04	2.53E-04	5.10E-02	5.74E-07	1.37E-05	0.00E+00	3.53E-06
2019 Annual	Mon-Sun	2270003050	Other Mat:D	250 Industrial EU	N	NHH	NP	Monterey NCC	MBU	5.50E-01	1.99E+00	1.30E+01	8.52E-05	2.79E-04	6.14E-04	1.44E-01	1.62E-06	2.00E-05	0.00E+00	7.69E-06
2019 Annual	Mon-Sun	2270003050	Other Mat:D	500 Industrial EU	N	NHH	NP	Monterey NCC	MBU	1.03E-01	3.72E-01	3.22E+00	2.04E-05	6.99E-05	1.35E-04	3.56E-02	3.49E-07	4.75E-06	0.00E+00	1.84E-06
2019 Annual	Mon-Sun	2270003050	Other Mat:D	9999 Industrial EU	N	NHH	NP	Monterey NCC	MBU	3.08E-02	1.11E-01	3.74E+00	2.78E-05	9.78E-06	4.13E-02	4.05E-07	7.57E			

2019 Annual	Mon-Sun	2270008025 Air Conditio	175 Airport GrcU	N	NHH	P	Monterey NCC	MBU	2.42E-01	5.36E-01	3.54E+00	1.35E-05	2.07E-04	9.17E-05	3.89E-02	4.38E-07	3.12E-06	0.00E+00	1.22E-06
2019 Annual	Mon-Sun	2270008025 Air Conditio-D	250 Airport GrcU	N	NHH	P	Monterey NCC	MBU	1.91E-02	4.23E-02	3.97E-01	1.29E-06	7.95E-06	6.85E-06	4.39E-03	4.94E-08	1.82E-07	0.00E+00	1.16E-07
2019 Annual	Mon-Sun	2270008025 Air Conditio-D	500 Airport GrcU	N	NHH	P	Monterey NCC	MBU	1.27E-02	2.82E-02	5.29E-01	1.71E-06	1.03E-05	8.79E-06	5.85E-03	6.59E-08	2.40E-07	0.00E+00	1.55E-07
2019 Annual	Mon-Sun	2270008030 Air Start Ur-D	175 Airport GrcU	N	NHH	P	Monterey NCC	MBU	6.36E-03	5.81E-03	4.01E-02	2.10E-07	2.26E-06	1.96E-06	4.40E-04	4.32E-09	8.63E-08	0.00E+00	1.89E-08
2019 Annual	Mon-Sun	2270008030 Air Start Ur-D	250 Airport GrcU	N	NHH	P	Monterey NCC	MBU	1.91E-02	1.74E-02	1.71E-01	6.78E-07	3.43E-06	7.23E-06	1.89E-03	1.85E-08	2.10E-07	0.00E+00	6.12E-08
2019 Annual	Mon-Sun	2270008030 Air Start Ur-D	500 Airport GrcU	N	NHH	P	Monterey NCC	MBU	7.51E-01	6.86E-01	1.34E+01	5.04E-05	2.65E-04	5.13E-04	1.49E-01	1.46E-06	1.59E-05	0.00E+00	4.55E-06
2019 Annual	Mon-Sun	2270008030 Air Start Ur-D	750 Airport GrcU	N	NHH	P	Monterey NCC	MBU	1.08E-01	9.88E-02	2.90E+00	1.10E-05	5.72E-05	1.13E-04	3.21E-02	3.15E-07	3.47E-06	0.00E+00	9.97E-07
2019 Annual	Mon-Sun	2270008035 Baggage Tr-D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.05E+00	1.16E+01	2.61E+01	4.87E-04	2.07E-03	2.78E-03	2.84E-01	3.34E-06	2.40E-04	0.00E+00	4.39E-05
2019 Annual	Mon-Sun	2270008040 Belt LoadE-D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.47E+00	3.93E+00	6.12E+00	9.84E-05	4.68E-04	5.82E-04	6.68E-02	7.84E-07	4.94E-05	0.00E+00	8.88E-06
2019 Annual	Mon-Sun	2270008045 Bobtail D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.08E-01	2.03E-01	7.21E-01	1.10E-05	5.37E-05	6.76E-05	7.87E-03	9.23E-08	5.65E-06	0.00E+00	9.94E-07
2019 Annual	Mon-Sun	2270008050 Cargo Load-D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.79E+00	4.46E+00	1.29E+01	1.58E-04	9.45E-04	1.01E-03	1.41E-01	1.65E-06	7.75E-05	0.00E+00	1.42E-05
2019 Annual	Mon-Sun	2270008065 Forklift D	175 Airport GrcU	P	NHH	NP	Monterey NCC	MBU	2.48E-01	5.06E-01	1.35E+00	9.62E-06	8.23E-05	7.05E-05	1.48E-02	1.66E-07	3.65E-06	0.00E+00	8.68E-07
2019 Annual	Mon-Sun	2270008070 Fuel Truck D	250 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.34E-01	2.29E-01	6.13E-01	3.17E-06	1.31E-05	2.75E-05	6.77E-03	7.62E-08	8.72E-07	0.00E+00	2.86E-07
2019 Annual	Mon-Sun	2270008075 Ground Po-D	175 Airport GrcU	N	NHH	P	Monterey NCC	MBU	1.99E+00	5.29E+00	3.69E+01	2.66E-04	2.31E-03	1.79E-03	4.06E-01	4.56E-06	9.45E-05	0.00E+00	2.40E-05
2019 Annual	Mon-Sun	2270008085 Lav Truck D	175 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.18E-02	1.14E-01	2.73E-01	2.26E-06	1.75E-05	2.99E-03	3.37E-08	7.89E-07	0.00E+00	2.04E-07	
2019 Annual	Mon-Sun	2270008090 Lift D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	3.31E-01	7.18E-01	2.36E+00	2.27E-05	1.68E-04	1.62E-04	2.59E-02	3.04E-07	1.10E-05	0.00E+00	2.05E-06
2019 Annual	Mon-Sun	2270008100 Other GSE D	175 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	5.92E-01	1.50E+00	6.01E+00	6.85E-05	3.88E-04	4.79E-04	6.58E-02	8.51E-07	2.74E-05	0.00E+00	6.18E-06
2019 Annual	Mon-Sun	2270008101 Passenger-D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	5.09E-02	9.78E-03	3.30E-02	1.81E-07	2.02E-06	1.99E-06	3.62E-04	4.25E-09	9.69E-08	0.00E+00	1.64E-08
2019 Annual	Mon-Sun	2270008102 Sweeper D	120 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.46E-01	1.16E-01	1.73E-01	7.48E-07	1.09E-05	8.32E-06	1.90E-03	2.14E-08	3.56E-07	0.00E+00	6.75E-08
2019 Annual	Mon-Sun	2270008103 Generator D	120 Airport GrcU	N	NHH	P	Monterey NCC	MBU	9.54E-02	4.27E-01	1.60E+00	1.76E-05	1.20E-04	1.12E-04	1.75E-02	1.97E-07	7.75E-06	0.00E+00	1.59E-06
2019 Annual	Mon-Sun	2270008103 Generator D	175 Airport GrcU	N	NHH	P	Monterey NCC	MBU	5.22E-01	2.33E+00	1.65E+01	1.40E-04	1.07E-03	8.82E-04	1.80E-01	2.03E-06	4.77E-05	0.00E+00	1.27E-05
2019 Annual	Mon-Sun	2270008103 Generator D	250 Airport GrcU	N	NHH	P	Monterey NCC	MBU	5.41E-01	2.42E+00	2.45E+01	1.67E-04	5.67E-04	1.14E-03	2.71E-01	3.05E-06	3.83E-05	0.00E+00	1.51E-05
2019 Annual	Mon-Sun	2270008103 Generator D	500 Airport GrcU	N	NHH	P	Monterey NCC	MBU	5.73E-02	2.56E-01	4.11E+00	2.73E-05	9.04E-05	1.70E-04	4.54E-02	5.11E-07	6.16E-06	0.00E+00	2.46E-06
2019 Annual	Mon-Sun	2270008103 Generator D	750 Airport GrcU	N	NHH	P	Monterey NCC	MBU	7.63E-02	3.41E-01	8.85E+00	5.89E-05	1.95E-04	3.75E-04	9.78E-02	1.10E-06	1.34E-05	0.00E+00	5.31E-06
2019 Annual	Mon-Sun	2270008105 Service Tru-D	175 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	2.10E-01	2.91E-01	5.76E-01	3.53E-06	3.38E-05	2.92E-05	6.33E-03	7.12E-08	1.40E-06	0.00E+00	3.18E-07
2019 Annual	Mon-Sun	2270008106 Catering Tr-D	250 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	5.09E-02	5.17E-02	3.65E-01	1.09E-06	7.00E-06	9.79E-06	4.04E-03	4.55E-08	2.83E-07	0.00E+00	9.84E-08
2019 Annual	Mon-Sun	2270008111 Hydrant Tr-D	175 Airport GrcU	N	NHH	NP	Monterey NCC	MBU	1.02E-01	1.74E-01	1.12E+00	9.00E-06	7.34E-05	6.93E-05	1.34E-02	1.50E-07	3.56E-06	0.00E+00	8.12E-07
2019 Annual	Mon-Sun	2270008115 CompressC-D	120 Airport GrcU	P	NHH	P	Monterey NCC	MBU	3.18E-02	7.10E-02	1.85E-01	1.80E-06	1.32E-05	1.27E-05	2.03E-03	2.38E-08	8.66E-07	0.00E+00	1.62E-07
2019 Annual	Mon-Sun	2270008115 CompressC-D	250 Airport GrcU	N	NHH	P	Monterey NCC	MBU	6.36E-03	1.42E-02	7.50E-02	4.36E-07	1.65E-06	3.43E-06	8.28E-04	9.32E-09	1.12E-07	0.00E+00	3.93E-08
2019 Annual	Mon-Sun	2270008115 CompressC-D	500 Airport GrcU	N	NHH	P	Monterey NCC	MBU	2.54E-02	5.68E-02	6.18E-01	3.48E-06	1.30E-05	2.52E-05	6.83E-03	6.71E-08	8.89E-07	0.00E+00	3.14E-07
2019 Annual	Mon-Sun	2270008115 CompressC-D	750 Airport GrcU	N	NHH	P	Monterey NCC	MBU	8.27E-02	1.85E-01	2.97E+00	1.68E-05	6.26E-05	1.24E-04	3.28E-02	3.30E-07	4.31E-06	0.00E+00	1.51E-06
2019 Annual	Mon-Sun	2270009005 Transport ID	15 Transport IU	N	NHH	NP	Monterey NCC	MBU	1.28E-02	3.65E+02	1.33E+02	1.52E-03	8.93E-03	1.07E-02	1.46E+00	1.85E-05	4.18E-04	0.00E+00	1.37E-04
2019 Annual	Mon-Sun	2270009005 Transport ID	25 Transport IU	N	NHH	NP	Monterey NCC	MBU	4.07E+01	1.16E+02	7.19E+01	9.33E-04	3.25E-03	6.02E-03	7.90E-01	1.00E-05	2.26E-04	0.00E+00	8.59E-05
2019 Annual	Mon-Sun	2270009005 Transport ID	50 Transport IU	N	NHH	NP	Monterey NCC	MBU	9.90E+02	3.98E+03	4.71E+03	5.90E-02	4.06E-01	3.18E-01	5.16E+01	6.66E-04	5.25E-03	0.00E+00	3.52E-03
2019 Annual	Mon-Sun	2270011005 A/C unit D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	2.88E-01	2.37E-01	8.22E-01	6.22E-06	5.34E-05	5.48E-05	9.02E-03	1.06E-07	3.22E-06	0.00E+00	5.62E-07
2019 Annual	Mon-Sun	2270011005 A/C unit D	250 Military Ta U	N	NHH	P	Monterey NCC	MBU	1.20E-01	9.91E-02	7.01E-01	2.86E-06	1.42E-05	3.16E-05	7.75E-03	8.72E-08	9.18E-07	0.00E+00	2.58E-07
2019 Annual	Mon-Sun	2270011005 A/C unit D	500 Military Ta U	N	NHH	P	Monterey NCC	MBU	4.76E-02	3.92E-02	4.20E-01	1.62E-06	8.36E-06	1.71E-05	4.64E-03	4.56E-08	5.29E-07	0.00E+00	1.46E-07
2019 Annual	Mon-Sun	2270011010 Aircraft Suj-D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	7.84E-02	6.46E-02	1.50E-01	1.14E-06	9.78E-06	1.00E-05	1.65E-03	1.94E-08	5.90E-07	0.00E+00	1.03E-07
2019 Annual	Mon-Sun	2270011010 Aircraft Suj-D	175 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.12E-01	9.22E-02	4.41E-01	2.40E-06	2.48E-05	2.28E-05	4.85E-03	5.46E-08	1.00E-06	0.00E+00	2.16E-07
2019 Annual	Mon-Sun	2270011015 Cart D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	3.36E-02	2.77E-02	7.68E-02	5.81E-07	4.99E-06	5.12E-06	8.42E-04	9.88E-09	3.01E-07	0.00E+00	5.25E-08
2019 Annual	Mon-Sun	2270011015 Cart D	175 Military Ta U	P	NHH	P	Monterey NCC	MBU	8.40E-03	6.92E-03	3.62E-02	1.97E-07	2.04E-06	1.87E-06	3.98E-04	4.48E-09	8.20E-08	0.00E+00	1.77E-08
2019 Annual	Mon-Sun	2270011015 Cart D	250 Military Ta U	N	NHH	P	Monterey NCC	MBU	2.80E-02	2.31E-02	1.54E-01	6.31E-07	3.14E-06	6.95E-06	1.71E-03	1.92E-08	2.02E-07	0.00E+00	5.69E-08
2019 Annual	Mon-Sun	2270011020 Communic-D	50 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.12E-02	9.22E-03	1.27E-02	1.80E-07	9.69E-07	1.03E-06	1.39E-04	1.79E-09	5.34E-08	0.00E+00	1.63E-08
2019 Annual	Mon-Sun	2270011020 Communic-D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.68E-02	1.38E-02	3.79E-02	2.87E-07	2.47E-06	2.53E-06	4.16E-04	4.88E-09	1.49E-07	0.00E+00	2.59E-08
2019 Annual	Mon-Sun	2270011025 CompressC-D	50 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.12E-02	9.22E-03	1.55E-02	2.21E-07	1.19E-06	1.26E-06	1.70E-04	2.20E-09	6.54E-08	0.00E+00	1.99E-08
2019 Annual	Mon-Sun	2270011025 CompressC-D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	4.23E-01	3.48E-01	8.47E-01	6.41E-06	5.51E-05	5.64E-05	9.29E-03	1.09E-07	3.32E-06	0.00E+00	5.79E-07
2019 Annual	Mon-Sun	2270011025 CompressC-D	175 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.12E-02	9.22E-03	5.27E-02	2.86E-07	2.96E-06	2.72E-06	5.79E-04	6.51E-09	1.19E-07	0.00E+00	2.58E-08
2019 Annual	Mon-Sun	2270011025 CompressC-D	250 Military Ta U	N	NHH	P	Monterey NCC	MBU	2.24E-02	1.84E-02	1.40E-01	5.71E-07	2.84E-06	6.30E-06	1.55E-03	1.74E-08	1.83E-07	0.00E+00	5.15E-08
2019 Annual	Mon-Sun	2270011025 CompressC-D	500 Military Ta U	N	NHH	P	Monterey NCC	MBU	7.84E-02	6.46E-02	8.19E-01	3.15E-07	1.63E-05	3.33E-05	9.05E-03	8.88E-08	1.03E-06	0.00E+00	2.84E-07
2019 Annual	Mon-Sun	2270011030 Crane D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	4.48E-02	3.69E-02	1.32E-01	4.02E-07	8.18E-06	5.31E-06	1.46E-03	1.71E-08	1.47E-07	0.00E+00	3.63E-08
2019 Annual	Mon-Sun	2270011030 Crane D	175 Military Ta U	P	NHH	P	Monterey NCC	MBU	8.40E-03	6.92E-03	3.33E-02	8.46E-08	1.82E-06	8.39E-07	3.67E-04	4.12E-09	2.41E-08	0.00E+00	7.63E-09
2019 Annual	Mon-Sun	2270011030 Crane D	250 Military Ta U	N	NHH	P	Monterey NCC	MBU	5.60E-03	4.61E-03	3.35E-02	7.24E-08	6.27E-07	5.68E-07	3.71E-04	4.17E-09	1.37E-08	0.00E+00	6.53E-09
2019 Annual	Mon-Sun	2270011040 Deicer D	120 Military Ta U	P	NHH	P	Monterey NCC	MBU	1.12E-02	9.22E-03	3.48E-02	2.63E-07	2.26E-06	3.22E-06	3.81E-04	4.47E-09	1.36E-07	0.00E+00	2.37E-08
2019 Annual	Mon-Sun	2270011050 Generator D	50 Military Ta U	P	NHH	P	Monterey NCC	MBU	7.56E-02	6.23E-02	8.14E-02	1.16E-06	6.21E-06	6.62E-06	8.89E-04	1.15E-08	3.42E-07	0.00E+00	1.04E

2030 Offroad 2007

CY	Season	AvgDays	Code	Equipmen t	Fuel	MaxHP	Class	C/R	Pre	Hand	Port	County	Air Basin	Air Dist.	Population	Activity	Consumption	ROG Exhaust	CO Exhaust	NOX Exhaust	CO2 Exhaust	SO2 Exhaust	PM Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.82E+02	6.73E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.56E+02	5.79E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.27E+03	4.71E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		120	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	6.09E+02	2.25E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		25	Recreation:U		N	NHH	P	Monterey	NCC	MBU	3.33E+00	5.25E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		50	Recreation:U		N	NHH	P	Monterey	NCC	MBU	1.57E+01	2.48E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		120	Recreation:U		N	NHH	P	Monterey	NCC	MBU	2.86E+01	4.50E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.51E+02	5.59E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	9.83E+01	3.64E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.29E+02	4.79E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	Off-Road V G4		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	3.54E+02	1.31E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	Off-Road V G4		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	5.72E+02	2.12E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	Off-Road V G4		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	5.96E+02	2.21E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	All Terrain G4		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.23E+02	4.56E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	All Terrain G4		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.71E+03	6.35E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.27E+09	All Terrain G4		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	7.74E+01	2.87E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	4.54E+02	1.68E+03	6.37E+01	6.41E-02	1.00E-01	1.95E-05	2.13E-01	1.72E-04	7.78E-04	7.19E-05	3.98E-03
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	3.90E+02	1.45E+03	5.48E+01	5.52E-02	8.62E-02	1.68E-05	1.83E-01	2.77E-04	6.69E-04	6.19E-05	3.43E-03
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	3.18E+03	1.18E+04	4.46E+02	4.49E-01	7.02E-01	1.37E-04	1.49E+00	3.57E-03	5.45E-03	5.04E-04	2.79E-02
2030	Annual	Mon-Sun	2.26E+09	Off-Road V G2		120	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.52E+03	5.63E+03	2.13E+02	2.15E-01	3.36E-01	6.55E-05	7.13E-01	2.52E-03	2.61E-03	2.41E-04	1.34E-02
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		25	Recreation:U		N	NHH	P	Monterey	NCC	MBU	9.58E+00	1.51E+00	1.08E+00	5.76E-04	2.14E-03	5.82E-05	4.86E-03	8.46E-08	1.87E-05	4.85E-06	3.58E-05
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		50	Recreation:U		N	NHH	P	Monterey	NCC	MBU	4.51E+01	7.11E+00	9.66E+00	5.16E-03	1.91E-02	5.22E-04	4.35E-02	7.58E-07	1.68E-04	3.22E-05	3.21E-04
2030	Annual	Mon-Sun	2.26E+09	Snowmobil G2		120	Recreation:U		N	NHH	P	Monterey	NCC	MBU	8.21E+01	1.29E+01	3.00E+01	1.61E-02	5.95E-02	1.62E-03	1.35E-01	2.36E-06	5.22E-04	7.80E-05	9.98E-04
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	4.98E+02	1.84E+03	6.98E+01	7.03E-02	1.10E-01	2.14E-05	2.33E-01	2.33E-04	8.53E-04	7.88E-05	4.37E-03
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		25	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	3.24E+02	1.20E+03	4.54E+01	4.58E-02	7.15E-02	1.39E-05	1.52E-01	2.07E-04	5.55E-04	5.13E-05	2.84E-03
2030	Annual	Mon-Sun	2.26E+09	All Terrain G2		50	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	4.26E+02	1.58E+03	5.98E+01	6.02E-02	9.41E-02	1.84E-05	2.00E-01	3.58E-04	7.31E-04	6.75E-05	3.74E-03
2030	Annual	Mon-Sun	2.26E+09	Golf Carts G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	1.04E+03	3.15E+03	1.19E+03	5.35E-02	3.32E+00	4.02E-02	6.18E+00	2.54E-04	2.88E-03	5.64E-03	3.32E-03
2030	Annual	Mon-Sun	2.26E+09	Specialty V G2		15	Recreation:U		N	NHH	NP	Monterey	NCC	MBU	2.38E+03	4.32E+02	1.59E+02	5.73E-03	4.34E-01	4.37E-03	8.31E-01	3.42E-05	3.13E-04	6.83E-04	3.56E-04
2030	Annual	Mon-Sun	2.26E+09	Tampers/R G2		15	Constructiv U		P	NHH	NP	Monterey	NCC	MBU	2.54E+01	1.27E+01	2.55E+00	1.61E-04	6.89E-03	1.24E-04	1.32E-02	5.43E-07	1.10E-04	1.97E-05	9.98E-06
2030	Annual	Mon-Sun	2.26E+09	Plate Comp G2		15	Constructiv U		P	NHH	NP	Monterey	NCC	MBU	2.17E+00	1.23E+00	2.48E-01	1.56E-05	6.69E-04	1.20E-05	1.28E-03	5.27E-08	1.07E-05	1.91E-06	9.68E-07
2030	Annual	Mon-Sun	2.26E+09	Other Gene G2		15	Industrial E U		N	NHH	NP	Monterey	NCC	MBU	4.94E-01	5.08E-01	2.00E-01	9.00E-06	5.44E-04	6.76E-06	1.04E-03	4.28E-08	4.84E-07	9.30E-07	5.59E-07
2030	Annual	Mon-Sun	2.26E+09	Lawn Mow G2		15	Lawn and C C		N	NHH	NP	Monterey	NCC	MBU	4.38E+02	2.74E+02	3.10E+01	3.51E-03	6.30E-02	9.32E-04	1.87E-01	7.69E-06	5.89E-04	2.42E-04	2.18E-04
2030	Annual	Mon-Sun	2.26E+09	Lawn Mow G2		15	Lawn and C R		N	NHH	NP	Monterey	NCC	MBU	3.29E+03	1.40E+02	1.70E+01	1.41E-03	4.02E-02	3.77E-04	9.51E-02	3.92E-06	2.46E-04	1.08E-04	8.76E-05
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		2	Lawn and C C		N	HH	NP	Monterey	NCC	MBU	7.84E+02	6.21E+02	3.70E+01	3.10E-02	5.60E-02	4.87E-04	1.51E-01	6.24E-06	8.82E-05	2.51E-04	1.93E-03
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		2	Lawn and C R		N	HH	NP	Monterey	NCC	MBU	8.82E+03	1.18E+02	5.42E+00	1.74E-03	1.07E-02	9.32E-05	2.89E-02	1.19E-06	1.69E-05	4.80E-05	1.08E-04
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		15	Lawn and C C		N	HH	NP	Monterey	NCC	MBU	5.52E+02	4.38E+02	6.31E+01	5.27E-02	9.54E-02	8.29E-04	2.58E-01	1.06E-05	1.50E-04	2.83E-04	3.28E-03
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		15	Lawn and C R		N	HH	NP	Monterey	NCC	MBU	6.21E+03	8.34E+01	9.22E+00	2.96E-03	1.82E-02	1.59E-04	4.91E-02	2.02E-06	2.87E-05	5.41E-05	1.84E-04
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		15	Lawn and C C		P	HH	NP	Monterey	NCC	MBU	6.87E+02	5.45E+02	7.85E+01	6.57E-02	1.19E-01	1.03E-03	3.21E-01	1.32E-05	1.87E-04	3.52E-04	4.08E-03
2030	Annual	Mon-Sun	2.26E+09	Chainsaws G2		15	Lawn and C R		P	HH	NP	Monterey	NCC	MBU	7.73E+03	1.04E+02	1.15E+01	3.75E-03	2.28E-02	1.96E-04	6.12E-02	2.52E-06	3.56E-05	6.71E-05	2.33E-04
2030	Annual	Mon-Sun	2.26E+09	Trimmers/f G2		2	Lawn and C C		N	HH	NP	Monterey	NCC	MBU	2.56E+03	8.50E+02	3.77E+01	2.03E-02	6.70E-02	5.82E-04	1.81E-01	7.46E-06	1.05E-04	3.20E-04	1.26E-03
2030	Annual	Mon-Sun	2.26E+09	Trimmers/f G2		2	Lawn and C R		N	HH	NP	Monterey	NCC	MBU	2.85E+04	1.68E+03	7.12E+01	3.20E-02	1.32E-01	1.15E-03	3.57E-01	1.47E-05	2.08E-04	6.31E-04	1.99E-03
2030	Annual	Mon-Sun	2.26E+09	Leaf Blowe G2		2	Lawn and C C		N	HH	P	Monterey	NCC	MBU	3.82E+03	2.05E+03	1.09E+02	7.56E-02	1.80E-01	1.56E-03	4.86E-01	2.00E-05	2.83E-04	8.17E-04	4.70E-03
2030	Annual	Mon-Sun	2.26E+09	Leaf Blowe G2		2	Lawn and C R		N	HH	P	Monterey	NCC	MBU	9.84E+03	1.29E+02	5.74E+00	1.83E-03	1.13E-02	9.89E-05	3.06E-02	1.26E-06	1.79E-05	5.16E-05	1.14E-04
2030	Annual	Mon-Sun	2.26E+09	Shredders G2		15	Lawn and C C		P	NHH	NP	Monterey	NCC	MBU	1.93E+01	7.17E+00	3.15E+00	1.77E-04	8.52E-03	1.37E-04	1.63E-02	6.71E-07	1.37E-04	1.59E-05	1.10E-05
2030	Annual	Mon-Sun	2.26E+09	Shredders G2		15	Lawn and C R		P	NHH	NP	Monterey	NCC	MBU	6.87E+02	1.69E+00	7.41E-01	3.58E-05	2.02E-03	2.76E-05	3.85E-03	1.58E-07	3.32E-05	3.46E-06	2.22E-06
2030	Annual	Mon-Sun	2.26E+09	Commercial G2		15	Lawn and C C		N	NHH	NP	Monterey	NCC	MBU	1.02E+01	2.24E+01	9.18E+00	4.13E-04	2.50E-02	3.11E-04	4.77E-02	1.97E-06	2.22E-05	4.19E-05	2.57E-05
2030	Annual	Mon-Sun	2.26E+09	Commercial G2		25	Lawn and C C		N	NHH	NP	Monterey	NCC	MBU	5.05E+00	1.11E+01	9.82E+00	4.28E-04	2.76E-02	3.28E-04	4.97E-02	2.05E-06	2.32E-05	3.10E-05	2.66E-05
2030	Annual	Mon-Sun	2.26E+09	Other Lawr G2		2	Lawn and C C		N	HH	NP	Monterey	NCC	MBU											

2030 Annual	Mon-Sun	2.27E+09	Other Gene	G4	25 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.80E+00	2.12E+00	2.16E+00	1.16E-04	6.77E-03	8.52E-05	9.75E-03	2.47E-07	5.35E-06	6.67E-06	6.06E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene	G4	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.59E+00	3.11E+00	5.65E+00	7.69E-05	6.87E-03	1.51E-04	4.35E-02	5.29E-07	3.33E-06	1.07E-05	4.01E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene	G4	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.22E-01	1.02E+00	4.13E+00	2.38E-05	1.61E-03	1.24E-04	3.72E-02	3.59E-07	2.88E-06	5.78E-06	1.24E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene	G4	175 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.06E-02	9.88E-02	8.49E-01	3.34E-06	3.00E-04	2.50E-05	7.71E-03	7.66E-08	6.14E-07	8.29E-07	1.74E-07
2030 Annual	Mon-Sun	2.27E+09	Other Mat	G4	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	2.25E-02	2.38E-02	5.91E-02	8.58E-07	7.68E-05	1.68E-06	4.46E-04	5.43E-09	3.42E-08	9.95E-08	4.49E-08
2030 Annual	Mon-Sun	2.27E+09	Other Mat	G4	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	9.94E-01	1.05E+00	2.87E+00	1.86E-05	1.23E-03	9.09E-05	2.57E-02	2.48E-07	1.99E-06	4.94E-06	9.73E-07
2030 Annual	Mon-Sun	2.27E+09	Lawn Mow	G4	5 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	2.59E+03	1.62E+03	2.00E+02	2.47E-02	4.67E-01	6.04E-03	1.11E+00	3.82E-05	3.49E-03	1.43E-03	1.29E-03
2030 Annual	Mon-Sun	2.27E+09	Lawn Mow	G4	5 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	4.11E+04	1.74E+03	2.39E+02	1.91E-02	6.67E-01	4.54E-03	1.19E+00	4.11E-05	2.86E-03	1.26E-03	9.95E-04
2030 Annual	Mon-Sun	2.27E+09	Tillers	G4	5 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	2.69E+02	4.12E+01	6.07E+00	5.60E-04	1.61E-02	1.35E-04	3.12E-02	1.08E-06	8.24E-05	3.38E-05	2.93E-05
2030 Annual	Mon-Sun	2.27E+09	Tillers	G4	5 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	1.04E+03	5.15E+01	7.73E+00	6.57E-04	2.11E-02	1.57E-04	3.90E-02	1.35E-06	9.79E-05	4.07E-05	3.44E-05
2030 Annual	Mon-Sun	2.27E+09	Trimmers/t	G4	5 Lawn and C C	P	NHH	NP	Monterey	NCC	MBU	4.73E+02	1.76E+02	5.60E+00	7.56E-04	1.35E-02	3.26E-04	3.00E-02	1.03E-06	9.77E-06	1.07E-04	3.96E-05
2030 Annual	Mon-Sun	2.27E+09	Trimmers/t	G4	5 Lawn and C R	P	NHH	NP	Monterey	NCC	MBU	2.20E+03	1.30E+02	4.32E+00	5.15E-04	1.12E-02	2.22E-04	2.21E-02	7.64E-07	7.21E-06	7.56E-05	2.69E-05
2030 Annual	Mon-Sun	2.27E+09	Leaf Blowe	G4	5 Lawn and C C	N	NHH	P	Monterey	NCC	MBU	1.21E+02	2.05E+01	1.42E+00	1.08E-04	3.99E-03	2.57E-05	6.99E-03	2.41E-07	1.64E-05	1.01E-05	5.67E-06
2030 Annual	Mon-Sun	2.27E+09	Leaf Blowe	G4	5 Lawn and C R	N	NHH	P	Monterey	NCC	MBU	1.04E+02	1.36E+00	9.85E-02	5.91E-06	2.95E-04	1.41E-06	4.64E-04	1.60E-08	9.27E-07	6.03E-07	3.09E-07
2030 Annual	Mon-Sun	2.27E+09	Rear Engin	G4	15 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	1.42E+03	1.05E+03	3.66E+02	1.75E-02	1.12E+00	1.21E-02	1.71E+00	4.87E-05	7.92E-04	1.70E-03	9.16E-04
2030 Annual	Mon-Sun	2.27E+09	Rear Engin	G4	15 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	1.24E+03	9.61E+01	3.32E+01	1.36E-03	1.02E-01	9.49E-04	1.56E-01	4.44E-06	6.21E-05	1.43E-04	7.11E-05
2030 Annual	Mon-Sun	2.27E+09	Rear Engin	G4	25 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	6.49E+00	4.82E+00	3.25E+00	1.50E-04	1.02E-02	1.06E-04	1.48E-02	3.74E-07	6.85E-06	1.10E-05	7.86E-06
2030 Annual	Mon-Sun	2.27E+09	Rear Engin	G4	25 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	5.60E+00	4.32E-01	2.91E-01	1.17E-05	9.17E-04	7.87E-06	1.32E-03	3.35E-08	5.28E-07	8.89E-07	6.14E-07
2030 Annual	Mon-Sun	2.27E+09	Front Mow	G4	15 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	6.50E+01	4.84E+01	2.68E+01	1.28E-03	8.17E-02	8.86E-04	1.25E-01	3.56E-06	5.80E-05	1.00E-04	6.70E-05
2030 Annual	Mon-Sun	2.27E+09	Front Mow	G4	15 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	2.10E+03	1.62E+02	8.96E+01	3.66E-03	2.74E-01	2.56E-03	4.20E-01	1.20E-05	1.68E-04	3.10E-04	1.92E-04
2030 Annual	Mon-Sun	2.27E+09	Front Mow	G4	25 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	5.09E+01	3.79E+01	2.82E+01	1.30E-03	8.88E-02	9.17E-04	1.28E-01	3.24E-06	5.94E-05	9.09E-05	6.82E-05
2030 Annual	Mon-Sun	2.27E+09	Front Mow	G4	25 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	1.65E+03	1.27E+02	9.46E+01	3.81E-03	2.98E-01	2.56E-03	4.30E-01	1.09E-05	1.72E-04	2.76E-04	2.00E-04
2030 Annual	Mon-Sun	2.27E+09	Shredders	G4	5 Lawn and C C	P	NHH	NP	Monterey	NCC	MBU	5.11E+01	1.90E+01	5.38E+00	7.26E-04	1.30E-02	3.13E-04	2.88E-02	9.93E-07	9.38E-06	3.71E-05	3.80E-05
2030 Annual	Mon-Sun	2.27E+09	Shredders	G4	5 Lawn and C R	P	NHH	NP	Monterey	NCC	MBU	1.90E+03	4.68E+00	1.56E+00	1.22E-04	4.80E-03	5.24E-05	7.09E-03	2.45E-07	2.47E-06	7.45E-06	6.37E-06
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga	G4	15 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	2.60E+02	9.16E+01	6.11E+01	2.45E-03	1.87E-01	1.72E-03	2.86E-01	8.16E-06	1.12E-04	1.92E-04	1.29E-04
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga	G4	15 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	1.69E+03	6.76E+01	4.50E+01	1.67E-03	1.38E-01	1.17E-03	2.11E-01	6.02E-06	7.68E-05	1.36E-04	8.74E-05
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga	G4	25 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	1.03E+02	3.61E+01	3.84E+01	1.52E-03	1.21E-01	1.02E-03	1.74E-01	4.42E-06	6.85E-05	9.40E-05	7.97E-05
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga	G4	25 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	6.67E+02	2.67E+01	2.83E+01	1.05E-03	8.92E-02	6.81E-04	1.29E-01	3.26E-06	4.68E-05	6.58E-05	5.49E-05
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga	G4	50 Lawn and C U	N	NHH	NP	Monterey	NCC	MBU	1.48E+00	4.23E-01	6.48E-01	6.99E-06	4.78E-04	1.30E-05	5.48E-03	6.66E-08	4.20E-07	1.15E-06	3.66E-07
2030 Annual	Mon-Sun	2.27E+09	Wood Split	G4	5 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	8.74E+01	3.08E+01	9.39E+00	1.03E-03	2.32E-02	2.50E-04	5.03E-02	1.74E-06	1.48E-04	4.11E-05	5.38E-05
2030 Annual	Mon-Sun	2.27E+09	Wood Split	G4	5 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	2.18E+03	6.58E+00	2.34E+00	1.18E-04	2.75E-05	1.07E-02	3.71E-07	1.92E-05	6.15E-06	6.15E-06	
2030 Annual	Mon-Sun	2.27E+09	Chippers/SI	G4	15 Lawn and C C	P	NHH	P	Monterey	NCC	MBU	1.23E+00	4.26E+00	3.79E+00	3.07E-04	1.15E-02	2.17E-04	1.73E-02	4.93E-07	1.45E-04	1.51E-05	1.58E-05
2030 Annual	Mon-Sun	2.27E+09	Chippers/SI	G4	15 Lawn and C R	P	NHH	P	Monterey	NCC	MBU	2.20E+00	9.94E-02	8.70E-02	5.28E-06	2.64E-04	3.72E-06	4.04E-04	1.15E-08	3.38E-06	3.01E-07	2.76E-07
2030 Annual	Mon-Sun	2.27E+09	Chippers/SI	G4	25 Lawn and C C	P	NHH	P	Monterey	NCC	MBU	6.99E+00	2.42E+01	3.63E+01	3.01E-03	1.14E-01	1.87E-03	1.61E-01	4.07E-06	1.35E-03	1.07E-04	1.55E-04
2030 Annual	Mon-Sun	2.27E+09	Chippers/SI	G4	25 Lawn and C R	P	NHH	P	Monterey	NCC	MBU	1.24E+01	5.63E-01	8.31E-01	5.15E-05	2.60E-03	3.18E-05	3.74E-03	9.48E-08	3.13E-05	2.12E-06	2.70E-06
2030 Annual	Mon-Sun	2.27E+09	Commercia	G4	15 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	9.21E+01	2.02E+02	1.13E+02	6.58E-03	3.46E-01	4.50E-03	5.25E-01	1.50E-05	2.94E-04	4.63E-04	3.43E-04
2030 Annual	Mon-Sun	2.27E+09	Commercia	G4	25 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	4.54E+01	9.94E+01	9.94E+01	5.44E-03	3.12E-01	4.01E-03	4.47E-01	1.13E-05	2.50E-04	3.13E-04	2.83E-04
2030 Annual	Mon-Sun	2.27E+09	Commercia	G4	50 Lawn and C U	N	NHH	NP	Monterey	NCC	MBU	1.83E+01	3.67E+01	6.35E+01	1.03E-03	1.05E-01	2.08E-03	4.44E-01	5.40E-06	3.40E-05	1.36E-04	5.37E-05
2030 Annual	Mon-Sun	2.27E+09	Commercia	G4	120 Lawn and C U	N	NHH	NP	Monterey	NCC	MBU	1.21E-01	2.43E-01	5.97E-01	2.88E-06	1.60E-04	1.65E-05	5.50E-03	5.31E-08	4.26E-07	1.01E-06	1.51E-07
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	5 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	8.09E+01	1.52E+01	3.25E+00	2.98E-04	8.84E-03	7.18E-05	1.67E-02	5.76E-07	4.39E-05	1.52E-05	1.56E-05
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	5 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	2.48E+03	2.92E+01	6.83E+00	4.00E-04	2.06E-02	9.51E-05	3.21E-02	1.11E-06	6.31E-05	2.39E-05	2.10E-05
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	15 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	3.59E+01	6.75E+00	3.16E+00	1.29E-04	9.68E-03	9.00E-05	1.48E-02	4.23E-07	5.89E-06	1.18E-05	6.74E-06
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	15 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	1.10E+03	1.30E+01	6.07E+00	2.17E-04	1.86E-02	1.53E-04	2.85E-02	8.12E-07	9.82E-06	2.12E-05	1.13E-05
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	25 Lawn and C C	N	NHH	NP	Monterey	NCC	MBU	7.59E-01	1.43E-01	1.46E-01	5.87E-06	4.61E-04	3.94E-06	6.66E-04	1.69E-08	2.64E-07	3.67E-07	3.07E-07
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	25 Lawn and C R	N	NHH	NP	Monterey	NCC	MBU	2.34E+01	2.76E-01	2.83E-01	1.02E-05	8.93E-04	6.45E-06	1.29E-03	3.26E-08	4.44E-07	6.49E-07	5.33E-07
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	50 Lawn and C U	N	NHH	NP	Monterey	NCC	MBU	5.50E-02	9.19E-03	1.94E-02	2.05E-07	1.31E-05	3.78E-07	1.66E-04	2.01E-09	1.27E-08	2.91E-08	1.07E-08
2030 Annual	Mon-Sun	2.27E+09	Other Lawr	G4	120 Lawn and C U	N	NHH	NP	Monterey	NCC	MBU	1.32E-01	2.21E-02	1.19E-01	5.20E-07	2.20E-05	3.17E-06	1.11E-03	1.08E-08	8.63E-08	1.36E-07	2.72E-08
2030 Annual	Mon-Sun	2.27E+09	2-Wheel Tr	G4	5 Agricultura U	P	NHH	NP	Monterey	NCC	MBU	3.53E+01	1.55E+01	3.34E+00	4.77E-04	7.74E-03	2.06E-04	1.82E-02	6.29E-07	5.94E-06	2.70E-05	2.50E-05
2030 Annual	Mon-Sun	2.27E+09	2-Wheel Tr	G4	15 Agricultura U	P	NHH	NP	Monterey	NCC	MBU	4.11E+01	3.75E+01	1.91E+01	1.47E-03	5.75E-02	1.05E-03	8.80E-02	2.51E-06	7.37E-04	9.71E-05	7.72E-05
2030 Annual	Mon-Sun	2.27E+09	2-Wheel Tr	G4	25 Agricultura U	P	NHH	NP	Monterey	NCC	MBU	1.10E+00	1.01E+00	1.06E+00	8.35E-05	3.27E-03	5.20E-05	4.72E-03	1.20E-07	3.96E-05	3.62E-06	4.37E-06
2030 Annual	Mon-Sun	2.27E+09	Agricultura	G4	120 Agricultura U	P	NHH	NP	Monterey	NCC	MBU	1.20E+01	1.80E+01	8.97E+01	8.66E-04	5.03E-02	1.91E-03	7.83E-01	7.57E-06	6.07E-05	9.13E-05	4.53E-05
2030 Annual	Mon-Sun	2.27E+																				

2030 Annual	Mon-Sun	2.27E+09	Forklifts	C4	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.04E+01	1.50E+02	2.01E+02	1.33E-04	2.21E-02	5.77E-03	1.37E+00	0.00E+00	1.22E-04	0.00E+00	1.12E-03
2030 Annual	Mon-Sun	2.27E+09	Forklifts	C4	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.07E+02	5.27E+02	1.26E+03	7.90E-04	3.72E-01	3.74E-02	8.24E+00	0.00E+00	7.32E-04	0.00E+00	6.62E-03
2030 Annual	Mon-Sun	2.27E+09	Forklifts	C4	175 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.91E+00	1.93E+01	9.42E+01	3.62E-05	2.18E-02	1.86E-03	6.29E-01	0.00E+00	5.59E-05	0.00E+00	3.04E-04
2030 Annual	Mon-Sun	2.27E+09	Generator	C4	120 Light Comm U	N	NHH	P	Monterey	NCC	MBU	3.02E+00	9.50E-01	5.94E+00	1.32E-06	1.25E-03	1.08E-04	3.99E-02	0.00E+00	3.55E-06	0.00E+00	1.11E-05
2030 Annual	Mon-Sun	2.27E+09	Generator	C4	175 Light Comm U	N	NHH	P	Monterey	NCC	MBU	2.50E+00	7.88E-01	8.59E+00	1.47E-06	1.50E-03	1.45E-04	5.82E-02	0.00E+00	5.17E-06	0.00E+00	1.23E-05
2030 Annual	Mon-Sun	2.27E+09	Gas Compr	C4	50 Light Comm U	P	NHH	P	Monterey	NCC	MBU	4.69E-01	1.09E+01	3.74E+01	2.13E-05	3.77E-03	7.72E-04	2.57E-01	0.00E+00	1.97E-05	0.00E+00	1.78E-04
2030 Annual	Mon-Sun	2.27E+09	Gas Compr	C4	120 Light Comm U	P	NHH	P	Monterey	NCC	MBU	9.70E-01	2.26E+01	2.19E+02	1.16E-04	6.02E-02	4.57E-03	1.44E+00	0.00E+00	1.12E-04	0.00E+00	9.72E-04
2030 Annual	Mon-Sun	2.27E+09	Gas Compr	C4	175 Light Comm U	P	NHH	P	Monterey	NCC	MBU	1.56E-01	3.64E+00	5.61E+01	3.23E-05	1.23E-02	1.22E-03	3.75E-01	0.00E+00	2.99E-05	0.00E+00	2.71E-04
2030 Annual	Mon-Sun	2.27E+09	Gas Compr	C4	250 Light Comm U	N	NHH	P	Monterey	NCC	MBU	1.25E-01	2.91E+00	5.82E+01	2.49E-05	1.41E-02	1.18E-03	3.87E-01	0.00E+00	3.44E-05	0.00E+00	2.09E-04
2030 Annual	Mon-Sun	2.27E+09	Gas Compr	C4	500 Light Comm U	N	NHH	P	Monterey	NCC	MBU	1.10E-01	2.55E+00	8.19E+01	3.50E-05	1.99E-02	1.67E-03	5.45E-01	0.00E+00	4.85E-05	0.00E+00	2.94E-04
2030 Annual	Mon-Sun	2.27E+09	Cargo Tract	C4	175 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	4.76E-01	2.03E-01	1.88E+00	3.39E-07	3.32E-04	3.19E-05	1.27E-02	0.00E+00	1.13E-06	0.00E+00	2.85E-06
2030 Annual	Mon-Sun	2.27E+09	Air Conditio	C4	175 Airport Grc U	N	NHH	P	Monterey	NCC	MBU	7.94E-02	4.79E-03	5.12E-02	7.12E-09	8.57E-06	8.36E-07	3.48E-04	0.00E+00	3.09E-08	0.00E+00	5.97E-08
2030 Annual	Mon-Sun	2.27E+09	Baggage Tr	C4	120 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.12E+00	2.56E+00	1.59E+01	9.92E-06	4.61E-03	4.71E-04	1.05E-01	0.00E+00	9.31E-06	0.00E+00	8.31E-05
2030 Annual	Mon-Sun	2.27E+09	Belt Loader	C4	120 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.99E-01	4.52E-01	1.52E+00	7.11E-07	3.95E-04	3.83E-05	1.01E-02	0.00E+00	8.98E-07	0.00E+00	5.96E-06
2030 Annual	Mon-Sun	2.27E+09	Bobtail	C4	120 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.57E-02	6.17E-02	3.79E-01	1.33E-07	9.07E-05	8.24E-06	2.52E-03	0.00E+00	2.25E-07	0.00E+00	1.12E-06
2030 Annual	Mon-Sun	2.27E+09	Cargo Load	C4	120 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.21E-01	3.42E-01	1.36E+00	1.00E-06	4.25E-04	4.47E-05	8.90E-03	0.00E+00	7.91E-07	0.00E+00	8.39E-06
2030 Annual	Mon-Sun	2.27E+09	Forklift	C4	50 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.57E+00	3.13E+00	5.06E+00	1.61E-06	4.33E-04	1.17E-04	3.50E-02	0.00E+00	3.11E-06	0.00E+00	1.35E-05
2030 Annual	Mon-Sun	2.27E+09	Fuel Truck	C4	175 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	5.27E-02	8.17E-02	3.17E-01	9.73E-08	6.57E-05	6.04E-06	2.13E-03	0.00E+00	1.89E-07	0.00E+00	8.16E-07
2030 Annual	Mon-Sun	2.27E+09	Lav Truck	C4	175 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	4.73E-02	5.02E-02	1.80E-01	4.54E-08	3.50E-05	3.27E-06	1.21E-03	0.00E+00	1.08E-07	0.00E+00	3.81E-07
2030 Annual	Mon-Sun	2.27E+09	Off	C4	120 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	4.42E-02	4.14E-02	2.31E-01	8.00E-08	5.43E-05	5.01E-06	1.54E-03	0.00E+00	1.37E-07	0.00E+00	6.70E-07
2030 Annual	Mon-Sun	2.27E+09	Lifter	C4	50 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.31E-01	6.45E-01	1.75E+00	1.35E-06	2.02E-04	5.47E-05	1.20E-02	0.00E+00	1.07E-06	0.00E+00	1.13E-05
2030 Annual	Mon-Sun	2.27E+09	Passenger	C4	175 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.04E-02	6.72E-04	7.17E-03	9.74E-10	1.19E-06	1.17E-07	4.86E-05	0.00E+00	4.32E-09	0.00E+00	8.16E-09
2030 Annual	Mon-Sun	2.27E+09	Sweeper	C4	50 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.04E-02	1.56E-02	3.84E-02	1.08E-08	3.18E-06	8.68E-07	2.66E-04	0.00E+00	2.36E-08	0.00E+00	9.07E-08
2030 Annual	Mon-Sun	2.27E+09	Service Tru	C4	250 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.34E-01	8.34E-01	3.35E+00	1.34E-06	7.88E-04	6.67E-05	2.23E-02	0.00E+00	1.98E-06	0.00E+00	1.12E-05
2030 Annual	Mon-Sun	2.27E+09	Catering Tr	C4	250 Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	8.94E-02	1.11E-01	1.31E+00	3.56E-07	2.60E-04	2.41E-05	8.78E-03	0.00E+00	7.81E-07	0.00E+00	2.98E-06
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	25 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	1.51E-01	3.39E-01	2.88E-01	3.81E-06	1.30E-05	2.41E-05	3.16E-03	4.01E-08	9.00E-07	0.00E+00	3.44E-07
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	50 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	8.75E+00	1.99E+01	2.56E+01	4.13E-04	2.64E-03	1.88E-03	2.78E-01	3.59E-06	6.55E-05	0.00E+00	3.72E-05
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	120 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	1.03E+01	2.34E+01	7.39E+01	5.81E-04	5.42E-03	3.52E-03	8.10E-01	9.50E-06	1.73E-04	0.00E+00	5.24E-05
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	175 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	6.41E+00	1.46E+01	8.50E+01	4.93E-04	5.46E-03	2.34E-03	9.33E-01	1.05E-05	1.22E-04	0.00E+00	4.45E-05
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	250 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	7.73E-01	1.75E+00	1.54E+01	7.80E-05	3.58E-04	3.73E-04	1.70E-01	1.92E-06	1.37E-05	0.00E+00	7.03E-06
2030 Annual	Mon-Sun	2.27E+09	Pavers	D	500 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	7.93E-01	1.80E+00	1.90E+01	9.37E-05	4.36E-04	4.21E-04	2.10E-01	2.06E-06	1.59E-05	0.00E+00	8.45E-06
2030 Annual	Mon-Sun	2.27E+09	Plate Comp	D	15 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	3.32E+00	5.32E+00	1.05E+00	1.33E-05	7.00E-05	8.35E-05	1.15E-02	1.78E-07	3.26E-06	0.00E+00	1.20E-06
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	15 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	6.07E+00	1.16E+01	3.34E+00	4.25E-05	2.23E-04	3.65E-02	5.69E-07	1.04E-05	0.00E+00	0.00E+00	3.84E-06
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	25 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	2.54E+00	4.84E+00	2.94E+00	3.89E-05	1.33E-04	2.46E-04	3.23E-02	4.09E-07	9.19E-06	0.00E+00	3.51E-06
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	50 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	7.90E+00	1.51E+01	1.80E+01	2.03E-04	1.65E-03	1.20E-03	1.96E-01	2.54E-06	2.54E-05	0.00E+00	1.83E-05
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	120 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	4.24E+01	8.12E+01	2.18E+02	1.26E-03	1.53E-02	8.21E-03	2.39E+00	2.81E-05	2.79E-04	0.00E+00	1.14E-04
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	175 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	1.71E+01	3.27E+01	1.61E+02	6.93E-04	9.94E-03	2.81E-03	1.76E+00	1.99E-05	1.30E-04	0.00E+00	6.26E-05
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	250 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	2.42E+00	4.63E+00	3.20E+01	1.22E-04	6.85E-04	4.64E-04	3.54E-01	3.99E-06	1.53E-05	0.00E+00	1.10E-05
2030 Annual	Mon-Sun	2.27E+09	Rollers	D	500 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	1.70E+00	3.25E+00	3.22E+01	1.21E-04	6.61E-04	4.36E-04	3.56E-01	3.49E-06	1.49E-05	0.00E+00	1.09E-05
2030 Annual	Mon-Sun	2.27E+09	Scrapers	D	120 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	3.91E-01	1.18E+00	5.07E+00	4.01E-05	3.78E-04	2.33E-04	5.56E-02	6.52E-07	1.09E-05	0.00E+00	3.62E-06
2030 Annual	Mon-Sun	2.27E+09	Scrapers	D	175 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	3.58E+00	1.08E+01	7.31E+01	4.25E-04	4.78E-03	8.02E-01	9.02E-06	9.62E-05	0.00E+00	0.00E+00	3.84E-05
2030 Annual	Mon-Sun	2.27E+09	Scrapers	D	250 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	3.49E+00	1.06E+01	1.00E+02	5.15E-04	2.35E-03	2.24E-03	1.11E+00	1.24E-05	8.23E-05	0.00E+00	4.65E-05
2030 Annual	Mon-Sun	2.27E+09	Scrapers	D	500 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	9.61E+00	2.91E+01	4.23E+02	2.13E-03	9.74E-03	8.69E-03	4.67E+00	4.59E-05	3.30E-04	0.00E+00	1.92E-04
2030 Annual	Mon-Sun	2.27E+09	Scrapers	D	750 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	4.81E-01	1.45E+00	3.65E+01	1.84E-04	8.42E-04	7.62E-04	4.04E-01	4.06E-06	2.87E-05	0.00E+00	1.66E-05
2030 Annual	Mon-Sun	2.27E+09	Paving Equ	D	25 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	2.61E-01	5.93E-01	3.41E-01	4.51E-06	1.54E-05	2.85E-05	3.74E-03	4.75E-08	1.07E-06	0.00E+00	4.07E-07
2030 Annual	Mon-Sun	2.27E+09	Paving Equ	D	50 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	2.21E-01	5.04E-01	5.54E-01	8.51E-06	5.63E-05	4.04E-05	6.03E-03	7.79E-08	1.34E-06	0.00E+00	7.68E-07
2030 Annual	Mon-Sun	2.27E+09	Paving Equ	D	120 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	3.18E+00	7.27E+00	1.81E+01	1.36E-04	1.31E-03	8.33E-04	1.98E-01	2.32E-06	3.97E-05	0.00E+00	1.23E-05
2030 Annual	Mon-Sun	2.27E+09	Paving Equ	D	175 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	1.50E+00	3.42E+00	1.57E+01	8.81E-05	1.00E-03	4.13E-04	1.72E-01	1.94E-06	2.13E-05	0.00E+00	7.95E-06
2030 Annual	Mon-Sun	2.27E+09	Paving Equ	D	250 Constructiv U	N	NHH	NP	Monterey	NCC	MBU	4.22E-01	9.63E-01	5.32E+00	5.32E-05	1.21E-04	1.22E-04	5.88E-02	6.62E-07	4.38E-06	0.00E+00	2.34E-06
2030 Annual	Mon-Sun	2.27E+09	Surfacing E	D	50 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	2.01E-01	2.47E-01	1.60E-01	1.59E-06	1.32E-05	1.04E-05	1.74E-03	2.25E-08	2.32E-07	0.00E+00	1.43E-07
2030 Annual	Mon-Sun	2.27E+09	Surfacing E	D	120 Constructiv U	P	NHH	NP	Monterey	NCC	MBU	4.01E-02	4.95E-02	1.44E-01	7.34E-07	9.69E-06	5.43E-06	1.58E-03	1.85E-08	1.91E-07	0.00E+00	6.62E-08
2030 Annual	Mon-Sun	2.27E+09	Surfacing E	D	175 Constructiv U	P	NHH															

2030 Annual	Mon-Sun	2.27E+09	Skid Steer LD	120 Constructic U	P	NHH	NP	Monterey	NCC	MBU	9.16E+01	2.13E+02	4.14E+02	1.71E-03	2.83E-02	1.18E-02	4.54E+00	5.33E-05	1.37E-04	0.00E+00	1.54E-04
2030 Annual	Mon-Sun	2.27E+09	Off-Highwa D	120 Constructic U	P	NHH	NP	Monterey	NCC	MBU	1.00E-02	3.04E-02	1.30E-01	1.30E-06	9.89E-06	7.41E-06	1.43E-03	1.67E-08	4.39E-07	0.00E+00	1.17E-07
2030 Annual	Mon-Sun	2.27E+09	Off-Highwa D	175 Constructic U	P	NHH	NP	Monterey	NCC	MBU	1.23E+01	3.72E+01	2.21E+02	1.59E-03	1.47E-02	8.15E-03	2.42E+00	2.73E-05	4.43E-04	0.00E+00	1.44E-04
2030 Annual	Mon-Sun	2.27E+09	Off-Highwa D	250 Constructic U	N	NHH	NP	Monterey	NCC	MBU	1.16E+01	3.52E+01	2.08E+02	1.27E-03	5.19E-03	6.90E-03	2.29E+00	2.58E-05	2.60E-04	0.00E+00	1.15E-04
2030 Annual	Mon-Sun	2.27E+09	Off-Highwa D	750 Constructic U	N	NHH	NP	Monterey	NCC	MBU	1.54E+00	4.66E+00	1.20E+02	7.08E-04	3.15E-03	3.69E-03	1.32E+00	1.33E-05	1.40E-04	0.00E+00	6.39E-05
2030 Annual	Mon-Sun	2.27E+09	Off-Highwa D	1000 Constructic U	N	NHH	NP	Monterey	NCC	MBU	1.62E-01	4.92E-01	1.81E+01	1.12E-04	4.96E-04	1.25E-03	2.00E-01	2.01E-06	2.75E-05	0.00E+00	1.01E-05
2030 Annual	Mon-Sun	2.27E+09	Dumpers/TD	25 Constructic U	P	NHH	NP	Monterey	NCC	MBU	2.41E-01	4.37E-01	1.52E-01	2.01E-06	6.86E-06	1.27E-05	1.67E-03	2.11E-08	4.74E-07	0.00E+00	1.81E-07
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	15 Constructic U	P	NHH	NP	Monterey	NCC	MBU	3.32E+00	6.29E+00	2.90E+00	3.69E-05	1.94E-04	2.31E-04	3.17E-02	4.94E-07	9.04E-06	0.00E+00	3.33E-06
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	25 Constructic U	P	NHH	NP	Monterey	NCC	MBU	5.62E-01	1.06E+00	6.40E-01	8.47E-06	2.89E-05	5.35E-05	7.02E-03	8.91E-08	2.00E-06	0.00E+00	7.64E-07
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	50 Constructic U	P	NHH	NP	Monterey	NCC	MBU	8.63E-01	1.65E+00	2.11E+00	1.74E-05	1.78E-04	1.30E-04	2.31E-02	2.99E-07	1.25E-06	0.00E+00	1.57E-06
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	120 Constructic U	P	NHH	NP	Monterey	NCC	MBU	1.43E+00	2.73E+00	1.00E+01	4.37E-05	6.86E-04	3.06E-04	1.10E-01	1.29E-06	5.32E-06	0.00E+00	3.94E-06
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	175 Constructic U	P	NHH	NP	Monterey	NCC	MBU	1.97E+00	3.76E+00	1.82E+01	5.70E-05	1.10E-03	1.62E-04	2.00E-01	2.25E-06	6.88E-06	0.00E+00	5.15E-06
2030 Annual	Mon-Sun	2.27E+09	Other Cons D	500 Constructic U	N	NHH	NP	Monterey	NCC	MBU	4.57E+00	8.74E+00	1.00E+02	3.02E-04	2.01E-03	7.65E-04	1.11E+00	1.09E-05	2.79E-05	0.00E+00	2.72E-05
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	15 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	2.32E+00	2.54E+00	1.00E+00	1.28E-05	6.71E-05	8.01E-05	1.10E-02	1.71E-07	3.13E-06	0.00E+00	1.15E-06
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	25 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	3.79E+00	4.15E+00	2.07E+00	2.74E-05	9.35E-05	1.73E-04	2.27E-02	2.88E-07	6.49E-06	0.00E+00	2.47E-06
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	50 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	1.39E+01	1.46E+01	1.30E+01	8.48E-05	9.46E-04	7.87E-04	1.43E-01	1.85E-06	9.81E-06	0.00E+00	7.65E-06
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	120 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	1.23E+01	1.29E+01	2.24E+01	8.12E-05	1.45E-03	7.13E-04	2.46E-01	2.88E-06	1.53E-05	0.00E+00	7.32E-06
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	500 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.57E+00	1.66E+00	1.59E+01	3.91E-05	3.06E-04	1.47E-04	1.76E-01	1.73E-06	4.96E-06	0.00E+00	3.52E-06
2030 Annual	Mon-Sun	2.27E+09	Aerial Lifts D	750 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.27E-01	1.33E-01	2.32E+00	5.69E-06	4.45E-05	2.16E-05	2.56E-02	2.58E-07	7.26E-07	0.00E+00	5.13E-07
2030 Annual	Mon-Sun	2.27E+09	Forklifts D	50 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	4.20E+00	2.07E+01	1.39E+01	1.50E-04	1.40E-03	8.88E-04	1.52E-01	1.96E-06	6.26E-06	0.00E+00	1.35E-05
2030 Annual	Mon-Sun	2.27E+09	Forklifts D	120 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	6.59E+00	3.25E+01	4.62E+01	2.51E-04	3.38E-03	1.38E-03	5.07E-01	5.95E-06	1.86E-05	0.00E+00	2.26E-05
2030 Annual	Mon-Sun	2.27E+09	Forklifts D	175 Industrial E U	P	NHH	NP	Monterey	NCC	MBU	6.62E+00	3.27E+01	8.33E+01	3.19E-04	5.40E-03	6.21E-04	9.15E-01	1.03E-05	2.49E-05	0.00E+00	2.88E-05
2030 Annual	Mon-Sun	2.27E+09	Forklifts D	250 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	6.57E+00	3.24E+01	1.13E+02	4.27E-04	2.51E-03	7.45E-04	1.25E+00	1.41E-05	2.79E-05	0.00E+00	3.85E-05
2030 Annual	Mon-Sun	2.27E+09	Forklifts D	500 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	2.81E+00	1.39E+01	6.96E+01	2.63E-04	1.47E-03	4.59E-04	7.69E-01	7.55E-06	1.72E-05	0.00E+00	2.37E-05
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	15 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.08E-01	5.49E-01	2.99E-01	3.40E-06	2.00E-05	2.39E-05	3.28E-03	5.10E-08	9.33E-07	0.00E+00	3.07E-07
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	25 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.08E-01	5.49E-01	4.90E-01	6.49E-06	2.22E-05	4.10E-05	5.38E-03	6.83E-08	1.53E-06	0.00E+00	5.86E-07
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	6.00E+00	2.01E+01	2.90E+01	2.83E-04	2.75E-03	1.83E-03	3.17E-01	4.09E-06	1.47E-05	0.00E+00	2.55E-05
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	9.93E+00	3.32E+01	1.14E+02	5.70E-04	8.11E-03	3.43E-03	1.25E+00	1.46E-05	5.06E-05	0.00E+00	5.14E-05
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	175 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	4.57E+00	1.53E+01	9.67E+01	3.48E-04	6.12E-03	7.95E-04	1.06E+00	1.20E-05	3.25E-05	0.00E+00	3.14E-05
2030 Annual	Mon-Sun	2.27E+09	Sweepers/SD	250 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	7.32E-01	2.45E+00	1.79E+01	6.32E-05	3.89E-04	1.28E-04	1.98E-01	2.23E-06	4.73E-06	0.00E+00	5.70E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	15 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	8.09E-01	3.16E+00	9.22E-01	1.05E-05	6.17E-05	7.36E-05	1.01E-02	1.57E-07	2.88E-06	0.00E+00	9.45E-07
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	25 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.08E+00	4.24E+00	2.96E+00	3.92E-05	1.34E-04	2.48E-04	3.25E-02	4.12E-07	9.25E-06	0.00E+00	3.54E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.34E+00	5.25E+00	5.23E+00	6.08E-05	5.31E-04	3.46E-04	5.70E-02	7.37E-07	4.78E-06	0.00E+00	5.49E-06
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.37E+00	2.10E+01	5.93E+01	3.52E-04	4.35E-03	2.01E-03	6.50E-01	7.63E-06	4.83E-05	0.00E+00	3.18E-05
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	175 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.39E+00	2.11E+01	9.18E+01	3.94E-04	5.96E-03	1.11E-03	1.01E+00	1.14E-05	4.95E-05	0.00E+00	3.56E-05
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	250 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.37E+00	2.10E+01	1.28E+02	5.21E-04	2.86E-03	1.32E-03	1.42E+00	1.60E-05	4.65E-05	0.00E+00	4.70E-05
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	500 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.35E+00	2.09E+01	2.51E+02	1.01E-03	5.31E-03	2.44E-03	2.77E+00	2.72E-05	8.96E-05	0.00E+00	9.15E-05
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	750 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.34E+00	5.23E+00	1.03E+02	4.18E-04	2.19E-03	1.01E-03	1.14E+00	1.15E-05	3.71E-05	0.00E+00	3.77E-05
2030 Annual	Mon-Sun	2.27E+09	Other Gene D	1000 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	8.14E-01	3.18E+00	8.04E+01	3.31E-04	1.70E-03	4.15E-03	8.89E-01	8.94E-06	5.49E-05	0.00E+00	2.99E-05
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	50 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.85E-02	1.39E-01	1.94E-01	2.21E-06	1.94E-05	1.28E-05	2.11E-03	2.73E-08	1.76E-07	0.00E+00	2.00E-07
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	120 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	2.31E-01	8.35E-01	2.31E+00	1.35E-05	1.69E-04	7.80E-05	2.53E-02	2.97E-07	1.87E-06	0.00E+00	1.22E-06
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	175 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	2.48E-01	8.95E-01	4.97E+00	2.10E-05	3.21E-04	6.01E-05	5.46E-02	6.14E-07	2.67E-06	0.00E+00	1.90E-06
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	250 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	5.89E-01	2.13E+00	1.39E+01	5.57E-05	3.09E-04	1.43E-04	1.54E-01	1.73E-06	5.03E-06	0.00E+00	5.03E-06
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	500 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	1.10E-01	3.98E-01	3.44E+00	1.37E-05	7.26E-05	3.34E-05	3.81E-02	3.74E-07	1.23E-06	0.00E+00	1.24E-06
2030 Annual	Mon-Sun	2.27E+09	Other Matx D	9999 Industrial E U	N	NHH	NP	Monterey	NCC	MBU	3.30E-02	1.19E-01	4.00E+00	1.69E-05	8.43E-05	2.06E-04	4.42E-02	4.34E-07	2.71E-06	0.00E+00	1.52E-06
2030 Annual	Mon-Sun	2.27E+09	Leaf Blowe D	15 Lawn and CU	N	NHH	P	Monterey	NCC	MBU	8.80E-02	2.89E-02	3.97E-03	4.51E-08	2.65E-07	3.17E-07	4.35E-05	6.77E-10	1.24E-08	0.00E+00	4.07E-09
2030 Annual	Mon-Sun	2.27E+09	Leaf Blowe D	120 Lawn and CU	N	NHH	P	Monterey	NCC	MBU	7.70E-02	2.53E-02	5.59E-02	1.38E-07	3.41E-06	1.72E-06	6.15E-04	7.21E-09	3.05E-08	0.00E+00	1.25E-08
2030 Annual	Mon-Sun	2.27E+09	Leaf Blowe D	250 Lawn and CU	N	NHH	P	Monterey	NCC	MBU	2.20E-02	7.23E-03	3.27E-02	5.46E-08	6.04E-07	3.07E-07	3.62E-04	4.08E-09	9.12E-09	0.00E+00	4.92E-09
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga D	15 Lawn and CU	N	NHH	P	Monterey	NCC	MBU	2.12E+02	3.16E+02	1.34E+02	1.52E-03	8.97E-03	1.07E-02	1.47E+00	2.29E-05	4.18E-04	0.00E+00	1.37E-04
2030 Annual	Mon-Sun	2.27E+09	Lawn & Ga D	25 Lawn and CU	N	NHH	P	Monterey	NCC	MBU	1.66E+02	2.48E+02	1.61E+02	2.13E-03	7.28E-03	1.35E-02	1.77E+00	2.24E-05	5.04E-04	0.00E+00	1.92E-04
2030 Annual	Mon-Sun	2.27E+09	Chippers/SD	25 Lawn and CU	P	NHH	P	Monterey	NCC	MBU	9.90E-02	1.26E-01	1.16E-01	1.53E-06	5.22E-06	9.67E-06	1.27E-03	1.61E-08	3.61E-07	0.00E+00	1.38E-07
2030 Annual	Mon-Sun	2.27E+09	Chippers/SD	120 Lawn and CU	P	NHH	P	Monterey	NCC	MBU	2.73E+00	3.47E+00	1.20E+01	4.76E-05	7.91E-04	3.89E-04	1.32E-01	1.55E-06	8.95E-06	0.00E+00	4.30E-06
2030 Annual	Mon-Sun	2.27E+09	Chippers/SD																		

2030 Annual	Mon-Sun	2.27E+09	Forklift	D	175	Airport Grc U	P	NHH	NP	Monterey	NCC	MBU	3.11E-01	6.33E-01	1.68E+00	5.80E-06	1.03E-04	1.88E-05	1.85E-02	2.08E-07	8.22E-07	0.00E+00	5.23E-07
2030 Annual	Mon-Sun	2.27E+09	Fuel Truck	D	250	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.67E-01	2.87E-01	7.66E-01	2.30E-06	1.57E-05	7.29E-06	8.47E-03	9.53E-08	2.52E-07	0.00E+00	2.08E-07
2030 Annual	Mon-Sun	2.27E+09	Ground Pow	D	175	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	2.49E+00	6.62E+00	4.62E+01	1.65E-04	2.88E-03	4.50E-04	5.08E-01	5.71E-06	1.95E-05	0.00E+00	1.49E-05
2030 Annual	Mon-Sun	2.27E+09	Lav Truck	D	175	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	3.98E-02	1.43E-01	3.41E-01	1.40E-06	2.19E-05	3.86E-06	3.74E-03	4.21E-08	1.73E-07	0.00E+00	1.26E-07
2030 Annual	Mon-Sun	2.27E+09	Lift	D	120	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	4.14E-01	8.99E-01	2.95E+00	1.42E-05	2.05E-04	9.57E-05	3.24E-02	3.80E-07	2.11E-06	0.00E+00	1.29E-06
2030 Annual	Mon-Sun	2.27E+09	Other GSE	D	175	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	7.40E-01	1.87E+00	7.50E+00	4.11E-05	4.78E-04	1.89E-04	8.24E-02	1.07E-06	9.69E-06	0.00E+00	3.71E-06
2030 Annual	Mon-Sun	2.27E+09	Passenger	D	120	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	6.37E-02	1.22E-02	4.12E-02	9.01E-08	2.48E-06	1.23E-06	4.54E-04	5.32E-09	1.90E-08	0.00E+00	8.13E-09
2030 Annual	Mon-Sun	2.27E+09	Sweeper	D	120	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.83E-01	1.45E-01	2.16E-01	5.43E-07	1.35E-05	5.91E-06	2.38E-03	2.68E-08	5.49E-08	0.00E+00	4.90E-08
2030 Annual	Mon-Sun	2.27E+09	Generator	D	120	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	1.19E-01	5.34E-01	2.00E+00	1.19E-05	1.47E-04	6.67E-05	2.19E-02	2.47E-07	1.52E-06	0.00E+00	1.07E-06
2030 Annual	Mon-Sun	2.27E+09	Generator	D	175	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	6.53E-01	2.92E+00	2.06E+01	8.80E-05	1.34E-03	2.34E-04	2.26E-01	2.54E-06	1.06E-05	0.00E+00	7.94E-06
2030 Annual	Mon-Sun	2.27E+09	Generator	D	250	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	6.77E-01	3.03E+00	3.06E+01	1.25E-04	6.85E-04	3.00E-04	3.39E-01	3.81E-06	1.08E-05	0.00E+00	1.13E-05
2030 Annual	Mon-Sun	2.27E+09	Generator	D	500	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	7.17E-02	3.21E-01	5.14E+00	2.09E-05	1.09E-04	4.79E-05	5.69E-02	6.40E-07	1.79E-06	0.00E+00	1.89E-06
2030 Annual	Mon-Sun	2.27E+09	Generator	D	750	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	9.55E-02	4.27E-01	1.11E+01	4.51E-05	2.35E-04	1.04E-04	1.22E-01	1.38E-06	3.87E-06	0.00E+00	4.07E-06
2030 Annual	Mon-Sun	2.27E+09	Service Tru	D	175	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	2.63E-01	3.64E-01	7.20E-01	2.10E-06	4.21E-05	7.90E-06	7.92E-03	8.91E-08	3.37E-07	0.00E+00	1.89E-07
2030 Annual	Mon-Sun	2.27E+09	Catering Tr	D	250	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	6.37E-02	6.47E-02	4.57E-01	8.89E-07	8.75E-06	2.70E-06	5.06E-03	5.69E-08	9.08E-08	0.00E+00	8.02E-08
2030 Annual	Mon-Sun	2.27E+09	Hydrant Tr	D	175	Airport Grc U	N	NHH	NP	Monterey	NCC	MBU	1.27E-01	2.18E-01	1.52E+00	5.37E-06	9.15E-05	2.07E-05	1.67E-02	1.88E-07	9.00E-07	0.00E+00	4.84E-07
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	120	Airport Grc U	P	NHH	P	Monterey	NCC	MBU	3.98E-02	8.89E-02	2.31E-01	1.13E-06	1.61E-05	7.51E-06	2.54E-03	2.98E-08	1.66E-07	0.00E+00	1.02E-07
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	250	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	7.96E-03	1.78E-02	9.38E-02	3.15E-07	1.98E-06	9.01E-07	1.04E-03	1.17E-08	3.16E-08	0.00E+00	2.84E-08
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	500	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	3.18E-02	7.11E-02	7.73E-01	2.59E-06	1.57E-05	7.06E-06	8.55E-03	8.39E-08	2.57E-07	0.00E+00	2.34E-07
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	750	Airport Grc U	N	NHH	P	Monterey	NCC	MBU	1.04E-01	2.31E-01	3.71E+00	1.24E-05	7.54E-05	3.43E-05	4.11E-02	4.13E-07	1.24E-06	0.00E+00	1.12E-06
2030 Annual	Mon-Sun	2.27E+09	Transport F D	D	15	Transport F U	N	NHH	NP	Monterey	NCC	MBU	2.09E+02	5.97E+02	2.18E+02	2.48E-03	1.46E-02	1.74E-02	2.39E+00	3.04E-05	6.81E-04	0.00E+00	2.24E-04
2030 Annual	Mon-Sun	2.27E+09	Transport F D	D	25	Transport F U	N	NHH	NP	Monterey	NCC	MBU	5.65E+01	1.61E+02	1.00E+02	1.32E-03	4.52E-03	8.37E-03	1.10E+00	1.39E-05	3.13E-04	0.00E+00	1.19E-04
2030 Annual	Mon-Sun	2.27E+09	Transport F D	D	50	Transport F U	N	NHH	NP	Monterey	NCC	MBU	1.73E+03	6.95E+03	8.23E+03	6.76E-02	7.09E-01	4.93E-01	9.00E+01	1.16E-03	2.38E-03	0.00E+00	6.10E-03
2030 Annual	Mon-Sun	2.27E+09	A/C unit	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	2.88E-01	2.37E-01	8.20E-01	2.73E-06	5.22E-05	2.63E-05	9.02E-03	1.06E-07	5.67E-07	0.00E+00	2.47E-07
2030 Annual	Mon-Sun	2.27E+09	A/C unit	D	250	Military Ta U	N	NHH	P	Monterey	NCC	MBU	1.20E-01	9.91E-02	7.00E-01	1.59E-06	1.35E-05	7.12E-06	7.75E-03	8.72E-08	2.26E-07	0.00E+00	1.43E-07
2030 Annual	Mon-Sun	2.27E+09	A/C unit	D	500	Military Ta U	N	NHH	P	Monterey	NCC	MBU	4.76E-02	3.92E-02	4.19E-01	9.42E-07	7.95E-06	4.02E-06	4.64E-03	4.56E-08	1.33E-07	0.00E+00	8.50E-08
2030 Annual	Mon-Sun	2.27E+09	Aircraft Sup	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	7.84E-02	6.46E-02	1.50E-01	5.00E-07	9.56E-06	4.81E-06	1.65E-03	1.94E-08	1.04E-07	0.00E+00	4.51E-08
2030 Annual	Mon-Sun	2.27E+09	Aircraft Sup	D	175	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.12E-01	9.22E-02	4.41E-01	1.08E-06	2.48E-05	5.29E-06	4.85E-03	5.46E-08	2.08E-07	0.00E+00	9.78E-08
2030 Annual	Mon-Sun	2.27E+09	Cart	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	3.36E-02	2.77E-02	7.66E-02	2.55E-07	4.88E-06	2.46E-06	8.42E-04	9.88E-09	5.30E-08	0.00E+00	2.30E-08
2030 Annual	Mon-Sun	2.27E+09	Cart	D	175	Military Ta U	P	NHH	P	Monterey	NCC	MBU	8.40E-03	6.92E-03	3.61E-02	8.88E-08	2.04E-06	4.34E-07	3.98E-04	4.48E-09	1.70E-08	0.00E+00	8.01E-09
2030 Annual	Mon-Sun	2.27E+09	Cart	D	250	Military Ta U	N	NHH	P	Monterey	NCC	MBU	2.80E-02	2.31E-02	1.54E-01	3.50E-07	2.98E-06	1.57E-06	1.71E-03	1.92E-08	4.98E-08	0.00E+00	3.15E-08
2030 Annual	Mon-Sun	2.27E+09	Communic	D	50	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.12E-02	9.22E-03	1.26E-02	7.32E-08	6.68E-07	7.58E-07	1.39E-04	1.79E-09	9.55E-09	0.00E+00	6.60E-09
2030 Annual	Mon-Sun	2.27E+09	Communic	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.68E-02	1.38E-02	3.78E-02	1.26E-07	8.21E-06	4.16E-04	4.88E-09	2.62E-08	0.00E+00	0.00E+00	1.14E-08
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	50	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.12E-02	9.22E-03	1.55E-02	8.96E-08	1.06E-06	9.28E-07	1.70E-04	2.20E-09	1.17E-08	0.00E+00	8.09E-09
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	4.23E-01	3.48E-01	8.45E-01	2.82E-06	5.38E-05	2.71E-05	9.29E-03	1.09E-07	5.84E-07	0.00E+00	2.54E-07
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	175	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.12E-02	9.22E-03	5.26E-02	1.29E-07	2.96E-06	6.31E-07	5.79E-04	6.51E-09	2.48E-08	0.00E+00	1.17E-08
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	250	Military Ta U	N	NHH	P	Monterey	NCC	MBU	2.24E-02	1.84E-02	1.40E-01	3.17E-07	2.70E-06	1.42E-06	1.55E-03	1.74E-08	4.51E-08	0.00E+00	2.86E-08
2030 Annual	Mon-Sun	2.27E+09	Compresso D	D	500	Military Ta U	N	NHH	P	Monterey	NCC	MBU	7.84E-02	6.46E-02	8.18E-01	1.84E-06	1.55E-05	7.85E-06	9.05E-03	8.88E-08	2.60E-07	0.00E+00	1.66E-07
2030 Annual	Mon-Sun	2.27E+09	Crane	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	4.48E-02	3.69E-02	1.32E-01	3.08E-07	8.17E-06	3.49E-06	1.46E-03	1.71E-08	2.57E-08	0.00E+00	2.78E-08
2030 Annual	Mon-Sun	2.27E+09	Crane	D	175	Military Ta U	P	NHH	P	Monterey	NCC	MBU	8.40E-03	6.92E-03	3.33E-02	5.45E-08	1.82E-06	1.75E-07	3.67E-04	4.12E-09	5.96E-09	0.00E+00	4.92E-09
2030 Annual	Mon-Sun	2.27E+09	Crane	D	250	Military Ta U	N	NHH	P	Monterey	NCC	MBU	5.60E-03	4.61E-03	3.35E-02	5.49E-08	6.27E-07	1.72E-07	3.71E-04	4.17E-09	5.92E-09	0.00E+00	4.96E-09
2030 Annual	Mon-Sun	2.27E+09	Deicer	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.12E-02	9.22E-03	3.47E-02	1.16E-07	2.21E-06	1.11E-06	3.81E-04	4.47E-09	2.40E-08	0.00E+00	1.04E-08
2030 Annual	Mon-Sun	2.27E+09	Generator	D	50	Military Ta U	P	NHH	P	Monterey	NCC	MBU	7.56E-02	6.23E-02	8.10E-02	4.69E-07	5.56E-06	4.86E-06	8.89E-04	1.15E-08	6.12E-08	0.00E+00	4.23E-08
2030 Annual	Mon-Sun	2.27E+09	Generator	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.88E+00	1.55E+00	4.40E+00	1.47E-05	2.80E-04	1.41E-04	4.83E-02	5.67E-07	3.04E-06	0.00E+00	1.32E-06
2030 Annual	Mon-Sun	2.27E+09	Generator	D	175	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.51E+00	1.25E+00	6.26E+00	1.54E-05	3.53E-04	7.51E-05	6.89E-02	7.75E-07	2.95E-06	0.00E+00	1.39E-06
2030 Annual	Mon-Sun	2.27E+09	Generator	D	250	Military Ta U	N	NHH	P	Monterey	NCC	MBU	4.00E-01	3.30E-01	2.50E+00	5.66E-06	4.82E-05	2.54E-05	2.76E-02	3.11E-07	8.07E-07	0.00E+00	5.11E-07
2030 Annual	Mon-Sun	2.27E+09	Generator	D	500	Military Ta U	N	NHH	P	Monterey	NCC	MBU	1.62E-01	1.34E-01	1.58E+00	3.55E-06	2.99E-05	1.52E-05	1.75E-02	1.72E-07	5.03E-07	0.00E+00	3.20E-07
2030 Annual	Mon-Sun	2.27E+09	Generator	D	750	Military Ta U	N	NHH	P	Monterey	NCC	MBU	5.60E-03	4.60E-03	8.36E-02	1.88E-07	1.58E-06	8.13E-07	9.25E-04	9.30E-09	2.68E-08	0.00E+00	1.70E-08
2030 Annual	Mon-Sun	2.27E+09	Hydraulic u	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	1.88E-01	1.54E-01	5.02E-01	1.67E-06	3.20E-05	1.61E-05	5.52E-03	6.47E-08	3.47E-07	0.00E+00	1.51E-07
2030 Annual	Mon-Sun	2.27E+09	Lift (Millit	D	120	Military Ta U	P	NHH	P	Monterey	NCC	MBU	5.60E-03	4.61E-03	1.50E-02	4.99E-08	9.54E-07	4.80E-07	1.65E-04	1.93E-09	1.04E-08	0.00E+00	4.51E-09
2030 Annual	Mon-Sun	2.27E+09	Light	D	50	Military Ta U	P	NHH	P	Monterey	NCC												

Natural Gas Activity Data

Source: PG&E

TOTCOUNTY	TOTCITY	YEAR	CATEGORY	RES GAS USE(THM)	RES GAS CO2(metric t)	RES GAS 100	COM GAS AVG(THM)	COM GAS USE(THM)	COM GAS CO2(metric t)	COM GAS 1515	IND GAS AVG(THM)	IND GAS USE(THM)	IND GAS CO2(metric t)	IND GAS 1515
SACRAMENTO RANCHO C	2005 (3) COUNTY							27,524	146					
SACRAMENTO RANCHO C	2006 (3) COUNTY							23,644	125					
SACRAMENTO RANCHO C	2007 (3) COUNTY			26	0			23,170	123					
SACRAMENTO RANCHO C	2008 (3) COUNTY			50	0			20,511	109					
SACRAMENTO RANCHO C	2009 (3) COUNTY							18,053	96					
SACRAMENTO RANCHO C	2010 (3) COUNTY			124	1			13,940	74					
SACRAMENTO RANCHO C	2011 (3) COUNTY							11,348	60					
SACRAMENTO RANCHO C	2012 (3) COUNTY							10,178	54					
SACRAMENTO RANCHO C	2013 (3) COUNTY							9,322	49					
SACRAMENTO RANCHO C	2014 (3) COUNTY							5,648	30					
SACRAMENTO RANCHO C	2015 (3) COUNTY							8,703	46					
SACRAMENTO RANCHO C	2016 (3) COUNTY							9,146	49					
SACRAMENTO RANCHO C	2017 (3) COUNTY							11,475	61					
SACRAMENTO RANCHO C	2018 (3) COUNTY							8,774	47					
SACRAMENTO RANCHO C	2019 (3) COUNTY			10	0			9,742	52					
SACRAMENTO RANCHO C	2020 (3) COUNTY							9,792	52					
SACRAMENTO RANCHO C	2005 (4) CITY							878	5					
SACRAMENTO RANCHO C	2006 (4) CITY							10,558	56					
SACRAMENTO RANCHO C	2007 (4) CITY							18,033	96					
SACRAMENTO RANCHO C	2008 (4) CITY			1,255	7			23,442	124					
SACRAMENTO RANCHO C	2009 (4) CITY							19,623	104					
SACRAMENTO RANCHO C	2010 (4) CITY							17,180	91					
SACRAMENTO RANCHO C	2011 (4) CITY							29,491	157					
SACRAMENTO RANCHO C	2012 (4) CITY							43,419	230					
SACRAMENTO RANCHO C	2013 (4) CITY							41,716	221					
SACRAMENTO RANCHO C	2014 (4) CITY							43,506	231					
SACRAMENTO RANCHO C	2015 (4) CITY							35,318	187					
SACRAMENTO RANCHO C	2016 (4) CITY							32,410	172					
SACRAMENTO RANCHO C	2017 (4) CITY							35,408	188					
SACRAMENTO RANCHO C	2018 (4) CITY							34,379	182					
SACRAMENTO RANCHO C	2019 (4) CITY							30,432	162					
SACRAMENTO RANCHO C	2020 (4) CITY							28,162	149					
SACRAMENTO RANCHO C	2005 (5) DISTRICT							185,663	985					
SACRAMENTO RANCHO C	2006 (5) DISTRICT							226,585	1,203					
SACRAMENTO RANCHO C	2007 (5) DISTRICT							258,266	1,371					
SACRAMENTO RANCHO C	2008 (5) DISTRICT			202	1			235,740	1,251					
SACRAMENTO RANCHO C	2009 (5) DISTRICT			598	3			224,574	1,192					
SACRAMENTO RANCHO C	2010 (5) DISTRICT			741	4			206,369	1,095					
SACRAMENTO RANCHO C	2011 (5) DISTRICT			634	3			172,144	914					
SACRAMENTO RANCHO C	2012 (5) DISTRICT			367	2			153,464	814					
SACRAMENTO RANCHO C	2013 (5) DISTRICT			353	2			157,650	837					
SACRAMENTO RANCHO C	2014 (5) DISTRICT			306	2			135,115	717					
SACRAMENTO RANCHO C	2015 (5) DISTRICT			355	2			158,170	839					
SACRAMENTO RANCHO C	2016 (5) DISTRICT			499	3			160,940	854					
SACRAMENTO RANCHO C	2017 (5) DISTRICT			556	3			200,686	1,065					
SACRAMENTO RANCHO C	2018 (5) DISTRICT			571	3			216,601	1,150					
SACRAMENTO RANCHO C	2019 (5) DISTRICT			623	3			218,084	1,157					
SACRAMENTO RANCHO C	2020 (5) DISTRICT			631	3			190,687	1,012					
SACRAMENTO RANCHO C	2005 NONGOVENT			7,565,764	40,152	PASS		3,744,199	19,871	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2006 NONGOVENT			8,213,592	43,590	PASS		3,742,297	19,861	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2007 NONGOVENT			8,313,909	44,123	PASS		3,650,704	19,375	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2008 NONGOVENT			8,534,719	45,294	PASS		3,670,532	19,480	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2009 NONGOVENT			8,712,211	46,236	PASS		3,555,924	18,872	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2010 NONGOVENT			8,699,075	46,167	PASS		3,420,298	18,152	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2011 NONGOVENT			9,464,074	50,227	PASS		3,521,972	18,691	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2012 NONGOVENT			8,764,024	46,511	PASS		3,251,473	17,256	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2013 NONGOVENT			8,751,983	46,448	PASS		3,381,261	17,945	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2014 NONGOVENT			7,425,447	39,407	PASS		2,992,161	15,880	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2015 NONGOVENT			7,825,333	41,530	PASS		3,160,480	16,773	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2016 NONGOVENT			8,082,673	42,895	PASS		3,338,007	17,715	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2017 NONGOVENT			8,616,919	45,731	PASS		3,618,429	19,203	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2018 NONGOVENT			8,837,632	46,902	PASS		3,444,960	18,283	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2019 NONGOVENT			9,082,001	48,199	PASS		3,654,085	19,393	PASS-COM ONLY				FAIL-DROPPED
SACRAMENTO RANCHO C	2020 NONGOVENT			9,015,316	47,845	PASS		3,189,441	16,927	PASS-COM ONLY				FAIL-DROPPED

Electricity Activity Data
Source: SMUD

rate_cat	ind_code	account_type	sum_of_kwh2017	sum_of_kwh2018	sum_of_kwh2019
ASD	221310	Agricultural	7296	28683	0
ASD	221312	Agricultural	91312	12030	106112
ASN	221311	Agricultural	1978	2212	1734
ASN	221312	Agricultural	35797	27676	28991
ASN	221312	Agricultural	105	216	220
CITP-2	485111	Small Commercial	1993542	1935490	1918945
CITP-3	485111	Industrial	1486719	1472371	1542999
CITP-4	518210	Industrial	20971529	20462575	17749560
CITS-0	221122	Small Commercial	13	0	0
CITS-0	221310	Small Commercial	64238	47300	60002
CITS-0	221311	Small Commercial	21191	22045	19637
CITS-0	221311	Small Commercial	15578	13949	13128
CITS-0	221312	Small Commercial	27042	28588	31943
CITS-0	221312	Small Commercial	81	75	146
CITS-0	221320	Small Commercial	107352	87271	110558
CITS-0	221320	Small Commercial	5549	1237	1183
CITS-0	231543	Small Commercial	6407	7832	8414
CITS-0	236220	Small Commercial	5	0	3
CITS-0	322222	Small Commercial	7054	5937	5938
CITS-0	423210	Small Commercial	74615	77018	84029
CITS-0	423720	Small Commercial	0	0	46241
CITS-0	485111	Small Commercial	324049	326195	316603
CITS-0	488210	Small Commercial	1436	1447	1341
CITS-0	493110	Small Commercial	20466	32606	31123
CITS-0	524210	Small Commercial	152595	130276	85122
CITS-0	531110	Small Commercial	8992	10376	9557
CITS-0	531120	Small Commercial	39292	46843	43027
CITS-0	531120	Small Commercial	0	0	117
CITS-0	531130	Small Commercial	0	0	0
CITS-0	531190	Small Commercial	7907	5670	3823
CITS-0	531191	Small Commercial	38624	40745	38959
CITS-0	531191	Small Commercial	1203	2592	2328
CITS-0	541330	Small Commercial	13395	13026	12069
CITS-0	611110	Small Commercial	131663	135973	129617
CITS-0	611210	Small Commercial	0	0	0
CITS-0	611310	Small Commercial	3735	3745	3459
CITS-0	621111	Small Commercial	0	0	46718
CITS-0	624410	Small Commercial	85944	82206	73509
CITS-0	722110	Small Commercial	86690	80079	78863
CITS-0	722211	Small Commercial	0	0	0
CITS-0	811111	Small Commercial	20940	21876	24127
CITS-0	921190	Small Commercial	80650	75405	78194
CITS-0	921190	Small Commercial	27469	19707	19123

ITEM 10.1.**ATTACHMENT 5**

CITS-0	922120 Small Commercial	53035	53928	43188
CITS-0	922160 Small Commercial	26014	29775	38758
CITS-0	922190 Small Commercial	85629	76644	74731
CITS-0	923110 Small Commercial	96299	88560	89309
CITS-0	924110 Small Commercial	768	809	1364
CITS-0	925110 Small Commercial	6609	5120	4879
CITS-0	925190 Small Commercial	0	0	0
CITS-0	926120 Small Commercial	4565	3222	4529
CITS-0	926130 Small Commercial	22744	21675	23888
CITS-0	926130 Small Commercial	17	1	11
CITS-0	928120 Small Commercial	57659	44614	44012
CITS-1	221311 Small Commercial	343122	314824	267172
CITS-1	221320 Small Commercial	268475	263117	219751
CITS-1	238160 Small Commercial	0	38576	62406
CITS-1	485111 Small Commercial	110408	119669	106838
CITS-1	491110 Small Commercial	209984	232373	232826
CITS-1	524210 Small Commercial	577143	580675	494995
CITS-1	531120 Small Commercial	146875	142422	141218
CITS-1	531191 Small Commercial	1433081	1207508	1145335
CITS-1	551114 Small Commercial	0	271568	436952
CITS-1	561612 Small Commercial	0	152739	225989
CITS-1	611110 Small Commercial	5564555	5562245	5611943
CITS-1	611210 Small Commercial	325728	406870	415348
CITS-1	624110 Small Commercial	161782	180961	185713
CITS-1	722410 Small Commercial	194716	179684	193424
CITS-1	722513 Small Commercial	0	0	0
CITS-1	921110 Small Commercial	614743	589452	583507
CITS-1	921190 Small Commercial	0	51117	0
CITS-1	922130 Small Commercial	224553	246881	217871
CITS-1	922160 Small Commercial	406113	356071	326455
CITS-1	922190 Small Commercial	981963	1040087	991190
CITS-1	923110 Small Commercial	147742	144826	149160
CITS-1	924110 Small Commercial	94093	87570	100086
CITS-1	926120 Small Commercial	137200	143155	127636
CITS-1	926150 Small Commercial	118198	115233	121621
CITS-1	928110 Small Commercial	423351	390560	379850
CITS-2	221312 Small Commercial	0	0	0
CITS-2	524210 Small Commercial	996215	1028056	974323
CITS-2	611110 Small Commercial	874151	911226	950783
CITS-2	813110 Small Commercial	699355	662044	690847
CITS-2	922190 Small Commercial	0	1236073	2024069
CITS-2	924110 Small Commercial	2148994	2209900	2456504
CITS-2	926120 Small Commercial	1356288	1384097	1524059
GSN	221312 Small Commercial	2	0	0
GSN	231531 Small Commercial	3847	1159	0
GSN	236115 Small Commercial	0	140	124
GSN	238220 Small Commercial	405563	379988	343631

ITEM 10.1.**ATTACHMENT 5**

GSN	238320 Small Commercial	4951	6097	272
GSN	238330 Small Commercial	16583	15247	15376
GSN	238350 Small Commercial	5293	2368	2005
GSN	238390 Small Commercial	7056	10051	12842
GSN	311320 Small Commercial	83382	79622	73985
GSN	315210 Small Commercial	938	886	1076
GSN	423120 Small Commercial	12564	7639	8719
GSN	423130 Small Commercial	7954	0	0
GSN	423220 Small Commercial	19836	20785	23261
GSN	441221 Small Commercial	37176	29893	28089
GSN	441310 Small Commercial	22779	17563	16971
GSN	442110 Small Commercial	3966	3618	3663
GSN	444190 Small Commercial	110035	120243	116001
GSN	445210 Small Commercial	226409	233369	195754
GSN	515120 Small Commercial	10381	8913	8210
GSN	517110 Small Commercial	2902	2896	2903
GSN	517510 Small Commercial	6776	4679	4015
GSN	531110 Small Commercial	11894	10353	8517
GSN	531120 Small Commercial	82338	77127	70408
GSN	531191 Residential	2798	0	0
GSN	531191 Small Commercial	20702	23161	18739
GSN	541110 Small Commercial	353	134	0
GSN	541320 Small Commercial	14677	13056	14212
GSN	541410 Small Commercial	0	0	0
GSN	561710 Small Commercial	47690	0	0
GSN	561730 Small Commercial	16359	18549	17025
GSN	621310 Small Commercial	722	0	0
GSN	624229 Small Commercial	0	5972	0
GSN	6531 Small Commercial	22665	17468	15388
GSN	722211 Small Commercial	115610	114484	112358
GSN	811111 Small Commercial	40136	38034	34423
GSN	811118 Small Commercial	10134	8215	9211
GSN	811121 Small Commercial	33746	27427	24189
GSN	811490 Small Commercial	14818	3403	0
GSN	813990 Small Commercial	0	0	386
GSN	RE1100 Residential	15676	15355	15856
GSN_T	111419 Small Commercial	494	0	0
GSN_T	111421 Small Commercial	977	799	719
GSN_T	113310 Small Commercial	62651	60736	52301
GSN_T	115112 Small Commercial	13400	10805	12219
GSN_T	212322 Small Commercial	21763	23376	20471
GSN_T	213112 Small Commercial	49734	44973	46612
GSN_T	213113 Small Commercial	51462	47839	46497
GSN_T	221111 Small Commercial	13657	13239	14170
GSN_T	221119 Small Commercial	109814	94030	147212
GSN_T	221122 Small Commercial	6799	6814	5933
GSN_T	221210 Small Commercial	22064	22394	25513

ITEM 10.1.**ATTACHMENT 5**

GSN_T	221310 Small Commercial	39704	32394	25691
GSN_T	221311 Small Commercial	1447120	1800846	1341929
GSN_T	221312 Small Commercial	96326	83916	86112
GSN_T	221312 Small Commercial	0	0	0
GSN_T	221320 Small Commercial	60881	60796	55232
GSN_T	231531 Small Commercial	34467	30043	25791
GSN_T	231543 Small Commercial	318189	320911	70727
GSN_T	236115 Small Commercial	77796	77662	79891
GSN_T	236116 Small Commercial	62842	60003	55764
GSN_T	236117 Small Commercial	8561	21698	23615
GSN_T	236118 Small Commercial	366995	355792	306593
GSN_T	236210 Small Commercial	290029	286836	344652
GSN_T	236220 Small Commercial	1056072	1005242	1043476
GSN_T	237130 Small Commercial	85581	87135	107911
GSN_T	237210 Small Commercial	70279	69192	66043
GSN_T	237310 Small Commercial	106488	104592	104805
GSN_T	237990 Small Commercial	14606	14684	15120
GSN_T	238110 Small Commercial	80528	77287	64675
GSN_T	238120 Small Commercial	22883	18904	18305
GSN_T	238130 Small Commercial	58257	41211	43488
GSN_T	238140 Small Commercial	154154	144684	145593
GSN_T	238150 Small Commercial	61975	57842	57590
GSN_T	238160 Small Commercial	180246	186102	179967
GSN_T	238190 Small Commercial	71650	88069	93334
GSN_T	238210 Small Commercial	498956	495081	560058
GSN_T	238220 Small Commercial	846275	813860	783560
GSN_T	238290 Small Commercial	121496	119591	139838
GSN_T	238310 Small Commercial	89965	76686	79790
GSN_T	238320 Small Commercial	150956	142086	142353
GSN_T	238330 Small Commercial	249314	232982	262417
GSN_T	238340 Small Commercial	170491	177549	194311
GSN_T	238350 Small Commercial	325087	299518	309110
GSN_T	238390 Small Commercial	42597	44011	41882
GSN_T	238910 Small Commercial	37674	45338	86751
GSN_T	238990 Small Commercial	161518	152820	159622
GSN_T	311119 Small Commercial	8182	7190	8179
GSN_T	311212 Small Commercial	0	0	0
GSN_T	311520 Small Commercial	9185	82166	78740
GSN_T	311811 Small Commercial	52947	54709	56892
GSN_T	311812 Small Commercial	20839	20842	19857
GSN_T	311920 Small Commercial	7884	6396	6111
GSN_T	311991 Small Commercial	19648	8243	26719
GSN_T	312120 Small Commercial	70047	75485	93670
GSN_T	312140 Small Commercial	16516	22246	22399
GSN_T	313230 Small Commercial	281	5568	8725
GSN_T	314121 Small Commercial	44346	40554	43999
GSN_T	314911 Small Commercial	29163	27474	28694

ITEM 10.1.**ATTACHMENT 5**

GSN_T	314999 Small Commercial	14962	16552	13561
GSN_T	315190 Small Commercial	9243	4571	0
GSN_T	315210 Small Commercial	4799	4822	4386
GSN_T	316999 Small Commercial	2472	916	942
GSN_T	321911 Small Commercial	16206	11562	12648
GSN_T	321918 Small Commercial	32569	48026	60140
GSN_T	321999 Small Commercial	12678	4673	4593
GSN_T	322211 Small Commercial	22897	19022	17805
GSN_T	323110 Small Commercial	27616	30871	32190
GSN_T	323111 Small Commercial	44600	37876	31234
GSN_T	323113 Small Commercial	2023	6977	0
GSN_T	323114 Small Commercial	52602	81796	86055
GSN_T	323115 Small Commercial	128783	104923	108352
GSN_T	323119 Small Commercial	1938	2299	11846
GSN_T	323121 Small Commercial	8189	23555	34042
GSN_T	323122 Small Commercial	11348	10200	9908
GSN_T	324121 Small Commercial	1683	20614	52388
GSN_T	325199 Small Commercial	12760	9755	11439
GSN_T	325311 Small Commercial	1297	0	0
GSN_T	325312 Small Commercial	20130	18434	7020
GSN_T	325510 Small Commercial	16425	14933	14728
GSN_T	325611 Small Commercial	6666	6195	6621
GSN_T	325620 Small Commercial	40062	43132	43991
GSN_T	326199 Small Commercial	192387	201176	191164
GSN_T	326211 Small Commercial	6685	3719	9503
GSN_T	326299 Small Commercial	12067	8794	9402
GSN_T	327112 Small Commercial	2873	5343	6325
GSN_T	327122 Small Commercial	7837	7460	10705
GSN_T	327212 Small Commercial	9096	9403	9585
GSN_T	327215 Small Commercial	12252	14128	16153
GSN_T	327320 Small Commercial	36221	34074	29965
GSN_T	327331 Small Commercial	0	0	1181
GSN_T	327390 Small Commercial	5261	4517	4650
GSN_T	327991 Small Commercial	33588	9893	42330
GSN_T	331111 Small Commercial	76290	144143	152572
GSN_T	331491 Small Commercial	2936	4175	3962
GSN_T	332212 Small Commercial	20365	35783	41205
GSN_T	332311 Small Commercial	25855	26734	25711
GSN_T	332312 Small Commercial	49123	48151	45358
GSN_T	332321 Small Commercial	1130	919	700
GSN_T	332322 Small Commercial	146219	176657	167527
GSN_T	332323 Small Commercial	76007	75496	69147
GSN_T	332431 Small Commercial	29388	37142	28861
GSN_T	332618 Small Commercial	44829	16535	47689
GSN_T	332710 Small Commercial	212950	235483	211743
GSN_T	332721 Small Commercial	3502	2081	2758
GSN_T	332812 Small Commercial	34495	38009	47641

ITEM 10.1.**ATTACHMENT 5**

GSN_T	332992 Small Commercial	8949	10766	11435
GSN_T	332999 Small Commercial	34230	39467	52963
GSN_T	333111 Small Commercial	31917	24406	21310
GSN_T	333120 Small Commercial	200	403	4104
GSN_T	333131 Small Commercial	153	0	0
GSN_T	333210 Small Commercial	5645	2694	704
GSN_T	333294 Small Commercial	25097	21579	21367
GSN_T	333298 Small Commercial	6824	31296	27490
GSN_T	333318 Small Commercial	10689	9849	9211
GSN_T	333319 Small Commercial	31952	31946	28077
GSN_T	333414 Small Commercial	28445	28412	33292
GSN_T	333415 Small Commercial	64726	58366	54306
GSN_T	333511 Small Commercial	16383	16505	14139
GSN_T	333512 Small Commercial	29146	27671	24904
GSN_T	333515 Small Commercial	7598	9454	13743
GSN_T	333618 Small Commercial	2063	1452	1291
GSN_T	333911 Small Commercial	45	67	60
GSN_T	333921 Small Commercial	20736	17127	15922
GSN_T	333923 Small Commercial	46999	43960	39090
GSN_T	333991 Small Commercial	15299	15142	14404
GSN_T	333992 Small Commercial	7573	5767	7700
GSN_T	334111 Small Commercial	52197	58618	74425
GSN_T	334220 Small Commercial	162888	85442	89750
GSN_T	334413 Small Commercial	116550	98107	56433
GSN_T	334418 Small Commercial	28922	31131	31229
GSN_T	334510 Small Commercial	49578	35215	40685
GSN_T	334515 Small Commercial	57926	56404	59008
GSN_T	335110 Small Commercial	55282	54298	52749
GSN_T	335121 Small Commercial	17874	16573	15244
GSN_T	335122 Small Commercial	1631	2691	2353
GSN_T	335129 Small Commercial	27692	26586	24162
GSN_T	335221 Small Commercial	10696	25915	24083
GSN_T	335991 Small Commercial	7347	7371	10332
GSN_T	336211 Small Commercial	154391	133305	94502
GSN_T	336312 Small Commercial	104638	91134	91461
GSN_T	336330 Small Commercial	11608	10462	5608
GSN_T	336340 Small Commercial	64765	61314	34766
GSN_T	336360 Small Commercial	61291	44247	19399
GSN_T	336399 Small Commercial	51715	20477	13661
GSN_T	336413 Small Commercial	12788	11727	10411
GSN_T	336991 Small Commercial	7497	3605	2362
GSN_T	336999 Small Commercial	11960	14425	12548
GSN_T	337110 Small Commercial	335772	322329	313610
GSN_T	337122 Small Commercial	17917	19319	19702
GSN_T	337124 Small Commercial	48283	52683	66182
GSN_T	337127 Small Commercial	13877	22043	27197
GSN_T	337129 Small Commercial	10394	9656	10733

ITEM 10.1.**ATTACHMENT 5**

GSN_T	337212 Small Commercial	1557	6070	17387
GSN_T	339112 Small Commercial	0	0	0
GSN_T	339113 Small Commercial	61179	59789	60041
GSN_T	339114 Small Commercial	10198	7765	6392
GSN_T	339115 Small Commercial	0	0	0
GSN_T	339116 Small Commercial	18928	18379	16475
GSN_T	339914 Small Commercial	24499	24848	13192
GSN_T	339920 Small Commercial	38714	35731	33980
GSN_T	339942 Small Commercial	33447	29603	9898
GSN_T	339950 Small Commercial	172980	177237	185320
GSN_T	339999 Small Commercial	30239	25291	23395
GSN_T	423110 Small Commercial	18290	38305	45684
GSN_T	423120 Small Commercial	161935	152085	149650
GSN_T	423130 Small Commercial	23583	22042	22780
GSN_T	423140 Small Commercial	175197	159525	160364
GSN_T	423210 Small Commercial	208699	218374	282320
GSN_T	423220 Small Commercial	68976	85170	83866
GSN_T	423310 Small Commercial	45555	42044	50319
GSN_T	423320 Small Commercial	102283	79128	63795
GSN_T	423390 Small Commercial	97517	81547	68192
GSN_T	423420 Small Commercial	45105	46219	41205
GSN_T	423430 Small Commercial	14869	17886	8663
GSN_T	423450 Small Commercial	99780	99308	106127
GSN_T	423490 Small Commercial	4694	4394	3910
GSN_T	423510 Small Commercial	25096	23136	23548
GSN_T	423610 Small Commercial	288562	284566	282056
GSN_T	423620 Small Commercial	9563	6932	7189
GSN_T	423690 Small Commercial	53774	52653	48418
GSN_T	423710 Small Commercial	42989	47568	54200
GSN_T	423720 Small Commercial	210900	164160	107523
GSN_T	423730 Small Commercial	64183	54399	56282
GSN_T	423740 Small Commercial	72617	84459	76275
GSN_T	423820 Small Commercial	32182	32070	30811
GSN_T	423830 Small Commercial	171929	160096	147339
GSN_T	423850 Small Commercial	57115	51380	59104
GSN_T	423860 Small Commercial	17730	15933	13654
GSN_T	423910 Small Commercial	101339	96324	98869
GSN_T	423920 Small Commercial	19126	18240	13169
GSN_T	423930 Small Commercial	500114	488003	496676
GSN_T	423990 Small Commercial	0	672	10753
GSN_T	424120 Small Commercial	92428	98744	109533
GSN_T	424130 Small Commercial	36089	31947	33028
GSN_T	424410 Small Commercial	3989	4026	3068
GSN_T	424420 Small Commercial	6987	5997	3822
GSN_T	424430 Small Commercial	64205	70385	58896
GSN_T	424490 Small Commercial	13052	15299	16299
GSN_T	424690 Small Commercial	13846	11134	10611

ITEM 10.1.**ATTACHMENT 5**

GSN_T	424710 Small Commercial	61415	48919	47376
GSN_T	424720 Small Commercial	24349	23668	24478
GSN_T	424810 Small Commercial	8618	16568	15650
GSN_T	424820 Small Commercial	9277	11414	18673
GSN_T	424910 Small Commercial	18569	17632	17051
GSN_T	424930 Small Commercial	16627	18662	26379
GSN_T	424950 Small Commercial	31086	32664	25062
GSN_T	424990 Small Commercial	9398	11147	12403
GSN_T	425120 Small Commercial	2504	526	1195
GSN_T	441110 Small Commercial	45807	42714	39594
GSN_T	441120 Small Commercial	299308	338434	279071
GSN_T	441210 Small Commercial	54935	45199	1720
GSN_T	441221 Small Commercial	12705	11829	10405
GSN_T	441222 Small Commercial	183333	152248	139536
GSN_T	441228 Small Commercial	9209	10431	10329
GSN_T	441229 Small Commercial	2048	1355	4502
GSN_T	441310 Small Commercial	921506	894207	872687
GSN_T	441320 Small Commercial	35315	39179	33274
GSN_T	442110 Small Commercial	425906	389675	451018
GSN_T	442210 Small Commercial	90905	86902	149100
GSN_T	442291 Small Commercial	21122	21928	25308
GSN_T	442299 Small Commercial	60300	102802	92203
GSN_T	443111 Small Commercial	12636	3382	4304
GSN_T	443112 Small Commercial	202811	255349	255284
GSN_T	443120 Small Commercial	191488	182346	161169
GSN_T	443142 Small Commercial	369	368	706
GSN_T	444110 Small Commercial	218129	194330	208100
GSN_T	444120 Small Commercial	133731	119459	109079
GSN_T	444130 Small Commercial	85680	84979	85813
GSN_T	444190 Small Commercial	461296	465624	464934
GSN_T	444210 Small Commercial	61720	65384	71122
GSN_T	444220 Small Commercial	8644	7966	7464
GSN_T	445110 Small Commercial	288628	263209	258982
GSN_T	445120 Small Commercial	157678	152214	134711
GSN_T	445210 Small Commercial	85227	71736	71694
GSN_T	445292 Small Commercial	87841	72734	65727
GSN_T	445299 Small Commercial	7348	7416	8237
GSN_T	445310 Small Commercial	325180	323777	333401
GSN_T	446110 Small Commercial	7438	2807	6565
GSN_T	446120 Small Commercial	109628	105209	106275
GSN_T	446191 Small Commercial	33003	26861	17974
GSN_T	446199 Small Commercial	47	1459	1389
GSN_T	447110 Small Commercial	120634	46206	46076
GSN_T	447190 Small Commercial	97920	79803	66063
GSN_T	448120 Small Commercial	2037	8150	11173
GSN_T	448140 Small Commercial	41939	50736	48843
GSN_T	448150 Small Commercial	31268	33440	33380

ITEM 10.1.**ATTACHMENT 5**

GSN_T	448190 Small Commercial	56015	63533	61528
GSN_T	448310 Small Commercial	44839	50319	51344
GSN_T	451110 Small Commercial	158836	166210	174313
GSN_T	451120 Small Commercial	102739	99963	104092
GSN_T	451130 Small Commercial	88806	80147	74563
GSN_T	452110 Small Commercial	201	217	188
GSN_T	452111 Small Commercial	28989	31323	3902
GSN_T	452112 Small Commercial	44884	49483	54574
GSN_T	452311 Small Commercial	30425	31627	41485
GSN_T	452910 Small Commercial	20591	14344	17533
GSN_T	452990 Small Commercial	54624	47310	54400
GSN_T	453110 Small Commercial	62874	63374	67703
GSN_T	453210 Small Commercial	374834	351836	336626
GSN_T	453220 Small Commercial	51010	42279	28380
GSN_T	453310 Small Commercial	502864	451381	432584
GSN_T	453910 Small Commercial	63504	115232	100371
GSN_T	453991 Small Commercial	67639	63741	99679
GSN_T	453998 Small Commercial	106324	98495	89932
GSN_T	454110 Small Commercial	13724	14303	6846
GSN_T	454111 Small Commercial	85132	112766	124608
GSN_T	454112 Small Commercial	5330	6832	6194
GSN_T	454113 Small Commercial	5287	4496	10048
GSN_T	454210 Small Commercial	374	416	1236
GSN_T	454312 Small Commercial	85651	87409	91964
GSN_T	454390 Small Commercial	18768	12945	13240
GSN_T	481111 Small Commercial	5980	1002	2100
GSN_T	482111 Small Commercial	7961	8026	8497
GSN_T	484210 Small Commercial	66632	62668	62133
GSN_T	485320 Small Commercial	8677	8144	7172
GSN_T	486210 Small Commercial	12324	12278	17990
GSN_T	488310 Small Commercial	32459	26313	28349
GSN_T	488410 Small Commercial	113811	119544	113079
GSN_T	488510 Small Commercial	50528	51860	59865
GSN_T	492210 Small Commercial	21161	14179	14019
GSN_T	493110 Small Commercial	1045235	1032369	1106413
GSN_T	493120 Small Commercial	2776	3595	3286
GSN_T	493190 Small Commercial	102441	96122	81898
GSN_T	512110 Small Commercial	20262	15820	15415
GSN_T	512240 Small Commercial	3380	801	10333
GSN_T	515112 Small Commercial	0	0	22
GSN_T	516110 Small Commercial	19756	35005	28829
GSN_T	517110 Small Commercial	1112956	1132596	1114688
GSN_T	517212 Small Commercial	1800594	1792468	1995088
GSN_T	517312 Small Commercial	15917	15474	14526
GSN_T	517410 Small Commercial	0	0	0
GSN_T	517510 Small Commercial	491368	530590	536153
GSN_T	517910 Small Commercial	12869	14317	11099

ITEM 10.1.**ATTACHMENT 5**

GSN_T	517911 Small Commercial	12355	10604	10838
GSN_T	518210 Small Commercial	2539889	3908925	5421556
GSN_T	521110 Small Commercial	8795	10542	10247
GSN_T	522110 Small Commercial	105440	84229	86030
GSN_T	522120 Small Commercial	81801	94719	96799
GSN_T	522130 Small Commercial	136079	146518	159665
GSN_T	522220 Small Commercial	15558	35946	38809
GSN_T	522291 Small Commercial	88313	87992	79868
GSN_T	522292 Small Commercial	72511	80020	69211
GSN_T	522310 Small Commercial	3423	3217	3509
GSN_T	522320 Small Commercial	32014	28673	31529
GSN_T	522390 Small Commercial	58633	52435	55903
GSN_T	523910 Small Commercial	4503	3926	3144
GSN_T	523930 Small Commercial	35568	37396	36692
GSN_T	524113 Small Commercial	73111	74032	82739
GSN_T	524126 Small Commercial	10382	8213	8387
GSN_T	524210 Small Commercial	461838	456106	458416
GSN_T	524291 Small Commercial	28710	9549	10121
GSN_T	531110 Small Commercial	2938344	2830364	2747121
GSN_T	531120 Small Commercial	4783716	4472027	4312109
GSN_T	531120 Small Commercial	297	225	20
GSN_T	531123 Small Commercial	118151	116072	111926
GSN_T	531130 Small Commercial	502543	445684	411554
GSN_T	531190 Small Commercial	896742	900397	900545
GSN_T	531191 Small Commercial	4412892	4154551	4072993
GSN_T	531210 Small Commercial	278248	395136	420078
GSN_T	531311 Small Commercial	102406	105921	92622
GSN_T	531312 Small Commercial	369993	296021	310168
GSN_T	531390 Small Commercial	14073	8974	13176
GSN_T	532111 Small Commercial	161417	155391	159010
GSN_T	532120 Small Commercial	2320	1743	1101
GSN_T	532210 Small Commercial	15151	10077	4177
GSN_T	532292 Small Commercial	82	4218	4063
GSN_T	532299 Small Commercial	5905	3114	2048
GSN_T	532310 Small Commercial	52070	50347	41450
GSN_T	532412 Small Commercial	51232	54632	48040
GSN_T	532420 Small Commercial	133976	123602	153686
GSN_T	532490 Small Commercial	12942	13953	16025
GSN_T	533110 Small Commercial	8472	65532	110125
GSN_T	541110 Small Commercial	199334	237637	225039
GSN_T	541191 Small Commercial	66075	62969	63502
GSN_T	541211 Small Commercial	471095	436037	323304
GSN_T	541213 Small Commercial	8737	8169	12062
GSN_T	541219 Small Commercial	34411	22211	23052
GSN_T	541310 Small Commercial	134285	147618	153104
GSN_T	541320 Small Commercial	73471	65208	67181
GSN_T	541330 Small Commercial	499190	501151	490129

ITEM 10.1.**ATTACHMENT 5**

GSN_T	541350 Small Commercial	17815	14229	12425
GSN_T	541370 Small Commercial	8600	8292	8314
GSN_T	541380 Small Commercial	134773	126787	113769
GSN_T	541410 Small Commercial	26048	19560	18790
GSN_T	541420 Small Commercial	42994	10210	72304
GSN_T	541430 Small Commercial	94220	91873	74400
GSN_T	541511 Small Commercial	118480	125098	118907
GSN_T	541512 Small Commercial	121903	106807	107107
GSN_T	541611 Small Commercial	45053	28338	40474
GSN_T	541613 Small Commercial	37953	36891	43867
GSN_T	541614 Small Commercial	42059	33569	35885
GSN_T	541618 Small Commercial	11816	4210	1001
GSN_T	541620 Small Commercial	136541	148335	176260
GSN_T	541690 Small Commercial	134288	109145	111636
GSN_T	541710 Small Commercial	63151	56820	56740
GSN_T	541810 Small Commercial	25422	26490	29932
GSN_T	541811 Small Commercial	4809	3677	3838
GSN_T	541850 Small Commercial	93700	91645	103239
GSN_T	541860 Small Commercial	2830	3036	2605
GSN_T	541870 Small Commercial	31127	49482	52711
GSN_T	541890 Small Commercial	10562	19938	20147
GSN_T	541921 Small Commercial	14924	13249	14180
GSN_T	541922 Small Commercial	18099	16296	5016
GSN_T	541940 Small Commercial	295436	280304	237267
GSN_T	541990 Small Commercial	5524	22067	38698
GSN_T	551114 Small Commercial	211712	237860	190136
GSN_T	561110 Small Commercial	311158	257590	224530
GSN_T	561320 Small Commercial	0	20986	22116
GSN_T	561431 Small Commercial	58501	83303	70952
GSN_T	561439 Small Commercial	86596	80422	86753
GSN_T	561440 Small Commercial	57481	58037	55081
GSN_T	561491 Small Commercial	18417	10860	13155
GSN_T	561510 Small Commercial	31171	26634	27400
GSN_T	561612 Small Commercial	97363	82869	79411
GSN_T	561621 Small Commercial	196229	172168	160279
GSN_T	561710 Small Commercial	326079	256322	277525
GSN_T	561720 Small Commercial	78332	73148	75759
GSN_T	561730 Small Commercial	213548	188128	231851
GSN_T	561740 Small Commercial	5143	4873	4124
GSN_T	561790 Small Commercial	71013	58281	71654
GSN_T	561910 Small Commercial	40618	37089	36684
GSN_T	562111 Small Commercial	37412	40038	55621
GSN_T	562119 Small Commercial	52107	45575	44269
GSN_T	562213 Small Commercial	0	0	0
GSN_T	562910 Small Commercial	54450	88272	158945
GSN_T	611110 Small Commercial	75619	59000	67282
GSN_T	611111 Small Commercial	8389	6922	6841

ITEM 10.1.**ATTACHMENT 5**

GSN_T	611113 Small Commercial	18947	17865	20914
GSN_T	611117 Small Commercial	0	0	0
GSN_T	611210 Small Commercial	16947	15218	17498
GSN_T	611310 Small Commercial	17098	13259	18632
GSN_T	611420 Small Commercial	51488	51266	46314
GSN_T	611513 Small Commercial	55049	42440	63491
GSN_T	611610 Small Commercial	6022	3454	3352
GSN_T	611620 Small Commercial	323626	286913	311397
GSN_T	611691 Small Commercial	14260	8838	5080
GSN_T	621111 Small Commercial	245171	245311	240003
GSN_T	621112 Small Commercial	105697	115965	123776
GSN_T	621210 Small Commercial	540772	524457	514973
GSN_T	621310 Small Commercial	36249	36559	37062
GSN_T	621320 Small Commercial	70170	79856	67586
GSN_T	621330 Small Commercial	35253	39392	52518
GSN_T	621340 Small Commercial	84838	120337	149350
GSN_T	621399 Small Commercial	23573	23535	26854
GSN_T	621420 Small Commercial	5350	2635	2490
GSN_T	621493 Small Commercial	41951	37081	19903
GSN_T	621498 Small Commercial	16468	17892	16262
GSN_T	621511 Small Commercial	20415	20754	18614
GSN_T	621512 Small Commercial	43123	42701	42650
GSN_T	621610 Small Commercial	8291	20023	25533
GSN_T	621910 Small Commercial	86064	115197	124831
GSN_T	621991 Small Commercial	41850	4077	0
GSN_T	621999 Small Commercial	13844	16728	22423
GSN_T	622110 Small Commercial	21152	20796	29610
GSN_T	622210 Small Commercial	29513	28197	30599
GSN_T	622310 Small Commercial	5685	13086	27966
GSN_T	623110 Small Commercial	32001	31700	34293
GSN_T	623210 Small Commercial	1943	3963	5081
GSN_T	623220 Small Commercial	59463	52121	46614
GSN_T	623311 Small Commercial	12472	16595	32343
GSN_T	623312 Small Commercial	65407	57637	63532
GSN_T	623990 Small Commercial	4755	2834	4118
GSN_T	624110 Small Commercial	63805	41650	43386
GSN_T	624110 Small Commercial	0	0	0
GSN_T	624120 Small Commercial	0	26654	46505
GSN_T	624190 Small Commercial	99717	93539	93539
GSN_T	624230 Small Commercial	23253	18863	18442
GSN_T	624310 Small Commercial	28817	26657	28299
GSN_T	624410 Small Commercial	218338	229188	234427
GSN_T	711110 Small Commercial	60883	63855	71792
GSN_T	711120 Small Commercial	1455	9027	7124
GSN_T	711211 Small Commercial	20705	23111	22549
GSN_T	711212 Small Commercial	3759	8913	8860
GSN_T	711219 Small Commercial	913	24	325

ITEM 10.1.**ATTACHMENT 5**

GSN_T	711310 Small Commercial	60862	51032	26731
GSN_T	711320 Small Commercial	9506	10859	14312
GSN_T	711510 Small Commercial	378	378	393
GSN_T	712190 Small Commercial	32627	78907	79903
GSN_T	713110 Small Commercial	169	228	1344
GSN_T	713120 Small Commercial	4600	8825	14050
GSN_T	713210 Small Commercial	18736	19659	20356
GSN_T	713940 Small Commercial	918171	891984	905482
GSN_T	713990 Small Commercial	337328	372034	398824
GSN_T	721110 Small Commercial	5852	43366	37373
GSN_T	721310 Small Commercial	68292	68249	67663
GSN_T	722110 Small Commercial	1052398	1056702	1188286
GSN_T	722211 Small Commercial	811956	729844	864622
GSN_T	722213 Small Commercial	120462	149452	189482
GSN_T	722320 Small Commercial	63277	70188	60933
GSN_T	722410 Small Commercial	191962	167605	144369
GSN_T	722511 Small Commercial	448466	526665	480252
GSN_T	722513 Small Commercial	89295	92931	109889
GSN_T	722515 Small Commercial	216634	254055	245113
GSN_T	811111 Small Commercial	1018778	1039484	1003048
GSN_T	811112 Small Commercial	36634	34878	36327
GSN_T	811113 Small Commercial	51469	53498	45216
GSN_T	811118 Small Commercial	36064	49779	38431
GSN_T	811121 Small Commercial	658940	646849	628952
GSN_T	811122 Small Commercial	51702	47011	44209
GSN_T	811191 Small Commercial	49760	48380	49939
GSN_T	811192 Small Commercial	151463	91906	95081
GSN_T	811198 Small Commercial	86173	100865	128219
GSN_T	811211 Small Commercial	96412	75796	76490
GSN_T	811212 Small Commercial	48895	24503	21713
GSN_T	811213 Small Commercial	10857	10920	27766
GSN_T	811219 Small Commercial	42421	36448	36858
GSN_T	811310 Small Commercial	56879	56088	61410
GSN_T	811411 Small Commercial	39094	62461	94102
GSN_T	811412 Small Commercial	113297	103952	105608
GSN_T	811420 Small Commercial	53731	46214	45421
GSN_T	811490 Small Commercial	40704	39423	38628
GSN_T	812111 Small Commercial	54871	48149	50260
GSN_T	812112 Small Commercial	324189	310730	309730
GSN_T	812113 Small Commercial	181375	176724	187626
GSN_T	812199 Small Commercial	53839	66194	79594
GSN_T	812310 Small Commercial	378459	369303	361402
GSN_T	812320 Small Commercial	43144	45861	42996
GSN_T	812331 Small Commercial	14272	15731	17278
GSN_T	812332 Small Commercial	222	6190	12399
GSN_T	812910 Small Commercial	62921	59663	33505
GSN_T	812930 Small Commercial	84726	67723	77256

ITEM 10.1.**ATTACHMENT 5**

GSN_T	812931 Small Commercial	10913	10235	10525
GSN_T	812990 Small Commercial	223377	213052	208502
GSN_T	813110 Small Commercial	977868	916777	948483
GSN_T	813219 Small Commercial	7778	7769	7318
GSN_T	813319 Small Commercial	20212	20771	20003
GSN_T	813410 Small Commercial	10409	9547	9109
GSN_T	813910 Small Commercial	200244	186401	178958
GSN_T	813920 Small Commercial	97193	107765	114405
GSN_T	813930 Small Commercial	4023	9044	8350
GSN_T	813940 Small Commercial	9181	8266	8246
GSN_T	813990 Small Commercial	4167	8720	4543
GSN_T	814110 Small Commercial	6742	8785	16455
GSN_T	921190 Small Commercial	229060	148574	120882
GSN_T	922160 Small Commercial	97710	86191	73284
GSN_T	922610 Small Commercial	7883	7316	4900
GSN_T	922612 Small Commercial	9615	10086	10825
GSN_T	922700 Small Commercial	18082	16537	15657
GSN_T	923110 Small Commercial	104455	43963	57739
GSN_T	923130 Small Commercial	59139	52398	47832
GSN_T	923140 Small Commercial	58073	37502	33250
GSN_T	924120 Small Commercial	91667	99761	87525
GSN_T	925110 Small Commercial	479	502	2917
GSN_T	925120 Small Commercial	148510	128087	84272
GSN_T	925190 Small Commercial	0	0	0
GSN_T	926110 Small Commercial	32250	43711	42829
GSN_T	928110 Small Commercial	14382	39209	27025
GSN_T	928120 Small Commercial	23242	48218	42269
GSN_T	CB0000 Small Commercial	22298	21121	31665
GSN_T	RE1000 Small Commercial	32051	32268	39420
GSN_T	RE1100 Small Commercial	26507	17678	11409
GSP_S	485111 Industrial	189496	196309	204907
GSS_S	221311 Industrial	136805	93558	45735
GSS_S	447110 Industrial	282017	300465	292361
GSS_S	621210 Industrial	108007	105139	94996
GSS_S2	238150 Residential	6796	6048	5850
GSS_T	212312 Industrial	104098	182278	167847
GSS_T	213112 Industrial	111989	47885	98875
GSS_T	221310 Industrial	1017590	1109633	991671
GSS_T	221311 Industrial	3456035	3301545	2942271
GSS_T	221312 Industrial	164117	150906	233265
GSS_T	231543 Industrial	791004	894983	1084307
GSS_T	236210 Industrial	158070	146058	163118
GSS_T	236220 Industrial	708767	495044	570236
GSS_T	237110 Industrial	642941	731368	312317
GSS_T	237130 Industrial	140023	143922	150675
GSS_T	237210 Industrial	267883	257392	187278
GSS_T	238110 Industrial	216475	204046	175248

ITEM 10.1.**ATTACHMENT 5**

GSS_T	238160 Industrial	264118	81637	74806
GSS_T	238210 Industrial	3660254	2346476	2381412
GSS_T	238220 Industrial	433276	494688	700200
GSS_T	238320 Industrial	123887	120365	126204
GSS_T	238330 Industrial	91874	84709	78775
GSS_T	238340 Industrial	254329	267724	259771
GSS_T	238350 Industrial	120528	120487	120585
GSS_T	238390 Industrial	376069	331460	358454
GSS_T	311212 Industrial	0	696	45871
GSS_T	311991 Industrial	126615	121260	116040
GSS_T	312120 Industrial	87786	97254	74604
GSS_T	322211 Industrial	277793	304226	330266
GSS_T	323110 Industrial	513736	669556	681933
GSS_T	323113 Industrial	156775	49428	52798
GSS_T	325620 Industrial	65297	84244	89714
GSS_T	326140 Industrial	160911	176405	177680
GSS_T	327320 Industrial	299687	395609	395231
GSS_T	331111 Industrial	141966	208303	216589
GSS_T	332322 Industrial	70844	86590	89053
GSS_T	332710 Industrial	403750	370138	401143
GSS_T	333294 Industrial	50193	66710	74956
GSS_T	333511 Industrial	636777	580995	645687
GSS_T	333921 Industrial	1070533	1030754	1080092
GSS_T	333992 Industrial	176417	196773	206294
GSS_T	333999 Industrial	794431	728398	526802
GSS_T	334111 Industrial	328533	398891	422873
GSS_T	334413 Industrial	324031	317083	369016
GSS_T	334515 Industrial	53826	149191	154348
GSS_T	335122 Industrial	0	4772	75397
GSS_T	335929 Industrial	439975	462690	513089
GSS_T	336111 Industrial	129241	126662	134036
GSS_T	336413 Industrial	85529	92377	111250
GSS_T	336415 Industrial	2236271	2201485	2092727
GSS_T	337110 Industrial	340036	339374	364863
GSS_T	337124 Industrial	92328	85013	85547
GSS_T	337127 Industrial	113397	132012	161982
GSS_T	339113 Industrial	2002935	1652560	1603873
GSS_T	339115 Industrial	134126	132771	125207
GSS_T	423110 Industrial	1657	1292	0
GSS_T	423120 Industrial	271722	266764	268812
GSS_T	423140 Industrial	89621	94225	65493
GSS_T	423210 Industrial	44484	124254	20038
GSS_T	423320 Industrial	133995	120801	105140
GSS_T	423440 Industrial	180988	159972	147500
GSS_T	423450 Industrial	350491	347691	381331
GSS_T	423620 Industrial	109934	119736	116434
GSS_T	423690 Industrial	146006	146369	132856

ITEM 10.1.**ATTACHMENT 5**

GSS_T	423720 Industrial	0	39869	60339
GSS_T	423930 Industrial	701527	832697	755121
GSS_T	423990 Industrial	240744	204694	153071
GSS_T	424410 Industrial	1040949	858899	1517866
GSS_T	424490 Industrial	561333	472093	545866
GSS_T	424820 Industrial	24381	0	0
GSS_T	425110 Industrial	199987	233566	272722
GSS_T	425120 Industrial	401390	377806	361395
GSS_T	441110 Industrial	156927	143138	149733
GSS_T	441120 Industrial	225930	206800	265154
GSS_T	441210 Industrial	233407	241199	250124
GSS_T	441310 Industrial	705833	685065	610298
GSS_T	441320 Industrial	275991	244771	232568
GSS_T	442110 Industrial	1748110	1829858	1655876
GSS_T	442210 Industrial	201587	191837	129970
GSS_T	442291 Industrial	239163	196553	200098
GSS_T	443112 Industrial	95812	92193	101645
GSS_T	444110 Industrial	1012170	979276	953776
GSS_T	444130 Industrial	1574831	1127511	1178175
GSS_T	444190 Industrial	1370113	1320724	1327420
GSS_T	445110 Industrial	3450691	3616346	3759120
GSS_T	445120 Industrial	825047	832526	829635
GSS_T	445310 Industrial	395384	382455	389574
GSS_T	446110 Industrial	745634	726625	697964
GSS_T	446120 Industrial	0	0	0
GSS_T	446130 Industrial	197040	162589	190413
GSS_T	447110 Industrial	2724120	2976037	2927432
GSS_T	447190 Industrial	122317	123201	120331
GSS_T	448140 Industrial	589794	588331	584033
GSS_T	448190 Industrial	80822	74510	77583
GSS_T	448210 Industrial	145374	161543	160926
GSS_T	451110 Industrial	314211	276024	277108
GSS_T	451120 Industrial	300944	284548	304037
GSS_T	452110 Industrial	373225	354672	356554
GSS_T	452111 Industrial	192955	159799	113509
GSS_T	452311 Industrial	56019	0	0
GSS_T	452319 Industrial	997251	985134	1004523
GSS_T	452990 Industrial	326102	316965	332698
GSS_T	453210 Industrial	1640663	1561166	1589043
GSS_T	453220 Industrial	123682	114119	114554
GSS_T	453310 Industrial	989738	971723	976392
GSS_T	453910 Industrial	634120	630149	625409
GSS_T	453998 Industrial	343100	302388	307470
GSS_T	454111 Industrial	347344	329517	311686
GSS_T	482111 Industrial	130026	132240	127148
GSS_T	486110 Industrial	493510	492021	460378
GSS_T	492110 Industrial	308238	313610	336936

ITEM 10.1.**ATTACHMENT 5**

GSS_T	493110 Industrial	1000921	1061773	1276659
GSS_T	493190 Industrial	65027	56331	62779
GSS_T	517110 Industrial	891822	944546	944173
GSS_T	517212 Industrial	281223	274933	329504
GSS_T	518111 Industrial	1129605	1099128	1318148
GSS_T	518210 Industrial	0	0	0
GSS_T	522110 Industrial	238481	237722	192924
GSS_T	522120 Industrial	0	0	43738
GSS_T	522130 Industrial	102150	104456	101340
GSS_T	522292 Industrial	552838	486541	547473
GSS_T	522298 Industrial	827987	772179	797804
GSS_T	524114 Industrial	1994497	1855650	1797480
GSS_T	524126 Industrial	1749828	1787307	1962768
GSS_T	524210 Industrial	284825	225232	275296
GSS_T	531110 Industrial	175878	209965	192885
GSS_T	531120 Industrial	12138064	11025858	11836159
GSS_T	531123 Industrial	2788503	2361291	2262284
GSS_T	531130 Industrial	109524	149074	280168
GSS_T	531190 Industrial	775846	936036	980102
GSS_T	531191 Industrial	11215036	10149657	9762527
GSS_T	531210 Industrial	2260840	1833506	1771474
GSS_T	531312 Industrial	2904988	2461763	2359888
GSS_T	533110 Industrial	1054	100803	119487
GSS_T	541219 Industrial	334224	431647	332706
GSS_T	541310 Industrial	74079	75031	77668
GSS_T	541380 Industrial	624576	616697	623341
GSS_T	541420 Industrial	501629	625865	535995
GSS_T	541512 Industrial	2016790	2011528	2002972
GSS_T	541513 Industrial	513731	488016	477350
GSS_T	541611 Industrial	498523	154742	128650
GSS_T	541620 Industrial	104314	104826	118054
GSS_T	541710 Industrial	920396	833422	0
GSS_T	541715 Industrial	87832	401963	413269
GSS_T	541850 Industrial	361252	360152	383348
GSS_T	541940 Industrial	842775	797515	801116
GSS_T	551114 Industrial	2463681	2456201	2157139
GSS_T	561110 Industrial	1278551	1412517	1427738
GSS_T	561599 Industrial	119942	116120	112939
GSS_T	561612 Industrial	73025	63938	0
GSS_T	561621 Industrial	90264	100727	103376
GSS_T	561990 Industrial	102978	94743	86154
GSS_T	562111 Industrial	205026	185907	188777
GSS_T	562910 Industrial	1526806	1705044	1555648
GSS_T	611110 Industrial	117808	106298	98738
GSS_T	611117 Industrial	93566	74716	67718
GSS_T	611310 Industrial	1048825	1041880	998874
GSS_T	611513 Industrial	373988	357604	353266

ITEM 10.1.**ATTACHMENT 5**

GSS_T	611519 Industrial	70173	71889	70530
GSS_T	611620 Industrial	340897	354252	203149
GSS_T	611710 Industrial	43965	39391	53804
GSS_T	621111 Industrial	1028490	942642	1450253
GSS_T	621112 Industrial	88080	93469	80612
GSS_T	621210 Industrial	960459	945367	978627
GSS_T	621320 Industrial	129327	115131	100375
GSS_T	621420 Industrial	46504	90614	79413
GSS_T	621491 Industrial	991259	1247305	1128898
GSS_T	621492 Industrial	461069	439568	446093
GSS_T	621493 Industrial	70702	74598	68710
GSS_T	621511 Industrial	20984	43700	56139
GSS_T	621610 Industrial	79548	71062	63547
GSS_T	621991 Industrial	1451260	1445958	1428712
GSS_T	622110 Industrial	452017	625292	772404
GSS_T	623312 Industrial	371169	356921	358790
GSS_T	624110 Industrial	412022	409401	418809
GSS_T	624120 Industrial	88298	37737	0
GSS_T	624190 Industrial	174869	119855	76479
GSS_T	624229 Industrial	120397	114730	109140
GSS_T	624230 Industrial	733444	670176	605301
GSS_T	624410 Industrial	645147	562641	602714
GSS_T	6321 Industrial	530943	500087	496234
GSS_T	711310 Industrial	149964	31811	56626
GSS_T	712190 Industrial	108778	105997	97147
GSS_T	713940 Industrial	2121158	1967663	1957554
GSS_T	713990 Industrial	994271	892758	995855
GSS_T	721110 Industrial	9323467	9058203	9135864
GSS_T	722110 Industrial	5306021	5274823	5451218
GSS_T	722211 Industrial	7835653	7634176	7538225
GSS_T	722213 Industrial	679449	692946	724155
GSS_T	722410 Industrial	260964	275712	288116
GSS_T	722511 Industrial	716042	634593	627290
GSS_T	722513 Industrial	380422	378769	310384
GSS_T	722515 Industrial	0	0	0
GSS_T	811111 Industrial	249746	239674	250160
GSS_T	811118 Industrial	80067	87276	86658
GSS_T	811121 Industrial	442343	424635	480460
GSS_T	811191 Industrial	25844	66707	91414
GSS_T	811192 Industrial	439815	424074	448480
GSS_T	811198 Industrial	108355	88156	14776
GSS_T	811310 Industrial	768989	751206	717672
GSS_T	811411 Industrial	228464	192934	107498
GSS_T	812112 Industrial	252256	225505	227088
GSS_T	812199 Industrial	97014	92797	106418
GSS_T	812910 Industrial	0	0	343387
GSS_T	812990 Industrial	405876	401214	389144

ITEM 10.1.**ATTACHMENT 5**

GSS_T	813110 Industrial	944194	783335	749726
GSS_T	813211 Industrial	105564	128928	104132
GSS_T	813312 Industrial	118910	110239	103967
GSS_T	813410 Industrial	219798	229112	226810
GSS_T	813930 Industrial	70725	66626	81060
GSS_T	813990 Industrial	396418	380480	301030
GSS_T	921110 Industrial	109500	103627	108623
GSS_T	921190 Industrial	0	0	19743
GSS_T	922160 Industrial	316628	310358	310650
GSS_T	923110 Industrial	84799	78675	79760
GSS_T	923130 Industrial	987752	880832	1097162
GSS_T	923140 Industrial	287984	332172	296730
GSS_T	924120 Industrial	422431	425789	425669
GSS_T	925120 Industrial	247854	224694	192157
GSS_T	926130 Industrial	119223	109879	112254
GSS_T	928110 Industrial	811958	756090	777341
GUP_L	237310 Industrial	1466948	2151134	2081658
GUP_L	334220 Industrial	11306931	11125874	11301111
GUP_L	622110 Industrial	11403994	11123402	11087453
GUP_S	231543 Small Commercial	372412	378268	355235
GUP_S	238350 Small Commercial	117534	137879	131239
GUS_L	517110 Industrial	25241986	26294503	25071147
GUS_L	518210 Industrial	11388658	10614769	10965469
GUS_L	541219 Industrial	7794949	7384352	6987803
GUS_M	221311 Industrial	0	0	0
GUS_M	333511 Industrial	2596030	2952651	3171527
GUS_M	444130 Industrial	3017343	3284155	3213661
GUS_M	452110 Industrial	3115636	3101663	3064490
GUS_M	452910 Industrial	3508160	3421581	3361429
GUS_M	518210 Industrial	9958414	7946139	6570023
GUS_M	531120 Industrial	2163710	1990490	2000548
GUS_M	531123 Industrial	2237463	2170080	2108078
GUS_M	531210 Industrial	4116028	4194180	4255389
GUS_M	541513 Industrial	0	3830725	5963409
GUS_M	721110 Industrial	3257778	3185458	3164018
GUS_S	221312 Industrial	3254468	2513009	83670
GUS_S	333515 Industrial	1243817	1296842	1268216
GUS_S	333999 Industrial	1475060	1444163	1550920
GUS_S	444110 Industrial	1997970	1855443	1480645
GUS_S	445110 Industrial	4605501	4496218	4353874
GUS_S	452990 Industrial	1415712	1193837	1228824
GUS_S	454113 Industrial	903312	1069684	459478
GUS_S	517110 Industrial	5893635	5369223	5407324
GUS_S	518210 Industrial	5031770	4878319	4291244
GUS_S	522120 Industrial	868596	842469	541593
GUS_S	522298 Industrial	1281235	1194552	1227531
GUS_S	524114 Industrial	4968571	4519954	2789143

ITEM 10.1.

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GUS_S	524126	Industrial	1289784	1274887	1188913
GUS_S	531120	Industrial	4270984	6589411	5299775
GUS_S	531123	Industrial	2345157	2328337	2336490
GUS_S	531190	Industrial	1748482	1331808	1417912
GUS_S	531191	Industrial	1716220	1458916	0
GUS_S	531210	Industrial	3025821	2810957	2832958
GUS_S	541513	Industrial	7645204	4994500	3523321
GUS_S	551114	Industrial	2454004	2291497	1995537
GUS_S	561110	Industrial	1033639	1014498	1019124
GUS_S	611110	Industrial	608735	563684	580863
GUS_S	611310	Industrial	460142	787977	1147594
GUS_S	621111	Industrial	1482797	1147484	596877
GUS_S	621491	Industrial	1073896	502257	0
GUS_S	622110	Industrial	2185460	2271710	2293626
GUS_S	624110	Industrial	604266	569701	635255
GUS_S	921130	Industrial	1535887	1427271	1471320
NLGT	922612	Residential	104	0	0
RF01	RE1100	Residential	493931	519348	1167133
RF01	RE1200	Residential	64357	102966	555755
RF01	RE1300	Residential	0	0	349
RF01_E	RE1100	Residential	93792	108167	132092
RF01_E	RE1200	Residential	38817	65508	141343
RF01_E	RE1300	Residential	0	0	2568
RF01_EL	RE1100	Residential	12057	11572	12730
RF01_EL	RE1200	Residential	2446	8988	12601
RF01_L	RE1100	Residential	16431	43745	47990
RF01_L	RE1200	Residential	0	0	2831
RPEV_1	RE1100	Residential	7282	0	0
RSC	RE1100	Residential	614846	553985	544273
RSC	RE1200	Residential	409593	364402	359490
RSCH	RE1100	Residential	750148	425714	215690
RSCH	RE1200	Residential	95196	46629	30736
RSCH_E	RE1100	Residential	63716	35203	29870
RSCH_E	RE1200	Residential	41095	31420	30299
RSCH_E_SP	RE1200	Residential	7026	5972	5472
RSCH_L	RE1100	Residential	23535	18891	9149
RSCH_SP	RE1200	Residential	2025	2037	1970
RSC_11	RE1200	Residential	16340	15441	15441
RSC_12	RE1200	Residential	12359	3645	6565
RSC_13	RE1200	Residential	9890	8480	10001
RSC_E	RE1100	Residential	85992	82943	83789
RSC_E	RE1200	Residential	77251	71387	64742
RSC_L	RE1100	Residential	45525	45168	32726
RSC_L	RE1200	Residential	9118	6019	5290
RSE	RE1100	Residential	2889678	2511796	2350599
RSE	RE1200	Residential	11291765	10089535	9710917
RSEH	RE1100	Residential	4201069	2767401	1829625

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RSEH	RE1200	Residential	9272876	7624550	6047980
RSEH_E	RE1100	Residential	1077701	821695	689083
RSEH_E	RE1200	Residential	4031315	3008042	2357076
RSEH_EL	RE1100	Residential	36641	21011	16032
RSEH_EL	RE1200	Residential	142134	92420	44763
RSEH_E_SP	RE1100	Residential	9269	4556	1872
RSEH_E_SP	RE1200	Residential	67806	39129	39172
RSEH_L	RE1100	Residential	52326	19057	6422
RSEH_L	RE1200	Residential	51329	38953	26412
RSEH_SP	RE1100	Residential	27191	5372	6752
RSEH_SP	RE1200	Residential	74041	56666	63852
RSE_1	RE1100	Residential	20516	19598	21889
RSE_1	RE1200	Residential	6204	5493	4934
RSE_11	RE1100	Residential	52417	50016	48412
RSE_11	RE1200	Residential	128833	111994	105833
RSE_12	RE1100	Residential	58506	35883	21904
RSE_12	RE1200	Residential	235384	207755	212788
RSE_3	RE1100	Residential	4381	6539	9928
RSE_E	RE1100	Residential	708451	596304	520909
RSE_E	RE1200	Residential	2147656	1891976	1838597
RSE_E1	RE1200	Residential	9167	8111	8182
RSE_E11	RE1200	Residential	2840	2634	2546
RSE_E12	RE1100	Residential	7080	9678	10507
RSE_E12	RE1200	Residential	77205	69201	72977
RSE_EL	RE1100	Residential	18795	17523	17300
RSE_EL	RE1200	Residential	50871	34211	37537
RSE_EL12	RE1200	Residential	8442	6597	7139
RSE_L	RE1100	Residential	60265	36103	20583
RSE_L	RE1200	Residential	1857	0	8598
RSE_L11	RE1200	Residential	7328	4013	0
RSG	623110	Residential	1622	0	0
RSG	623220	Residential	9703	9085	6534
RSG	RE1100	Residential	14498736	12711197	12106702
RSG	RE1200	Residential	12153857	10704562	10062117
RSG	RE1300	Residential	33568	29483	27961
RSGH	623312	Residential	26640	14570	13982
RSGH	RE1000	Residential	0	20921	21972
RSGH	RE1100	Residential	23227698	17066400	13375153
RSGH	RE1200	Residential	10757534	8905416	7110974
RSGH	RE1300	Residential	103800	56344	14082
RSGH_E	RE1100	Residential	3295593	2405477	1953274
RSGH_E	RE1200	Residential	2952080	2393089	2001777
RSGH_E	RE1300	Residential	52152	30381	3592
RSGH_EL	RE1100	Residential	181880	94617	70720
RSGH_EL	RE1200	Residential	96762	98682	96247
RSGH_E_SP	RE1100	Residential	9483	9598	8203
RSGH_E_SP	RE1200	Residential	38327	31051	42647

ITEM 10.1.

ATTACHMENT 5

RSGH_L	236115	Residential	931	1255	901
RSGH_L	RE1100	Residential	367144	212069	151989
RSGH_L	RE1200	Residential	49313	44393	17977
RSGH_SP	RE1100	Residential	65009	39459	33414
RSGH_SP	RE1200	Residential	70592	70011	58090
RSG_1	RE1100	Residential	94209	88589	69603
RSG_1	RE1200	Residential	80296	76854	78248
RSG_11	RE1100	Residential	186620	146051	96764
RSG_11	RE1200	Residential	74519	49416	39539
RSG_12	RE1100	Residential	414063	363218	318830
RSG_12	RE1200	Residential	289442	219901	202011
RSG_2	RE1100	Residential	20276	18998	10731
RSG_E	RE1100	Residential	2514102	2262387	2137890
RSG_E	RE1200	Residential	2592331	2279914	2191453
RSG_E	RE1300	Residential	7171	4311	4606
RSG_E1	RE1100	Residential	12799	11937	12335
RSG_E1	RE1200	Residential	11290	9635	10125
RSG_E11	RE1100	Residential	8199	8764	8777
RSG_E11	RE1200	Residential	11951	10343	11948
RSG_E12	RE1100	Residential	12523	11012	10027
RSG_E12	RE1200	Residential	44227	25491	23195
RSG_E2	RE1100	Residential	9903	7850	6712
RSG_EL	RE1100	Residential	174513	121224	95487
RSG_EL	RE1200	Residential	87877	70189	60494
RSG_L	RE1100	Residential	216105	188749	171929
RSG_L	RE1200	Residential	44222	43763	45063
RSG_L11	RE1100	Residential	8471	9543	8273
RSG_L12	RE1100	Residential	4577	0	0
RSMM	RE2300	Residential	4380803	4143636	4274527
RT01	RE1100	Residential	1280740	1287599	1265712
RT01	RE1200	Residential	1141	1251	267
RT01_E	RE1100	Residential	87357	71222	47301
RT01_EL	RE1100	Residential	12062	12435	13643
RT01_L	RE1100	Residential	13877	13708	14359
RT02	RE1000	Residential	0	764	13450
RT02	RE1100	Residential	68170030	70261760	75805666
RT02	RE1200	Residential	11169732	14270074	19078626
RT02	RE1300	Residential	104283	129588	142473
RT02_E	RE1100	Residential	8243165	8706995	9418525
RT02_E	RE1200	Residential	4836942	5893302	6831249
RT02_E	RE1300	Residential	41911	36865	34621
RT02_EL	RE1100	Residential	614298	617644	605847
RT02_EL	RE1200	Residential	359531	368168	429468
RT02_EL	RE1300	Residential	5899	4606	4439
RT02_L	RE1100	Residential	1898730	1883054	1867707
RT02_L	RE1200	Residential	205120	210203	231966
RT02_L	RE1300	Residential	22275	19820	21012

ITEM 10.1.**ATTACHMENT 5**

RTG5	RE1100	Residential	8828	8155	7820
RTT	RE1100	Residential	0	0	5949
RWCH	RE1100	Residential	0	59	1094
RWE	RE1100	Residential	17729	16604	15236
RWEH	RE1100	Residential	13391	13891	17200
RWEH_E	RE1100	Residential	2919	7155	15662
RWE_E	RE1100	Residential	11138	5897	0
RWG	RE1100	Residential	49894	36185	33699
RWGH	RE1100	Residential	41178	31095	19886
RWGH_E	RE1100	Residential	1758	3283	0
RWG_E	RE1100	Residential	29554	16730	13279
SL_COM_M	221312	Street Lighting	13970	13238	13449
SL_COM_M	925190	Street Lighting	33900	36382	36679
SL_COM_M	925190	Street Lighting	24315	30505	67134
TS	237310	Traffic Signals	1726	1613	1853
TS	922610	Traffic Signals	56162	55461	54724
TS	922610	Traffic Signals	150259	154174	154466
TS	925190	Traffic Signals	18994	18416	18553
TS	925190	Traffic Signals	60522	64225	71936

Generator Activity Data

Source: SNAQMD

COMPANY	PO	POSTatus	DescriptSpec	Descript	Sno	Street	Cty/locat	Ziplocat	HP	Apprecd	ADDRESS	CITYMAIL	STATE ZIP	ACIssued	IssueDate	CancelledDate	FuelRate gal/mwh	Hour/year	Fuel Use gal/year		
ARJOET RCTORYTE, INC.	10228	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	50	12/29/1991	PO BOX 13222	SACRAMENTO	CA 95813-0000	1/21/1992	3/22/1993	6/18/2020	4.01	9.75	39.0975		
VERIZON WIRELESS	22505	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	12840	FOLSON BLVD	RANCHO CORDOVA	95742	80	6/12/2010	295 PARKSHORE DRIVE	FOLSON	CA 95620	6/2/2010	7/7/2011		4.01	9.75	39.0975		
VERIZON WIRELESS	22528	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1261	"C" FITZGERALD RD	RANCHO CORDOVA	95742	80	5/2/2008	295 PARKSHORE DRIVE	FOLSON	CA 95620	10/22/2010	7/28/2011		4.6	9.75	44.85		
ENTERCOM SACRAMENTO	22796	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	13125	WHITE ROCK RD	RANCHO CORDOVA	95742	88	11/5/2005	5385 MADISON AVE	SACRAMENTO	CA 95841	12/14/2010	8/4/2011		5.1	9.75	49.725		
AMNAC FINE CHEMICALS	18981	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11817	TRANS CENTER DR	RANCHO CORDOVA	95700	91.3	11/20/2005	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	1/15/2006			5.1	6.7	34.17		
AMNAC FINE CHEMICALS	19005	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11817	TRANS CENTER DR	RANCHO CORDOVA	95700	96	11/21/2005	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	1/5/2006			5.1	6.9	35.19		
CONTRACTORS WAREHOUSE	19390	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	10080	MILLS STATION RD	RANCHO CORDOVA	95827	96	6/15/2006	1895 ELIENKA RD	ROSELVILLE	CA 95660	6/17/2006	6/26/2006		4.8	9.75	46.8		
VERIZON WIRELESS	18861	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11817	TRANS CENTER DR	RANCHO CORDOVA	95700	96	10/25/2005	295 PARKSHORE DRIVE	FOLSON	CA 95620	11/26/2005	1/26/2006		5.2	9.75	50.7		
VERIZON WIRELESS	20058	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	12329	CHASE DR	RANCHO CORDOVA	95670	96	12/19/2006	295 PARKSHORE DRIVE	FOLSON	CA 95620	4/27/2007	5/15/2009		5.2	9.75	50.7		
VERIZON WIRELESS	20096	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1347	GOLO RIVER RD	RANCHO CORDOVA	95700	96	1/18/2007	115 PARKSHORE DRIVE	FOLSON	CA 95620	1/23/2007	9/12/2007		5.2	9.75	50.7		
VERIZON WIRELESS	21294	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	12525	QUICKSILVER DR	RANCHO CORDOVA	95742	96	7/11/2008	295 PARKSHORE DRIVE	FOLSON	CA 95620	8/26/2008	3/26/2009		5	9.75	48.75		
AMNAC FINE CHEMICALS	22323	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	10599	10599 P.O. BOX 1718	RANCHO CORDOVA	95670	109	2/19/2002	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	10/19/2012	5/23/2013	11/30/2019	6	9.75	58.5		
FIRST COVENANT CHURCH	10111	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	10933	PROGRESS CT	RANCHO CORDOVA	95670	128	1/29/2007	P.O. BOX 734850	SACRAMENTO	CA 95670	3/31/2007	6/20/2007		6	9.75	58.5		
HOME DEPOT (C/O 3C COMPANY) #052	14307	ACTIVE	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2756	SUNRISE BLVD	RANCHO CORDOVA	95670	130	10/1/1997	3207 GREY HAWK CT., SUITE 200	CARLSBAD	CA 92010	12/7/1997	3/26/1998		6	25.8	154.8		
ARJOET RCTORYTE, INC.	10426	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	134	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	3/21/1993		6	3.9	23.4		
ARJOET RCTORYTE, INC.	10489	PO-CANCELLED	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	152	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	4/9/1993	8/9/2019	6	3.9	23.4		
ARJOET RCTORYTE, INC.	10440	PO-CANCELLED	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	152	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	3/21/1993	8/9/2019	6	3.9	23.4		
ARJOET RCTORYTE, INC.	18759	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1253	ARJOET RD	RANCHO CORDOVA	95742	153	9/1/2006	PO BOX 13222	SACRAMENTO	CA 95813-0000	9/1/2006	11/21/2006		5.1	11.2	57.12		
SACRAMENTO AREA SEWER DISTRICT (SASD)	24271	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11278	CHRISTANTHY BLVD	RANCHO CORDOVA	95670	157.5	5/29/2004	10060 GOTTIE RD	SACRAMENTO	CA 95827	6/18/2014			7.9	22.6	178.54		
CONSUENT STATE AND LOCAL SOLUTIONS INC.	26139	ACTIVE	IC ENGINE STANDBY	IC ENGINE COMPRESSION-AS	10380	PETER A MCCLENN BLVD	RANCHO CORDOVA	95655	158	4/19/2004	10380 PETER A. MCCLENN BLVD	RANCHO CORDOVA	CA 95655	4/19/2009			8.2	9.75	79.95		
CUSQ AQUATIC CENTER	17661	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1351	HADLI AVE	RANCHO CORDOVA	95670	160	4/1/2004	1801 HADLI AVE	RANCHO CORDOVA	CA 95670	4/2/2004	11/20/2004		9.9	9.75	96.325		
VERIZON WIRELESS	17092	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	17092	CHASE DR WEST END	RANCHO CORDOVA	95670	157	5/4/2003	8521 LAGUNA STATION ROAD	ELK GROVE	CA 95758	8/5/2003	7/6/2004		9.9	2	19.8		
14681	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	19499	N. MATHER DR	RANCHO CORDOVA	95670	157	5/4/2013	3915 S. ST. 1250	SACRAMENTO	CA 95814	4/22/2003	5/28/2013		9.9	9.75	96.325			
STATE OF CALIF FISH & GAME-AMERICAN RIVER HATCHERY	25456	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2101	NIMBUS RD	RANCHO CORDOVA	95670	208	9/8/2017	2101 NIMBUS RD	RANCHO CORDOVA	CA 95670	12/14/2017	7/30/2018		10.3	8.6	88.58		
ARJOET RCTORYTE, INC.	23613	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	217	11/15/2012	PO BOX 13222	SACRAMENTO	CA 95813-0000	4/10/2013	9/12/2014		11.7	58.3	682.11		
ARJOET RCTORYTE, INC.	23851	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	230	1/24/2011	PO BOX 13222	SACRAMENTO	CA 95813-0000	5/6/2011	1/11/2013		11.7	62.2	661.74		
SACRAMENTO AREA SEWER DISTRICT (SASD)	24271	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11278	CHRISTANTHY BLVD	RANCHO CORDOVA	95670	230	11/27/2014	11971 FOUNDATION PLACE	RANCHO CORDOVA	CA 95670	3/4/2015	4/30/2015	7/31/2020	11.7	25.7	300.69		
CONSUENT STATE AND LOCAL SOLUTIONS INC.	22797	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2756	SUNRISE BLVD	RANCHO CORDOVA	95670	237	11/8/2011	3207 GREY HAWK CT., SUITE 200	CARLSBAD	CA 92010	12/15/2010	10/18/2011		11.7	18.9	197.73		
NOISE MOTOR CORPORATION DBA MOTION CONTROL ENGINEER	14981	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11380	WHITE ROCK RD	RANCHO CORDOVA	95742	288	5/25/2011	11380 WHITE ROCK RD	RANCHO CORDOVA	CA 95742	12/15/2010	9/15/2016		13.9	9.75	135.325		
AMNAC FINE CHEMICALS	20421	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	95700	250	7/26/2007	P.O. BOX 1718	RANCHO CORDOVA	95700	250	7/26/2007	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	8/24/2007	1/24/2007		13.9	5.7	79.23
13521	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	12360	ENJOYMENT DRIVE	RANCHO CORDOVA	95742	422	2/28/1992	1855 OLYMPIC BLVD SOUTH	RANCHO CORDOVA	CA 95650	2/28/1998			15.4	19.8	195.86			
LAKE NATOMA ASSOC DBA SACTO DEPT OF CORRECTIONS	23350	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1960	BIRKMOOT DR	RANCHO CORDOVA	95742	250	2/29/2002	1855 OLYMPIC BLVD, #500	WALNUT CREEK	CA 94596	3/14/2012			12.4	20.5	254.2		
ARJOET RCTORYTE, INC.	24675	PO-CANCELLED	IC ENGINE STANDBY	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	6/25/2015	PO BOX 13222	SACRAMENTO	CA 95813-0000	12/31/2015	1/31/2017	2/25/2019	15.4	9.75	150.15		
ARJOET RCTORYTE, INC.	24676	PO-CANCELLED	IC ENGINE STANDBY	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	6/25/2015	PO BOX 13222	SACRAMENTO	CA 95813-0000	12/31/2015	1/31/2017	2/25/2019	15.4	9.75	150.15		
ARJOET RCTORYTE, INC.	24677	PO-CANCELLED	IC ENGINE STANDBY	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	6/25/2015	PO BOX 13222	SACRAMENTO	CA 95813-0000	12/31/2015	1/31/2017	2/25/2019	15.4	9.75	150.15		
AMNAC FINE CHEMICALS	25980	ACTIVE	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	11/6/2014	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	2/28/2019			15.4	25.6	394.24		
AMNAC FINE CHEMICALS	25981	ACTIVE	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	11/6/2014	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	2/28/2019			15.4	25.6	394.24		
AMNAC FINE CHEMICALS	25982	ACTIVE	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	11/6/2014	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	2/28/2019			15.4	25.6	394.24		
ARJOET RCTORYTE, INC.	10421	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	260	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	3/21/1993		5.1	42.12			
CITY OF RANCHO CORDOVA	22976	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2897	KILGORE DR	RANCHO CORDOVA	95670	312	8/29/2014	2729 PROSPECT PARK DR	RANCHO CORDOVA	CA 95670	12/2/2013	2/4/2014		15.4	11.1	170.94		
GREENPATH PROPERTIES	24462	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2721	CTHRUS RD, STE B	RANCHO CORDOVA	95742	315	12/29/2004	2721 CTHRUS RD, STE B	RANCHO CORDOVA	CA 95742	12/29/2004	1/8/2015		24.5	17.3	423.85		
CITY OF RANCHO CORDOVA	17051	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1290	BIRKMOOT DR	RANCHO CORDOVA	95742	315	12/29/2004	3400 DARTMOUTH DRIVE	RANCHO CORDOVA	CA 95670	4/22/2003	7/23/2003		28.1	29.1	343.1		
ARJOET RCTORYTE, INC.	14748	PO-CANCELLED	IC ENGINE STANDBY	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	335	10/13/1999	PO BOX 13222	SACRAMENTO	CA 95813-0000	12/21/1999	5/31/2000	1/30/2019	16.4	22.3	365.72		
14848	PO-CANCELLED	IC ENGINE STANDBY - PUMP - FIRE	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	340	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	3/21/1993	8/9/2019	16.4	22.3	365.72			
SAFE CREDIT UNION	14748	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	340	3/5/1992	PO BOX 13222	SACRAMENTO	CA 95813-0000	3/5/1992	3/21/1993	8/9/2019	16.4	22.3	365.72		
WELLS FARGO / JONES LANG LASALLE	17820	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	10000	WHITE ROCK RD	RANCHO CORDOVA	95670	370	11/15/2012	1550 KIDEN WAY, SUITE 102	SACRAMENTO	CA 95815	7/29/2004	12/17/2004	7/29/2020	17.6	9.75	171.6		
HEALTHNET FEDERAL SERVICES	12601	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	12601	WHITE ROCK RD	RANCHO CORDOVA	95742	385	2/28/2004	12601 FOUNDATION PLACE	RANCHO CORDOVA	CA 95742	10/17/2011	9/17/2011		16.6	47.8	458.68		
US SPRINT	17880	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	3065	GOLD CAMP DR	RANCHO CORDOVA	95670	395	8/15/2004	P.O. BOX 7994	SHAWNEE MISSION	KS 66207-0094	8/20/2004	10/5/2004		18	13.52	243.36		
CITY OF SACRAMENTO DEPT OF WATER QUALITY	20552	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	13522	ELK VIEW WAY	RANCHO CORDOVA	95742	398	9/24/2003	10060 GOTTIE RD	SACRAMENTO	CA 95827	9/28/2007	1/28/2008		19.4	26	504.4		
LAKE NATOMA ASSOC DBA SACTO DEPT OF CORRECTIONS	23350	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	1960	BIRKMOOT DR	RANCHO CORDOVA	95742	422	2/28/1992	1855 OLYMPIC BLVD, #500	RANCHO CORDOVA	CA 95650	2/28/1998			21.9	19.8	463.84		
AMNAC FINE CHEMICALS	18952	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	95700	244	7/26/2007	P.O. BOX 1718	RANCHO CORDOVA	95700	244	7/26/2007	P.O. BOX 1718	RANCHO CORDOVA	CA 95741	8/24/2007	1/24/2007		17	15.6	42.1
16105	ACTIVE	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	11059	ENJOYMENT DRIVE	RANCHO CORDOVA	95742	422	2/28/1992	1855 OLYMPIC BLVD SOUTH	RANCHO CORDOVA	CA 95650	2/28/1998			15.4	19.8	195.86			
ARJOET RCTORYTE, INC.	23151	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	499	8/4/2011	PO BOX 13222	SACRAMENTO	CA 95813-0000	2/7/2012	1/21/2014		27	9.75	263.25		
ARJOET RCTORYTE, INC.	23152	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	499	8/4/2011	PO BOX 13222	SACRAMENTO	CA 95813-0000	2/7/2012	1/21/2014		27	9.75	263.25		
ARJOET RCTORYTE, INC.	23153	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	499	8/4/2011	PO BOX 13222	SACRAMENTO	CA 95813-0000	2/7/2012	1/21/2014		27	9.75	263.25		
ARJOET RCTORYTE, INC.	23154	PO-CANCELLED	IC ENGINE STANDBY - GENERATOR	IC ENGINE COMPRESSION-STANDBY	2001	ARJOET RD	RANCHO CORDOVA	95742	4												

VT Activity Data
 Source: Fehr & Peers

	2016	2019	2027	2030	2035	2040	2045	2050
daily VMT	2,408,283	2,516,684	2,805,753	2,933,217	3,145,658	3,348,275	3,579,727	3,827,179
annual VMT	879,625,366	919,218,798	1,024,801,283	1,071,357,646	1,148,951,585	1,222,957,444	1,307,495,381	1,397,877,073
% Change from 2019			11%	17%	25%	33%	42%	52%

Table 1: Comparison of total daily VMT by origin-destination with Year 2016

	Year 2016	Year 2027		Year 2035		Year 2040	
City of Rancho Cordova Share of Daily VMT	VMT	VMT	% Change Compared to 2016	VMT	% Change Compared to 2016	VMT	% Change Compared to 2016
Origin and Destination Internal	242,951	328,315	135.1%	420,644	173.1%	469,275	193.2%
Origin Internal/Destination External	1,079,248	1,235,084	114.4%	1,360,504	126.1%	1,436,124	133.1%
Origin External/Destination Internal	1,086,084	1,242,354	114.4%	1,364,510	125.6%	1,442,876	132.9%
All Sources	2,408,283	2,805,753	116.5%	3,145,658	130.6%	3,348,275	139.0%

Water Activity Data

Table 1 Summary of Water Supply and Demand for Water Purveyors in the City of Rancho Cordova General Plan Planning Area						
Year		2010	2015	2020	2025	2030
SCWA Zone 40	Supply ¹					
	Surface Water	13,060	44,143	48,772	68,700	69,567
	Groundwater	34,125	28,837	40,470	31,324	39,097
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	Total Supply	51,585	77,380	93,642	104,424	113,064
	Total Demands ¹	51,585	77,380	93,642	104,424	113,064
	Surplus/Deficit	0	0	0	0	0
Supply Allocated for SCWA Zone 40 North Service Area (NSA)—Within City's Planning Area (defined in Section 4.1.3)		Supply				37,314 ²
GSWC (all of GSWC's service area is within City's planning area)	Supply ³					
	Surface Water	15,000	15,000	15,000	15,000	15,000
	Groundwater	9,518	10,499	10,814	10,829	10,829
	Total Supply	24,518	25,499	25,814	25,829	25,829
	Demands ²	19,518	20,499	20,814	20,829	20,829
	Surplus/Deficit	5,000	5,000	5,000	5,000	5,000
Table 1 Summary of Water Supply and Demand for Water Purveyors in the City of Rancho Cordova General Plan Planning Area						
Year		2010	2015	2020	2025	2030
Cal-Am	Supply ³					
	Groundwater	43,600	33,650	34,180	33,550	33,910
	Wholesale Purchases	4,020	16,860	18,320	20,830	22,280
	Total Supply	47,620	50,510	52,500	54,380	56,190
	Demands ⁴	47,620	50,510	52,500	54,380	56,190
	Surplus/Deficit	0	0	0	0	0
Supply Allocated for Cal-Am's Service Area within the City's Planning Area		Supply				14,477
City of Rancho Cordova General Plan Planning Area	Supply Available from Purveyors					77,620 ⁶
	Projected Demands					
	Corporate City Limits (2030)a					57,299
	Non-City Area ⁶					71,410
	Total Demands					128,709
		Surplus/(Deficit)				(51,089)
Notes: 1. Data from SCWA Zone 41 UWMP, Table 5-1 and 5-2. Because SCWA would implement a conjunctive use water supply program, water supplies would never exceed projected demands because groundwater would be pumped and surface water would be used to meet, not exceed water demands. Supply and demand based on normal year type. (SWCA 2005b) 2. This supply is part of Zone 40's 2030 water supplies of 113,064 afy (SCWA 2005a). 3. Data from GSWC UWMP Table 3-1 and 4-9. Supply exceeds demand because GSWC does not plan to use 5,000 afy of its SMUD Water Transfer entitlement due to limited surface water treatment capacity and its desire to maintain its groundwater rights through the Aerojet Replacement Water operations. (GSWC 2005) 4. Data from Cal-Am UWMP. (Cal-Am 2006) 5. Sum of SCWA (37,314 afy), GSWC (25,829 afy), and Cal-Am's (14,477 afy) water supplies identified for the City's planning area. 6. Buildout for non-city area of Rancho Cordova projected to occur after 2030.						

Source: City of Rancho Cordova Water Supply Evaluation
[Microsoft Word - Rancho Water Supply Report 3.7.06.doc \(cityofranhocordova.org\)](#)

Total Demand	AF/year					
	2019	2030				
	87,990.30	128,709.00				
SCWA	2010	2015	2019	2020	2025	2030
						37314
	Surface Water	13060	44143	47846.2	48772	68700
	% of total	25%	57%	53%	52%	66%
	Ground Water	34125	28837	38143.4	40470	31324
	% of total	66%	37%	42%	43%	30%
	Recycled Water	4400	4400	4400	4400	4400
	% of total	9%	6%	5%	5%	4%
	Total Supply	51585	77380	90389.6	93642	104424
	% change from 2030		50%	17%	4%	12%
	City Planning Area	13238	13238	26478	31830	33018
	Surface Water	3351	7552	14016	16578	21722
	Ground Water	8757	4933	11174	13756	9904
	Recycled Water	1129	753	1289	1496	1391
	Total	13238	13238	26478	31830	33018
GSWC	Surface Water	15000	15000	15000	15000	15000
	Ground Water	9,518	10,499	10751	10,814	10,829
	Total Supply	24,518	25499	25751	25814	25829
Cal-Am	Ground Water	43600	33650	34074	34180	33550
	% of total	92%	67%	65%	65%	62%
	Wholesale Purchase	4020	16860	18028	18320	20830
	% of total	8%	33%	35%	35%	38%
	Total Supply	47620	50510	52102	52500	54380
	% change from 2030		6%	3%	1%	4%
	City Planning Area	12601	12601	13415	13852	13959
	Ground Water	11537	8395	8773	9018	8612
	Wholesale Purchase	1064	4206	4642	4834	5347
	Total	12601	12601	13415	13852	13959

Summary of GHG Emissions (CO2e MT/yr) Associated with Process and Conveyance of Wastewater

2019			
Community	Process Emissions	Conveyance Emissions	TOTAL
	MT CO2e		
Indirect (electricity)	2,346		
N2O effluent	3,203		
N2O process	152		
Biogas	173		
Total	5,874	346	6,220

2030 (BAU NO LEG REDUCT)			
Community	Process Emissions	Conveyance Emissions	
Indirect (electricity)	2,954		
N2O effluent	4,032		
N2O process	152		
Biogas	218		
Total (MT CO2E)	7,356	4,359	11,715

2030 (LEG REDUCT, RPS)			
Community	Process Emissions	Conveyance Emissions	
Indirect (electricity)	0		
N2O effluent	4,032		
N2O process	152		
Biogas	218		
Total (MT CO2E)	4,403	0	4,403

WW Conveyance Emissions Summary				
	2019	KWH	MWh	CO2e
Community		1,484,320	1484.32	346

2030 (NO LEG REDUC)			2030 (W LEG REDUC)		
	MWH	CO2e	MWH	CO2e	
Community	18706.72	4358.94	18706.72	085	0

Effluent/Person Served 0.030 MG/Person

Population Data

City 139,571 City's 2019 Service Population
County Employees Employee Data, Sac County. Todd Taylor
SRCSD Service Population 1,400,000 Steve Nebozuk (SRCSD) phone conversation with Dimitri on 9/14/2016

Wastewater Conveyance Intensity Factor Calculation

Energy Data (pumping/conveyance)

		Unit	Data Year	Source
SASD	3,388,861	KWH	FY 2014/2015	Christoph Dobson and Wayne Zhuang, SASD on 9/14/2016
SRCSD	11,500,000	KWH	2013	Steve Nebozuk, SRCSD on 9/14/2016
TOTAL	14,888,861	KWH	2015	Used to represent 2015, best available data was used.

Effluent Data (represents all water treated within SRCSD service population)

		Unit	Data Year	Source
SRCSD	41,975	Million Gallons/Yr	2019	State of the District 2019 Report
Adjusted	31,481	Million Gallons/Yr	2019	

Salam Khan, SASD on 9/16/2016 indicated that City of Folsom, Sacramento, and W. Sac use energ to pump their WW to SRCSD. As such the KWH obtained from SRCSD service population was being underestimated when used in conjunction with the total effluent from the entire serice population. To adjust for this, the total effluent associated with Sacramento, W. Sac, and Folsom, was adjusted by 25%

WW Conveyance Intensity Factor

354.71 Kwh/MGallon

Annual Growth Rates
Population
Employment

Equation 10.3.2.2 Process N2O Emissions from WWTP Without Nitrification/Denitrification

2019			
	Value	Inputs Unit	Description
	139,571	people	2019 City Service Population
	1.25	constant	co-discharge waste into sewer
	3.2	g N2O/person/year	emission factor for nitrification/denitrification
	273	GWP	N2O
Annual N2O emissions (metric tons CO2e)			152
Annual N2O Municipal emissions (MT CO2e)			0.00

Conversion Factor		
	1g	0.000001 mt/g

2030			
	Value	Inputs Unit	Description
	139,571	people	Population
Annual N2O emissions (metric tons CO2e)			152

SRWTP Biogas (methane) Combustion
2019

DIRECT EMISSIONS-WWTP Process Emissions

Equation 10.2		Stationary CH4 from Incomplete Combustion of Digester Gas		
Term	Value	Inputs		Description
		Unit		
population	139,571	people		2019 City Service Population
Digester Gas	1.00	ft^3/person/day		cubic feet of digester gas produced per person per day
Fraction Methane	0.650	constant		fraction of methane in biogas
Density Methane	662.000	g/m^3		density of methane
Destruction Efficiency	0.99	constant		methane destruction efficiency
Conversion Factor	0.0283	constant		conversion from ft^3 to m^3
Conversion Factor	365.25	constant		conversion from days to year
Conversion Factor	0.000001	constant		conversion from g to metric tons
GWP	27.9	constant		global warming potential of methane for CO2e
2030 Community pop	175,726			
			2019	2030
Annual CO2e emissions (MT)			173	218

Source
California Air Resource Board, California Climate Action Registry, Local Governments for Sustainability, The Climate Registry (2010). Local Government Operations Protocol-For the quantification and reporting of greenhouse gas emissions inventories. Version 1.1.

SRWTP N2O Effluent Emissions

2019

DIRECT EMISSIONS-WWTP Process Emissions

Equation 10.10		Process N2O Emissions from Effluent Discharge ^{1c}		
Term	Value	InputsUnit	Description	
City	139,571	people	2019 City Service Population	
constant	1.25	Constant	co-discharge waste into sewer	
N load	0.026	kg N/person/day	N per person served	
N uptake	0.050	kg N/kg BOD	nitrogen uptake for cell growth in aerobic system	
N2O effluent Emission Factor	0.005	kg N2O N/kg sewage-N		
BOD Load	0.09	kg BOD/person/day		
constant	1.57	Constant	molecular weight ratio N2O to N2	
constant	0	Constant	fraction of nitrogen removed from nitrification/denitrification	
Conversion Factor	365	days/year		
Coverion Factor	0.001	metric ton/kg		
N2O Global Warming Potential	298	GWP		
2030 Community pop	175,726			
Annual Community CO2e emissions (MT)			20193,203	20304,032

Source
California Air Resource Board, California Climate Action Registry, Local Governments for Sustainability, The Climate Registry (2010). Local Government Operations Protocol-For the quantification and reporting of greenhouse gas emissions inventories. Version 1.1.

Appendix C

Greenhouse Gas Forecast and Reduction Target (Technical Memorandum)

Memo



455 Capitol Mall, Unit 300
Sacramento, CA 95814
916.444.7301

Date: March 29, 2022 (original)
February 23, 2023 (revised)

To: Stefan Heisler and Darcy Goulart (City of Rancho Cordova)

From: Alyssa Way, Andrew Martin, and Honey Walters (Ascent Environmental)

Subject: City of Rancho Cordova Climate Action Plan, Greenhouse Gas Emissions Forecasts and Reduction Targets – Technical Memorandum

INTRODUCTION

In 2009, the County of Sacramento prepared a baseline inventory for the unincorporated county and the incorporated cities, including specifically a 2005 baseline year inventory for the City of Rancho Cordova (City). The Sacramento Area Council of Governments (SACOG) 2020 Metropolitan Transportation Plan / Sustainable Communities Strategy (MTP/SCS) Draft Environmental Impact Report included a greenhouse gas (GHG) emissions inventory and forecast for 2016, 2030, 2040, and 2050 that included the City. Though the City was considered in both efforts, an updated communitywide GHG emissions inventory using the latest methodologies with a more recent 2019 baseline year has been prepared for the City's Climate Action Plan (CAP). The next step in this update process is to forecast these GHG emissions for the 2030 target year and 2045 goal. This technical memorandum provides the results of these forecasts as well as associated methods, assumptions, emissions factors, and data sources.

The GHG emissions forecasts will provide a foundation for the forthcoming steps of the CAP development process, including the development of GHG emissions reduction targets and identification of measures the City can take to reduce GHG emissions from activities and sources located in Rancho Cordova.

ORGANIZATION OF THIS MEMORANDUM

This memorandum consists of two main parts:

- ▶ Section 1: Summary of Inventory Results presents an overview of the updated GHG emissions inventory (baseline 2019).
- ▶ Section 2: Emissions Forecasts summarizes the forecasted GHG emissions under "business-as-usual" (BAU) and legislative-adjusted BAU scenarios for years 2030 and 2045. A BAU scenario is one in which no GHG reductions from actions taken by local, regional, State, or federal agencies are included. A legislative-adjusted BAU scenario reflects GHG reductions from legislative or regulatory actions enacted by regional, State, and federal agencies, without considering any local (City) actions to reduce GHG emissions.

1 SUMMARY OF INVENTORY RESULTS

1.1 2019 COMMUNITY INVENTORY RESULTS

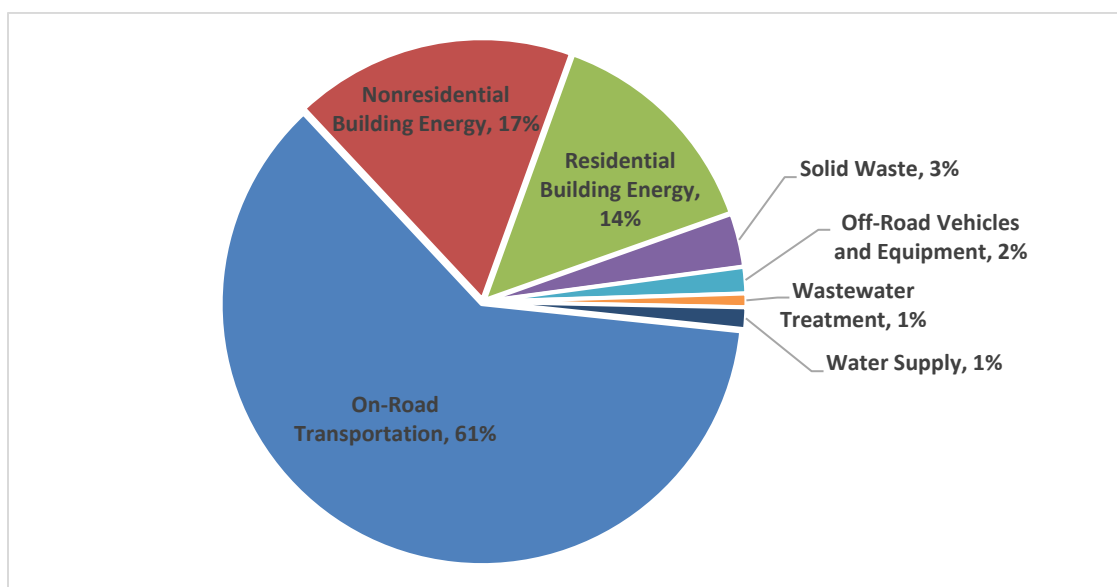
Based on the modeling conducted, community activities in 2019 generated approximately 679,706 metric tons of carbon dioxide equivalent (MTCO₂e). Major emissions sectors included on-road transportation, residential and nonresidential building energy use, solid waste, water use, and wastewater generation. Table 1 and Figure 1 present the city's 2019 GHG emissions inventory by sector. A description of each emissions sector, including key sources of emissions, is provided in the Inventory Technical Memorandum, dated March 29, 2022.

Table 1 2019 City of Rancho Cordova Community Greenhouse Gas Emissions Inventory

Sectors	MTCO ₂ e/year	Percent of Total
On-Road Transportation	417,145	61%
Nonresidential Building Energy	118,801	17%
Residential Building Energy	95,575	14%
Solid Waste	22,397	3%
Off-Road Vehicles and Equipment	11,027	2%
Water Supply	9,071	1%
Wastewater Treatment	5,690	1%
Total	679,706	100%

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalent per year

Source: Ascent Environmental 2022



Source: Ascent Environmental 2022

Figure 1 2019 City of Rancho Cordova Community Greenhouse Gas Emissions Inventory

2 GREENHOUSE GAS EMISSIONS FORECASTS TO 2030

2.1 COMMUNITY FORECAST RESULTS

The BAU GHG emissions forecasts provide an assessment of how emissions generated by community activities will change over time without further local, State, or federal action. In addition to accounting for the city's growth under a BAU scenario, an adjusted BAU forecast was prepared, which includes adopted legislative and regulatory actions at the State and federal levels that would affect emissions without any local action, such as regulatory requirements to increase vehicle fuel efficiency and increase renewable energy sources in grid electricity portfolios. It is important to note that the legislative-adjusted BAU emissions forecasts only include emissions reductions associated with implementation of adopted federal and State legislation and regulations and do not include goals established by executive orders or targets established by federal or State agencies outside of adopted legislation and regulations. These forecasts provide the City with the information needed to focus efforts on emissions sectors and sources that have the greatest opportunities for GHG emissions reductions.

The BAU forecasts described in this section for 2030 and 2045 are aligned with statewide GHG reduction targets established in State law Senate Bill (SB) 32 and Assembly Bill (AB) 1279. The State GHG reduction targets are to reduce statewide emissions levels to:

- ▶ 40 percent below 1990 levels by 2030 (SB 32); and
- ▶ net zero with at least an 85 percent reduction from 1990 levels for anthropogenic sources (AB 1279).

Estimated BAU emissions forecasts were based on population and employment from the SACOG Growth Forecast for the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The SACOG Growth Forecast provides population and employment for 2016 and 2040. These values were interpolated and extrapolated to identify values for 2019, 2030, and 2045. Population and employment are expected to increase by 62 and 36 percent from 2019 to 2045, respectively. These growth factors were used to forecast BAU emissions for most sectors. Additional information regarding the growth factors used for each sector is included in the following sections. Fehr & Peers provided annual vehicle miles traveled (VMT) projections for the years 2027, 2035, and 2040 based on origin-destination data provided by SACOG. Based on these data, annual VMT was interpolated for year 2030 and projected out for 2045. Annual VMT by 2045 is projected to increase by 42 percent from 2019. VMT projections were used to scale emissions from the on-road transportation sector. Table 2 shows projections growth in the city from 2019 to 2045.

Table 2 Rancho Cordova Demographic and Vehicle Miles Traveled Projections

Forecast Factor	2019	2030	2045
Population	77,579	102,122	125,427
Employment	61,991	73,604	84,213
Annual VMT	919,218,798	1,071,357,646	1,307,495,381

Notes: VMT = vehicle miles traveled.

Source: SACOG Growth Forecast for the 2020 MTP/SCS; Fehr & Peers; adapted by Ascent Environmental in 2022.

Table 3 shows baseline emissions in 2019 and a BAU emissions forecast for 2030, and 2045.

Table 3 2019 Rancho Cordova Greenhouse Gas Emissions Inventory and BAU Forecast (MTCO₂e/year)

Sector	2019	2030	2045
--------	------	------	------

On-Road Transportation	417,145	486,187	593,347
Nonresidential Building Energy	118,801	141,055	161,388
Residential Building Energy	95,575	125,811	154,521
Solid Waste	22,397	29,483	36,211
Off-Road Vehicles and Equipment	11,027	14,772	18,488
Water Supply	9,071	11,940	14,665
Wastewater Treatment	5,690	7,490	9,200
Total	679,706	816,738	987,820

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecast prepared by Ascent Environmental in 2022.

Legislative-adjusted BAU emissions forecasts were prepared using the same demographic and VMT data that were used for the BAU forecasts, while accounting for regional, State, and federal legislative actions that would affect local emissions. These forecasts provide the City with a more robust understanding to assist with the prioritization of emissions reduction measures developed to meet the GHG targets. A summary of the legislative reductions applied is provided in Table 4.

Table 4 Legislative Reductions Summary

Source	Legislative Reduction	Description	Sectors Applied
Regional	2030 Zero Carbon Plan	Establishes a target for SMUD to supply 100 percent renewable electricity by 2030.	Residential and Nonresidential Building Energy, Water Supply
State	California's Building Energy Efficiency Standards (2019 Title 24, Part 6)	Requires all new buildings in California to comply with energy efficiency standards established by CEC. Accounts for the energy efficiency gains associated with lighting, heating, cooling, ventilation, and water heating improvements, as well as onsite solar photovoltaic requirements for low-rise residential.	Residential and Nonresidential Building Energy
State	Advanced Clean Car I Standards	Establishes GHG emission reduction standards for model years 2017 through 2025 that are more stringent than federal CAFE standards.	On-Road Transportation
State	Truck and Bus Regulation	Requires diesel trucks and buses that operate in California to be upgraded to reduce GHG emissions.	On-Road Transportation
Federal	Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles	Establishes fuel efficiency standards for medium- and heavy-duty engines and vehicles.	On-Road Transportation
Federal	EPA Off-Road Compression-Ignition Engine Standards	Establishes standards for phasing of EPA diesel engine tiers for off-road compression-ignition equipment.	Off-Road Vehicles and Equipment

Notes: CAFE = Corporate Average Fuel Economy; CEC = California Energy Commission; EPA = U.S. Environmental Protection Agency; GHG = greenhouse gas; SMUD = Sacramento Municipal Utility District

Source: Forecasts prepared by Ascent Environmental in 2022.

The city's legislative-adjusted BAU emissions would decrease by approximately 22 percent between 2019 and 2045, as shown below in Table 5 and Figure 2. Figure 2 also shows the emissions trend that would occur without

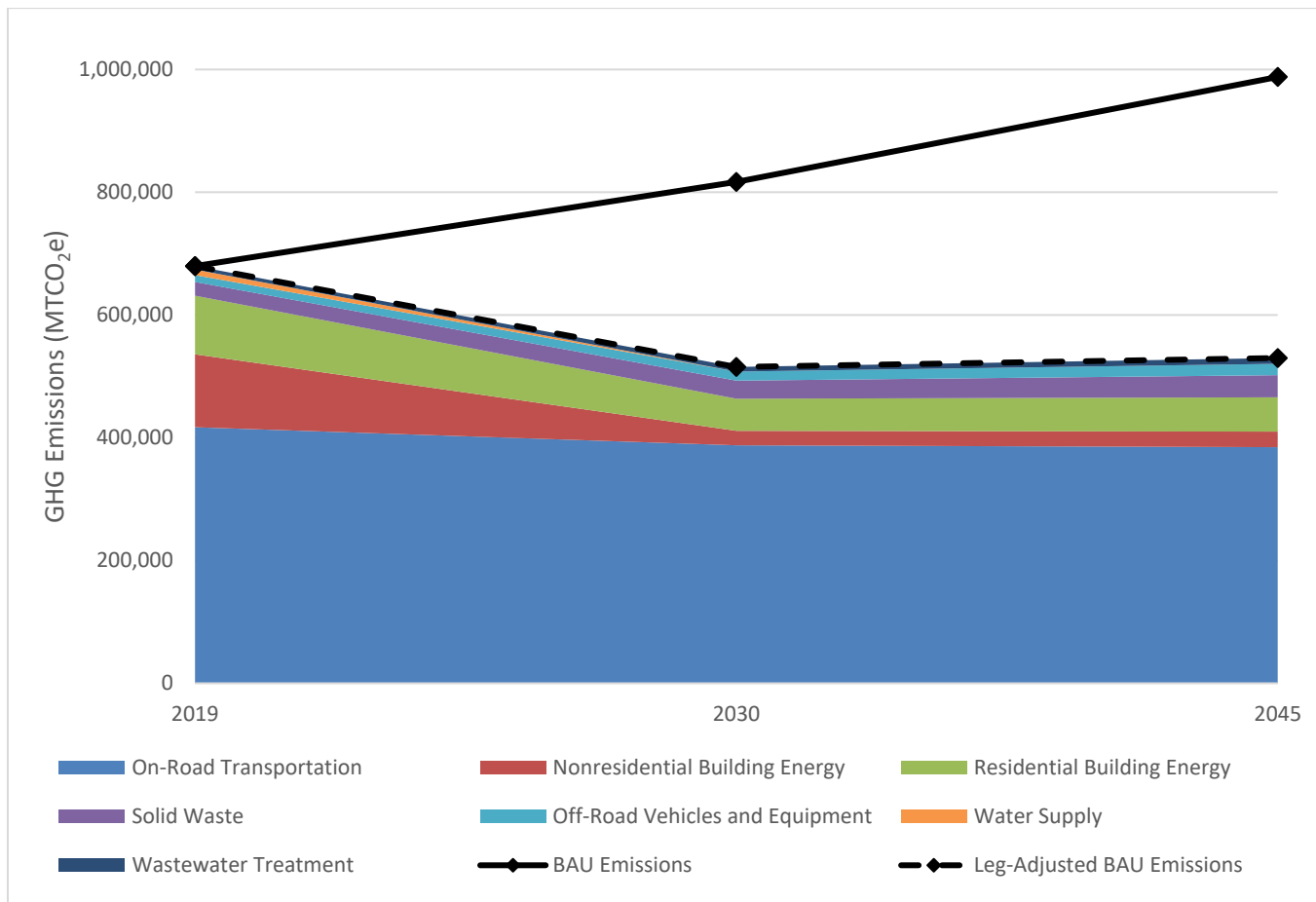
anticipated legislative reductions, accounting only for population, employment, and annual VMT increases. Without the legislative reductions (the BAU forecast), emissions would be 86 percent higher in 2045 compared to the legislative-adjusted BAU forecast. Emissions forecasts are detailed for each sector and discussed below beginning with Section 2.1.1.

Table 5 2019 Rancho Cordova Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Sector	2019	2030	2045
On-Road Transportation	417,145	387,784	384,651
Nonresidential Building Energy	118,801	23,605	25,335
Residential Building Energy	95,575	52,217	55,903
Solid Waste	22,397	29,483	36,211
Off-Road Vehicles and Equipment	11,027	14,772	18,488
Water Supply	9,071	0	0
Wastewater Treatment	5,690	7,490	9,200
Total	679,706	515,352	529,788

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.



Source: Ascent Environmental 2022

Figure 2 2019 Rancho Cordova Greenhouse Gas Emissions Inventory with BAU and Legislative-Adjusted BAU Forecasts

2.1.1 Building Energy

Emissions from future electricity, natural gas, and backup generator use for buildings were estimated by multiplying anticipated energy use with forecasted emissions factors. Future energy use was forecasted in three parts. First, energy use was scaled by population and employment growth factors detailed in Table 2. Second, electricity emissions factors were adjusted to reflect the Sacramento Metropolitan Utility District's (SMUD) 2030 Zero Carbon Plan of 100 percent of electricity from zero carbon sources by 2030. Electricity emissions factors are anticipated to decline based on current regulations, while natural gas and diesel emissions factors are anticipated to be constant. Third, energy intensity factors were adjusted to reflect increased stringency under California's Building Energy Efficiency Standards (California Code of Regulations Title 24 Part 6, hereafter referred to as "Title 24"). The 2019 Title 24 standards, which became effective in 2020, are expected to achieve decreases in electricity consumption in new construction. The assumptions for energy efficiency and future electricity emissions factors are described below. Table 6 summarizes the scaling factors and legislative reductions used to forecast building use by energy type.

Table 6 Building Energy Emissions Forecast Methods and Legislative Reductions by Source

Energy Type	Forecast Methods	
	Scale Factor	Applied Legislative Reductions
Electricity	Scaled by population growth for residential building energy; scaled by employment growth for nonresidential building energy.	Scheduled targets (i.e., 100 percent renewable by 2030) applied to SMUD's emissions factors. Accounts for Title 24 energy efficiency gains in new construction based on the best available data for average building energy efficiency.
Natural Gas		
Backup Generators	Scaled by employment growth for nonresidential building energy.	Accounts for Title 24 energy efficiency gains in new nonresidential construction.

Notes: SMUD = Sacramento Metropolitan Utility District.

Source: Forecasts prepared by Ascent Environmental in 2022.

RESIDENTIAL BUILDING ENERGY

Between 2019 and 2045, electricity and natural gas emissions from residential buildings would decrease by approximately 42 percent from 95,575 to 55,903 MTCO₂e per year with legislative adjustments and overall population growth of 62 percent over the same time. While GHG emissions associated with residential electricity usage are anticipated to decline through 2045 and reflect SMUD's goal for zero carbon electricity by 2030, emissions from residential natural gas consumption are expected to rise gradually. This increase is due to population growth in the city and reflects adopted legislation. Table 7 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from the residential building energy sector by energy type for 2030 and 2045.

Table 7 2019 Residential Building Energy Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Emissions Forecasts (MTCO₂e/year)

Energy Type	2019	2030	2045
Electricity	47,238	0	0
Natural Gas	48,336	52,217	55,903
Total	95,575	52,217	55,903

Notes: Totals may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

NONRESIDENTIAL BUILDING ENERGY

Between 2019 and 2045, electricity, natural gas, and back-up generator emissions from nonresidential buildings would decrease by 79 percent from 118,801 to 25,335 MTCO₂e per year with legislative adjustments and overall employment growth of 36 percent over the same time. GHG emissions associated with nonresidential electricity usage are anticipated to decline through 2045 and reflect SMUD's carbon neutrality goals and emissions from nonresidential natural gas consumption and backup generators are expected to rise gradually. Table 8 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions for the nonresidential building energy sector by energy type for 2030 and 2045.

Table 8 2019 Nonresidential Building Energy Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Energy Type	2019	2030	2045
Electricity	97,089	0	0
Natural Gas	20,769	22,580	24,235
Backup Generators	943	1,025	1,101
Total	118,801	23,605	25,335

Notes: Totals may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

Electricity Emissions Factors

Electricity emissions from the building sector are anticipated to decrease to zero by 2030 and beyond without additional City action, despite growth, due to State and regional measures already in place that affect the carbon intensity of grid electricity. SMUD's emissions factor for CO₂ in 2019 was provided by SMUD. Electricity emissions factors for methane (CH₄) and nitrous oxide (N₂O) were obtained from the U.S. Environmental Protection Agency's (EPA's) Emissions & Generation Resource Integrated Database (eGRID) 2018 Annual Output Emissions Rates (EPA 2020).

California utility providers, including SMUD, were scheduled to reach a 33 percent renewable electricity generation mix in 2020 and, pursuant to SB 100, are scheduled to achieve 60 percent renewable electricity by 2030 and 100 percent carbon-free electricity by 2045. However, SMUD's is scheduled to achieve 100 percent renewable by 2030 under the utility's carbon neutrality goal. SMUD's 2019 emissions factor is 232.1 grams of CO₂ per kilowatt hour (g CO₂/kWh). The carbon-free electricity requirement results in a 2030 and 2045 emissions factor of zero g CO₂/kWh. CH₄ and N₂O electricity emissions factors in future years are assumed to follow the same trends as the CO₂ emissions factors.

Natural Gas Emissions Factors

Natural gas emissions are based on emissions factors obtained from The Climate Registry's (TCR's) 2020 Default Emission Factors, which are estimated to be 5,306 pounds of carbon dioxide equivalent per therm (g CO₂e/therm) for stationary combustion in buildings. Emissions factors associated with natural gas combustion are not anticipated to change over time, as there are no legislative actions that would reduce the energy intensity of natural gas.

Diesel Emissions Factors

Emissions from diesel fuel used to power backup generators are based on emissions factors from TCR, which are estimated to be 10,210 grams of carbon dioxide equivalent per gallon (g CO₂e/gal). Emissions factors associated with diesel combustion are not anticipated to change over time, as there are no legislative actions that would reduce the energy intensity of diesel.

Energy Efficiency

Title 24 standards apply to both new construction and existing buildings. The 2019 Title 24 standards went into effect January 2020. The California Energy Commission (CEC) estimates that new residential buildings built to the 2019 standards are 53 percent more efficient than residential buildings built to the previous standards (CEC 2018). CEC estimates that new nonresidential buildings built to the 2019 standards are 30 percent more efficient than nonresidential buildings built to the previous standards (CEC 2018).

In addition to the current iteration of Title 24, previous versions of the standards have also achieved energy efficiencies for residential and nonresidential buildings. Energy efficiency savings have been quantified by CEC and the collective effect of Title 24 was accounted for in the forecasted emissions. Based on these data, the analysis assumes that all new residential construction occurring between 2020 and 2045 would be 75 percent more energy efficient than buildings constructed under previous Title 24 standards, and nonresidential construction would be 53 percent more energy efficient compared to buildings constructed under previous Title 24 standards. This includes the energy efficiencies gained through the 2008, 2013, 2016, and 2019 versions of Title 24. Additional efficiencies to be achieved in future code cycles are yet unknown and therefore not factored into the forecast.

2.1.2 Transportation

ON-ROAD TRANSPORTATION

Between 2019 and 2045, annual legislative-adjusted BAU GHG emissions from on-road vehicles would decrease by approximately 8 percent from 417,147 to 384,651 MTCO₂e per year based on future vehicle emission factors modeled in the California Air Resources Board's (CARB's) Emission Factor (EMFAC) 2017 model, despite an increase in VMT of 42 percent. VMT projections were provided by Fehr & Peers based on origin-destination data from SACOG. With respect to the legislative adjustments included in this forecast, State and federal regulations incorporated in the on-road vehicle sector include the Advanced Clean Car I (ACC) Standards, and fuel efficiency standards for medium- and heavy-duty vehicles. These standards are included in EMFAC2021's emissions factor estimates and forecasts. It should be noted that the Low Carbon Fuel Standard was excluded in EMFAC2021 forecasts because the emissions benefits originate from upstream fuel production and do not directly reduce vehicle tailpipe emissions that affect the city's GHG emissions forecasts. Table 9 summarizes the scaling factor and legislative reductions used to forecast on-road transportation emissions.

Table 9 On-Road Transportation Forecast Methods and Legislative Reductions

Source	Forecast Methods	
	Scale Factor	Applied Legislative Reductions
On-Road Vehicles	Scaled by VMT estimates provided by Fehr & Peers.	EMFAC2021 forecasts vehicle fleet distributions by vehicle type and the emissions factors anticipated for each vehicle category based on both vehicle emissions testing and approved legislative reductions. EMFAC2021's forecasts incorporate the effects of the ACC I Standards, and fuel efficiency standards for medium- and heavy-duty vehicles, as well as truck and bus regulations.

Notes: ACC I = Advanced Clean Cars I; CAFE = Corporate Average Fuel Economy; EMFAC2021 = California Air Resources Board's Emission Factor 2021 model.

Source: Forecasts prepared by Ascent Environmental in 2022.

Table 10 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from on-road transportation for 2030 and 2045.

Table 10 2019 On-Road Transportation Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

EMFAC Vehicle Category	EMFAC Vehicle Category Description	2019	2030	2045
LDA	Passenger Cars	148,453	132,269	142,439

LDT2	Light-Duty Trucks (GVWR <6000 lb)	78,535	73,483	80,220
MDV	Medium-Duty Trucks (GVWR 5751-8500 lb)	65,206	60,725	65,244
LDT1	Light-Duty Trucks (GVWR <6000 lb)	17,554	17,356	18,083
LHD1	Light-Heavy-Duty Trucks (GVWR 8501- 10000 lbs)	29,056	28,522	19,887
T7 Trucks	Heavy-Heavy Duty Trucks	38,318	36,057	31,532
T6 Trucks	Medium-Heavy Duty Trucks	23,818	23,123	14,868
LHD2	Light-Heavy-Duty Trucks (GVWR 10001- 14000 lb)	7,083	7,041	5,053
MCY	Motorcycles	891	987	1,161
MH	Motor Homes	1,826	2,033	2,440
UBUS	Urban Buses	1,597	1,384	7
OBUS	Other Buses	1,515	1,516	915
SBUS	School Buses	897	935	667
All Other Buses	All Other Buses	749	743	849
PTO	Power Take Off	1,138	1,051	658
Motor Coach	Motor Coach	511	561	630
Total	-	417,145	387,784	384,651

Notes: Totals may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

OFF-ROAD VEHICLES AND EQUIPMENT

Between 2019 and 2045, emissions associated with off-road vehicles and equipment used in the city would increase by 69 percent from 12,470 to 21,074 MTCO₂e per year, with legislative adjustments applied and overall growth in various demographics. Emissions were obtained from CARB's OFFROAD2007 and OFFROAD2021 models. With respect to the legislative adjustments in the off-road vehicle sector, CARB's latest off-road emissions model, OFFROAD2021, was used, which incorporates regulatory actions such as reformulated fuels and more stringent emission standards. However, some off-road vehicle and equipment sources that are included in the OFFROAD2007 model are excluded from OFFROAD2021. For these sectors, emissions were obtained from OFFROAD2007. In addition, OFFROAD2021 provides CO₂ emissions but does not provide emissions from CH₄ and N₂O. Ratios of CH₄ and N₂O to CO₂ reported in OFFROAD2007 were calculated and applied to CO₂ data from OFFROAD2021 to calculate CH₄ and N₂O emissions, as recommended by CARB.

Sacramento County-level emissions from off-road vehicles and equipment were scaled using changes in city-specific demographic factors. Table 11 summarizes the scaling factors and legislative reductions used to forecast off-road vehicle and equipment emissions.

Table 11 Off-Road Vehicles and Equipment Forecast Methods and Legislative Reductions by Source

Source	Forecast Methods	
	Scale Factor	Applied Legislative Reductions
Construction and Mining Equipment	Service Population	OFFROAD2007 and OFFROAD2021 emission factor considerations include EPA off-road compression-ignition engine standards implementation schedule.
Entertainment Equipment	Employment	
Industrial Equipment	Employment	
Lawn and Garden Equipment	Population	
Light Commercial Equipment	Employment	
Portable Equipment	Employment	
Recreational Equipment	Population	
Transportation Refrigeration Units	Service Population	

Notes: EPA = U.S. Environmental Protection Agency; OFFROAD2007 = California Air Resources Board's OFFROAD2007 model; OFFROAD2021 = California Air Resources Board's OFFROAD2021 model.

Source: Forecasts prepared by Ascent Environmental in 2022.

Table 12 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from the off-road vehicles and equipment sector for 2030 and 2045.

Table 12 2019 Off-Road Vehicles and Equipment Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Source	2019	2030	2045
Construction and Mining Equipment	5,350	7,500	9,675
Entertainment Equipment	54	67	80
Industrial Equipment	1,426	1,787	2,129
Lawn and Garden Equipment	138	211	287
Light Commercial Equipment	839	1,052	1,253
Portable Equipment	2,478	3,105	3,699
Recreational Equipment	81	123	168
Transportation Refrigeration Units	661	927	1,196
Total	11,027	14,772	18,488

Notes: Totals may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

2.1.3 Solid Waste

Between 2019 and 2045, solid waste emissions generated from community activities in the city would increase by approximately 62 percent from 22,397 to 36,211 MTCO₂e, due to overall population growth of approximately 62 percent over the same period. Solid waste sector emissions include CH₄ emissions from the decay of waste generated annually, which were scaled by population growth within the city between 2019 and 2045. There are no applicable legislative reductions to apply to this sector and future disposal rates, so legislative-adjusted BAU emissions are equivalent to BAU emissions. Table 13 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from the solid waste sector for 2030 and 2045.

Table 13 2019 Solid Waste Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Source	2019	2030	2045
Community-Generated Solid Waste	22,397	29,483	36,211

Notes: Totals may not sum exactly due to independent rounding. BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

2.1.4 Water Supply

Between 2019 and 2045, water supply emissions from community activities in the city would be reduced to zero by 2030 onward due to SMUD's 2030 Zero Carbon Plan. Table 14 summarizes the scaling factor and legislative reduction used to forecast water supply emissions.

Table 14 Water Supply Forecast Methods and Legislative Reductions by Source

Source	Forecast Methods	
	Scale Factor	Applied Legislative Reductions
Water Consumption	Population growth.	Assumes electricity use for extraction, conveyance, distribution, and treatment follow the 2030 goal of carbon-free electricity.

Source: Forecasts prepared by Ascent Environmental in 2022.

Table 15 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from the water supply sector for 2030 and 2045.

Table 15 2019 Water Supply Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Source	2019	2030	2045
Water Supply	9,070	0	0

Notes: BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

2.1.5 Wastewater Treatment

Between 2019 and 2045, wastewater treatment emissions from the community would increase by 62 percent from 5,690 to 9,200 MTCO₂e per year, accounting for overall population growth of 62 percent over the same time.

Wastewater treatment-related emissions are generated from centralized wastewater treatment plants (WWTPs). Table 16 shows the 2019 inventory and legislative-adjusted BAU forecasted emissions from wastewater treatment sources for 2030 and 2045.

Table 16 2019 Wastewater Treatment Greenhouse Gas Emissions Inventory and Legislative-Adjusted BAU Forecasts (MTCO₂e/year)

Source	2019	2030	2045
Centralized WWTPs	5,690	7,490	9,200

Notes: BAU = business-as-usual; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Forecasts prepared by Ascent Environmental in 2022.

2.1.6 Discussion

As discussed above, the community legislative-adjusted BAU emissions would decrease by 22 percent between 2019 and 2045. This is a result of reductions that would be achieved from several regional, State, and federal legislative actions including:

- ▶ 100 percent of electricity from zero carbon sources by 2030;
- ▶ improved building energy efficiency through compliance with Title 24 standards (75 percent energy reduction for residential, 53 percent for nonresidential); and
- ▶ reductions in on-road vehicle emissions factors forecasted in EMFAC2021 and off-road vehicle and equipment emissions factors forecasted in OFFROAD2021.

From 2030 to 2045, new legislative actions that would affect emissions are anticipated to be adopted by the State and federal government; however, because information regarding these regulatory changes is currently unavailable or not final, emissions reductions from future potential legislative actions are not quantified in this memorandum. Without future legislative actions and despite growth in the city, emissions would decline from 2019 through 2045. Additional reductions could occur in the future due to State and/or federal actions requiring improvements in vehicle and equipment fuel economy and increased share of electric vehicle and equipment options, which would be reflected in future updates to the EMFAC2021 and OFFROAD2021 models. Other previous legislative actions would also continue to apply in the future and ultimately outpace growth in population and employment. Where new State regulations or programs are imminent and reasonably foreseeable, they can be incorporated as complementary actions to locally based GHG reduction measures.

3 REDUCTION TARGETS

3.1 STATEWIDE GREENHOUSE GAS REDUCTION TARGETS AND GOALS

As directed in AB 32, SB 32, and AB 1279, the State aims to reduce annual GHG emissions to:

- ▶ 1990 levels by 2020;
- ▶ 40 percent below 1990 levels by 2030; and
- ▶ Net zero emissions with at least an 85 percent reduction from 1990 levels for anthropogenic sources

Signed on September 16, 2022, AB 1279, the California Climate Crisis Act, established a statewide goal to achieve net zero emissions as soon as possible, and no later than 2045, and achieve net negative emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below 1990 levels..

The City aims to reduce its fair-share of communitywide emissions in proportion to the State's targets and goals. Community emissions levels from 1990 are not available, which is the case for most local jurisdictions in California. Thus, community GHG reduction targets for the City's CAP were developed relative to the 2019 community emissions inventory, consistent with guidance provided by CARB. The methodology used to calculate the City's emissions reduction targets is described below.

3.2 COMMUNITY GREENHOUSE GAS EMISSIONS REDUCTION TARGETS

Based on a review of the 2017 Scoping Plan and the 2022 Scoping Plan and an understanding of activities occurring within the city, the City has direct or indirect jurisdiction over activities that generate emissions and contribute to reductions in four of the eight emissions sectors included in the 2017 Scoping Plan and the 2022 Scoping Plan: residential and commercial, electric power, recycling and waste, and transportation. The City has limited influence over high GWP gases, and industrial activities in the city are limited. Lastly, while facilities regulated under Cap-and-Trade do exist within city boundaries, the State is responsible for achieving emissions reductions from these sources, and the City has limited ability to influence Cap-and-Trade facilities' GHG emissions. Therefore, by excluding these sectors under this approach, community GHG reduction targets have been established in proportion with statewide reductions for all sectors relevant to City jurisdiction to the extent feasible using available data. This target setting approach is consistent with the California Supreme Court decision in *Center for Biological Diversity v. California Department of Fish and Wildlife and Newhall Land and Farming* (2015) 62 Cal.4th 204, which determined that the approach of assessing a project's consistency with statewide emissions reduction goals must include a "reasoned explanation based on substantial evidence" that links the project's emission to the statewide GHG reduction goals.

The City kicked off the project in 2021 after which the City prepared GHG emissions inventories and forecasts and set GHG reduction targets. CARB's 2017 Scoping Plan was the adopted statewide Plan at the time the targets were developed and hence was used for setting the City's 2030 target and developing emissions reduction strategies and measures that meet the 2030 target. The City's 2045 goal has been developed using the 2022 Scoping Plan (adopted in December 2022) in response to the statewide 2045 GHG reduction goal established in AB 1279. The following sections detail the methodology for setting the City's 2030 target and 2045 goal:

2030 Emissions Reduction Target

The first step in determining community targets is to compare the State's GHG inventories for 1990 and 2019 (i.e., the City's baseline inventory year) for the four relevant sectors. According to the inventories available from CARB using the 2017 Scoping Plan, statewide emissions from the relevant sectors were approximately 431 million MTCO_{2e} (MMTCO_{2e}) in 1990 and 418 MMTCO_{2e} in 2019 (CARB 2021) (note: sector-specific emissions totals and reductions reflect rounding). Thus, 2019 statewide emissions were approximately 13 MMTCO_{2e} (3 percent) lower than the 1990 level and the State's 2020 GHG target (i.e., reduce emissions to 1990 levels by 2020).

According to the 2017 Scoping Plan, statewide emissions from sectors relevant to the City's inventory must be reduced to 311 MMTCO_{2e} by 2020 for the State to achieve its 2020 target. CARB's statewide inventory reports 2019 emissions levels of 278 MMTCO_{2e} for these sectors, which demonstrates the achievement of the 2020 target.

According to the 2017 Scoping Plan, statewide emissions from the sectors relevant to the City's inventory must be reduced to 179 MMTCO_{2e} by 2030 for the State to achieve its 2030 target. This represents an emissions reduction of approximately 99 MMTCO_{2e}, or 36 percent, by 2030, relative to 2019 levels of 278 MMTCO_{2e}.

2045 Emissions Reduction Goal

The first step in determining community targets is to compare the State's GHG inventories for 1990 and 2019 (i.e., the City's baseline inventory year) for the four relevant sectors. According to the inventories available from CARB using the 2022 Scoping Plan, statewide emissions from the relevant sectors were approximately 438 million MTCO_{2e} (MMTCO_{2e}) in 1990 and 418 MMTCO_{2e} in 2019 (CARB 2021) (note: sector-specific emissions totals and reductions reflect rounding). Thus, 2019 statewide emissions were approximately 20 MMTCO_{2e} (5 percent) lower than the 1990 level and the State's 2020 GHG target (i.e., reduce emissions to 1990 levels by 2020).

According to the 2022 Scoping Plan, statewide emissions from sectors relevant to the City's inventory must be reduced to 311 MMTCO₂e by 2020 for the State to achieve its 2020 target. CARB's statewide inventory reports 2019 emissions levels of 278 MMTCO₂e for these sectors, which demonstrates the achievement of the 2020 target.

According to the 2022 Scoping Plan, statewide emissions from the sectors relevant to the City's inventory must be reduced to 53 MMTCO₂e by 2045 for the State to achieve its 2045 goal. This represents an emissions reduction of approximately 330 MMTCO₂e, or 81 percent, by 2030, relative to 2019 levels of 278 MMTCO₂e.

Consistent with State targets and goals and considering relevant emissions sectors, the City's community GHG reduction targets are as follows:

- ▶ 2030 target: 36 percent below 2019 levels (438,283 MTCO₂e); and
- ▶ 2045 target: 81 percent below 2019 levels (129,252 MTCO₂e)

Table 17 shows how the City's targets were derived based on adjusted statewide GHG emissions data and projections and summarizes the City's legislative-adjusted BAU forecasts and targets for 2030 and 2045.

Table 17 Rancho Cordova GHG Emissions Reduction Targets and Legislative-Adjusted BAU Summary

Source	2019	2030	2045
2017 Scoping Plan Emissions Limit (MMTCO ₂ e)	NA	259	NA
Adjusted 2017 Scoping Plan Emissions Limit ¹ (MMTCO ₂ e)	NA	179	NA
2022 Scoping Plan Emissions Limit (MMTCO ₂ e)	NA	NA	66
Adjusted 2022 Scoping Plan Emissions Limit ¹ (MMTCO ₂ e)	NA	NA	53
Statewide Target Percent Reduction from 2019 Levels	NA	36%	85%
Baseline Emissions and Legislative-Adjusted BAU Forecast (MTCO ₂ e)	679,706	515,352	529,788
Target Percent Reduction Below Baseline (%)	NA	36%	81%
Target Annual Emissions (MTCO ₂ e)	NA	438,283	129,252
Reduction Needed to Meet Target (MTCO ₂ e)	NA	77,070	400,536

Notes: BAU = business-as-usual; GHG = greenhouse gases; MTCO₂e = metric tons of carbon dioxide equivalent; MMTCO₂e = million metric tons of carbon dioxide equivalent; NA = not available; 2017 Scoping Plan = California's 2017 Climate Change Scoping Plan.

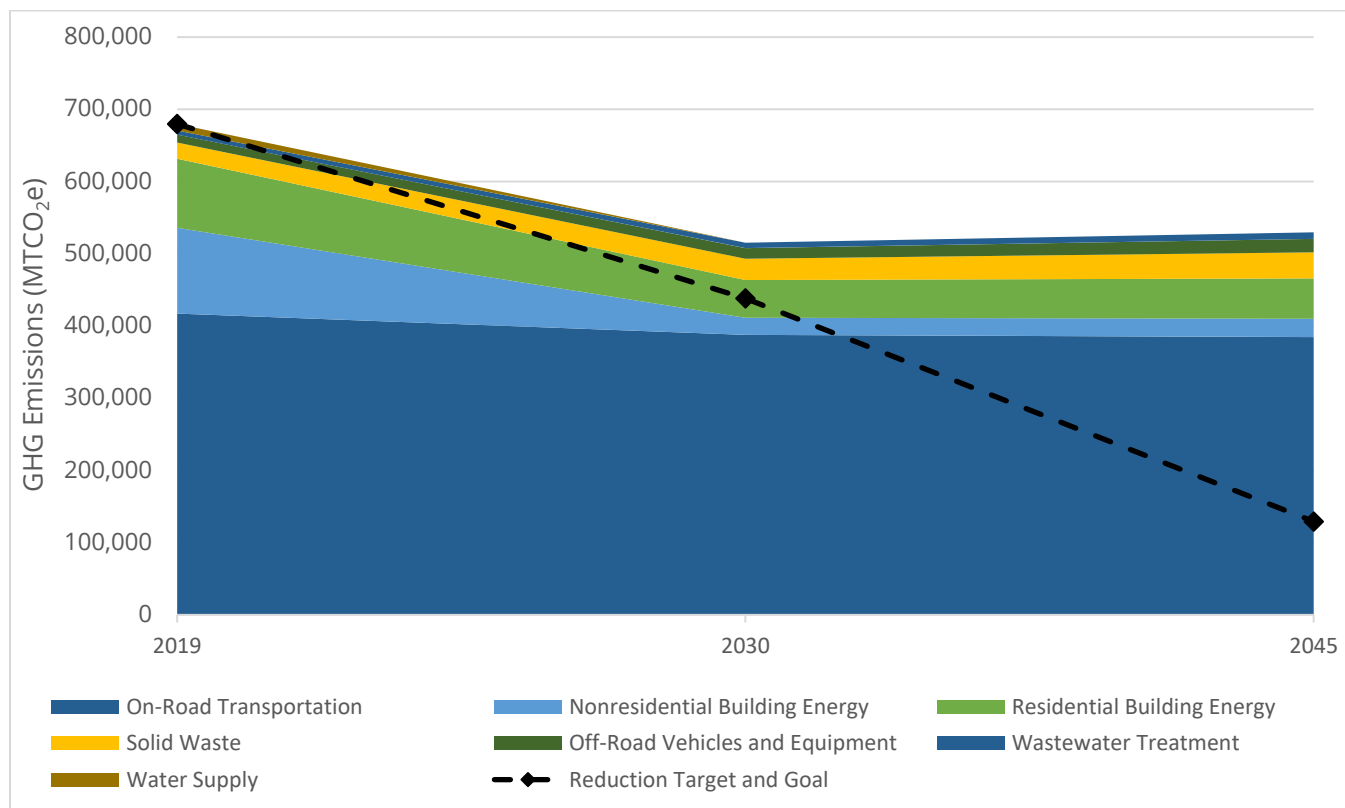
¹ Excludes agriculture, high GWP, industrial, and cap-and-trade sectors because they are not relevant to the City's inventory.

Source: CARB 2017; Ascent Environmental 2022.

Figure 3 below depicts the 2019 baseline and legislative-adjusted BAU GHG emissions forecasts by sector, as distinguished by the colored wedges. The sum of the wedges represents the anticipated annual GHG emissions each year. Each wedge shows how an emissions sector is expected to contribute to the community-wide GHG inventory over time. The black line indicates the City's GHG reduction target for 2030 and 2045 relative to the City's 2019 GHG inventory, consistent with guidance provided by CARB.

The City's 2030 GHG reduction target would be 36 percent below 2019 levels (438,283 MTCO₂e), and 81 percent below 2019 levels (129,252 MTCO₂e) by 2045. The space between the trajectory of the black line and the top of the colored wedges represents the "gap" in emissions that will need to be addressed through local actions for the City to meet its future GHG reduction targets. These emissions reductions are in addition to anticipated reductions provided

by legislative actions at the State and federal levels. Supporting information and detailed calculation results are included in Attachment A.



Source: Ascent Environmental 2022

Figure 3 Rancho Cordova Legislative-Adjusted Business-as-Usual Forecast Emissions by Sector and 2030 Emission Reduction Target and 2045 Emission Reduction Goal

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Appendix D

Greenhouse Gas Reduction Target Worksheet

2045 Goal**California GHG Emissions Inventory (by scoping plan sector)**

Included Emissions	2019
Agriculture	31.8
Commercial and	43.8
Electric Power	58.8
High GWP	20.6
Industrial	88.2
Recycling and	8.9
Transportation	166.1

Source: CARB 2021. California GHG Emissions for 2000 to 2019 (2021 Edition). <https://www.arb.ca.gov/cc/inventory/data/data.htm>

CARB Scoping Plan Emissions Targets by Sector

CARB GHG Inventory			2045 Target Ranges
Sectors	1990	2019	2022 Scoping Plan Scenario
Agriculture	26	32	14
Residential and Co	44	44	4
Electric Power	108	59	31
High GWP	3	21	9
Industrial	98	88	18
Recycling and Was	7	9	8
Transportation	152	166	10
Cap-and-Trade Program			0
CDR			-80
Natural and Worki	-7	26	-30
Total	431	444	-15

Source: California PATHWAYS Model Outputs, Energy & Environmental Economics, May 02, 2022

Natural and Working Lands data for the California Air Resources Board's 2022 Scoping Plan Update, CARB, May 10th, 2022

Applicable Emission Sectors

Emission Sectors	Applicable to Rancho Cordova?
Agriculture	No
Residential and Co	Yes
Electric Power	Yes
High GWP	No
Industrial	No
Recycling and Was	Yes
Transportation	Yes
Cap and Trade	No

GHG Reduction Targets

Milestone Year	All Sectors		Selected Sectors	
	Statewide Existing and Target Emissions (MMTCO ₂ e)	Target Percent Reduction from 2019	Statewide Existing and Target Emissions (MMTCO ₂ e)	Target Percent Reduction from 2019
1990	438	NA		
2019	418	NA	278	
2020	438	-5%	311	-12%
2045	66	85%	53	81%

Notes: CARB statewide inventory current through 2019. 2040 target interpolated between 2030 target and 2045 goal under AB32, SB32, and EO B-55-18.

Source: CARB 2021. California GHG Emissions for 2000 to 2019 (2021 Edition). <https://www.arb.ca.gov/cc/inventory/data/data.htm>

Rancho Cordova Target Emissions and Target Percent Reduction from 2019 Emissions Levels		
	Target Emissions	Target Percent Reduction from 2019
2019	679,706	--
2045	129,252	81%

2030 Target

California GHG Emissions Inventory (by scoping plan sector)

Included Emissions	2019
Agriculture	31.8
Commercial	43.8
Electric Power	58.8
High GWP	20.6
Industrial	88.2
Recycling and W	8.9
Transportation	166.1

Source: CARB 2021. California GHG Emissions for 2000 to 2019 (2021 Edition). <https://www.arb.ca.gov/cc/inventor>

CARB Scoping Plan Emissions Targets by Sector

CARB GHG Inventory			2030 Scoping Plan Range
Sectors	1990	2019	
Agriculture	26	32	24
Residential and Commercial	44	44	38
Electric Power	108	59	30
High GWP	3	21	8
Industrial	98	88	83
Recycling and W	7	9	8
Transportation	152	166	103
Cap-and-Trade	n/a	n/a	-34
Natural and Wetlands	-7		
Total	431	418	260

Source: 2017 Climate Change Scoping Plan. Table 3.

https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

Note: the Scoping Plan-reported emissions by sector reflect rounding.

Applicable Emission Sectors

Emission Sector	Applicable to Rancho Cordova?
Agriculture	No
Residential and Commercial	Yes
Electric Power	Yes
High GWP	No
Industrial	No
Recycling and W	Yes
Transportation	Yes
Cap and Trade	No

GHG Reduction Targets

All Sectors			Selected Sectors	
Milestone Year	Statewide Existing and Target Emissions (MMTCO ₂ e)	Target Percent Reduction from 2019	Statewide Existing and Target Emissions (MMTCO ₂ e)	Target Percent Reduction from 2019
1990	431	NA		
2019	418	NA	278	
2020	431	-3%	311	-12%
2030	259	38%	179	36%

Notes: CARB statewide inventory current through 2019. 2040 target interpolated between 2030 target and 2045 goal under AB32, SB32, and EO B-55-18.

Source: CARB 2021. California GHG Emissions for 2000 to 2019 (2021 Edition). <https://www.arb.ca.gov/cc/inventor>

Rancho Cordova Target Emissions and Target Percent Reduction from 2019 Emissions Levels		
	Target Emissions	Target Percent Reduction from 2019
2019	679,706	--
2030	438,283	36%

Appendix E

Greenhouse Gas Reduction Strategies and Measures Worksheet

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City of Rancho Cordova						
Communitywide Greenhouse Gas Emissions Reduction Measures Quantification Sheet						
Summary Sheet						
Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045
Getting To, From, and Around the City (On-road Transportation Sector)						
Strategy Transportation-1. Support development of walkable, interconnected neighborhoods, villages, and districts	Transportation-1.1	Enforce the City's Transportation Impact Guidelines , which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking , or using public transit	6,669	17,134	8%	6%
	Transportation-1.2	Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects	NA	NA	NA	NA
	Transportation-1.3	Improve street connectivity , for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments	NA	NA	NA	NA
	Transportation-1.4	Limit the number of drive-through businesses	NA	NA	NA	NA
Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities	Transportation-2.1	Update Bike and Pedestrian Master Plans to increase the number of low-stress bikeways and walkways that connect homes to destinations	11,536	12,755	14%	4%
	Transportation-2.2	Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals	NA	NA	NA	NA
	Transportation-2.3	Provide temporary or permanent car-free zones or "slow streets" in specified areas, for example, individual blocks or residential streets	NA	NA	NA	NA
	Transportation-2.4	Install measures to reduce vehicle speeds and calm traffic on city streets	NA	NA	NA	NA
Strategy Transportation-3. Provide transit options that are accessible, reliable, and convenient	Transportation-3.1	Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day	5,768	10,204	7%	3%
	Transportation-3.2	Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes)				
	Transportation-3.3	Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18)				
	Transportation-3.4	Expand the SmaRT Ride area and convert the shuttles to electric shuttles				
Strategy Transportation-4. Reduce drive alone vehicle trips	Transportation-4.1	Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking	3,845	6,803	5%	2%
	Transportation-4.2	Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals	NA	NA	NA	NA
	Transportation-4.3	Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals	NA	NA	NA	NA
	Transportation-4.4	Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives , and support to encourage use of transportation options other than driving alone	NA	NA	NA	NA
Strategy Transportation-5. Transition to electric and zero emission vehicles	Transportation-5.1	Install EV chargers in new residential, commercial, and industrial projects	26,997	171,334	34%	56%
	Transportation-5.2	Install publicly accessible EV chargers on existing private property				
	Transportation-5.3	Install EV chargers on public property				
	Transportation-5.4	Electrify loading docks and/or require idling-reduction systems	NA	NA	NA	NA
	Transportation-5.5	Limit new gasoline/diesel fueling stations	NA	NA	NA	NA
Using Energy in Homes and Businesses (Building Energy Sector)						
Strategy Energy-1a. Increase energy efficiency and electrification in existing residential buildings	Energy-1.1	Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking	9,667	29,002	12%	9%
Strategy Energy-1b. Increase energy efficiency and electrification in existing nonresidential buildings	Energy-1.2	Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking.	2,077	9,969	3%	3%
Strategy Energy-2a. Increase energy efficiency and electrification in new residential buildings	Energy-2.1	Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site)	1,411	5,097	2%	2%
Energy-2b. Increase energy efficiency and electrification in new nonresidential buildings	Energy-2.2	Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2)	428	1,545	0%	1%
Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)						
Strategy Offroad-1. Transition to electric and zero emissions technologies for landscaping equipment	Offroad-1.1	Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives	83	138	0%	0%
	Offroad-1.2	Convert new landscaping equipment to electric or zero-emission alternatives	46	123	0%	0%
Strategy Offroad-2. Transition to electric and zero emissions technologies for construction equipment	Offroad-2.1	Increase electrification and use of alternative fuels in construction projects	1,681	9,248	2%	3%
	Offroad-2.2	Reduce construction vehicle idling	NA	NA	NA	NA
Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)						
Strategy Water-1. Conserve water	Water-1.1	Reduce indoor water use in existing and new buildings	0	0	NA	NA
	Water-1.2	Reduce outdoor water use for landscaping and irrigation in existing and new developments	0	0	NA	NA
Strategy Solid Waste-1. Avoid disposal of organic waste in landfills	Solid Waste-1.1	Increase recovery of edible food waste	8,845	32,590	11%	11%
	Solid Waste-1.2	Eliminate disposal of organic waste in landfills (food waste, yard waste)				
Planting and Managing Trees (Carbon Sequestration Sector)						
Strategy Carbon Sequestration-1. Remove emissions from the atmosphere	Carbon Storage-1.1	Increase the number of trees in the city, through new plantings and management of existing trees	441	1,042	1%	0%
Total Reductions from City Measures			79,628	307,625		
Legislative-Adjusted BAU Forecast Emissions (without CAP measures)			515,352	529,788		
Target Percent Reduction below 2019 Levels			36%	81%		
Target Annual Emissions			438,283	129,252		
Reductions Needed to Achieve Target			77,070	400,536		
Legislative-Adjusted BAU Forecast Emissions with CAP Measures			435,724	222,163		
Gap Needed to Achieve Target*			-2559	92,911		
Percent of Target Achieved			103%	77%		

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	Quantification Approach
Getting To, From, and Around the City (On-road Transportation Sector)							
Strategy Transportation-1. Support development of walkable, interconnected neighborhoods, villages, and districts	Transportation-1.1	Enforce the City's Transportation Impact Guidelines , which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking , or using public transit	6,669	17,134	8%	6%	Assumes a 10% reduction in new passenger VMT and 15% reduction in commercial VMT by 2030, and a 15% reduction in both passenger and commercial VMT by 2045. All reductions from new VMT that would be achieved from other measures are assumed to be captured under this measure. "New VMT" refers to forecasted VMT growth between 2019 and the target years.
	Transportation-1.2	Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects	NA	NA	NA	NA	Non-quantified measure.
	Transportation-1.3	Improve street connectivity , for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments	NA	NA	NA	NA	Non-quantified measure.
	Transportation-1.4	Limit the number of drive-through businesses	NA	NA	NA	NA	Non-quantified measure.
Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities	Transportation-2.1	Update Bike and Pedestrian Master Plans to increase the number of low-stress bikeways and walkways that connect homes to destinations	11,536	12,755	14%	4%	Assumes a 6% reduction in existing (2019) passenger VMT by 2030 and 7.5% by 2045.
	Transportation-2.2	Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals	NA	NA	NA	NA	Non-quantified measure.
	Transportation-2.3	Provide temporary or permanent car-free zones or "slow streets" in specified areas, for example, individual blocks or residential streets	NA	NA	NA	NA	Non-quantified measure.
	Transportation-2.4	Install measures to reduce vehicle speeds and calm traffic on city streets	NA	NA	NA	NA	Non-quantified measure.
Strategy Transportation-3. Provide transit options that are accessible, reliable, and convenient	Transportation-3.1	Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day	5,768	10,204	7%	3%	Assumes a 3% reduction in existing (2019) passenger VMT by 2030 and 6% by 2045. Grouped all measures together based on CAPCOA transit-related measures (maximum transit-related emissions reductions from increased frequency, expanded coverage, reduced fare, rapid transit -- 15% reduction).
	Transportation-3.2	Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes)					
	Transportation-3.3	Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18)					
	Transportation-3.4	Expand the SmarT Ride area and convert the shuttles to electric shuttles					
Strategy Transportation-4. Reduce drive alone vehicle trips	Transportation-4.1	Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking	3,845	6,803	5%	2%	Assumes a 2% reduction in existing (2019) passenger VMT by 2030 and 4% by 2045.
	Transportation-4.2	Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals	NA	NA	NA	NA	Reductions captured in EV measures (Transportation-5.1 - 5.3).
	Transportation-4.3	Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals	NA	NA	NA	NA	Non-quantified measure (negligible reductions).
	Transportation-4.4	Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives , and support to encourage use of transportation options other than driving alone	NA	NA	NA	NA	Reductions from this measure are reflected in Transportation-4.1
Strategy Transportation-5. Transition to electric and zero emission vehicles	Transportation-5.1	Install EV chargers in new residential, commercial, and industrial projects	26,997	171,334	34%	56%	Quantified using EMFAC projections and statewide EV targets under the 2020 Mobile Source Strategy and AB 2172.
	Transportation-5.2	Install publicly accessible EV chargers on existing private property					
	Transportation-5.3	Install EV chargers on public property					
	Transportation-5.4	Electrify loading docks and/or require idling-reduction systems	NA	NA	NA	NA	Non-quantified measure.
	Transportation-5.5	Limit new gasoline/diesel fueling stations	NA	NA	NA	NA	Non-quantified measure.

Transportation-1.1			
Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit	2019	2030	2045
10% reduction in new project-generated VMT from implementation of the City's VMT Thresholds of Significance for Development Projects			
Annual passenger vehicle miles traveled (VMT)	705,862,131	822,688,562	1,004,017,191
New passenger VMT		116,826,431	298,155,061
Percent VMT reduction from SB 743		10%	15%
Reduced passenger VMT from SB 743		11,682,643	44,723,259
Passenger vehicle emissions factor (MTCO ₂ e/mile)		0.000272	0.000241
GHG reductions from new passenger vehicles (MTCO₂e)		3,182	10,775
Annual commercial vehicle miles traveled (VMT)	213,356,667	248,669,088	303,478,188
New commercial VMT		35,312,421	90,121,520
Percent VMT reduction from SB 743		15%	15%
Reduced commercial VMT from SB 743		5,296,863	13,518,228
Commercial vehicle emissions factor (MTCO ₂ e/mile)		0.000658	0.000470
GHG reductions from new commercial vehicles (MTCO₂e)		3,487	6,359
GHG Reductions from Transportation-1.1 (MTCO₂e)		6,669	17,134
Sources:			
City of Rancho Cordova Transportation Impact Guidelines			

Transportation-2.1

Update Bike and Pedestrian Master Plans to increase the number of low-stress bikeways and walkways that connect homes to destinations

2019

2030

2045

Increased active transportation

Annual existing passenger vehicle miles traveled (VMT)

705,862,131

705,862,131

705,862,131

Percent reduction in existing citywide passenger VMT from comprehensive active transportation improvements [1]

6.0%

7.5%

Passenger VMT reduction

42,351,728

52,939,660

Passenger vehicle emissions factor (MTCO₂e/mile)

0.000272

0.000241

GHG reductions from existing passenger vehicles (MTCO₂e)

11,536

12,755

Sources:

[1] CAPCOA. 2021. GHG Handbook. Available:

https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf.

T-18 Pedestrian Network Improvement, T-19 Bike Facility/Boulevard, and T-20 Expand Bikeway Network (maximum neighborhood design-related emissions reduction = 7.5% reduction)

Bicycle Master Plan (2016)

Develop continuous, convenient, and family friendly bikeway network.

Ensure new development extends the bike network to all neighborhoods and attractors.

Ensure adequate support facilities throughout Rancho Cordova's bicycle network.

Increase awareness of bicyclist safety and responsibility through education and enforcement of bicyclists and drivers.

Eliminate all traffic fatalities and reduce the number of bicycle related injuries by 50 percent by 2027.

Pursue innovative funding sources and partnership opportunities to enhance bicycle facilities, and provide education and encouragement opportunities.

Increase the percentage of all trips made by bicyclists from 1.1 percent to 2.2 percent in Rancho Cordova by 2021.

Establish Rancho Cordova as a destination for recreational bicycling through creation of a signature trail network and encouragement of bicycling and bicycling events.

Table 4-1: Proposed Bikeway Network Mileage by Class

Path Type	Existing	Proposed	Total
Class I Paths	13.9	77	90.9
Class II Bike Lanes	14.7	12.5	27.2
Class III Bike Routes	2.4	3.2	5.6
Class III Bike Boulevards	0	14.5	14.5
Class IV Protected Bikeways	0	3.6	3.6
Total	31	110.8	141.8

<https://www.cityofranchocordova.org/home/showpublisheddocument/11416/635996042085130000>

Transportation-3.1, Transportation-3.2, Transportation-3.3, Transportation-3.4			
Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day. Implement Transit-Supportive Roadway Treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lane). Provide discounted or fare-free bus service (could be citywide or targeted to specific areas and/or populations, e.g., youth under 18). Expand the SmarT Ride area and convert the shuttles to electric shuttles	2019	2030	2045
Comprehensive transit system improvements			
Annual existing passenger vehicle miles traveled (VMT)	705,862,131	705,862,131	705,862,131
Percent reduction in existing citywide passenger VMT from comprehensive transit improvements [1] [2] [3]		3.0%	6.0%
Passenger VMT reduction		21,175,864	42,351,728
Passenger vehicle emissions factor (MTCO2e/mile)		0.000272	0.000241
GHG reductions from existing passenger vehicles (MTCO2e)		5,768	10,204
Sources:			
[1] Mozingo. 2021. Zero-Carbon Buildings in California: A Feasibility Study. The Center for Resource Efficient Communities and the Center for the Built Environment, UC Berkeley. (5.8% to 14.8% reduction)			
[2] CAPCOA. 2021. GHG Handbook. Available: https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf . T-25 Extend Coverage/Hours, T-26 Increase Frequency, T-27 Roadway Treatments, T-28 Rapid Transit, and T-29: Reduce Transit Fares (maximum transit-related emissions reduction = 15% reduction)			
[3] Handy, S. et al. (2013). Impacts of Transit Service Strategies on Passenger Vehicle Use and Greenhouse Gas Emissions - Policy Brief and Technical Background Document. California Air Resources Board. Retrieved from: https://arb.ca.gov/cc/sb375/policies/policies.htm . (0.5% to 10.5% reduction)			

Transportation-4.1			
Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking	2019	2030	2045
Passenger VMT reductions from CTR Program			
Annual existing passenger vehicle miles traveled (VMT)	705,862,131	705,862,131	705,862,131
Percent reduction in existing citywide passenger VMT from CTR Program (voluntary and mandatory programs estimated 4% and 26%) [1]		2.0%	4.0%
Passenger VMT reduction		14,117,243	28,234,485
Passenger vehicle emissions factor (MTCO2e/mile)		0.000272	0.000241
GHG reductions from existing passenger vehicles (MTCO2e)		3,845	6,803
Sources:			
[1] CAPCOA. 2021. GHG Handbook. Available: https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf . TR-5 Implement Voluntary CTR Program and TR-6 Implement Mandatory CTR Program. (Note: Scale of Application for these measure is Project/Site, with a reduction of 4-26%. Maximum reduction for Plan/Community is 2.3%.)			

Transportation-5.1, Transportation-5.2, Transportation-5.3			
Install EV chargers in new residential, commercial, and industrial projects; Install publicly accessible EV chargers on existing private property; Install EV chargers on public property	2019	2030	2045
Statewide Light-Duty EV Forecasts and Targets			
Statewide Light Duty Population [1]	26,905,738	27,823,204	30,102,489
Statewide Light Duty EV population [1]	301,382	1,413,449	2,333,152
Statewide Light Duty EV Population Target under EO N-79-20 (5 million baseline scenario, 8 million high scenario) [2]		5,000,000	25,587,116
Target Percent EVs in Passenger Vehicles Statewide		18%	85%
Target Percent EVs in Passenger Vehicles for Rancho Cordova		18%	85%
EMFAC2021 Forecasts			
Light Duty eVMT in Sacramento County [1]		757,645,077	1,174,264,221
Light Duty VMT in Sacramento County [1]		13,097,501,302	14,315,240,607
Percent eVMT in Sacramento County		5.8%	8.2%
Forecasted eVMT in Rancho Cordova			
Rancho Cordova Passenger VMT after reduction from other measures		733,361,084	835,768,059
Forecasted eVMT in Rancho Cordova		42,422,398	68,557,180
Target eVMT in Rancho Cordova		131,789,474	710,402,850
Additional eVMT needed to meet State Targets		89,367,076	641,845,670
Additional GHG emissions from EV charger use			
Additional eVMT needed to meet State Targets		89,367,076	641,845,670
Average Efficiency of EV LDV (kWh/100-mi) [3]		34	34
Charged amount (kWh)		3,005,236,404	21,583,988,989
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Additional GHG emissions from EVs (MTCO ₂ e)		-	-
Emissions from Equivalent Gasoline/Diesel Vehicles			
Additional eVMT needed to meet State Targets		89,367,076	641,845,670
Avg emissions factor for non-electric light-duty vehicles (MTCO ₂ e/mi)		0.000302089	0.000266939
Equivalent GHG emissions avoided from increased EV chargers (MTCO ₂ e)		26,997	171,334
Sources:			
[1] EMFAC 2021. (Note: EMFAC 2021 does not account for statewide EV targets under EO N-79-20.)			
[2] Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment (Staff Report). January 2021.			
[3] https://www.driveclean.ca.gov/pev/Charging.php			
Notes			
16 public charging stations (https://chargehub.com/en/countries/united-states/california/rancho-cordova.html)			
70 total stations (https://www.plugshare.com/directory/us/california/rancho-cordova)			
	2019	2030	2045
Rancho Cordova Passenger VMT	705,862,131	822,688,562	1,004,017,191
Sac County Passenger VMT (EMFAC)	11,549,499,458	13,097,501,302	14,315,240,607
Percent Rancho Cordova	6.11%	6.28%	7.01%
Sac County Increase in EV Population Needed		202,817	1,073,091
Rancho Cordova EV Population Needed		12,739	75,263
Rancho Cordova Existing EVs		500	500
Statewide Chargers Needed to Support 5mil ZEV by 2030		755,157	
Statewide Chargers Needed to Support 8mil ZEV by 2030		1,228,880	
Percent Difference		163%	
Sacramento County Chargers Needed to Support 8mil ZEV by 2030		39,633	
Sacramento County Chargers Needed to Support 5mil ZEV by 2030		24,355	
Rancho Cordova Chargers Needed to Support 5mil ZEV by 2030		1,530	

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	Quantification Approach
Using Energy in Homes and Businesses (Building Energy Sector)							
Strategy Energy-1a. Increase energy efficiency and electrification in existing residential buildings	Energy-1.1	Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking	9,667	29,002	12%	9%	Assumes a 20% reduction in existing residential natural gas by 2030 and 60% reduction by 2045.
Strategy Energy-1b. Increase energy efficiency and electrification in existing nonresidential buildings	Energy-1.2	Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking.	2,077	9,969	3%	3%	Assumes a 13% reduction in existing nonresidential natural gas by 2030 amd 48% reduction by 2045.
Strategy Energy-2a. Increase energy efficiency and electrification in new residential buildings	Energy-2.1	Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site)	1,411	5,097	2%	2%	Assumes a 100% reduction in new residential natural gas starting in 2026.
Energy-2b Increase energy efficiency and electrification in new nonresidential buildings	Energy-2.2	Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2)	428	1,545	0%	1%	CAL Green Tier 2: 30% reduction in new nonresidential energy use starting in 2026.

Energy-1.1			
Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking	2019	2030	2045
Electrification in existing residential buildings			
Existing residential buildings natural gas usage (therms)	9,082,624	9,082,624	9,082,624
Target electrification rate for existing residential buildings (natural gas) [1]		20%	60%
Reduced natural gas usage (therms)		1,816,525	5,449,574
Natural gas emissions factor (MTCO ₂ e/therm)		0.005322	0.005322
GHG reductions from existing residential buildings natural gas savings (MTCO₂e)		9,667	29,002
Additional electricity use and emissions			
Assumed average efficiency of natural gas heating [2] [3]		78%	78%
Assumed average efficiency of electric heating [4]		100%	100%
kWh per therm conversion		29.3	29.3
Total therms offset from natural gas heating use (therms)		1,816,525	9,082,624
Total electricity needed to offset natural gas heating (MWh)		41,515	207,574
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Additional GHG emissions from electricity use (MTCO ₂ e)		0	0
GHG Reductions from Energy-1.1 (MTCO₂e)		9,667	29,002
Sources:			
[1] Mazingo. 2021. Zero-Carbon Buildings in California: A Feasibility Study. Available: https://crec.berkeley.edu/uploads/16RD004_CRECE_ZCB_Final_Report_w__Appendices_(1).pdf			
[2] https://www.energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_new_gas_technologies.pdf			
[3] https://www.aceee.org/sites/default/files/publications/researchreports/a1602.pdf			
[4] U.S. DOE. 2021. Electric Resistance Heating. Available: https://www.energy.gov/energysaver/home-heating-systems/electric-resistance-heating#:~:text=Electric%20resistance%20heating%20is%20100,the%20fuel's%20energy%20into%20electricity.			
Total Housing Units	20,000		
Percent retrofitted by 2030	4000		
Percent retrofitted by 2045	12000		

Energy-1.2			
Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking.	2019	2030	2045
Electrification in existing nonresidential buildings			
Existing nonresidential buildings natural gas usage (therms)	3,902,601	3,902,601	3,902,601
Target electrification rate for existing nonresidential buildings (natural gas) [1]		10%	48%
Reduced natural gas usage (therms)		390,260	1,873,248
Natural gas emissions factor (MTCO ₂ e/therm)		0.005322	0.005322
GHG reductions from existing nonresidential buildings natural gas savings (MTCO₂e)		2,077	9,969
Additional electricity use and emissions			
Assumed average efficiency of natural gas heating [2] [3]		78%	78%
Assumed average efficiency of electric heating [4]		100%	100%
kWh per therm conversion		29.3	29.3
Total therms offset from natural gas heating use (therms)		390,260	3,902,601
Total electricity needed to offset natural gas heating (MWh)		8,919	89,190
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Additional GHG emissions from electricity use (MTCO ₂ e)		0	0
GHG Reductions from Energy-1.2 (MTCO₂e)		2,077	9,969
Sources:			
[1] Mozingo. 2021. Zero-Carbon Buildings in California: A Feasibility Study. Available: https://crec.berkeley.edu/uploads/16RD004_CRECE_ZCB_Final_Report_w_Appendices_(1).pdf			
[2] https://www.energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_new_gas_technologies.pdf			
[3] https://www.aceee.org/sites/default/files/publications/researchreports/a1602.pdf			
[4] U.S. DOE. 2021. Electric Resistance Heating. Available: https://www.energy.gov/energysaver/home-heating-systems/electric-resistance-heating#:~:text=Electric%20resistance%20heating%20is%20100,the%20fuel's%20energy%20into%20electricity.			

Energy-2.1				
Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site)	2019	2026	2030	2045
All-electric new residential development				
Annual residential natural gas usage with legislative reductions (therms)	9,082,624	9,546,705	9,811,893	10,504,366
New natural gas usage (therms)		464,081	729,269	1,421,742
Reduced residential natural gas usage from all-electric new residential development starting in 2026 (therms)			265,189	957,662
Natural gas emissions factor (MTCO ₂ e/therm)			0.005322	0.005322
GHG reductions from new residential buildings natural gas savings (MTCO₂e)			1,411	5,097
Additional electricity use and emissions				
Assumed average efficiency of natural gas heating [1] [2]			78%	78%
Assumed average efficiency of electric heating [3]			100%	100%
kWh per therm conversion			29.3	29.3
Total therms offset from natural gas heating use (therms)			265,189	10,504,366
Total electricity needed to offset natural gas heating (MWh)			6,061	240,067
Electricity emissions factor (MTCO ₂ e/MWh)			0	0
Additional GHG emissions from electricity use (MTCO ₂ e)			0	0
GHG Reductions from Energy-2.1 (MTCO₂e)			1,411	5,097
Sources:				
[1] https://www.energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_new_gas_technologies.pdf				
[2] https://www.aceee.org/sites/default/files/publications/researchreports/a1602.pdf				
[3] U.S. DOE. 2021. Electric Resistance Heating. Available: https://www.energy.gov/energysaver/home-heating-systems/electric-resistance-heating#:~:text=Electric%20resistance%20heating%20is%20100,the%20fuel's%20energy%20into%20electricity.				

Energy-2.2				
Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2)	2019	2026	2030	2045
Efficient new nonresidential development - CAL Green Tier 2				
Annual nonresidential natural gas usage with legislative reductions (therms)	9,082,624	9,546,705	9,811,893	10,504,366
New natural gas usage (therms)		464,081	729,269	1,421,742
Annual nonresidential electricity usage with legislative reductions (kWh)	416,664,459	439,785,444	452,997,435	486,192,548
New electricity usage (kWh)		23,120,985	36,332,976	69,528,089
Annual nonresidential diesel usage with legislative reductions (gal)	92,209	97,326	100,250	107,596
New diesel usage (gal)		5,117	8,041	15,387
Reduction in new energy use from CAL Green Tier 2 compared to Title 24			30%	30%
Reduced natural gas usage from new nonresidential development starting in <u>2026</u> (therms)			79,557	287,299
Reduced electricity usage from new nonresidential development starting in <u>2026</u> (therms)			1,981,799	6,961,066
Reduced diesel usage from new nonresidential development starting in <u>2026</u> (therms)			439	1,541
Natural gas emissions factor (MTCO2e/therm)			0.005322	0.005322
Electricity emissions factor (MTCO2e/MWh)			0	0
Diesel emissions factor (MTCO2e/gal)			0.010229	0.010229
GHG reductions from new nonresidential buildings energy savings (MTCO2e)			428	1,545
Additional electricity use and emissions				
Assumed average efficiency of natural gas heating [1] [2]			78%	78%
Assumed average efficiency of electric heating [3]			100%	100%
kWh per therm conversion			29.3	29.3
Total therms offset from natural gas heating use (therms)			79,557	10,504,366
Total electricity needed to offset natural gas heating (MWh)			1,818	240,067
Electricity emissions factor (MTCO2e/MWh)			0	0
Additional GHG emissions from electricity use (MTCO2e)			0	0
GHG Reductions from Additional GHG emissions from electricity use (MTCO2e) (MTCO2e)			428	1,545
Sources:				
[1] https://www.energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_new_gas_technologies.pdf				
[2] https://www.aceee.org/sites/default/files/publications/researchreports/a1602.pdf				
[3] U.S. DOE. 2021. Electric Resistance Heating. Available: https://www.energy.gov/energysaver/home-heating-systems/electric-resistance-				

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	Quantification Approach
Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)							
Strategy Offroad-1. Transition to electric and zero emissions technologies for landscaping equipment	Offroad-1.1	Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives	83	138	0%	0%	Assumes a 30% electrification rate of existing fossil fuel landscaping equipment by 2030, and 100% by 2045. Assumes a 30% renewable diesel/alternative fuels conversion rate by 2030.
	Offroad-1.2	Convert new landscaping equipment to electric or zero-emission alternatives	46	123	0%	0%	Assumes 100% of new landscaping equipment are zero-emission by 2024. Consistent with CARB's SORE regulations.
Strategy Offroad-2. Transition to electric and zero emissions technologies for construction equipment	Offroad-2.1	Increase electrification and use of alternative fuels in construction projects	1,681	9,248	2%	3%	Assumes a 10% electrification rate of existing fossil fuel construction equipment by 2030, and 50% by 2045. Assumes a 10% renewable diesel/alternative fuels conversion rate by 2030, and 40% by 2045. Assumes a 10% reduction in diesel generator use by 2030 and a 60% reduction by 2045.
	Offroad-2.2	Reduce construction vehicle idling	NA	NA	NA	NA	Non-quantified measure.

Offroad-1.1			
Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives	2019	2030	2045
Electric landscaping equipment			
Existing landscaping equipment emissions (MTCO ₂ e)	138	138	138
Target electrification rate for existing landscaping equipment [1]		30%	100%
Reduced landscaping emissions (MTCO ₂ e)		41	138
GHG reductions from electric landscaping equipment (MTCO₂e)		41	138
Renewable diesel or other alternative fuels landscaping equipment			
Existing landscaping equipment emissions (MTCO ₂ e)	138	138	138
Target renewable diesel/alternative fuels rate for existing landscaping equipment [1]		30%	0%
Reduced landscaping emissions (MTCO ₂ e)		41	0
GHG reductions from renewable diesel landscaping equipment (MTCO₂e)		41	-
GHG Reductions from Offroad-1.1 (MTCO₂e)		83	138
Sources:			
[1] California Air Resources Board. 2021. 2021 SORE Rulemaking Staff Report. Available: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/sore21/isor.pdf			

Offroad-1.2				
Convert new landscaping equipment to electric or zero-emission alternatives	2019	2023	2030	2045
Zero-emission new landscaping equipment starting in 2024				
Landscaping equipment emissions (MTCO2e)	138	164	211	287
New landscaping equipment emissions (MTCO2e)		26	73	150
New landscaping equipment emissions starting in 2024 (MTCO2e)			46	123
Percent of new landscaping equipment that is zero-emission [1]			100%	100%
Reduced landscaping emissions (MTCO2e)			46	123
GHG Reductions from Offroad-1.2 (MTCO2e)			46	123
Sources:				
[1] California Air Resources Board. 2021. CARB approves updated regulations requiring most new small off-road engines be zero emission by 2024. Available: https://ww2.arb.ca.gov/news/carb-approves-updated-regulations-requiring-most-new-small-road-engines-be-zero-emission-2024				

Offroad-2.1			
	2019	2030	2045
Increase electrification and use of altertive fuels in construction projects			
Electric construction equipment			
Construction emissions (MTCO2e)	5,350	7,500	9,675
Target electrification rate for construction equipment		10%	50%
Reduced construction equipment emissions (MTCO2e)		750	4,837
GHG reductions from electric construction equipment (MTCO2e)		750	4,837
Alternatively fueled construction equipment			
Construction emissions (MTCO2e)	5,350	7,500	9,675
Target renewable diesel or other alternative fuels rate for construction equipment		10%	40%
Reduced construction equipment emissions (MTCO2e)		750	3,870
GHG reductions from alternatively fueled construction equipment (MTCO2e)		750	3,870
Renewable diesel and other clean generator alternatives			
Dwelling Units	28,926	38,574	47,780
Employees	61,991	73,604	84,213
SQFT per employee (for average office space)	200	200	200
Total Commercial Office SQFT	12,398,275	14,720,777	16,842,698
CalEEMod Results for Construction-related generators used to construct new single family homes and commercial office space			
CalEEMod Inputs	2019-2030	2030-2045	
Single Family Homes (Dwelling Unit)		9,648	9,206
Office Park (sqft)		2,322,502	2,121,921
Adjusted down to account for 33 acre limitation in CalEEMod 2020.4.0			
Single Family Homes (Dwelling Unit)		102	97
Office Park (sqft)		24,447	22,336
Adjustment Factor		95	95
Total Reported Construction Generator Emissions (MTCO2e)		209	142
Annual Reported Construction Generators Emissions (MTCO2e)		19	9
Readjusted Annual Construction Generator Emissions (MTCO2e)		1,808	901
Target reduction in diesel generator use from renewable diesel or other clean alternatives		10%	60%
GHG reductions from renewable diesel or other clean generators (MTCO2e)		181	541
GHG Reductions from Offroad-2.1 (MTCO2e)		1,681	9,248
Sources:			
[1] CAPCOA. 2021. GHG Handbook. Available: https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf . C-1-A Use Electric or Hybrid Powered Equipment and C-1-B Use Cleaner-Fuel Equipment			
[2] CARB OFFROAD 2021 (Sacramento County 2019)			

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	Quantification Approach
Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)							
Strategy Solid Waste-1. Avoid disposal of organic waste in landfills	Solid Waste-1.1	Increase recovery of edible food waste	8,845	32,590	11%	11%	Assumes a 30% reduction in landfill disposed waste compared to 2019 by 2030, and a 90% reduction by 2045.
	Solid Waste-1.2	Eliminate disposal of organic waste in landfills (food waste, yard waste)					

Solid Waste-1.1, Solid Waste-1.2			
Increase recovery of edible food waste; Elimite disposal of organic waste in landfills (food waste, yard waste)	2019	2030	2045
Achieve Zero Waste (i.e., 90% reduction below 2019 levels) by 2045			
Solid waste emissions (MTCO2e)	22,397	29,483	36,211
Percent reduction in landfill disposed waste compared to 2019		30%	90%
Reduced solid waste emissions (MTCO2e)		8,845	32,590
GHG Reductions from Solid Waste-1.1, Solid Waste-1.2 (MTCO2e)		8,845	32,590
Sources:			
Senate Bill 1383			
	2030	2045	
Tons of waste	78,276	96,139	
Reduced tons of waste	23,483	86,525	

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	Quantification Approach
Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)							
Strategy Water-1. Conserve water	Water-1.1	Reduce indoor water use in existing and new buildings	0	0	NA	NA	Annual reduction of 15,000 acre-feet (AF) of indoor water usage by 2030 and 28,000 AF by 2045.
	Water-1.2	Reduce outdoor water use for landscaping and irrigation in existing and new developments	0	0	NA	NA	Annual reduction of 15,000 AF of outdoor water usage by 2030 and 29,000 AF by 2045.

Water-1.1			
Reduce indoor water use in existing and new buildings	2019	2030	2045
Water use reduction in existing buildings			
Total existing water use (AF)	65,645	65,645	65,645
Total existing water-related electricity use (MWh)	38,926	38,926	38,926
Assumed percentage of indoor water use [1] [2]	60%	60%	60%
Indoor water use in existing buildings (AF)	39,387	39,387	39,387
Indoor water-related electricity use in existing buildings (MWh)	23,355	23,355	23,355
Percent reduction in indoor water use in existing buildings [1] [2] [3]		25%	40%
Reduction in indoor water use in existing buildings (AF)		9,847	15,755
Reduction in indoor water-related electricity use in existing buildings (MWh)		5,839	9,342
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Reduced indoor water emissions from existing buildings (MTCO ₂ e)		0	0
Water use reduction in new buildings			
Total water use (AF)	65,645	86,412	106,132
Total water-related electricity use (MWh)	38,926	51,240	62,934
Total water use in new buildings (AF)		20,767	40,487
Total water-related electricity use in new buildings (MWh)		12,315	24,008
Assumed percentage of indoor water use [1] [2]	60%	60%	60%
Indoor water use in new buildings (AF)		12,460	24,292
Indoor water-related electricity use in new buildings (MWh)		7,389	14,405
Percent reduction in indoor water use in new buildings [1] [2] [3] [4]		40%	50%
Reduction in indoor water use in new buildings (AF)		4,984	12,146
Reduction in indoor water-related electricity use in new buildings (MWh)		2,956	7,202
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Reduced indoor water emissions from new buildings (MTCO ₂ e)		0	0
GHG Reductions from Water-1.1 (MTCO₂e)		0	0
Sources:			
[1] Pacific Institute and Natural Resources Defense Council. 2014. Urban Water Conservation and Efficiency Potential in California. Available: https://pacinst.org/wp-content/uploads/2014/06/ca-water-urban.pdf			

[2] U.S. Environmental Protection Agency. 2022. WaterSense - Statistics and Facts. Available: <https://www.epa.gov/watersense/statistics-and-facts>

[3] CAPCOA. 2010. Quantifying Greenhouse Gas Mitigation Measures. WUW-1. Available: <http://www.capcoa.org/wp-content/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf>

WUW-1: 20% for residential and 31% for nonresidential low-flow fixtures. Assuming increase for ultra-low-flow, especially in new development

[4] U.S. Environmental Protection Agency. 2017. Water-Smart Landscapes -Start with WaterSense. Available: <https://www.epa.gov/sites/default/files/2017-01/documents/ws-outdoor-water-efficient-landscaping.pdf>

Water-1.2			
Reduce outdoor water use for landscaping and irrigation in existing and new developments	2019	2030	2045
Outdoor water use reduction in existing buildings			
Total existing water use (AF)	65,645	65,645	65,645
Total existing water-related electricity use (MWh)	38,926	38,926	38,926
Assumed percentage of outdoor water use [1] [2]	40%	40%	40%
Outdoor water use in existing buildings (AF)	26,258	26,258	26,258
Outdoor water-related electricity use in existing buildings (MWh)	15,570	15,570	15,570
Percent reduction in outdoor water use in existing buildings [1] [2] [3] [4]		40%	60%
Reduction in outdoor water use in existing buildings (AF)		10,503	15,755
Reduction in outdoor water-related electricity use in existing buildings (MWh)		6,228	9,342
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Reduced outdoor water emissions from existing buildings (MTCO ₂ e)		0	0
Outdoor water use reduction in new buildings			
Total water use (AF)	65,645	86,412	106,132
Total water-related electricity use (MWh)	38,926	51,240	62,934
Total water use in new buildings (AF)		20,767	40,487
Total water-related electricity use in new buildings (MWh)		12,315	24,008
Assumed percentage of outdoor water use [1] [2]	40%	40%	40%
Outdoor water use in new buildings (AF)		8,307	16,195
Outdoor water-related electricity use in new buildings (MWh)		4,926	9,603
Percent reduction in outdoor water use in new buildings [1] [2] [3] [4]		50%	80%
Reduction in outdoor water use in new buildings (AF)		4,153	12,956
Reduction in outdoor water-related electricity use in new buildings (MWh)		2,463	7,683
Electricity emissions factor (MTCO ₂ e/MWh)		0	0
Reduced outdoor water emissions from new buildings (MTCO ₂ e)		0	0
GHG Reductions from Water-1.2 (MTCO₂e)		0	0
Sources:			
[1] Pacific Institute and Natural Resources Defense Council. 2014. Urban Water Conservation and Efficiency Potential in California. Available: https://pacinst.org/wp-content/uploads/2014/06/ca-water-urban.pdf			
[2] U.S. Environmental Protection Agency. 2022. WaterSense - Statistics and Facts. Available: https://www.epa.gov/watersense/statistics-and-facts			
[3] CAPCOA. 2010. Quantifying Greenhouse Gas Mitigation Measures. WUW-2 through WUW-6. Available: http://www.capcoa.org/wp-content/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf			
[4] U.S. Environmental Protection Agency. 2017. Water-Smart Landscapes -Start with WaterSense. Available: https://www.epa.gov/sites/default/files/2017-01/documents/ws-outdoor-water-efficient-landscaping.pdf			

Strategy Code and Title	Measure Code	Measure Title	GHG Reduction Potential in 2030 (MTCO2e)	GHG Reduction Potential in 2045 (MTCO2e)	Percent of Total Reductions in 2030	Percent of Total Reductions in 2045	
Planting and Managing Trees (Carbon Sequestration Sector)							
Strategy Carbon Sequestration-1. Remove emissions from the atmosphere	Carbon Storage-1.1	Increase the number of trees in the city, through new plantings and management of existing trees	441	1,042	1%	0%	Assumed 750 new residential trees and 750 new City-managed trees planted every year. Used existing (2019) tree inventory and carbon sequestration data from the City's 2022 Urban Forest Master Plan.

Carbon Storage-1.1			
Increase the number of trees in the city, through new plantings and management of existing trees	2019	2030	2045
Planting new trees			
Existing trees [1]	3,910		
Annual carbon sequestration from existing trees (metric tons carbon/year) [1]	29		
Conversion factor for carbon to carbon dioxide (ratio of molecular weights = 44/12)	3.67		
Annual carbon sequestration per tree (MTCO2e/tree/year)	0.02673		
New residential trees per year [1]	750		
New City-managed trees per year [1]	750		
Total new trees [1]		16,500	39,000
Increased carbon sequestration from new trees (MTCO2e)		441	1,042
GHG Reductions from Carbon Storage-1.1 (MTCO2e)		441	1,042
Sources:			
[1] City of Rancho Cordova. 2022. Rancho Cordova Urban Forest Master Plan. Available: https://www.cityofranchocordova.org/home/showpublisheddocument/18231/637880482211700000			

Appendix F

Vulnerability Assessment (Technical Memorandum)



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Date: October 11, 2021
To: Stefan Heisler
From: Kai Lord-Farmer, Dan Krekelberg, and Honey Walters (Ascent Environmental)
Subject: City of Rancho Cordova Climate Action Plan - Vulnerability Assessment

1 INTRODUCTION

Global climate change is projected to exacerbate the impacts of certain hazards that the City of Rancho Cordova (City) is already exposed to under current conditions. These hazards include indirect impacts from wildfires and effects on air quality, extreme heat, heat wave events, long-term drought, and flooding. While many of these hazards have existed historically for the City, the frequency and intensity of these hazards will increase as a result of global climate change. This Vulnerability Assessment (VA) serves to identify and analyze impacts of climate change that will most directly affect the City. The VA includes a climate change vulnerability assessment and serves to inform development of adaptation strategies by analyzing the City's exposure to existing hazards, sensitivity to these hazards, potential climate-related impacts from these hazards, and the City's existing capacity to prepare and adapt for these impacts, known as adaptive capacity.

1.1 CLIMATE CHANGE MITIGATION AND ADAPTATION

The effects of climate change are already being experienced today. The combustion of fossil fuels, among other human activities, since the Industrial Revolution in the 19th century has introduced greenhouse gases (GHGs) into the atmosphere at an accelerated pace, intensifying the greenhouse effect and leading to a trend of warming of the Earth's climate, known as global climate change or global warming. Climate change has more recently become a priority on an international, national, and local scale as recent climate data reveal more extreme weather patterns, increased average global temperatures, and the rapid melting of the Earth's Arctic and Antarctic poles and glaciers.

The Intergovernmental Panel on Climate Change (IPCC), the international body charged with compiling and interpreting the data surrounding climate change, estimates that global average temperatures will increase by 3.7 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014). A more recent IPCC report indicates that average global temperatures will likely increase by 1.5 °C (2.7 °F) between 2030 and 2052 if global GHG emissions continue their current rate (IPCC 2018). There is consensus among the scientific community that a 1.5 °C (2.7 °F) rise in global temperatures will likely cause catastrophic environmental disasters in certain locations including extreme heat, sea-level rise, and more severe and damaging precipitation events. These changes to Earth's climate would contribute to more frequent storms and flooding, the displacement of coastal and tropical populations, food and water insecurity, catastrophic wildfire events, economic hardships, loss of biological resources, increased spread of vector-borne diseases, and degraded ambient air quality (IPCC 2018).

In August 2021, IPCC released the Six Assessment report which assess scientific, technical, and socio-economic information concerning climate change. In this report, the IPCC states that observed increases in GHG concentrations in the atmosphere since around the year 1750 are unequivocally caused by human activities. As a result, Each of the last four decades has been successively warmer than any decade that preceded it since 1850 (IPCC 2021). The findings of highlight key new insights into the importance of global climate tipping points, thresholds in the global climate (e.g., global temperatures) that, when exceeded, can lead to large changes in the state of the climate system with one impact rapidly leading to a series of cascading events.

The Six Assessment report contain the body's strongest warnings yet on the causes and impacts of climate change. Importantly, the report notes that, in terms of solutions, "We need transformational change operating on processes and behaviors at all levels: individual, communities, business, institutions and governments. We must redefine our way of life and consumption (IPCC 2021)."

Efforts that focus on reducing the sources of climate change are termed climate change mitigation, GHG mitigation, or climate action. Efforts to reduce harm from the effects of a changing climate, are referred to as climate adaptation and resilience. Figure 1 illustrates the relationship between these two approaches. State law requires communities to address climate change mitigation in local planning and environmental review processes and climate adaptation in local long-range planning processes, such as general plans (CalOES 2020). Included below is a summary of the State requirements to address climate adaptation as part of the local planning process.

- ▶ **Senate Bill 379** – This bill requires all cities and counties to include climate adaptation and resiliency strategies in the next update of their General Plans beginning January 1, 2017. The update must include:
 - A vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts;
 - A set of adaptation and resilience goals, policies, and objectives based on the information specified in the climate vulnerability assessment for the protection of the community; and
 - A set of feasible implementation measures designed to carry out the goals, policies, and objectives identified pursuant to the adaptation objectives
- ▶ **Assembly Bill 747** – Requires the safety elements for cities and counties to be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios upon the next revision of a local hazard mitigation plan on or after January 1, 2022, or beginning on or before January 1, 2022 if a local jurisdiction has not adopted a local hazard mitigation plan.
- ▶ **Senate Bill 99** - This bill requires cities and counties, upon the next revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least 2 emergency evacuation routes.
- ▶ **Senate Bill 1035** – This bill requires cities and counties to revise the safety element upon each revision of the housing element or local hazard mitigation plan, but not less than once every 8 years, to identify new information relating to flood and fire hazards and climate adaptation and resiliency strategies applicable to the city or county that was not available during the previous revision of the safety element.



Source: CalOES 2020, adapted by Ascent Environmental in 2021.

Figure 1 Relationship Between Climate Mitigation and Adaptation

1.2 GUIDANCE DOCUMENTS

This section provides a summary of the guidance documents and resources that were used to help develop the VA.

California Adaptation Planning Guide

The most recent version of the California Adaptation Planning Guide (APG) was released in March 2020. This guidance builds upon the first iteration of the APG released in 2012. The APG was developed by the California Office of Emergency Services (CalOES) and California Natural Resources Agency (CNRA). The APG provides guidance to local governments for adaptation and climate change resiliency planning. The APG includes a step-by-step process that communities may use to help plan for the impacts of climate change. The APG is designed to be flexible and guide communities through an adaptation planning process that is best suited for their needs (CalOES 2020).

California's Fourth Climate Assessment

CNRA, the Governor's Office of Planning and Research (OPR), and the California Energy Commission (CEC) prepared California's Fourth Climate Change Assessment (Climate Assessment) in 2018. The Climate Assessment was designed to address critical information gaps that decisionmakers at the State, regional, and local levels need to close to protect and build the resilience of people, infrastructure, natural systems, working lands, and waterways from climate-related impacts. The Climate Assessment also includes regional reports which analyze and discuss the impacts to

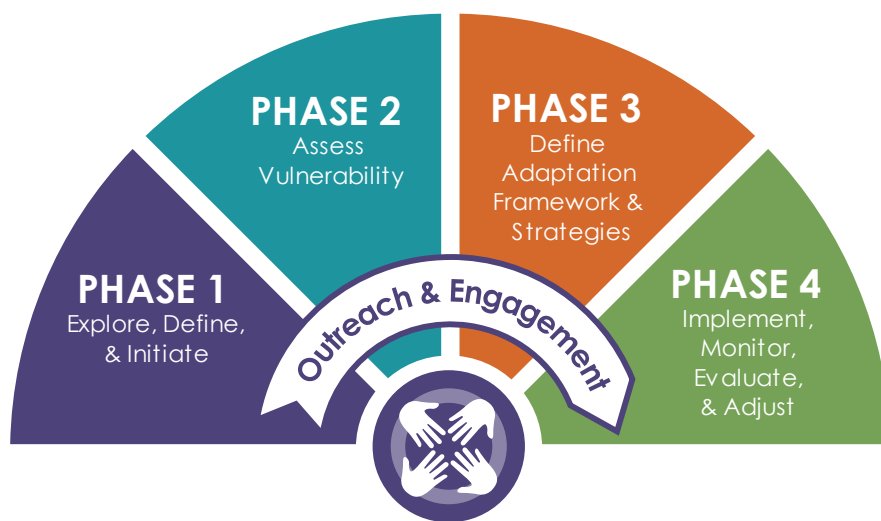
specific regions in the state. The regional report for the City and County is the California's Fourth Climate Change Assessment Sacramento Valley Region Report (Regional Report). The Climate Assessment and Regional Report are referenced throughout this VA to provide information regarding regional climate change impacts.

Safeguarding California Plan

Alongside the update to the Climate Assessment, CNRA released the Safeguarding California Plan in 2018 which provides a roadmap for State government action to build climate resilience. The Safeguarding California Plan identifies actions the State government will take to protect communities, infrastructure, services, and the natural environment from climate change impacts and includes strategies for use as local examples for climate adaptation.

1.3 ADAPTATION PLANNING PROCESS

The APG provides guidance for communities throughout the state in planning for and adapting to the impacts of climate change. The APG includes a four-phase process, illustrated in Figure 2 which allows communities to assess their specific climate vulnerabilities and provides guidance on developing strategies to reduce climate change-related risks and prepare for current and future impacts of climate change.



Source: CalOES 2020, adapted by Ascent Environmental in 2021.

Figure 2 **Adaptation Planning Process**

- ▶ **Phase 1, "Explore, Define, and Initiate,"** includes scoping and defining the adaptation planning effort. Phase 1 also involves identifying key roles and stakeholders in the local government and throughout the community to contribute to the planning process. Potential climate change effects and important physical, social, and natural assets in the community are identified for further analysis.
- ▶ **Phase 2, "Assess Vulnerability,"** includes an analysis of potential climate change impacts and adaptive capacity to determine the vulnerability of populations, natural resources, and community assets. The vulnerability assessment is composed of four steps: exposure, sensitivity and potential impacts, adaptive capacity, and vulnerability scoring. Phase 2 also integrates stakeholder and public input to provide a comprehensive assessment of the community's sensitivity to climate change and its ability to adapt.

- ▶ **Phase 3, “Define Adaptation Framework and Strategies,”** focuses on creating an adaptation framework and developing adaptation strategies based on the results of the vulnerability assessment. Adaptation strategies identify how the community will address the potential for harm based on the community’s resources, goals, values, needs, and regional context. Community input is needed to prioritize adaptation strategies, identify co-benefits of strategies, and determine implementation steps.
- ▶ **Phase 4, “Implement, Monitor, Evaluate, and Adjust,”** the adaptation framework is implemented, consistently monitored, evaluated, and adjusted based on continual learning, feedback, or triggers. The adaptation planning process is intended to be cyclical in nature. Adaptation goals and strategies will be included in the City’s CAP which will contain a chapter that enumerates implementation planning policies. This section of the CAP will guide the implementation, monitoring, and evaluation of the adaptation policies.

The ultimate goal of the adaptation planning process is to improve community resilience in the face of a changing climate. A resilient community is one that is prepared for current and future hazardous conditions and experiences less harm when a disaster happens. Resilient communities can prepare for and recover from hazards with an understanding that the climate is going to continue to change in predictable and unforeseen ways. Ongoing learning and monitoring of strategy implementation allow for adjustments to be made in response to new information and opportunities.

2 VULNERABILITY ASSESSMENT

This section provides a comprehensive assessment of the City’s vulnerabilities to climate change. It identifies and characterizes the climate-related hazards and other climate effects that are anticipated to affect the City. The vulnerability assessment follows the process outlined in Phase 2 of the APG and is composed of the following four steps:

Exposure: The purpose of this step is to understand existing hazards within the City and how changes in climate variables (e.g., average temperature, precipitation) are projected to affect these hazards. Existing hazards that can be worsened by the effects of climate change are identified and described, based on historical data from sources such as the City’s Local Hazard Mitigation Plan.

Sensitivity and Potential Impacts: This step identifies a list of population groups and community assets that are sensitive to localized climate impacts. Climate-related hazards (e.g., flooding, wildfire) are generally projected to increase in severity, with the potential for climate change to generate new impacts that communities have not experienced historically. Using historical data, research from regional and State reports on climate impacts, and input from stakeholders, this step seeks to understand how sensitive populations and assets may be affected by climate impacts. Each hazard included in the VA is analyzed and given a qualitative score based on the criteria listed below in Table 1.

Table 1 Potential Impact Scoring

Score	Potential Impact
Low	Impact is unlikely based on projected exposure; would result in minor consequences to public health, safety, and/or other metrics of concern.
Medium	Impact is somewhat likely based on projected exposure; would result in some consequences to public health, safety, and/or other metrics of concern.
High	Impact is highly likely based on projected exposure; would result in substantial consequences to public health, safety, and/or other metrics of concern.

Source: CalOES 2020.

Adaptive Capacity: The City, partner agencies, and regional organizations (e.g., Sacramento County, Sacramento Area Council of Governments) have already taken steps to build resilience and protect sensitive populations and assets from existing hazards. A full summary of partner agencies and regional organizations and their climate adaptation-

related work is included in Section 2.6 “Adaptive Capacity”. Thus, the purpose of this step is to identify the City’s and partner agencies’ current capacity to address future climate impacts, referred to as adaptive capacity. The ability of the City to adapt to each of the identified climate impacts is determined through a review of existing plans, policies, and programs, and through stakeholder engagement. Adaptive capacity ratings are described in Table 2.

Table 1 Potential Impact and Adaptive Capacity Scoring

Score	Adaptive Capacity
Low	The population or asset lacks capability to manage climate impact; major changes would be required.
Medium	The population or asset has some capacity to manage climate impact; some changes would be required.
High	The population or asset has high capacity to manage climate impact; minimal to no changes are required.

Source: CalOES 2020.

Vulnerability Scoring: This step determines the City’s priority climate vulnerabilities through a scoring process. Vulnerability scores are based on several factors including the severity of projected climate impacts, how sensitive certain populations and assets are to anticipated climate impacts, and whether sufficient adaptive capacity exists to manage future climate impacts. Table 3 presents the rubric used to determine the overall vulnerability scores based on the ratings for potential impacts and adaptive capacity.

Table 3 Vulnerability Scoring

		Vulnerability Score		
Potential Impacts	High	3	4	5
	Medium	2	3	4
	Low	1	2	3
		High	Medium	Low
		Adaptive Capacity		

Source: CalOES 2020.

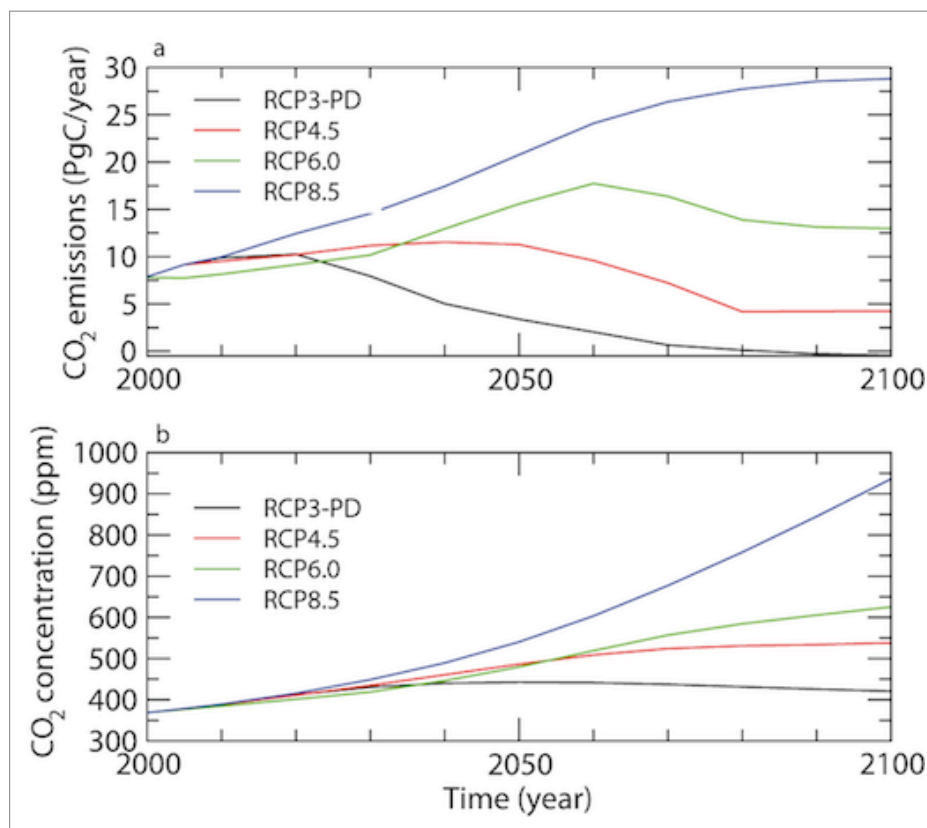
The vulnerability assessment helps the City understand which climate vulnerabilities are most urgent and should be prioritized during the adaptation strategy development phase as well as during strategy implementation.

Climate Change Impact Modeling and Projections

According to the work of IPCC and research conducted by the State alongside partner agencies and organizations, climate change is already affecting and will continue to affect the physical environment throughout California, including the City. To identify the local impacts of climate change in California, the CEC, and the University of California, Berkeley Geospatial Innovation Facility developed the scenario planning tool Cal-Adapt. The Cal-Adapt tool uses global climate simulation model data downscaled to a local and regional resolution to identify localized impacts from various climate metrics. Developers of the Cal-Adapt tool selected four priority global climate models to include in projections provided in the tool. This analysis uses the average of these four models to identify changes in temperature and extreme heat events.

The projected effects of climate change over the next century will vary depending on global GHG emissions trends. The Cal-Adapt tool includes global climate simulation model data from two emissions scenarios, known as Representative Concentration Pathways (RCPs), that were used in the IPCC’s Fifth Assessment Report. The RCPs represent scenarios that estimate the level of global GHG emissions through 2099. The RCP scenarios used in the Cal-Adapt tool are the RCP 8.5 (High Emissions) scenario, which represents a business-as-usual future emissions scenario that would result in atmospheric CO₂ concentrations exceeding 900 parts per million (ppm) by 2100, and the RCP 4.5 (Medium Emissions) scenario, which represents a lower GHG emissions future and likely the best-case scenario for

climate impacts, under which GHG emissions would peak in 2040 and then decline through the rest of the century, resulting in a CO₂ concentration of about 550 ppm by 2100. The RCP trends assumed in the analysis are illustrated in Figure 3. The emissions scenarios depend on global GHG emissions trends in the future and the efficacy of global GHG reduction strategies proposed by the international community. Because the efficacy of the GHG reduction strategies and the likelihood that a certain RCP scenario will occur are uncertain, a discussion of both emissions scenarios and their subsequent impacts are included in this analysis.



Notes: CO₂= carbon dioxide; ppm = parts per million; PgC = one billion metric tons of carbon;
RCP = Representative Concentration Pathway.

Source: Goosse et al. 2010.

Figure 3 Representative Concentration Pathway Used in Global Climate Modeling

The State's *Adaptation Planning Guide 2.0* (CalOES 2020) provides guidance on choosing appropriate RCP scenarios to be included in the analysis. For analysis of impacts through 2050, the draft *Adaptation Planning Guide 2.0* suggests using a conservative approach based on the High Emissions scenario, but notes that impacts by 2050 under the Medium and High Emissions scenarios will vary based on local context.

The Cal-Adapt tool provides data on projected changes in annual average temperature and changes in the frequency and severity of extreme heat events. This analysis uses Cal-Adapt data to evaluate increases in annual average maximum temperatures, as well as shifts in the duration and frequency of extreme heat events in the future. The analysis also identifies at what point over the next approximately 80 years (2021–2099) changes in temperature and extreme heat events will begin to occur and at what magnitude. This exposure analysis uses the following time periods to analyze changes in climate variables under the Medium Emissions scenario for the near-term and midterm periods and Medium and High Emissions scenarios for the long-term period. The time periods are established as 30-year time intervals to gather accurate data on average changes in the climate, which is typically measured over 30-

year time periods or longer. This results in overlap among some time periods. Due to annual fluctuations in climate variables, climate data on shorter time periods may be less accurate and not reflect long-term averages (NOAA 2018). The three time periods are:

- ▶ near-term (2021–2050),
- ▶ midterm (2040–2070), and
- ▶ long-term (2070–2099).

2.1 COMMUNITY OVERVIEW

The City covers approximately 34.8 square miles of land, the majority of which historically consisted of flat grassland and oak woodlands. The City is generally bordered by the American River to the north, Hazel Ave and the boundary of the 100-year floodplain for the Consumnes River on the east, Jackson Highway on the south, and Bradshaw Road on the west.

Population Overview

The U.S. Census bureau estimates the City's population to be 75,086 persons as of July 2019 (U.S. Census Bureau 2021). Table 4 illustrates the City's demographics by sex, race, and age according to the U.S. Census. As shown, the majority of residents identify as white with those identifying as Hispanic being the second largest demographic group. In terms of youth and elderly populations, 42 percent of City residents are either under 18 years or over 65 years old, populations at increased risk from climate-related hazards. The City is highly educated: 88 percent of the population over 25 years old has at least a high school degree, and 29 percent of the population over 25 years old has a bachelor's degree or higher (U.S. Census Bureau 2021).

Table 4 City Demographics by Sex, Race, and Age

Demographic Characteristics	City of Rancho Cordova	Sacramento County
Population	47,459	1,552,058
Male	48%	49%
Female	52%	51%
White alone	42%	44%
Hispanic or Latino	23%	39%
Asian alone	14%	16%
Two or more races	9%	6%
Black or African American alone	10%	9%
American Indian and Alaska Native alone	0.4%	0.4%
Persons under 18 years	28%	23%
Between 18 and 64 years	59%	62%
Persons 65 years and older	13%	14%

Source: U.S. Census Bureau 2021.

2.2 TEMPERATURE AND EXTREME HEAT ANALYSIS

Existing and Future Temperatures and Extreme Heat

The City has a mediterranean climate characterized by mild winters and hot, dry summers. The wet season runs from October through April, though there is occasional light rainfall in the summer months. The annual temperature mean is 61.1 °F, with monthly means ranging from 45.8°F in December to 75.4 °F in July. Summer high temperatures are often moderated by the “delta breeze”: which comes through the Sacramento-San Joaquin River Delta from the San Francisco Bay. The City experiences temperatures in excess of 100°F during the summer and fall months, reaching daily maximum temperatures of 105-115°F (Sacramento County 2021).

As discussed in *California's Fourth Climate Change Assessment Sacramento Valley Region Report*, changes in temperature and extreme heat events in northern California are anticipated to affect the Sacramento Valley Region (boundary defined in the Regional Report) (OPR et al. 2018). Changes for the Sacramento Valley region include more warming in the summer than the winter (with July–September increases of 2.7°F–10.8°F) and greater warming inland than in coastal regions (by as much as 7.2°F) (Pierce et al. 2018). Table 5 provides a summary of the projected temperature increases over the century for the City.

Future Changes in Temperature and Extreme Heat

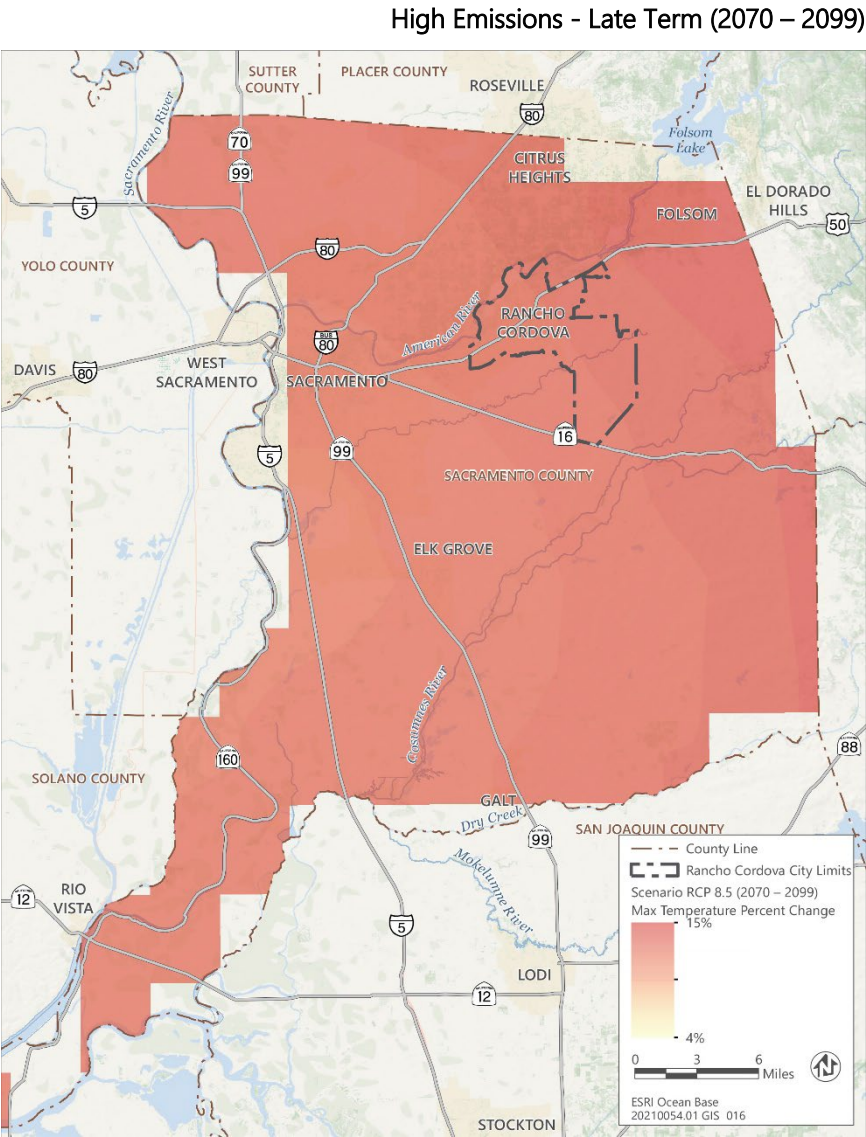
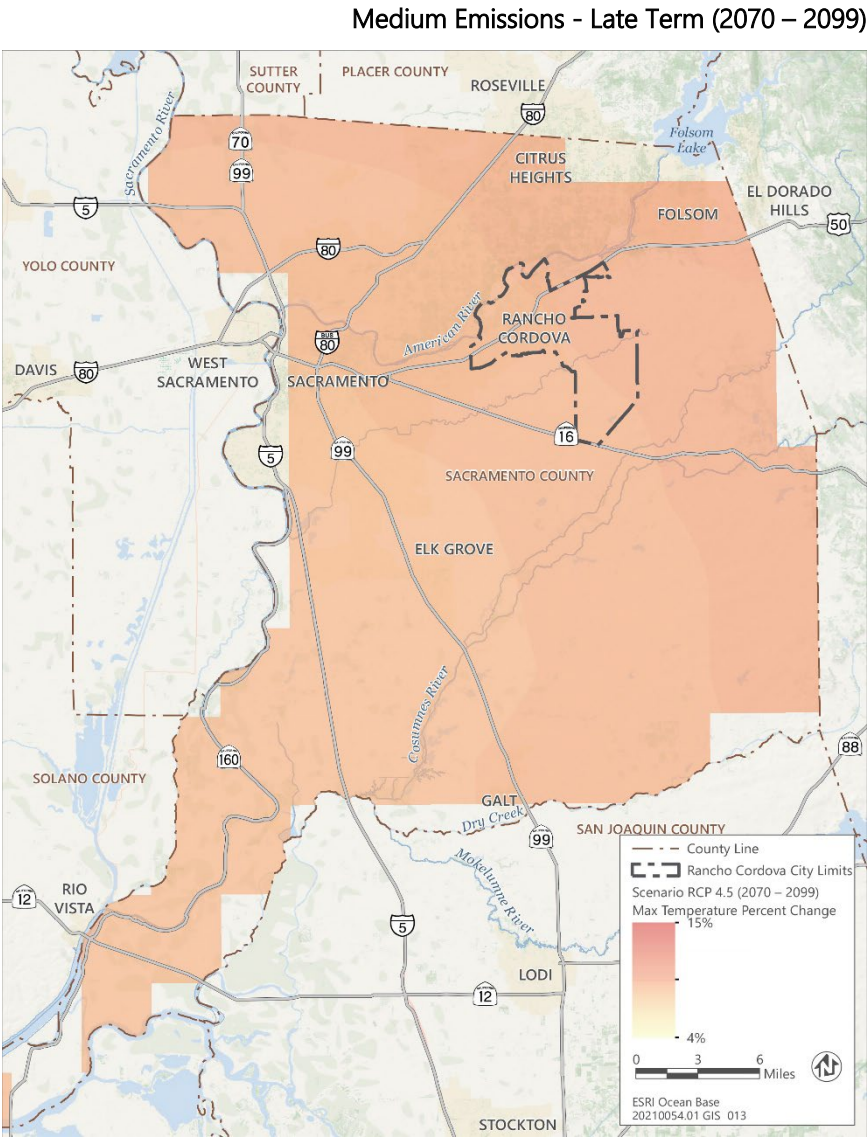
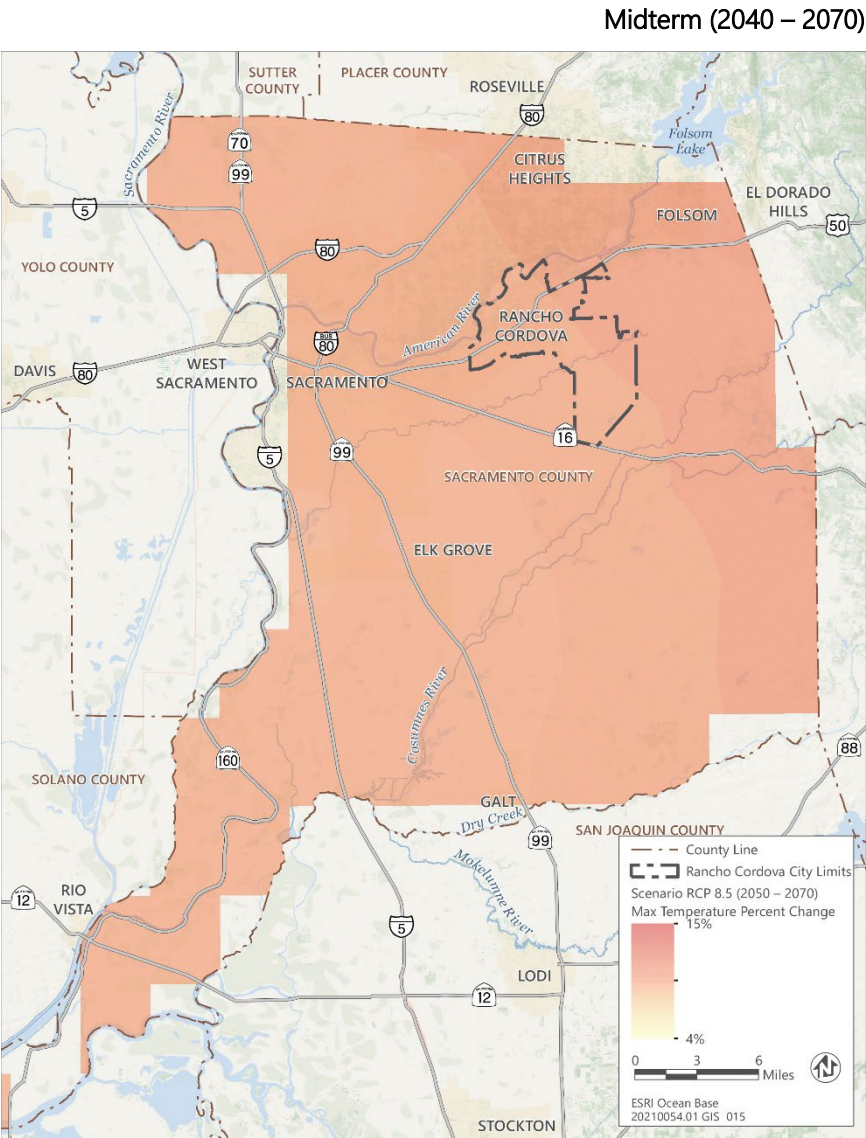
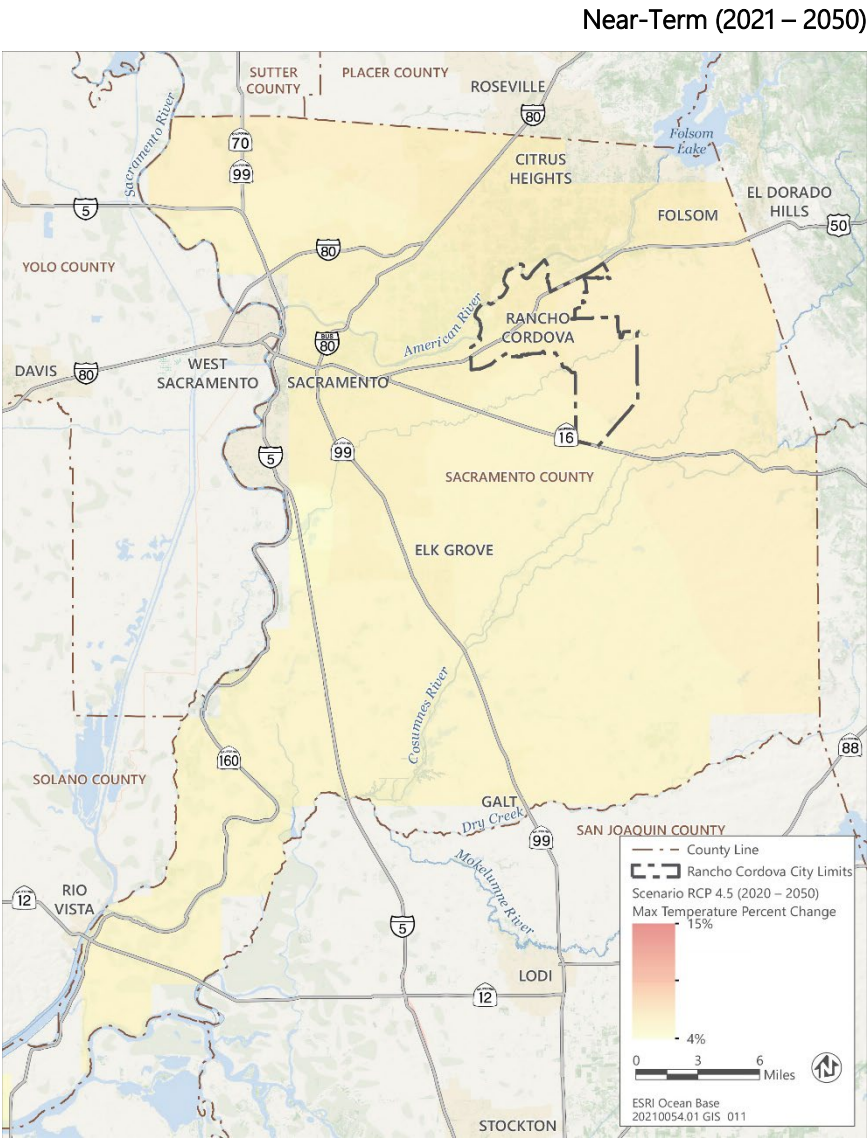
As shown in Table 5, both annual maximum and minimum are projected to increase throughout the 21st century. The average annual maximum temperature in the City is projected to increase approximately six percent from 74.2°F historically (1961-1990) to 78.3°F in the near-term and increase approximately eight percent to 79.8°F in the midterm. The average annual maximum temperature is projected to increase eight to 12 percent to 80.2°F and 83.1°F in the late-century period under the medium and high emissions scenarios, respectively. The average annual minimum temperature in the City is projected to increase approximately five percent from 49.3°F historically (1961-1990) to 52.9°F in the near-term and increase approximately six percent to 54.1°F in the midterm. In the late-century period, average annual minimum temperature is projected to increase between seven and 11 percent to 54.3°F and 57.7°F under the medium and high emissions scenarios, respectively (CEC 2021a). Increased temperatures in the City will influence secondary climate effects, including extreme heat events, wildfire, and drought. Figure 4 below illustrate the changes in annual average maximum temperature in the City and the County, highlighting the variability in temperature increases across the County throughout the 21st century.

Table 5 Changes in Average Annual Temperature in the City of Rancho Cordova

Geography	Average Annual Temperature	Historic Average Annual Temperature (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Late-Century (2070-2099)	
					Medium Emissions	High Emissions
City of Rancho Cordova	Maximum Temperature (°F)	74.2	78.3	79.8	80.2	83.1
	Minimum Temperature (°F)	49.3	52.9	54.1	54.3	57.7

Notes: °F = degrees Fahrenheit.

Source: CEC 2021a.



Source: Data downloaded from CEC and DWR in 2019.

Figure 4 Sacramento County Annual Average Maximum Temperature through 2099

Along with increases in annual average temperature, the City is anticipated to experience increases in the average number of extreme heat days per year, as well as increases in the frequency and duration of heat wave events. Based on the parameters set in Cal-Adapt and for the purposes of this analysis, an extreme heat day is defined as a day between April and October with a maximum temperature of 103.6°F or above. This threshold was chosen because it is the 98th percentile of historic maximum temperature for days in the historic period (1961–1990), meaning 98 percent of all recorded temperatures in this period were below 103.6°F. This is also the recommended threshold by the Extreme Heat tool in Cal-Adapt. For the purposes of this analysis, a heat wave event is defined as a series of 4 or more days above 103.6°F. Table 6 illustrates the projected changes in extreme heat events. In the historic period, the maximum duration of days above 103.6°F is 2.5 days, which does not qualify as a heat wave based on the heat wave threshold used. By the midterm period, the City will experience heat wave events that qualify based on the established threshold.

Table 6 **Changes in Extreme Heat in the City of Rancho Cordova**

Extreme Heat Event	Extreme Heat Event Metric	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Late-Century (2070-2099)	
					Medium Emissions	High Emissions
Extreme heat days	Days above 103.6°F	4	19	32	29	48
Heat wave events	4-day period above 103.6°F	0.2	1.4	4.8	4.0	7.8
Heat wave duration	Consecutive days above 103.6°F	2.5	6.3	7.2	8.5	14.2

Notes: °F = degrees Fahrenheit.

Source: CEC 2021a.

As shown in Table 6, while heat waves have historically been infrequent in the City, with a historical average of less than one heat wave annually, climate change is expected to increase the frequency of heat waves. Under the high emissions scenario, the City is projected to still experience 19 extreme heat days in the near-term and 32 extreme heat days annually in the mid-term. By the late-century, the City will experience 29 extreme heat days per year under the medium emissions scenario and 48 extreme heat days per year under the high emissions scenarios.

In terms of heat wave events, the City is projected to experience approximately 1.4 heat waves per year in the near-term and 4.8 heat wave events in the midterm. By the late-century, the City is projected to experience 4 heat waves per year under the medium emissions scenario and 7.8 heat waves per year under the high emissions scenarios. The average number of days in the longest stretch of consecutive extreme heat days per year is also projected to increase.

Historically, the longest stretch of consecutive extreme heat days lasted for an average duration of approximately two-and-a-half days. The longest stretch of consecutive extreme heat days is projected to increase significantly to 6.3 days in the near-term period and 7.2 days by the midterm period. By late-century, the duration is projected to increase to a maximum length of 8.5 days under the medium emissions scenario and 14.2 days under the high emissions scenario (CEC 2021b). The timing of extreme heat days is also projected to change over the 21st century with more extreme heat days and heat wave events occurring earlier in the year (April through May) and more severe events occurring in the historically hot months of September and October (CEC 2021b).

Extreme Heat Sensitivity and Impacts

This section provides an overview of the anticipated impacts on the City from the increases in temperature and extreme heat, discussed above, and subsequent secondary impacts. The impact discussion is organized around the three analysis time periods.

Based on the information included in the exposure analysis, the impact analysis is intended to identify and describe impacts on the City's built environment, vulnerable populations, and community functions anticipated to result from temperature increases and increases in the frequency and severity of extreme heat events. To help better understand

how and when these impacts will occur, a series of threshold indicators are used to assess how various aspects of the City's normal functions are affected when temperature-related thresholds are exceeded.

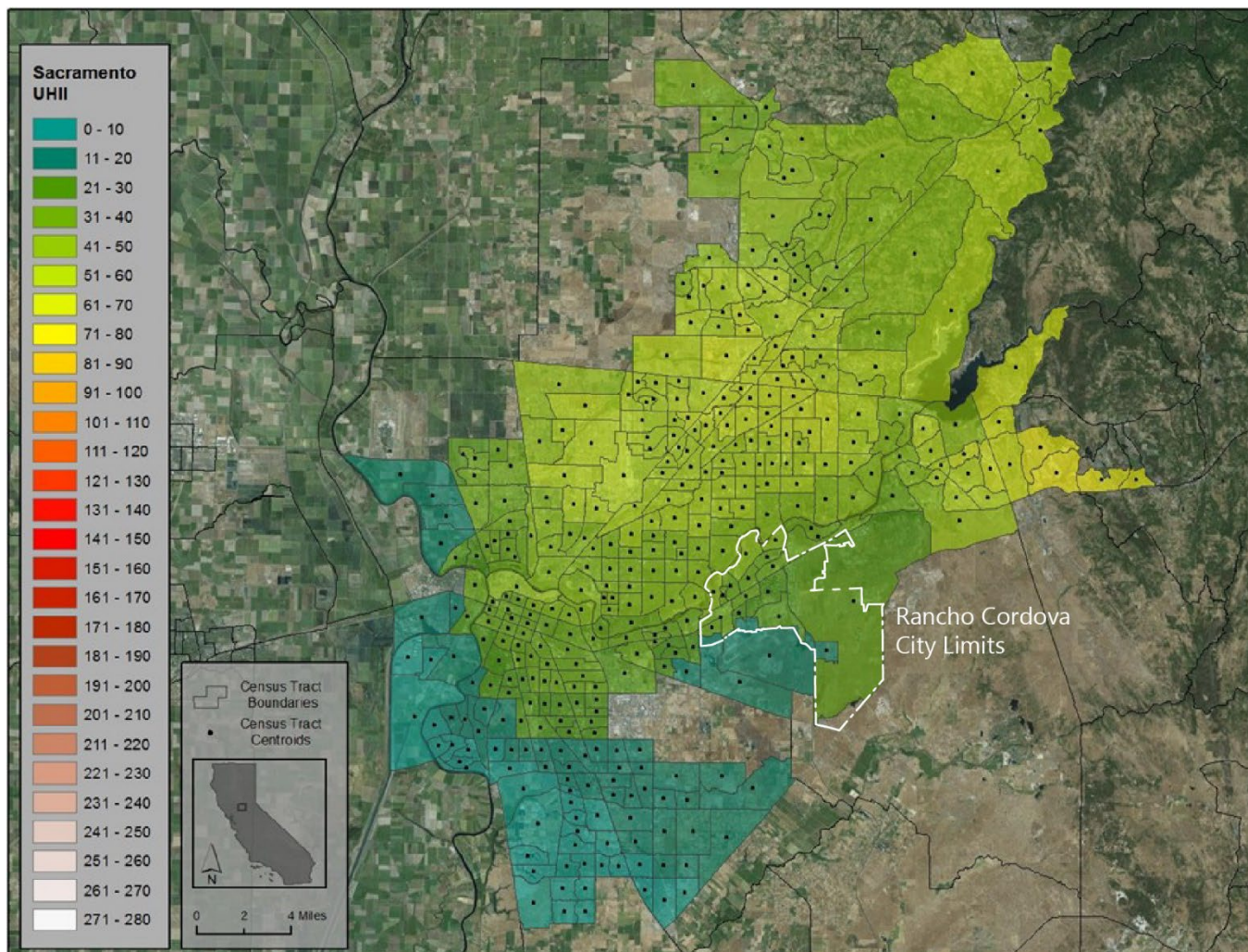
Existing Heat Sensitivities and Urban Heat Island Effect

Although the City's mediterranean climate includes high temperatures during summer and fall months, the City's urban land use patterns can intensify periods of extreme heat through the "urban heat island" (UHI) effect. The UHI effect is generally understood as the phenomenon of urban areas being significantly warmer than surrounding rural areas because of human activity and land use patterns in the built environment. Several factors contribute to the effect, with the primary cause being changes in land surfaces (EPA 2008). The albedo of a surface is the measure of the surface's ability to reflect or absorb solar radiation, with darker surfaces having a lower albedo and absorbing more solar radiation. As urban areas develop over time, resulting in the development of more land surfaces with low albedos (e.g., asphalt pavement, dark building surfaces), more solar radiation is absorbed in these materials causing increased ambient temperatures and warmer nighttime temperatures. Another factor contributing to the UHI effect is the loss of evapotranspiration in urban areas. Evapotranspiration, the movement of water to the air from sources such as the soil, plants, and bodies of water, reduces ambient air temperatures (EPA 2008). As cities grow and often reduce the extent of available vegetation that contributes to evapotranspiration, UHI effects are exacerbated. Additionally, waste heat from human activities involving machinery (e.g., vehicle traffic, using air conditioning, industrial activity) can also contribute to the UHI effect, with excess heat absorbed by surrounding surfaces (Sailor 2011; Zhu et al. 2017).

Sensitive Land Uses

Land use patterns and the design of the built environment in urban areas play a large role in an area's exposure to the UHI effect (Stone and Rodgers 2001; Solecki et al. 2005). Urban land uses with large, paved areas, low albedo, and less vegetation (e.g., commercial, industrial uses) tend to be subject to the UHI effect and have higher nearby ambient temperatures. Conversely, land uses with smaller percentages of paved surfaces and abundant vegetation (e.g., parks) tend to have lower average temperatures compared to other portions of urban areas. A study looking at the relationship between land use patterns and the UHI effect in Toronto, Canada found a statistically significant difference between average maximum temperatures for commercial and resource/industrial land uses and other surrounding land uses. The study also found the average low temperatures for parks, recreational land, and water bodies to be lower than those for surrounding land uses, likely because of increased evapotranspiration (Rinner and Hussain 2011). Additionally, areas that have higher concentrations of commercial and industrial land uses clustered together can have increased ambient and surface temperatures, with temperatures increasing relative to the size of these areas (Rinner and Hussain 2011). Increased temperatures in areas with concentrations of commercial and industrial land uses can also result in secondary impacts, including increased cooling demand for buildings, pavement deterioration, decreased air quality, and reduced stormwater quality from above-average-temperature runoff entering natural waterways and nearby ecosystems (Rinner and Hussain 2011).

The California Environmental Protection Agency has developed a UHI index (UHII) to assess the severity of the UHI effect in various urban areas throughout the state. The scores are based on the temperature difference over time between urban census tracts and nearby upwind rural reference points to demonstrate the relative difference in temperature caused by the urban environment (CalEPA 2019). Figure 5 shows the UHII effect for the County by census tract.



Source: CalEPA 2019.

Figure 5 Urban Heat Island Index for Sacramento County

As shown in Figure 5, compared to other urban areas in County, census tracts in the City being affected by the UHI effect but not as severely as other areas in the County. As discussed above, a number of factors contribute to the UHI effect. Factors that could be contributing to the City's relatively low UHII score include the presence of rural land uses surrounding the City, particularly to the south and east of the City's more urban areas. As the City continues to grow, developing medium and high-density transit-oriented land use patterns will be an important part of helping the City achieve its greenhouse gas emissions reduction targets included in the City's CAP. However, as this growth occurs, it is also important to consider how new development may contribute to the UHI effect and include strategies to mitigate the UHI effect from new development in the City.

Transportation System Heat Sensitivities

Transportation systems are designed and constructed to withstand certain variabilities in weather and temperature based on observations of historical weather trends for specific climate regions (Li et al. 2011). The performance of transportation assets may begin to decline when the severity of extreme heat periods exceeds historical ranges, for example, rail buckling at temperatures above 111°F. The characteristics of extreme heat events will affect different transportation assets differently. Provided below is a summary of the quantitative and qualitative thresholds used to assess the impacts of climate change on the City's transportation system. These thresholds were applied to the specific geography of the City using Cal-Adapt data and are presented in Table 7.

Pavement Deterioration

The effect of temperature on the performance and integrity of pavement depends on a variety of factors, including material type (asphalt versus concrete), the albedo of the material, details specific to the material mixing and placement, and soils and materials in the subbase of the roadway (Harvey et al. 2000). The performance of pavement also is dependent on the traffic volumes and types of vehicles using the roadway (Harvey et al. 2000). Based on the City's Standard Construction Specifications, based on Sacramento County Standards (Sacramento County 2016), roadways in the City use a binder within the asphalt mix with a Performance Grade of 64-16 means that roadways using this binder can withstand 7 consecutive days of pavement temperatures up to 64°C (147°F), after which point the heat can result in rutting along high-volume roadways and cause considerable safety issues. Based on guidance in the FHWA's *Vulnerability Assessment and Adaptation Framework* (FHWA 2017), this pavement temperature threshold can be translated into an ambient air temperature of 111°F. The UHI effect can increase ambient temperatures between 1.8°F and 5.4°F in urban areas compared to surrounding rural areas. Because the Cal-Adapt tool does not account for the added effects of the UHI effect in its projections, this analysis is conservative in setting a threshold for pavement impacts. As a result, the threshold used for widespread impacts on pavement in the City is a 7-day consecutive heat wave with a maximum daily temperature of 108°F. The analysis in roadways using this threshold is included below in Section 2.4.2.

Rail Buckling

During periods of extreme heat, rail lines can expand and result in "buckling" in which tracks come out of alignment, resulting in serious safety issue. However, the risk of buckling is managed by designing the rail neutral temperature at 95-110°F (35-45°C), with tracks designed and fit into infrastructure that assumes operations at those temperatures could occur (OFCM 2002, Transportation Research Board and National Research Council 2008). For this analysis, the threshold for increased risk from rail buckling is days in which the maximum daily temperature is 111°F or above.

Public Transportation Operations and Bridges

Research has found that when daily maximum temperatures reach 100°F, air conditioning units in buses are placed under increased stress and risk of failure (Cambridge Systematics 2015). For this analysis, the threshold for public transportation is days per year with maximum temperatures above 100°F.

Additionally, research indicates that bridges are at increased risk from thermal expansion during periods above 100°F. While bridges are designed to expand during periods of extreme heat, projected increases in extreme heat events could go beyond design criteria, resulting in cracking and crushing of the roadway deck, as well as increased maintenance costs (Transportation Research Board and National Research Council 2008). The number of days above 100°F is also used as a threshold to determine impacts on bridges (Zimmerman 1996).

Heat Sensitive Populations

Certain vulnerable populations in urban areas are particularly vulnerable to extreme heat and related hazards. Vulnerable populations include persons over the age of 65, infants and children, individuals with chronic health conditions (e.g., cardiovascular disease, asthma), low-income populations, athletes, and outdoor workers (CDC 2019). Increased temperatures have been reported to cause heat stroke, heat exhaustion, heat syncope, and heat cramps, with certain vulnerable populations at increased probability of experiencing these effects (Kovats and Hajat 2008). Extreme heat can also worsen air quality, quickening the production of ozone in areas with increased concentrations of ozone precursors (i.e., oxides of nitrogen [NO_x] and reactive organic gases [ROG]) (Knowlton et al. 2004). This is of particular concern to the City because the Sacramento Valley Air Basin has high concentrations of ROG and NO_x emissions and is currently in nonattainment status for California ambient air quality standards for ozone (SMAQMD 2017).

Alongside populations with health sensitivities, residents with specific sociodemographic characteristics are at increased sensitivity to extreme heat events (CDC 2019). Research has found that low-income residents spend a larger proportion of their income on utilities, including electricity use for cooling, with these residents being disproportionately affected during extreme heat events (Voelkel et al. 2018). Additionally, research has found that low-income neighborhoods can often have less tree coverage and park space, further contributing to the disproportionate impact on low-income residents (Zhu and Zhang 2008). Unhoused individuals are also at increased risk from extreme heat events with, generally, less access to places to cool off and healthcare resources during these

events. Additionally, decreased access to transportation services can further increase exposure and health risks from extreme heat events for the unhoused community (Ramin and Svoboda 2009).

Unlike thresholds for transportation assets, heat-related thresholds for populations in an urban area vary widely and depend on a number of factors, including the sensitivity of specific populations to heat (e.g., elderly, children). For this analysis, the California Heat Assessment Tool (CHAT) was used to identify how Heat Health Events (HHE) would increase in the future. An HHE, for the purposes of the tool, is defined as any event that results in negative public health impacts, regardless of the absolute temperature. The tool includes unique HHE threshold for locations throughout the state, specific to the climate and the historical sensitivity of people in that area to past extreme heat events. For this analysis, the CHAT tool and the projected increase in HHEs in the City is used as the threshold for this sensitivity. The heat wave event threshold, defined as a 4-day consecutive period with daily maximum temperatures above 103.1°F, is also used to identify various impacts from heat wave events.

Buildings and Energy Use

Changes in annual average temperature and extreme heat events are likely to effect buildings primarily through changes in energy use as well as disproportionate impacts on individuals residing in units that do not have air conditioning. Cal-Adapt provides data on the shifts in Cooling Degree Days and Heating Degree Days, which are measurements used to assess the energy demand needed for cooling and heating buildings in different climate zones throughout California. A degree day does not equate to a single day of the year but rather compares the mean (the average of the high and low) outdoor temperatures recorded for a location to a standard temperature (i.e., 65°F). For example, if the average temperature for a day is 80°F, the day has 15 Cooling Degree Days ($80 - 65 = 15$). Degree days are used in the State's Title 24 Building Energy Efficiency Standards to help design the energy demand needed for heating and cooling in the various climate zones throughout the state. To illustrate how climate change is likely to affect energy demand for heating and cooling in the future, Table 7 includes the relative shift in Cooling Degree Days and Heating Degree Days in the City through 2099.

Table 7 Summary of Potential Heat Impacts by Impact Area through 2099

Impact Area	Impact Type	Threshold Criterion	Historic (1961–1990)	Near Term (2021–2050)	Midterm (2040–2070)	Medium Emissions Long Term (2070–2099)	High Emissions Long Term (2070–2099)	Threshold Source
Built Environment impacts	Roadways and pavement	7 consecutive days above 108°F	0	0	0.1	0.1	0.5	DOT 2014
	Rail buckling	Days per year with maximum temperature of 111°F	0	2	3	3	9	OFCM 2002
	Bridges and bus operations	Days above 100°F	15	35	44	24	67	Zimmerman 1996, Cambridge Systematics 2015
	Building Energy Use	Percent increase in Cooling Degree Days	n/a	49%	48%	46%	74%	CEC 2021b
		Percent increase in Heating Degree Days	n/a	-25%	-44%	-50%	-81%	CEC 2021b
Vulnerable Population impacts	Heat wave events	4-day period above 103.6°F	0.2	1.4	2.5	2.6	5.4	CEC 2021b
	Heat wave duration	Consecutive days above 103.6°F	2.5	6.3	6.9	8.5	14.2	CEC 2021b
	Heat Health Events (HHE)	Range of potential HHEs per year	n/a	2.9	3.9	4.2	4.8	CEC 2018a

Note: NA = not available.

Source: See sources in "Threshold Source" column of table.

Near Term (2021-2050)

As shown in Table 7, during the near-term period, extended periods (7 consecutive days) of temperatures reaching above 108° would be unlikely; therefore, there would not be widespread impacts from pavement deterioration in the City. The City has experienced buckling of sidewalks due to extreme heat conditions, prompting repairs to avoid tripping hazards. As extreme heat continues to increase in severity and frequency in the future, this impact is likely to increase as well. Increased risk to rail from extreme heat days will increase slightly, with only 3 days over 111°F. However, there will be continued increases in risk from thermal expansion of bridges, with increases in days above 100°F from 15 historically to 44 during this period. An increase in the number of days above 100°F will also place increased stress on buses and their air conditioning systems, as well as result in potential declines in bus ridership because of the discomfort. During this period, the number of Cooling Degree Days will increase approximately 49 percent increase over historic levels, placing more demand on the electricity grid during heat wave events and increase electricity bills for residents. Conversely, the number of Heating Degree Days will decrease by approximately 25 percent and reduce energy demand for heating, resulting in cost savings for residents and businesses cooler months during those months. City staff have noted that extreme heat events have already begun to affect the homeless population in the City, prompting the need for cooling center to house the City's homeless population and other vulnerable populations. As extreme heat events continue to increase in frequency and severity, these impacts are likely to become more pronounced and demand for cooling centers as well as emergency services will increase.

During the near-term period, the City will also experience approximately 2.9 HHEs per year, with increased risk to populations particularly vulnerable to extreme heat, as discussed above. The frequency of extreme heat events will increase to 1.4 on average per year with the maximum duration of events increasing to 6.3 days during this period. These events will increase the risk of public health impacts on vulnerable populations and could result in increased burden on low-income residents because of the increased energy demand for cooling (Calkins et al. 2016).

Midterm (2040-2070)

During the midterm period, there would likely not be any extended periods (7 consecutive days) above 108°F during this period; therefore, there would not be widespread impacts from pavement deterioration in the City. Increased risk to rail from extreme heat days will be relatively minor, with only 2 days over 111°F. However, there will be noticeable increases in risk from thermal expansion of bridges, with increases in days above 100°F from 15 historically to 35 during this period. An increase in the number of days above 100°F will also place increased stress on buses and their air conditioning systems, as well as result in potential declines in bus ridership because of the discomfort. During this period, the number of Cooling Degree Days will increase approximately 49 percent increase over historic levels, placing more demand on the electricity grid during heat wave events and increase electricity bills for residents. Conversely, the number of Heating Degree Days will decrease by approximately 44 percent over historic levels and reduce energy demand for heating, resulting in cost savings for residents and businesses cooler months during those months.

During the near-term period, the City will also experience approximately 3.9 HHEs per year, with increased risk to populations particularly vulnerable to extreme heat. The frequency of extreme heat events will continue to increase to 2.5 on average per year with the maximum duration of events increasing to 6.9 days. These events will increase the risk of public health impacts on vulnerable populations and continue to disproportionately burden low-income residents because of the increased energy demand for cooling (Calkins et al. 2016).

Long Term (2070-2099)

During the long-term period, increases in the duration and frequency of heat wave events will place increased stress on transportation assets and could result in subsequent impacts on community functions. By this period, under the High Emissions scenario, there would be an average of 0.5 events per year with extended periods (7 consecutive days) above 108°F. There would be only 0.1 events per year under the Low Emissions scenario for this period. As discussed in Section 2.4.1, these events will result in much larger impacts on the performance of pavements in the City. Extensive rutting could occur, particularly on high-volume roadways, including Folsom Boulevard, Sunrise Boulevard, and International Drive, as well as on Caltrans facilities (i.e., SR-50).

During this period, there would be significant risk to rail infrastructure from extreme heat days, with approximately 9 days over 111°F per year under the High Emissions scenario, likely affecting Regional Transit light rail service when these events do occur. Risk of impacts on bridges from thermal expansion will also increase considerably, with the number of days above 100°F per year increasing from 12 historically to 24 under the Low Emissions scenario and 67 days under the High Emissions scenario. During the long-term period, the City will experience between 4.2 and 4.8 HHEs depending on future emissions, with increased risk to vulnerable populations. The increased frequency of HHEs will likely place increased demand on emergency services and emergency care facilities and could result in economic consequences from impacts on public health and work productivity (Paterson et al. 2014). The frequency and duration of heat wave events will increase considerably during this period, with the maximum duration of events increasing to 14.2 days under the high emissions scenario. These events will increase public health impacts on vulnerable populations, with increased levels of risk for elderly and youth populations, as well as individuals with chronic health conditions (Voelkel et al. 2018). By the end of the century, the number of Cooling Degree days will increase approximately 74 percent, under the high emissions scenario, resulting in more than 3 months of the year requiring increased energy demand for cooling. By this period, the number of Heating Degree Days will decrease by approximately 81 percent under the High Emissions scenario by 2099. Increases in energy demand for cooling during this period will also have larger impacts on the electricity grid, with increased stress on and risks to electricity generation facilities and transmission lines (DOE 2016).

Potential Impact Score

Based on this analysis, the potential impact score for Temperature and Extreme Heat is **High**.

2.3 PRECIPITATION AND FLOODING ANALYSIS

Existing and Future Flooding Conditions

Scientists, engineers, and planners all use a specific system to measure and plan for certain sizes of storm events and flood impacts associated with these events. These events are measured by the probability that they are likely to occur in a given year. The phrase “100-year storm,” for example, refers to a storm event with a 1-in-100 or one percent chance of occurring in any given year. The size and other aspects of these storms are identified to characterize the nature of the events based on historic data. The metrics are then used to plan and design stormwater management systems that can cope with storm events of these sizes. The Federal Emergency Management Agency (FEMA) uses certain larger storm events (i.e., 100-, 500-year storms) to identify flood hazard areas in the United States. FEMA administers flood insurance based on location and extent of impacts from these storm events, which influences land use patterns and development in cities. The following metrics are used in this analysis to discuss storm events and are included in projections from the Cal-Adapt tool:

- ▶ **Intensity**—The amount of rainfall that occurs over a certain period (e.g., 1 hour, 24 hours, 5 days) during storm events of different sizes (e.g., 100-year storm event, 2-year storm event)
- ▶ **Duration**—The longest stretch of consecutive days during a water year (October through September) with rainfall above a certain threshold
- ▶ **Count**—The number of days during a water year (October through September) with rainfall over a certain period (e.g., 1 hour, 24 hours, 5 days) above a certain threshold
- ▶ **Timing**—The timing during the year in which rainfall events exceeding a certain threshold occur

The City's *Local Hazard Mitigation Plan* (LHMP), which was developed as an annex to the *Sacramento County Local Hazard Mitigation Plan* which is currently being updated with the public draft of the document available, includes summary of the existing natural and manmade hazards affecting the City have been analyzed to assess current risks levels for each hazard (Sacramento County 2021). The LHMP provides details on the planning process, risk assessment, and mitigation strategies for the City to address specific hazards including large flooding events and flood related hazards.

Historically, flooding from large storm events is a significant problem in the County and the City. Historically, the City has been at risk to flooding primarily during the winter and spring months when river systems in the County swell with heavy rainfall and snowmelt runoff. The City also experiences flooding challenges in the Morrison Creek watershed as well as obstructions to peak storm flow management with the Folsom South Canal which runs north-south through the City.

Storm floodwaters are typically managed by the City's stormwater management system, which is able to collect and divert stormwater runoff from smaller storm events. However, extended heavy rains result in floodwaters that exceed normal high-water boundaries and cause damage. Major surface waters in the vicinity of the City include the American River, Folsom Reservoir, and Lake Natomas to the north. Other surface waters within the City include the Folsom South Canal, Cordova Creek, Deer Creek, and the Morrison Creek Stream Group (Morrison, Laguna, Elder, Gerber, Unionhouse, Florin, Buffalo, and Frye Creek, as well as Rebel Hill Ditch) which generally flow in a southwesterly direction southeast of the City. The topography within the City includes gently rolling terrain, such as that found in the eastern Great Central Valley interrupted by numerous seasonal creeks and streams. These creeks and streams are largely ephemeral and intermittent, which is typical of areas that experience dry summers and cool, wet winters, as in this part of the Central Valley.

The County and City have a large number of large-scale flooding events resulting in Federal and State disaster declarations. Table 8 includes a list of state and federal disaster declarations for the County since 1950.

Table 8 Changes in Average Annual Precipitation and 5-Year Storm Event in Sacramento County

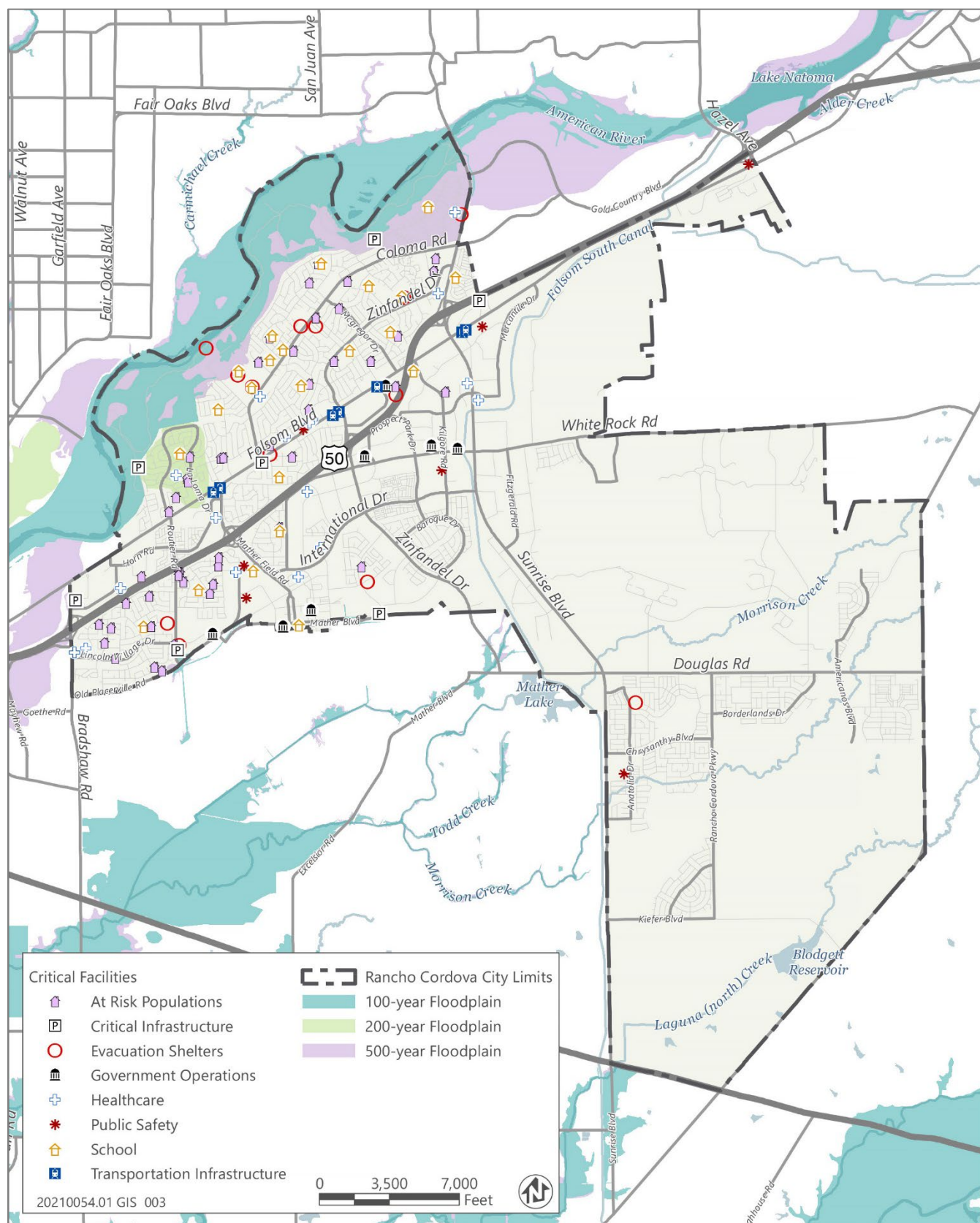
Type of Hazard Event	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Flood (including heavy rains and storms)	19	1950, 1955, 1958 (twice), 1963, 1969, 1982 (twice), 1983, 1986, 1995 (twice), 1996, 1997, 1998, 2008, 2017 (three times)	14	1955, 1958, 1964, 1969, 1983, 1986, 1995 (twice), 1997, 1998, 2006, 2017 (three times)

Source: Sacramento County 2021.

As shown in Figure 6, small portions of the City are located within the FEMA floodplains for the 100- and 500-year storm events. Figure 6 also includes areas within the 200-year flood zone which were mapped as part of the City's GP updated process and used to comply with the requirements of Senate Bill (SB) 5, which requires cities in the Sacramento-San Joaquin Valley area to assess risk-levels and provide increased flood protection for properties in the 200-year floodplain. As shown in Figure 6, the northern boundary of the City is located along the American River, with this area of the City at the highest risk from flooding.

Based on information in the City's LHMP, there are 58 properties located in the 100-year flood zone valued at a total of \$21.6 million. As part SB 5, jurisdictions in the Sacramento-San Joaquin Valley are required to identify properties located in the the 100- and 200-year floodplains and implement development standards that prohibit new development in the 200-year floodplain unless the property achieves an Urban Level of Flood Protection (ULOP), defined in SB 5. To satisfy the requirements of ULOP, the City has developed a 200-yr floodplain map based on the proposed Folsom Dam improvements by the US Army Corps of Engineers. These improvements include the Joint Federal Project to improve the dam spillway and the future dam raise to increase flood storage. In conjunction with the new 200-yr map, the City has made changes to its General Plan and zoning code that will guide development within the 200-yr ULOP.

As illustrated in Figure 6, the 500-year floodplain also impacts the northern portions of the City along the American River with 118 residential parcels located within this zone. The City has one critical facility located in the 100-year flood zone, six critical facilities in the 200-year flood zone, and 5 critical facilities in the 500-year flood zone. While portions of the City are within the 100- and 500-year flood zones, there have been no historical insurance claims for flood losses in the City (Sacramento County 2021).



Source: Sacramento County 2021 and data provided by City of Rancho Cordova staff.

Figure 6 Flood Zones and Critical Facilities in the City of Rancho Cordova

As shown in Table 9, there are several areas in the City with various land uses in the 100- and 500-year flood zone. As discussed above, the presence of the Laguna West Levee System near the Laguna West neighborhood is protecting 2,073 parcels from the 100-year flood event. Parcels located in the 100-year flood zone are located in flood zone areas surrounding Laguna Creek and Deer Creek. Alongside an analysis of land uses at risk of flooding, the City's LHMP also analyzed the number of essential service facilities, and at-risk populations that are located within the 100- and 500-year flood zones. Table 9 summarizes the number and type of critical facilities located within the 100- and 500-year flood zones.

Table 9 City of Rancho Cordova Properties by Land Use in FEMA Flood Zones

Land Use	100-Year Flood Zone	500-Year Flood Zone
Residential	19	1,118
Retail/Commercial	0	3
Office	0	2
Industrial	0	0
Care/Health	0	0
Church/Welfare	0	2
Recreational	1	0
Miscellaneous	35	11
Public/Utilities	0	2
Vacant	3	2
Total	58	1,145

Note: FEMA = Federal Emergency Management Agency.

Source: Sacramento County 2021.

Future Changes in Precipitation Patterns and Flooding

As discussed in the *Fourth Climate Change Assessment Sacramento Valley Report*, changes in precipitation patterns in northern California are anticipated to affect the Sacramento Valley region as well as adjacent regional watersheds which affect the Sacramento Valley (OPR et al. 2018). Projected shifts include increases in the intensity of large storms events, which could compromise the performance of the Sacramento Valley and Central Valley flood management systems (Pierce et al. 2018). Based on California's location next to the Pacific Ocean, the state is exposed to the atmospheric river phenomenon, a narrow corridor of concentrated moisture in the atmosphere. California is subject to precipitation from an atmospheric river that transports water vapor from as far south as Hawaii to the state. The presence of the atmospheric river contributes to the frequency of "wet years" in the state, when there is an above-average number of atmospheric river storms and above-average annual precipitation. While research indicates that the frequency of large storms events does increase in these wet years, the most severe flooding from atmospheric rivers may not be in wet years (Swain et al. 2018). The largest flooding impacts are caused by persistent storm sequences on sub-seasonal timescales (i.e., short time periods, typically 2 weeks to 3 months), which bring a significant fraction of annual average precipitation over a brief period. These are storms events similar to the Great Flood events of 1861–1862 which caused widespread damage throughout northern California (Swain et al. 2016). Based on current climate modeling, the frequency of these large storm sequences over short timeframes is projected to increase noticeably under the High Emissions scenario. It is estimated that a storm similar in magnitude to the Great Flood events is more likely than not to occur at least once between 2018 and 2060 (Swain et al. 2018). A storm of this size would likely compromise large portions of the flood control systems in the Sacramento and the Central Valleys (Swain et al. 2018).

Regional changes in precipitation over the century will subsequently result in local changes in both annual precipitation and changes in the characteristics of storm events in the City and the County more broadly. Table 10 includes the projected precipitation changes in the County through 2099. The precipitation changes included in Table 10 are illustrated in Figure 7.

Table 10 Sacramento County Precipitation Change (Historic to 2099)

Geographic Area	Historic (1961–1990)	Change in Annual Mean Precipitation (Inches)			
		Near Term (2021–2050)	Midterm (2040–2070)	Late-Century	
				Medium Emissions (2070–2099)	High Emissions (2070–2099)
Sacramento County	18.3	20.1	20.2	20.3	22.1
Percent Change from Historic Period	NA	10%	10%	11%	21%

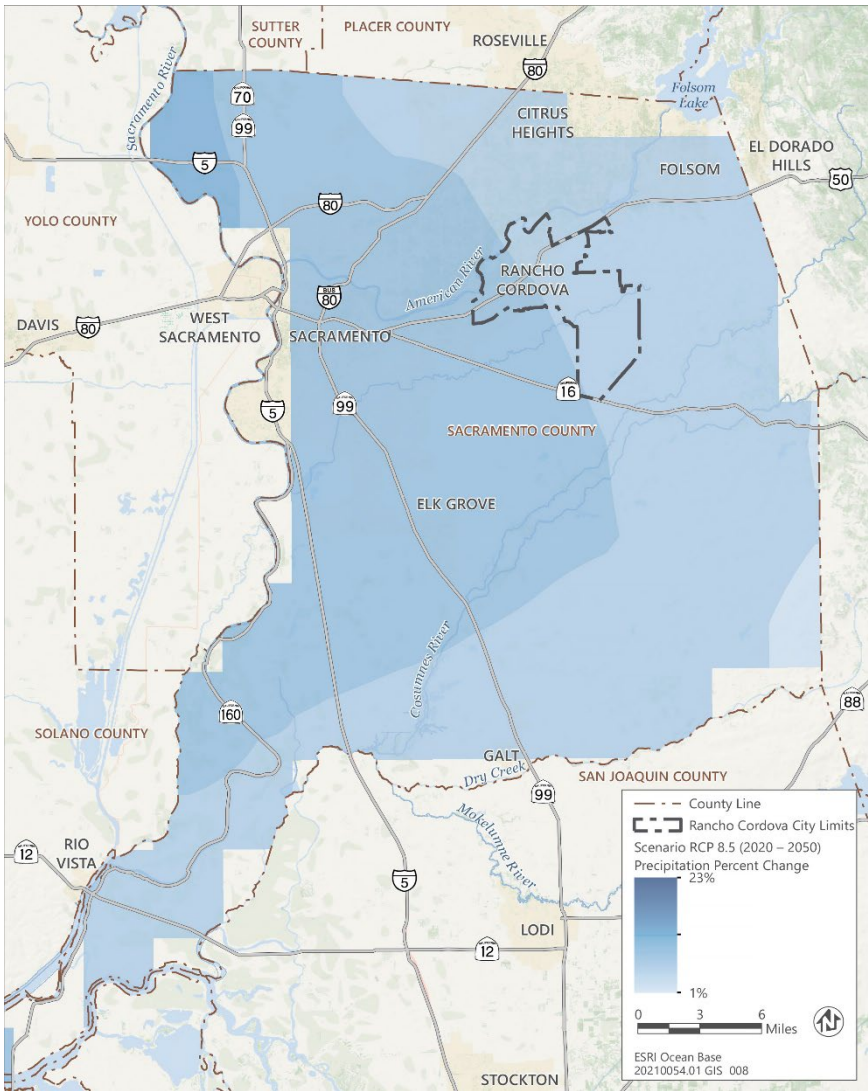
Note: NA = not available.

Source: CEC 2021a.

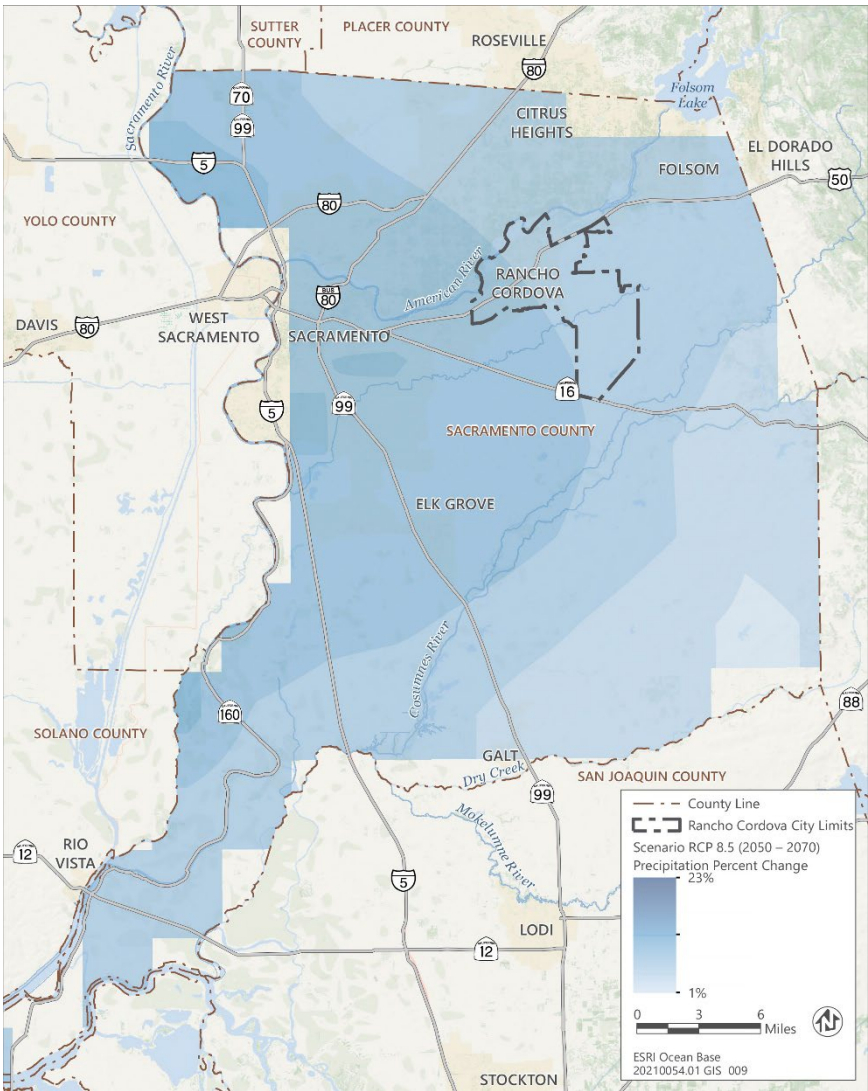
As shown in Table 10, annual precipitation in the County is estimated to increase between 11 and 21 percent by 2099 under the medium and high emissions scenarios, respectively. As noted in the *Fourth Climate Change Assessment Sacramento Valley Report*, although annual precipitation is anticipated to increase in the region, California’s climate oscillates between extremely dry and extremely wet periods with annual precipitation varying widely from year to year. Climate change is anticipated to exacerbate these seasonal extremes with dry periods becoming dryer and wet periods becoming wetter (OPR et al. 2018). As a result, the frequency and severity of large storm events are anticipated to increase as well. These oscillations between extremely dry and extremely wet periods, which have occurred historically in the state, are anticipated to become more severe with rapid shifts from dry to wet periods known as “whiplash events” (Swain et al. 2016). As Swain et al. note in their research, the recent 2012–2016 drought followed by the 2016–2017 flood events throughout the state serve as a good example of the type of whiplash events that will occur more frequently over the next century. These types of events are estimated to increase by approximately 25 percent in northern California, with increases in frequency occurring largely after 2050 (Swain et al. 2016).

Although annual precipitation is anticipated to increase in the City over the coming decades, the majority of the increase in precipitation is likely to occur during extreme precipitation events (Swain et al. 2018). As a result, it is important to understand how these shifts in extreme precipitation events will affect the City and regional watersheds which affect the stormwater management system and larger waterways within the City, though they begin outside the City boundaries. The Cal-Adapt Extreme Precipitation Event tool provides information on how the characteristics of extreme precipitation events will change over the century, including the ability to analyze changes at the watershed level.

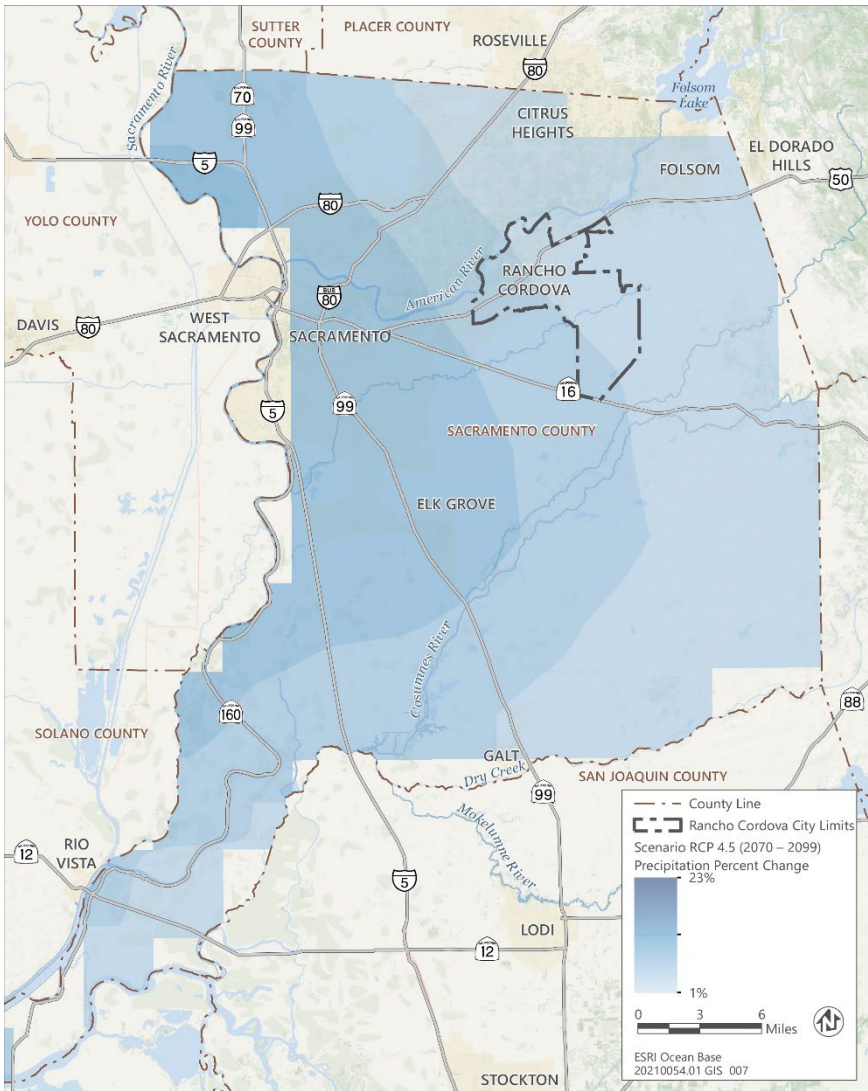
Near-Term (2021 – 2050)



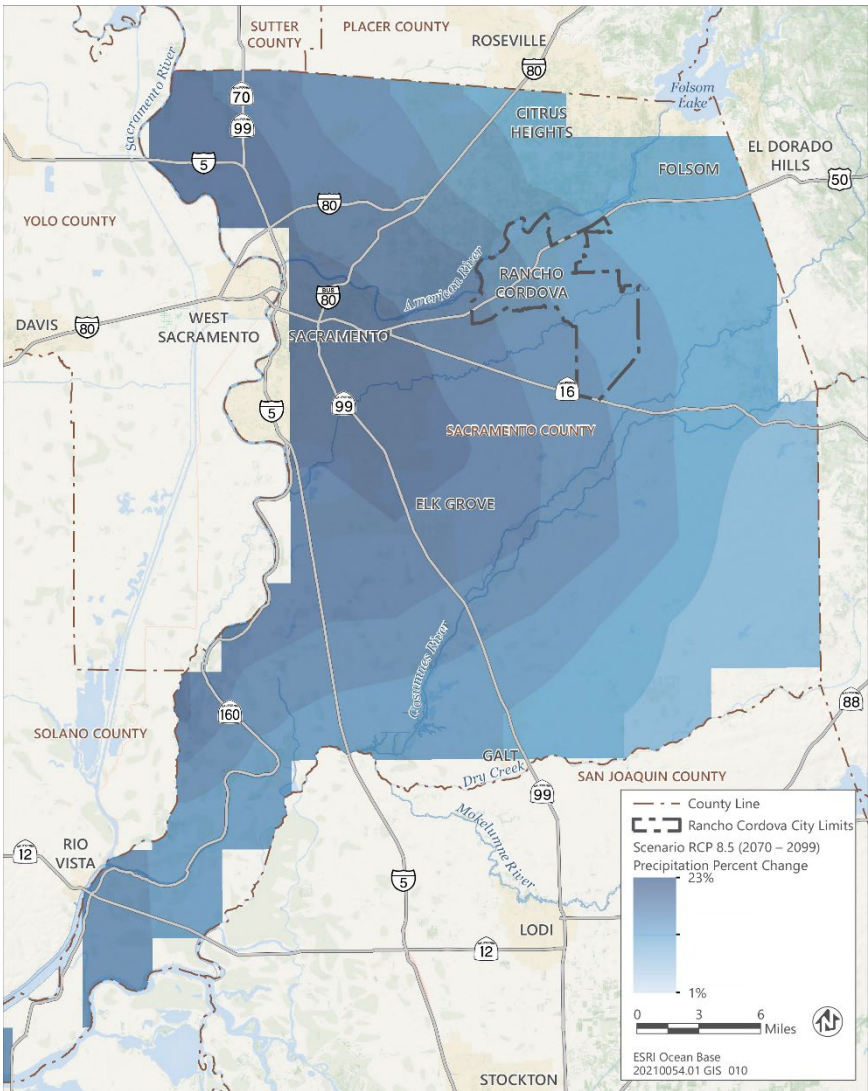
Midterm (2040 – 2070)



Medium Emissions - Long Term (2070 – 2099)



High Emissions - Long Term (2070 – 2099)



Source: Data downloaded from CEC and DWR in 2021.

Figure 7 Sacramento County Annual Average Precipitation through 2099

The characteristics of extreme precipitation events are what are most commonly used to model and design urban stormwater management systems to ensure the system can withstand the rainfall and stormwater runoff that occurs during these events. For the purpose of this analysis, the specific storm events chosen are consistent with three size storm events used to design the City's stormwater management system and are included in the *Sacramento County Drainage Manual*. These include the 2-, 10-, and 100-year storm events for rainfall over a 24-hour period. Table 11 summarizes the changes in amount of rainfall projected to occur in American River watershed, the main watershed affecting the City for the 2-, 10-, and 100-year storm events through 2099 under the high emissions scenario.

Table 11 Changes in Rainfall During Extreme Precipitation Events

Watershed	Storm Event Size	Historic (1961–1990)	Change in 24-Hour Rainfall Period (Inches) for 100-Year Storm Event			
			Midterm (2035–2064)	Percent Change (Historic to 2064)	Long-term (2070–2099)	Percent Change (Historic to 2099)
American River Watershed	100	7.1	4.8	-32%	6.3	-11%
	10	3.5	2.9	-17%	3.5	0%
	2	2.1	2.0	4%	2.3	9%

Notes: This table shows estimated intensity (Return Level) of Extreme Precipitation events, which are exceeded on average once every 2, 10, and 100 years (Return Period). Extreme Precipitation events, defined here, are days during a water year (October through September) with 1-day rainfall totals above an extreme threshold set for each of the watersheds, which is based on the lowest annual maximum storm intensity in historic records.

Source: CEC 2021a.

As shown in Table 11, by midcentury, the American River watershed is projected to experience decreases in rainfall during the 100- and 10-year storm event and a slight increase in the 2-year storm event. By late century, the watershed will experience an 11 percent decrease in the intensity of the 100-year storm event, no change in the 10-year storm event, and a more nine percent increase in the 2-year storm events. Climate change is also projected to increase frequency and maximum duration of larger precipitation events. For the American River watershed, there is projected to be slight increase in number of larger precipitation events from five events historically by the late-century period. The maximum durations of these events will also increase from two days historically to 2.3 days by the late-century period.

Future Flood Impacts

Stormwater Drainage System

In current practice, the stormwater management systems in urban areas are modeled to manage large storm events based on characteristics of rainfall specific to the region from observed historical data. These characteristics in the intensity, duration, and frequency (IDF) of extreme precipitation events. These characteristics are described using IDF curves which are used to design various components of urban drainage systems including pipes, culverts, waterway channels, and detention ponds. Because climate change is anticipated to shift precipitation patterns during storm events, these changes could impact the performance of urban stormwater management systems (CEC 2018b). Increases or changes in the IDF curve can impact the integrity of stormwater infrastructure, particularly natural and engineered slopes such as levees (CEC 2018b). Based on current design standards, the City's drainage system has been designed based on the 2-, 10-, and 100-year storm events. Consistent with these standards, the primary sensitivity threshold for this precipitation and flooding impacts is the exceedance of the historic intensities of the 2-, 10-, and 100-year storm event for the 24-hour period. This threshold is developed from the understanding that the City's current stormwater management and flood protection system is designed based on historic observations for the size of flood events. If these historic storm intensities are exceeded, this would likely begin to disrupt, deteriorate, damage, or generally affect the performance of the City's stormwater management and flood protection systems (CEC 2018b). The analysis also considers the magnitude of the increase above the historic storm levels in the severity of the impacts that may occur.

Based on projections included in the Table 11 above, the City is not projected to experience larger increase in the size of these storm events and, therefore, not likely experience widespread flooding impacts from frequent but smaller storm events in the future. The small increases in the frequency and maximum duration of storm events are also not likely to have an impact on the City's stormwater management system.

Large Storm Events and Flood Protection

For this analysis the FEMA floodplain for the 100-year storm event is used as the sensitivity threshold for large storm events. Specifically, for future scenarios in which the intensity of the 100-year storm events is exceeded, parcels and roadways within these floodplains are seen to be at increased risk from large storm events. Based on information in Table 11, the City is not projected to experience increases in the intensity of the 100-year storm event and, therefore would likely not experience widespread flooding impacts from less frequent but larger storm events based on the Cal-Adapt data. However, as discussed above, California does experiment Atmospheric River events The presence of that contribute to the frequency of "wet years" in the state. While research indicates that the frequency of large storms events does increase in these wet years, the largest flooding impacts are caused by persistent storm sequences on sub-seasonal timescales (i.e., short time periods, typically 2 weeks to 3 months), which bring a significant fraction of annual average precipitation over a brief period (Swain et al. 2018). As noted in the *Fourth Climate Change Assessment Sacramento Valley Report*, climate change is projected to increase the intensity of "wet years" when they do occur and would likely have significant impacts on the County as well as the City.

Levee System Impacts

Increases in precipitation and particularly in the intensity and frequency of extreme precipitations due to climate change will have impacts on the integrity of levee systems (Jasim et al. 2017). Shifts in the IDF curve, particularly during multi-day events, can increase the risk of levee failure. A study which modeled the impacts of projected changes in IDF curves on the Elkhorn Levee in the County found that the probability of levee failure could increase between 3 and 12 percent during projected extreme precipitation events under the high emissions scenario when compared to the baseline scenario. Levee systems, particularly systems not maintained through the Federally protected levee system, are subject to other factors which can comprise their structural integrity including land subsidence and climatic conditions, which will be exacerbated by climate change (Jasim et al. 2017). The combination of land subsidence and specific climatic conditions including drought and severe flooding can further threaten the structural integrity of these aging levees (Robinson and Vahedifard 2016). There are currently two levees in the City which protect residential neighborhoods: Cordova Meadows Levee and Sunriver Levee. Based on the research referenced above, these levee systems will be at increased risk of failure due to increasingly intense storm events as well as increases in the frequency of these events.

Potential Impact Score

Based on this analysis, the potential impact score for Precipitation and Flooding is **High**.

2.4 DROUGHT AND WATER SUPPLY ANALYSIS

Existing and Future Drought Conditions

Long-term drought can have environmental, agricultural, health, economic, and social consequences. The County, along with larger areas of California, experiences periods of long-term drought that stress the ecosystem and water supplies; and subsequently, impact agriculture, public health, and the economy. The City relies on regional water supplies with the three primary water purveyors providing services within the City's planning area: Sacramento County Water Agency; Golden State Water Company; and California-American Water Company. The City's water supply is currently provided by a combination of ground and surface water resources. As discussed in the Natural Resources Chapter of the City's General Plan, future water supplies will be provided from a variety of sources, including: water from the Central Valley Project; appropriate water supplies; water transfer supplies; groundwater;

recycled water; surface water from the American River; SMUD transfer water; and Aerojet replacement water due to contamination of the portion of the City's groundwater resources (City of Rancho Cordova 2006).

As noted in Appendix C – Water Supply Evaluation of the City's General Plan (City of Rancho Cordova 2006), it is likely that adequate water supplies would be available to meet the City's water demands associated with buildout of its current corporate limits. However, based on total known future supplies there would be a supply shortfall of approximately 51,089 acre feet per year to meet the City's total planning area demands. This shortfall would occur if development exceeded the total amount associated with buildout of the City's corporate boundaries. If water supplies are not available to meet buildout water demands, the City would either need to stop approving new growth within its jurisdiction, or collaborate with regional water purveyors to investigate potential future water supply options within the context of the regional water supply planning environment (City of Rancho Cordova 2006). Additionally, the Water Supply Evaluation conducted as part of the City's General Plan does not consider future changes in water supply due to climate change. This analysis does not include a comprehensive assessment of the City's water demand and available supply but rather focuses on how future changes in precipitation, temperature, and drought conditions in the County are likely to affect the City overall.

Future Changes in Precipitation Patterns and Flooding

The City and larger Sacramento region are expected to experience slight overall increases in average annual precipitation in the long-term. However, projections show the Sacramento region will experience increased variability and volatility in precipitation events, such as droughts. California has a highly variable climate that is susceptible to prolonged periods of drought, and recent research suggests that extended drought occurrence (a "mega-drought") could become more pervasive in future decades (CEC 2021c). As discussed above in Section 2.3, precipitation patterns in California oscillate between extremely dry and wet periods. Climate change is anticipated to exacerbate these seasonal extremes with dry periods becoming dryer and wet periods becoming wetter (OPR et al. 2018). With the increased severity of oscillation between wet and dry periods and precipitation occurring over more intense but shorter periods in the year, this will reduce opportunities for groundwater recharge which ideally occurs during prolonged wet periods allowing for soil infiltration, deeper percolation, and the resulting groundwater recharge. While a unique long-term drought scenario would likely affect the City's overall water supply management practices, there is the potential for there still to be above average wet years within a long-term drought, as shown in Figure 8. These above average wet years have the potential to replenish water supplies in the City's reservoirs and help mitigate the impacts of long-term drought.

A substantial portion of the water resources supplied to the Sacramento region originates as rainfall and runoff from snowpack in the northern Sierra Nevada mountains and the surrounding foothills. Cal-Adapt uses data to model an extended drought scenario for all of California from 2051 to 2070. For this analysis, the extended drought scenario for El Dorado County rather than just the boundaries of the City, with tributaries in El Dorado County (i.e., the north fork and south fork of the American River) providing key water resources (e.g., Folsom Lake) to the Sacramento region. Due to increases in climate variability and rising temperatures, the state has already seen signs of decreased snowmelt in Northern California. Annual snowpack in the Sierra Nevada is expected to decline by as much as 33 percent by mid-century and 66 percent by the end of the century, relative to historic baseline snowpack (OPR et al. 2018). Further, rising temperatures have caused snowpack to melt faster and earlier in the year. These changes in snowmelt timing and streamflow availability will challenge local and regional water supply availability (OPR et al. 2018). Inadequate rainfall and reduced snowpack will result in decreased runoff to the reservoirs that supply water to the City, which will lead to less available water and more frequent water shortages.

As shown in Figure 8, El Dorado County's observed historical (1961-1990) average annual precipitation accumulation (i.e., rainfall and snowpack runoff) is 43.6 inches. Under the anticipated drought scenario between 2051 and 2070, the County's average annual rainfall accumulation would decrease to 37 inches (CEC 2021c), resulting in an approximately 15 percent decrease in annual average rainfall over a 20-year period.

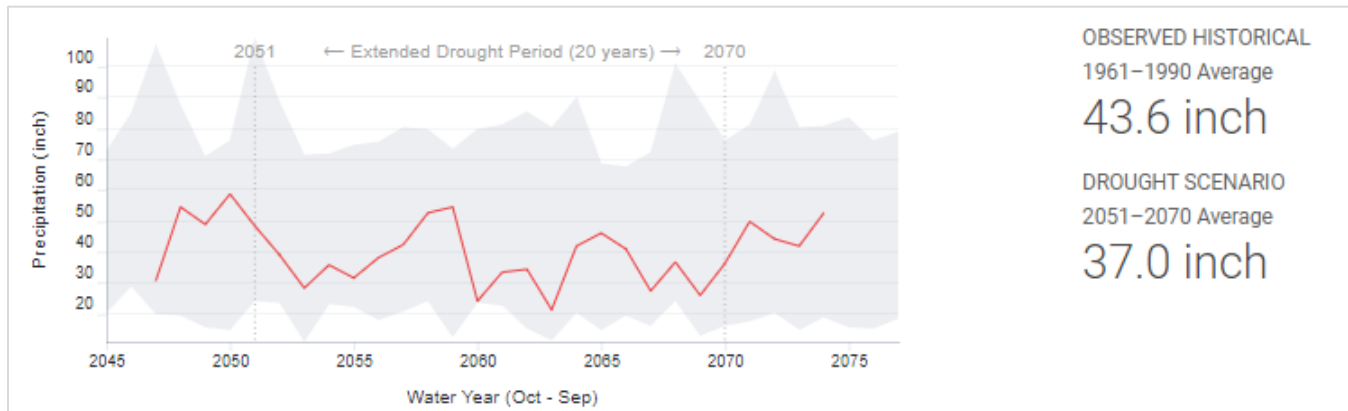


Figure 8 El Dorado County Long-Term Drought Scenario (2051-2070)

Source: CEC 2021c.

Drought Impacts

In the event of a severe and sustained drought lasting multiple years, water supplies provided to the City could be severely affected and result in the need for increased water conservation efforts to be implemented by jurisdictions in the Sacramento region. City residents may be encouraged to reduce household water demand, which may limit certain activities such as landscape irrigation. Each water purveyor that provides water resources to the City has an Urban Water Management Plan (UWMP), which includes a Drought Contingency Plan with specific actions to reduce overall water use by customers. The California Public Utilities Commission sets the rates and service terms for water utilities every three years after an exhaustive review, as required by state law. As a result, a long-term drought scenario would likely not result in rapid or unforeseen increases water costs for residents and businesses.

Droughts create cascading effects on community functions that may worsen in the future. The associated risks include adverse impacts on timber harvesting, reduction in native habitat and overall ecological function, increased forest fuels for wildfire, and economic consequences associated with decreases in tourism and recreation. More intense future droughts affecting the region could result in decreasing recreation opportunities on and surrounding Folsom Lake. Decreased recreation could have a direct impact on City business revenue from pass through visitors. Increased episodes of drought and increased water demand could result in water shortages for the region, endangering residents and ecological systems (e.g., flood control or sensitive habitat, recreational areas). Drought, as slow-moving disaster, can affect mental health if occurring over many years (Vins et al. 2015). While increasingly frequent and prolonged droughts directly affect residents, the built environment will not experience substantial direct impacts associated with this climate-related hazard.

A lack of soil moisture during long-term droughts can increase dust particle concentration, which can include harmful fungal spores and viruses, including Valley Fever (coccidioidomycosis) (OPR et al. 2018). The California Department of Public Health has highlighted the Sacramento Valley as a high-risk area for valley fever (OPR et al. 2018). Valley fever is found in disturbed, dry soil particles that must be inhaled. Symptoms of Valley Fever include chest pain, exhaustion, fever, coughing, joint and muscle pain, and difficulty breathing. Certain populations including pregnant women, the elderly, African, and Filipino Americans are particularly vulnerable to the severe cases of the disease (Brown et al. 2013).

Potential Impact Score

Based on this analysis, the potential impact score for Drought and Water Supply is **Medium**.

2.5 WILDFIRE ANALYSIS

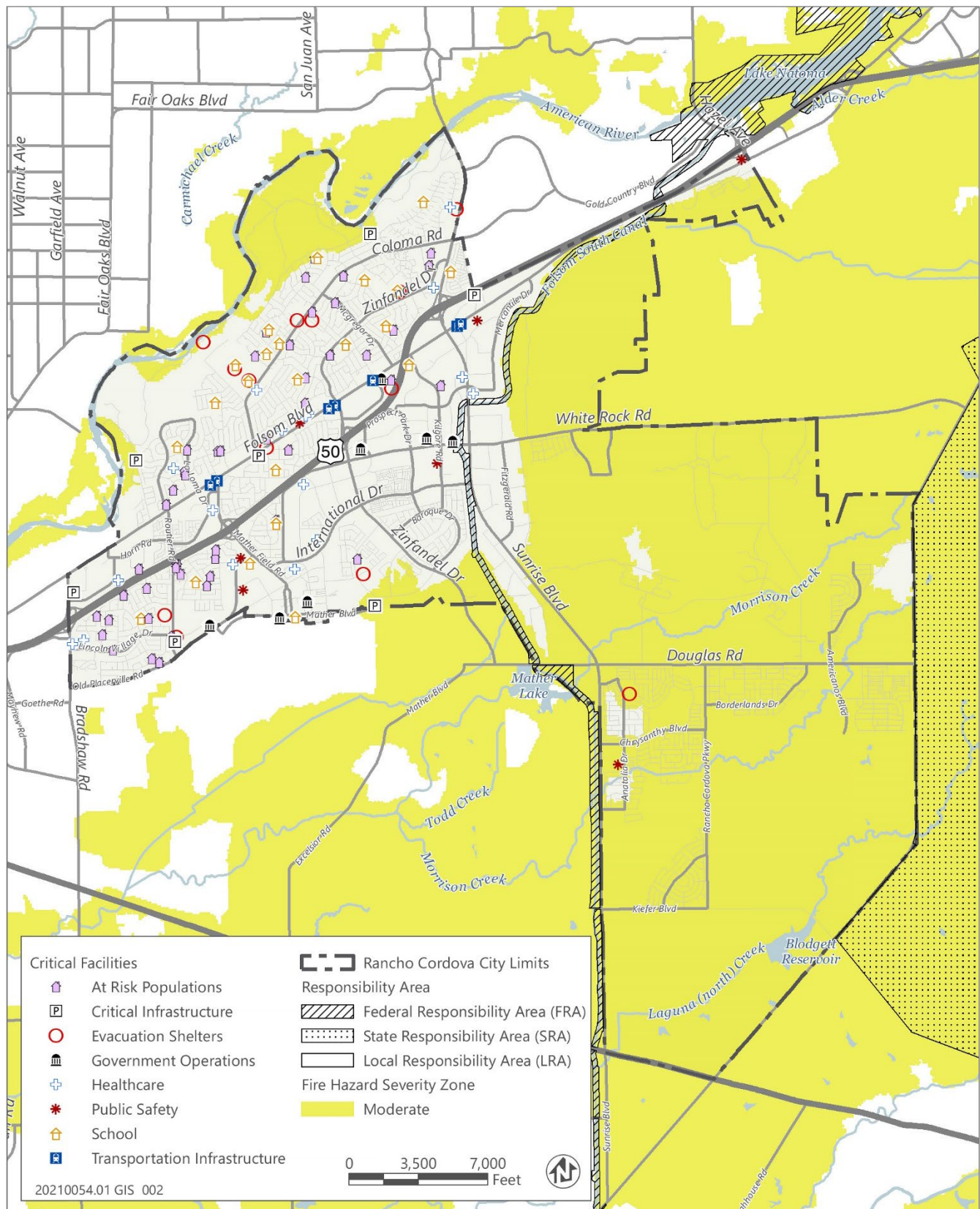
Existing and Future Wildfire Conditions

Wildfire behavior is dependent on several factors that, when identified and assessed, can help determine future wildfire characteristics. The three factors listed below contribute significantly to wildfire behavior and can be used to identify wildfire hazard areas:

- ▶ **Topography:** An area's terrain and land slopes affect its susceptibility to wildfire spread. Both fire intensity and rate of spread increase as slope increases because heat from a fire tends to rise through convection. The arrangement of vegetation throughout a hillside can also contribute to increased fire activity on slopes.
- ▶ **Fuel:** Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel is generally classified by type and by volume. Fuel sources are diverse and can include dead tree leaves, twigs, and branches of dead, standing trees; live trees; brush; and cured grasses. Buildings and other structures, such as homes and other associated combustibles, are also considered a fuel source.
- ▶ **Weather:** Components such as temperature, relative humidity, wind, and occurrence of lightning affect the potential for wildfire. High temperatures and low relative humidity dry out fuels that feed wildfires, creating a situation where fuel will ignite more readily and burn more intensely. Thus, during periods of drought, the threat of wildfire increases. Wind is one of the most significant weather factors in the spread of wildfires. The greater a wind, the faster a fire will spread and the more intense it will be.

The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), are represented as Very High, High, or Moderate. The classification of a zone as a Moderate, High, or Very High FHSZ is based on a combination of how a fire would behave and the probability that flames and embers would threaten buildings. Wildfire risk is also determined by several factors, such as wind speeds, drought conditions, available wildfire fuel (i.e., dry vegetation), past wildfire suppression activity, and expanding wildland-urban interface (WUI) (i.e., places in and around forests, grasslands, shrub lands, and other natural areas) (Westerling 2018). Impacts from grass and brushfires in the City could result in evacuations of portions of the City as well as loss of property and impacts to critical facilities.

Based on data included in the City's LHMP Annex shown in Figure 9, large portions of the eastern and southern portions of the City are located in areas designated as Moderate FHSZ. Given the City's location and urban setting, there is relatively low risk of impacts from wildfires relative to areas northeast of the City in El Dorado and Amador County; however, the City is at increased threat of grass and brushfires. Although the majority of the City's developed areas are at lower fire risk, the City does include a few key areas with increased fire risk in undeveloped recreation areas along the American River. As a recreation area, there are limited roadways within these areas, making fire equipment access difficult. While threatened by fire risk along the American River, residents are also at risk from health impacts from poor air quality associated with wildfire smoke. Poor air quality can be generated in the City from wildfires occurring throughout northern California as has been experienced in recent years.



Source: Sacramento County 2021 and data provided by City staff.

Figure 9 Fire Hazard Severity Zones and Critical Facilities in the City of Rancho Cordova

Future Wildfire Risk

Increased Wildfire Risk in the Sacramento Valley

Climate change effects, including increased temperatures and changes to precipitation patterns, will exacerbate many of the factors that contribute to wildfire risk. Increased variability in precipitation may lead to wetter winters and increased vegetative growth in the spring, and longer and hotter summer periods will lead to the drying of vegetative growth and ultimately result in a greater amount of fuel for fires. This has already been seen across the state in recent years, with the area burned by wildfires increasing in parallel with rising air temperatures (OEHHA 2018). These factors, combined with intense wind conditions, cause fires to spread rapidly and irregularly, making it difficult to predict fires' paths and effectively deploy fire suppression forces.

Relative humidity is also an important fire-related weather factor; as humidity levels drop, the dry air causes vegetation moisture levels to decrease, which consequently increases the likelihood that plant material will ignite and burn. With an increase in hotter and drier landscapes, humidity levels may continue to drop and result in higher fuel levels, increasing the risk of wildfire (Schwartz et al., 2015).

Cal-Adapt provides projections for future annual mean hectares burned within the Sacramento Valley region, as defined in the California Fourth Assessment Report, when wildfires do occur. Because the City is not directly threatened by large-scale wildfires but is likely to be impacted by regional effects such as wildfire smoke, this analysis focuses on the Sacramento Valley region. As shown in Table 12, the total area burned annually by wildfire within the Sacramento Valley region is expected increase from the historic (1961-1990) annual average of 20,956 hectares to 23,942 hectares in the near-term and increase further in the midterm to 28,759 hectares. In the long-term, average annual area burned in the region is projected to increase to 31,670 hectares and to 41,784 hectares under the low and high emissions scenarios, respectively (CEC 2021e).

Table 12 Changes in Annual Average Area Burned in the Sacramento Valley Region

Average Annual Area Burned	Historic Modeled (1961-1990)	Near-Term (2021-2050)	Midterm (2035-2064)	Long-Term (2070-2099)	
				Low Emissions	High Emissions
Average Annual Area Burned (hectares)	20,956	23,942	28,759	31,670	41,784

Notes: Observed historical average annual area burned data was not available from Cal-Adapt; the modeled historical average annual area burned data under the low emissions scenario was available and used as proxy data.

Source: CEC 2021e.

Wildfire Impact Analysis

Increased temperatures and changes in precipitation patterns associated with climate change will lead to reduced moisture content in vegetation and soils during dry years. These conditions are expected to increase the amount of area burned by wildfires that will occur predominantly outside of the City boundaries but may have secondary impacts on the City from wildfire smoke, disruptions to transportation behavior, or the increased prevalence of Public Safety Power Shutoffs (PSPS).

Regional wildfires threaten energy generation and transmission infrastructure and have the capacity to damage facilities, create maintenance costs, and reduce transmission line efficiency (CAL FIRE 2020). Grid-supplied as well as locally generated electricity, which is the primary source of power for residences in the City, is provided by the Sacramento Municipal Utilities District (SMUD). Regional communications infrastructure can also be affected by wildfires, which is often located in remote locations, such as mountaintops, resulting in significant threat from wildfire. Regional wildfires may also generate impacts on transportation behavior in the City during emergency evacuation events. This could include potential route diversion and increases in traffic congestion due to road closures from wildfire impacts or post-wildfire runoff or landslide affected roadways. While fire causes relatively insignificant direct impact on roads and highways, cracking and degradation of pavement is not uncommon.

Although the City is not at a high risk from the direct impacts of wildfires, the City's location within the Sacramento Valley makes it susceptible to impacts of smoke from wildfires in the Sierra Nevada mountains and the coastal mountain ranges of northern California. Community public health factors that can increase the impacts of wildfire smoke include the prevalence of asthma in children and adults; chronic obstructive pulmonary disease; hypertension; diabetes; obesity; and percent of population 65 years of age and older. Additionally, socioeconomic characteristics such as poverty rates, educational achievement, and unemployment rates have all been linked to the increased prevalence of underlying health conditions including depression, obesity, hypertension, and diabetes, making populations in the City with these characteristics more vulnerable to wildfire smoke impacts (Kivimäki et al. 2020). Exposure to wildfire smoke, particularly exposure by vulnerable populations, can result in worsening of respiratory symptoms, increased rates of cardiorespiratory emergency visits, hospitalizations, and even death (Rappold et al. 2017). Increased annual average temperatures and the subsequent increase in the frequency and severity of wildfires in northern California are anticipated to result in impacts from wildfire smoke on the City's population and vulnerable populations in particular (OPR et al. 2018).

Specific populations including linguistically isolated households, senior citizens, and individuals with disabilities or those experiencing homelessness are particularly vulnerable during evacuation events, if wildfire evacuations were to occur in the City. Impacts affecting these populations include inability to access or receive and/or understand warning messages and evacuation notices, limited ability to evacuate due to lack of mobility, limited situational understanding from cognitive conditions, and reliance on medication or treatment devices. Wildfires in the larger Sacramento region can also result in secondary impacts affecting populations. A major consequence of wildfires is post-fire flooding and debris flow. The risk of floods and debris flows after fires increases due to vegetation loss and soil exposure. These flows are a risk to life because they can occur with little warning and can exert great force on objects in their path.

Public Safety Power Shutoffs

Due to a number of recent large-scale wildfires in Northern California caused by electricity infrastructure exposed to extreme heat and high-winds, utilities have begun to implement PSPS to avoid wildfire risk. PSPS events can result in communities experiencing no electricity for multiple days and prevent individuals from using prescribed medications and treatments that rely on electricity or refrigeration. PSPS events can also result in impacts to commerce and economic losses, particularly for businesses that rely on refrigeration such as grocery stores. Hazards such as landslides, wildfires, and flooding can also affect underground natural gas pipelines, exposing and/or damaging these pipelines. The damage resulting from climate change-related hazards on electricity and natural gas infrastructure can have a greater impact on disadvantaged populations, particularly communities that are low-income or individuals who have limited mobility or lack the financial means to make repairs to their property.

Major wildfires often result in the damage to transportation infrastructure and/or closure of roadways. Combined with reduced visibility from wildfire smoke, this leads to a disruption in normal transportation networks and accessibility. Congestion that starts during a mass evacuation can lead to additional traffic management problems, which can result in delays to emergency response, evacuation, and logistical support.

Potential Impact Score

Based on this analysis, the potential impact score for Wildfire is **Medium**.

2.6 ADAPTIVE CAPACITY

This section analyzes the City's current capacity to address and adapt projected increase in severity and frequency of climate-related hazards. The City and regional agencies have established plans, policies, and programs that address climate change impacts. These efforts, however, do not comprehensively identify strategies that will be taken by local and regional governments to address the full scope and magnitude of potential climate impacts. Climate change will increase the frequency and severity of climate-related hazards in the future, requiring updates to emergency response, land use planning, and strategic partnerships. A summary of the regional and local planning efforts to adapt to climate change and climate-related hazards are presented below.

Existing State and Regional Planning Efforts

California Department of Transportation

The Climate Change Branch in the California Department of Transportation (Caltrans) Division of Transportation Planning is responsible for overseeing the development, coordination, and implementation of climate change policies in all aspects of the Department's decision making. In 2013, Caltrans completed its first report intended to help reduce GHG emissions and adapt the State's transportation system to prepare for the impacts of climate change (Caltrans 2013), which includes a series of strategies to reduce the risk from various climate change impacts, including increasingly intense precipitation events.

Strategies outlined in the report include using vegetation to prevent erosion along roadways, assessing and resizing culverts to accommodate increased precipitation, coordinating with local jurisdictions regarding route closures as well as pursuing individual projects included in the Caltrans District Vulnerability Assessments. In 2019, Caltrans completed the District 3 Vulnerability Assessment which provides an overview of potential climate impacts to the district's portion of the State Highway System. The District 3 Vulnerability Assessment is part of a larger adaptation process undertaken by Caltrans to assess risk to Caltrans assets in the district and prioritize adaptation strategies from various climate impacts. The District 3 Vulnerability Assessment includes projected climate change exposure from precipitation change, flooding, temperature change, wildfire, storm surge, and sea level rise.

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is the Metropolitan Planning Organization for the six-county Sacramento region including the 22 cities within El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties. SACOG develops the region's long-range transportation plan which guides transportation and land use planning in the region. In 2015, SACOG adopted the Sacramento Region Transportation Climate Adaptation Plan to address how potential climate change impacts affect the region's transportation infrastructure. The plan highlights key impacts from climate change that could occur on the Sacramento region's transportation system in the future as well as a guiding action plan for future adaptation planning and implementation.

Sacramento County

The County completed a vulnerability assessment in 2015 that assessed the projected changes associated with climate change in the County (including the City of Rancho Cordova), including impacts from changes in precipitation patterns and increased flooding. The assessment highlighted the unique vulnerabilities of the County to climate change including projected increases in the frequency, intensity, and duration of extreme storm events as well as projected regional temperature increases leading to earlier and more rapid melting of the Sierra Nevada snowpack and subsequent increases in flow rate of surface waters in the County (Sacramento County 2021).

The County is currently working to conduct a study looking at current and future precipitation trends in the County under the influence of climate change. This work will inform an update to the County's Drainage Manual better prepare for future changes in precipitation. The County Drainage Manual is used by incorporated cities in the County to design and build drainage and stormwater infrastructure and inform development standards.

Sacramento Public Department of Health Services

As a division of the Sacramento County Department of Health Services, Sacramento County Public Health works to promote, protect, and ensure conditions for optimal health and public safety for residents and communities in the County. As part of its work in helping prevent health impacts from extreme heat, Sacramento County Public Health conducts community education related to public health and emergency preparedness. It also has developed plans with the Sacramento Office of Emergency Services on wildfire smoke and response plans. Sacramento County Public Health has also begun to research the impacts of climate change using available tools specific to extreme heat and public health.

Sacramento Office of Emergency Services

The Sacramento County Office of Emergency Services (Sacramento OES) provides support and resources for emergency preparedness through its Sacramento Ready Program and operates the county's Emergency Alerts Notification System. Sacramento, Yolo, and Placer County residents can use the Citizen Opt-In portal to receive critical and time-sensitive alerts regarding flooding, levee failures, severe weather, disaster events, unexpected road closures, missing persons, and evacuations of buildings or neighborhoods in specific geographic locations. Sacramento OES coordinates with police and fire departments in the incorporated cities in the county for emergency planning and responses purposes. In regard to heat-related events, Sacramento OES focuses on the immediate effects of events; near-term risks from these events, particularly fires, droughts, and air pollution. Sacramento OES also maintains the County's Emergency Operation Plan, which includes protocols for emergency operations during extreme heat events. Sacramento OES also develops and updates planning documents, including the County's *Evacuation Plan*, *Emergency Operations Plan*, *Mass Care and Shelter Plan*, and the County's LHMP and Annexes including the City. The City's Annex in the LHMP includes climate change as a hazard and discusses how climate change will impact other hazards in the City, rating the likelihood of occurrence high and vulnerability to climate change as high.

Sacramento Metropolitan Fire District

The Sacramento Metropolitan Fire District (SMFD) provides fire protection services, fire suppression, inspection, plan checking, emergency transportation and medical services, public education, advanced life support, and rescue services to the City as well as the unincorporated portions of the Planning Area and southern the County. SMFD encompasses approximately 417 square miles in the southern portion of the County and includes both urban and rural areas. SMFD is the largest district in the County and the seventh largest local fire agency in the State of California. SMFD has 42 fire stations with approximately 673 paid personnel on its staff. The District includes 39 engine companies, 5 truck companies, 12 medic transportation units, 8 historical fire apparatus, 5 crash/rescue units, and various watercraft response units. In the City's General Plan Planning Area, SMFD currently has seven fire stations.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the agency responsible for monitoring air pollution in the Sacramento Valley Air Basin and for developing and administering programs to reduce air pollution levels below the health-based standards established by the State and Federal governments. SMAQMD is working to develop a UHI model to help identify sensitivities in the district to extreme heat and climate change, as well as develop and model the effects of mitigation strategies (e.g., green roofs, cool pavements). SMAQMD is also working to develop an update to the California Emissions Estimator Model and hopes to include an element to the tool that provides quantification of the benefits of climate adaptation strategies. The agency also works to provide funding from Assembly Bill 617 for the Clean Cars for All program, which provides increased access to electric vehicles for low-income residents. As part of the Plan development process, representatives from SMAQMD participated in the Heat Working Group and provided input on the development of this white paper.

Sacramento Municipal Utility District

SMUD is a publicly owned utility that provides electricity to the County and small portions of Placer County. In regard to climate change, SMUD has developed a sustainable communities program focusing on disadvantaged communities, as well as its Climate Readiness Assessment and Action Plan (SMUD 2016), which is intended to help the utility to adapt to and address climate change through community engagement, enterprise programs, capital projects, and operational initiatives. SMUD also works with the Sacramento Tree Foundation to operate the Sacramento Shade Program, which provides landscape assessments and free shade trees to SMUD customers. SMUD also operates Living Future Project Accelerator, which emphasizes sustainable commercial and residential building practices, and is beginning to work toward a land-based carbon storage program.

Sacramento Tree Foundation

The Sacramento Tree Foundation is a nonprofit organization that empowers people to plant, protect, and learn about trees in the Sacramento region. The organization has several programs that support its mission and provide services to cities and residents in the Sacramento region:

- ▶ **Sacramento Shade Program** – This program, in partnership with SMUD, provides free landscape assessments and up to 10 free shade trees that provide a host of benefits to the residents and the surrounding neighborhoods. The organization's work with SMUD emphasizes planting locations and tree varieties that reflect SMUD's goals for carbon sequestration.
- ▶ **NeighborWoods Program** – This program provides support to communities throughout the Sacramento region by offering expertise, training, tools, and advice to plant and protect trees in their neighborhoods.
- ▶ **Urban Wood Rescue Program** - This program works to preserve useful life of the trees by providing logging and milling services for trees which have reached the end of their life. This lumber is then sold, providing a second life for the trees while capturing carbon sequestered during their lifetime.

The organization also conducts community outreach campaigns, utilizing door to door canvassing and community meetings to promote the benefits of the urban forest.

Existing Local Planning Efforts

City of Rancho Cordova

In 2006, the City adopted its first General Plan. The General Plan includes a Safety Element which includes goals, policies, and actions to address a set of safety issues in the City including traffic hazards, airport safety, neighborhood policing, and flooding. The following list of Goals and corresponding policies in the Safety Element help address and mitigate impacts from climate-related hazards.

GOAL S.2: Reduce the possibility of a flooding or drainage issue causing loss of life or damage to property.

- ▶ **Policy S.2.1:** Support and encourage efforts to limit and reduce the potential for community flooding from the Cosumnes or American Rivers.
- ▶ **Policy S.2.2:** Manage the risk of flooding by discouraging new development located in an area that is likely to flood.
- ▶ **Policy S.2.3:** Discourage the creation of new parcels when the presence of easements, floodplain, marsh, or riparian habitat, and/or other features would leave insufficient land to build and operate structures. This policy shall not apply to open space lots specifically created for dedication to the City or another appropriate party for habitat protection, flood control, drainage, or wetland maintenance.
- ▶ **Policy S.2.4:** Ensure that adequate drainage exists for both existing and new development.

GOAL S.9: Reduce the probability of fire damage to all the City's structures.

- ▶ **Policy S.9.1:** Cooperate with the Sacramento Metropolitan Fire District (SMFD) to reduce fire hazards, assist in fire suppression, and ensure efficient emergency medical response.
- ▶ **Policy S.9.2:** Provide infill development with adequate off-site improvements to meet onsite fire flow requirements.
- ▶ **Policy S.9.3:** Consider establishing mitigation fees to fund adequate fire protection and emergency medical response facilities, if such fees are critical and necessary to meet the facility funding needs of SMFD and existing methods of financing are inadequate.

The City also has regulations within the Municipal Code, specifically, Chapter 23.716 "Landscaping," that provides guidance for landscaping and tree planting requirements for new development in the City. Title 19, "Trees," of the Municipal Code provides regulations regarding the preservation of public trees of local importance and mitigation of tree loss.

The City adopted their Emergency Operations Plan (EOP) in 2018. The EOP describes how the jurisdiction will manage and coordinate resources and personnel responding to emergency situations. It detailed information covering Emergency Operations Center procedures, documentation and reference and support information and includes response protocols for a comprehensive set of emergency situations including climate-related hazard events including flooding, wildland fire, and extreme heat. The document is continually evolving as the City grows with recommendations for improvement solicited and carefully considered for future revisions.

City of Rancho Cordova Public Works Department

The City's Public Works Department supports important activities and functions within the City, which have an impact on UHI, including designing, constructing, operating, and maintaining the City's road network and drainage systems. The Public Works Department is also responsible for the maintenance of roadways in the City as well as the the City's Capital Improvements Program, which includes developing, upgrading and implementing the City's *Capital Improvements Program 5-Year Plan* – a list of improvement projects for various components of City operations.

City of Rancho Cordova Police Department

The Rancho Cordova Police Department is contracted through the Sacramento County Sheriff's Department to provide patrol, traffic enforcement, investigations, and administrative services to the City. Portions of the General Plan Planning Area outside the current City limits are within the Sacramento County Sheriff Department's jurisdictional boundaries.

Summary of Adaptive Capacity

Table 13 evaluates the specific climate change effects covered under each of the plans and reports discussed above. As shown in Table 13, multiple planning efforts have been made to address the climate change-related impacts that are expected to impact the City. Mitigation and adaptation measures for hazards including flooding, storms and extreme weather events, and wildfires and severe wind have been relatively well documented in assessments prepared previously. Other climate change hazards including impacts on human health, drought and available water supply, extreme heat and heat waves, landslides, and sea-level rise are noted in various regional planning efforts. However, these efforts do not analyze regional climate change effects consistently while developing adaptation strategies. Most of the policies provided in existing plans are broad-based strategies to reduce risk from climate change. Thus, it is important to note that specific and targeted policies should be developed to address the resilience of the most vulnerable populations and assets in the City.

Table 13 Adaptive Capacity in Existing Plans and Reports

Plan or Report	Climate Change Hazard			
	Extreme Heat Events	Extreme Precipitation and Flooding	Drought and Water Supply	Wildfires
Sacramento County LHMP Annex	✓	✓	✓	✓
City's General Plan		✓	✓	✓
California's Fourth Climate Change Assessment Sacramento Valley Regional Report	✓	✓	✓	✓
Caltrans Climate Change Vulnerability Assessment District 3	✓	✓		✓
City Water Purveyor's Urban Water Management Plans		✓		
City's Emergency Operations Plan		✓	✓	✓

Source: Data compiled by Ascent Environmental in 2021.

Adaptive Capacity Scoring by Hazard

Based on a combination of the adaptation initiatives outlined in these documents and additional adaptive efforts that have been pursued, the City's adaptive capacity for each climate change effect can be rated Low, Medium, or High. High adaptive capacity indicates that sufficient measures are already in place to address the points of sensitivity and impacts associated with climate change, while a low rating indicates a community is unprepared and requires major changes to address hazards (CalOES 2020).

Increased Temperatures and Extreme Heat

Adaptive Capacity Rating: Low

The City does not generate its own electricity and may not be in a position to protect vulnerable populations from the impacts that will be caused by rising temperatures and a drastic increase in the number of extreme heat events. As rising temperatures and extreme heat lead to more frequent electricity outages, the lack of backup power sources for residents and business will expose more residents to risk of health impacts associated with extreme heat. While the LHMP does include extreme heat as a hazard, relevant information is limited. Impacts associated with increases in temperatures and extreme heat events are the largest potential impact for the City. This means that although the City may be adequately prepared to address extreme heat events currently, the vulnerabilities faced by the City including impacts to youth, seniors, and homeless populations as well as impacts on energy demand and services are likely to exceed to City's current capacity.

For these reasons, the adaptive capacity ranking for increased temperatures and extreme heat is Low.

Increased Wildfire Risk

Adaptive Capacity Rating: High

The County, State and regional agencies, and other partners are implementing a diverse array of policies and programs that address the design of structures, fire safety, community preparedness, and emergency response, decreasing the City's overall vulnerability to the threat of wildfire. However, as the threat of wildfire increases both locally and regionally, the City, in coordination with federal, state, and local agencies, will need to continue to adapt to projected impacts from wildfire. While the City is at relatively low risk from direct wildfire impacts, the affects from regional wildfires on the City through secondary impacts such as wildfire smoke and regional transportation route disruptions will continue to affect the City. Because these impacts have been increasing in intensity and severity in recent years and are somewhat novel, the City will need to make moderate changes to expand its capacity to address these types of impacts.

For these reasons, the adaptive capacity associated with wildfire is high.

Increased Extreme Precipitation and Flooding

Adaptive Capacity Rating: Medium

The City has adequately assessed its flood risk through the LHMP and other planning documents. The City and stakeholders have developed, adopted, and enforced several policies and programs that will serve to mitigate impacts from increasingly frequent floods in the future. While the City's populations and assets are not severely threatened by floods as identified in the LHMP, the City, the County and other regional and local agencies can continue to implement policies and programs that reduce the risks associated with significant flooding events. As noted in Section 2.3, the risk of a large-scale storm event similar to the Great Flood events of 1861–1862 is more likely than not occur at least once by 2060. This means that although the City is adequately prepared to address flooding events currently, an event such as this would result in widescale impacts on the City and potentially affect Folsom Dam.

Therefore, the adaptive capacity associated with increased extreme precipitation and flooding is medium.

Drought and Water Supply

Adaptive Capacity Rating: Medium

The City understands that a reliable water supply is essential. Each water purveyors that provide water resource so the City have UWMPs and Drought Contingency Plans, which will assist in building resilience to future drought conditions. The City is still somewhat vulnerable to these climate-related hazards, particularly in terms of the economic and related impacts (irrigation of recreation fields, constraints on future housing development) of generally dryer conditions, interannual precipitation variability, and reduced snowpack. These climate change effects will pose risks to tourism-related businesses that rely on pass-by visitors to Folsom Lake and the surrounding recreation areas when long-term droughts do occur.

Based on the reasons stated above, the adaptive capacity ranking for drought, water supply, and reduced snowpack is medium.

2.7 VULNERABILITY SCORING

The City's vulnerability to each identified climate change impact is assessed based on the magnitude of risk posed to populations and assets, and any existing measures in place to mitigate these impacts. Potential impacts and adaptive capacity are rated on a qualitative scale from Low to High based on guidance from the APG. A description of each qualitative rating for both factors is provided in Table 14.

Table 14 Potential Impact and Adaptive Capacity Scoring

Score	Potential Impact	Adaptive Capacity
Low	Impact is unlikely based on projected exposure; would result in minor consequences to public health, safety, and/or other metrics of concern.	The population or asset lacks capability to manage climate impact; major changes would be required.
Medium	Impact is somewhat likely based on projected exposure; would result in some consequences to public health, safety, and/or other metrics of concern.	The population or asset has some capacity to manage climate impact; some changes would be required.
High	Impact is highly likely based on projected exposure; would result in substantial consequences to public health, safety, and/or other metrics of concern.	The population or asset has high capacity to manage climate impact; minimal to no changes are required.

Source: CalOES 2020

After rating potential impacts and adaptive capacity, an overall vulnerability score is determined for each climate change impact. This scoring can help the City understand which effects pose the greatest threats and should be prioritized in future planning efforts. Table 15 presents the rubric used to determine the overall vulnerability scores based on the ratings for potential impacts and adaptive capacity.

Table 15 Vulnerability Scoring

		Vulnerability Score		
Potential Impacts	High	3	4	5
	Medium	2	3	4
	Low	1	2	3
		High	Medium	Low
		Adaptive Capacity		

Source: CalOES 2020.

Vulnerability scoring for each climate change effect identified and evaluated in Sections 2.2 through 2.6 is included in Table 16 below. The table shows that increased temperatures and extreme heat is assigned a vulnerability rating of 5 and therefore should be a high priority for the City. Impacts from increased precipitation and flooding was scored as a 4 while drought and water supply risks was assigned a vulnerability score of 3. These climate change effects are likely to have significant impacts on the City's populations, built environment, and community functions in the near-term, and although a variety of adaptive efforts related to both climate change effects are in place and underway, the magnitude of the risks posed by these hazards contributes to high vulnerability in the City. Increased wildfire risk is characterized as having a vulnerability rating of 2. This climate change effect will likely have lower priority impacts on the City and is currently being addressed adequately based on existing conditions, but additional adaptation and resilience planning will be required in the future to mitigate impacts and protect the City.

Table 16 Vulnerability Scoring Summary

Climate Change Effect	Vulnerability Score		
	Vulnerability Score		
	Adaptive Capacity	Potential Impact	Vulnerability
Temperature and Extreme Heat	Low	High	5
Precipitation and Flooding	Medium	High	4
Drought and Water Supply	Medium	Medium	3
Wildfire	High	Medium	2

Source: CalOES 2020; adapted by Ascent Environmental in 2021.

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Appendix G

List of Potential Funding Options

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
Sacramento Municipal Utility District (SMUD) Residential Rebates	SMUD provides residential rebates and special promotions for energy efficient appliances and products including induction cooktops/ranges, heat pump water heater upgrades, ENERGY STAR® clothes washers and refrigerators, smart thermostats, heating, ventilation, and air conditioning (HVAC) replacement with a heat pump, smart lighting starter kits, energy savings kits, power strips, LED bulbs, faucet aerators, showerheads, water conservation kits, smart sprinkler controllers, and drip irrigation retrofit kits. SMUD also offers residents a discounted electric rate to support EV charging, funding for home EV charging equipment and installation, and a managed EV charging program to support vehicle charging when demand is low.	Building Energy Sector; Water Sector; On-Road Transportation Sector
Sacramento Municipal Utility District (SMUD) Business Rebates	SMUD provides business rebates for lighting, refrigeration, and heating or cooling (HVAC) systems through several different rebate programs, including a program specific to multifamily residential properties. It also provides electric vehicle (EV) programs for commercial vehicles and EV charging, an electric forklift incentive pilot program, and SMUD eFuel SM Services to assess, design, construct and maintain electric vehicle chargers for commercial customers interested in business/fleet electric vehicles and charging, workplace employee charging or multi-family tenant charging.	Building Energy Sector; On-Road Transportation Sector; Off Road Vehicles and Equipment Sector
DOE Energy Efficiency and Conservation Block Grant (EECBG) Program	Part of the DOE's State and Community Energy Program (SCEP), the EECBG program provides formula grants to local governments to implement strategies to reduce fossil fuel emissions, decrease total energy use, and improve energy efficiency. The funds will consist a two-year budget period for local governments. Rancho Cordova's allocation is \$138,900.	Building Energy Sector
California Energy Commission 1 Percent Interest Rate Loans	The California Energy Commission offers 1 percent loans for local jurisdictions to conduct projects with proven energy savings at municipal facilities.	Building Energy Sector
California Lending for Energy and Environmental Needs (CLEEN)	This funding source, as a program of California Infrastructure and Economic Development Bank, provides direct public financing to municipalities, universities, schools, and hospitals to help meet the state's goals for GHG reductions, water conservation, and environmental preservation.	Building Energy Sector
California Energy Commission Electric Program Investment Charge Program (EPIC)	The EPIC program provides more than \$130 million annually in grants to both public agencies and private entities for the development and deployment of renewable energy, clean electric building and transportation, energy resilience, and advanced grid technologies in to accelerate the transformation of the electricity sector.	Building Energy Sector
GRID Alternatives	GRID Alternatives is a nonprofit organization that provides no-cost solar installations to low-income residents and provides assistance for communities in developing multifamily and community-scale solar installations. The organization also provides hands-on job training for volunteers interested in employment in the solar industry.	Building Energy Sector

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
California Department of Community Services and Development, Low-Income Weatherization Program	Administered by the California Department of Community Services and Development, the Low-Income Weatherization Program provides low-income households with solar photovoltaic (PV) systems and energy efficiency upgrades at no cost to residents. The program is designed with the primary goal of reducing GHG emissions by saving energy and generating clean renewable energy while reducing energy costs for low-income single-family households and multi-family affordable housing.	Building Energy Sector
Building Initiative for Low-Emissions Development (BUILD) Program	The CA Energy Commission's Building Initiative for Low-Emissions Development (BUILD) Program is designed to provide technical assistance and incentives for new all-electric low-income residential buildings that reduce GHG emissions.	Building Energy Sector
Federal Inflation Reduction Act (IRA) of 2022	The IRA invests nearly \$400 billion in Energy Security and Climate Change programs over the next ten years. This includes rebates and tax credits for energy efficiency, renewable energy, and clean vehicle purchases, as well as funding for clean power infrastructure and climate resiliency.	Building Energy Sector
HUD Community Development Block Grant (CDBG) Program	The HUD CDBG Program supports community development activities to build stronger and more resilient communities. Activities may address needs such as infrastructure, economic development projects, public facilities installation, community centers, housing rehabilitation, public services, clearance/acquisition, microenterprise assistance, code enforcement, and homeowner assistance.	Building Energy Sector
Federal Infrastructure Investment and Jobs Act, aka Bipartisan Infrastructure Law (BIL) or "Building a Better America"	The U.S. Department of Transportation announced the availability of nearly \$3 billion in competitive grant funding for surface transportation projects that were included in the infrastructure law. The grants can fund projects too large or complex for traditional funding programs like multijurisdictional and multimodal projects. The BIL also invests in clean energy by modernizing the power grid, weatherize and upgrade homes, schools, and businesses to make them cleaner and more affordable, and in the creation of new programs to support the development of clean energy technology. It will also invest in broadband infrastructure development to provide access to reliable high-speed internet.	On-road Transportation Sector; Building Energy Sector
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants	The U.S. Department of Transportation is offering \$1.5 billion in grant funding through the RAISE discretionary grant program. The program uses a merit-based process to select projects that will build and repair critical pieces of freight and passenger transportation networks.	On-road Transportation Sector
Caltrans Active Transportation Planning Program	This program provides competitive planning grants for jurisdictions working on planning projects to increase the proportion of trips accomplished by biking and walking and reduce community-wide vehicle miles traveled.	On-road Transportation Sector

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
Caltrans Transportation Planning Grant Program	The Transportation Planning Grant Program provides competitive planning grants to help local jurisdictions in a variety of transportation planning efforts including development and implementation of regional transportation plans. The program also helps address multimodal transportation deficiencies with a focus on transit and support planning actions that advance climate adaptation efforts for local transportation systems.	On-road Transportation Sector
Caltrans Clean California Local Grant Program	The Clean California Local Grant Program provides competitive grants to projects that beautify and improve local roads, parks, pathways, and transit centers. Cycle 2 of grants includes up to \$100 million in funding.	On-road Transportation Sector; Natural and Urban landscapes
California Clean Vehicle Rebate Project (CVRP)	This California Air Resources Board program provides rebates for the purchase or lease of a new, eligible zero-emission or plug-in hybrid vehicle. As of February 28, 2023, increased rebate amounts have been updated to \$7,500 for battery electric and fuel cell electric vehicles and \$6,500 for plug-in hybrid vehicles.	On-road Transportation Sector
Strategic Growth Council Affordable Housing and Sustainable Communities Program	This program, administered by the California Department of Housing and Community Development, funds land use, housing, transportation, and land preservation projects that support infill and compact development and reduce GHG emissions. Funds are available in the form of loans and/or grants in two kinds of project areas: Transit-Oriented Development Project Areas and Integrated Connectivity Project Areas.	On-road Transportation Sector
SB 2 Planning Grant Program	This planning grant program provides financial and technical assistance to local governments to update planning documents and zoning ordinances, including general plans, community plans, specific plans, sustainable communities strategies, and local coastal programs, to streamline housing production. The program does not use a competitive process to award funds. All localities that meet the eligibility requirements outlined in the grant application receive funding.	On-road Transportation Sector
Volkswagen (VW) Environmental Mitigation Trust	The VW Environmental Mitigation Trust provides about \$423 million for California to mitigate the excess nitrogen oxide emissions by funding specified eligible actions focused mostly on “scrap and replace” projects for the heavy-duty sector, including on-road freight trucks, transit and shuttle buses, school buses, forklifts and port cargo handling equipment, commercial marine vessels, and freight switcher locomotives.	On-road Transportation Sector; Off-Road Vehicles and Equipment Sector
California Air Resources Board Carl Moyer Memorial Air Quality Standards Attainment Program	The Carl Moyer Program provides grant funds towards the replacement of old, high-polluting vehicles, engines, and equipment, with new technologies that are cleaner than required or earlier than required by rules and regulations. The Sacramento Metropolitan Air Quality Management District implements this program in the Sacramento region.	On-road Transportation Sector; Off-Road Vehicles and Equipment Sector

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
CalRecycle Food Waste Prevention and Rescue Grant Program	The purpose of this competitive grant program is to reduce overall GHG emissions by establishing new or expanding existing food waste prevention projects (source reduction or food rescue for people) in California to reduce the amount of food being disposed of in landfills.	Solid Waste Sector
CalRecycle Local Enforcement Agency Grant Program	CalRecycle administers a non-competitive grant program to assist local enforcement agencies with their solid waste facilities permit and inspection program.	Solid Waste Sector
California Department of Water Resources Water Grant and Loans	The California Department of Water Resources provides a number of grant and loan programs that support integrated watershed management. These funds can be used to address issues such as groundwater sustainability, drought, and water supply reliability. Programs include the Small Communities Drought Relief Program, the Riverine Stewardship Program, Delta Levees Special Flood Control Projects Program, and the LandFlex Program.	Water Sector
CivicSpark Program	The CivicSpark Program supports sustainability-focused research, planning, and implementation projects throughout California by providing public agencies and other organizations with high-quality capacity-building support. This 11-month AmeriCorps program employs highly motivated emerging sustainability professionals.	Green Economy; Public Participation & Engagement
Regional Early Action Planning (REAP)	REAP allows councils of governments and other regional entities to collaborate on projects that have a broader regional impact on housing. The grant funding helps regional entities and governments facilitate local housing production that will assist local governments in meeting their Regional Housing Need Allocation.	On-road Transportation Sector
Sustainable Transportation Equity Project (STEP)	STEP is a new transportation equity pilot that aims to address community residents' transportation needs, increase access to key destinations, and reduce greenhouse gas emissions by funding planning, clean transportation, and supporting projects. STEP's overarching purpose is to increase transportation equity in disadvantaged and low-income communities throughout California via two types of grants: Planning and Capacity Building Grants and Implementation Grants. Within these two grant types, CARB currently has up to \$22 million available.	On-road Transportation Sector
Infrastructure State Revolving Fund (ISRF)	The California Infrastructure and Economic Development Bank provides loans to local governments for infrastructure and economic development. ISRF has financed projects that are vital to communities throughout the state such as city and county street highway improvements, wastewater treatment plant construction and upgrades, and educational and cultural facilities.	On-road Transportation Sector; Buildings and Energy sector; Water and Wastewater Sector; Solid Waste Sector

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
CAL FIRE's Grant Programs	CAL FIRE provides a number of grant programs such as the wildfire prevention grant program, the business and workforce development through wood products and bioenergy program, the California forest improvement program, the forest health program, the forest health research program, forest legacy program, and the urban and community forestry program. Funding and application dates can be found on their website https://www.fire.ca.gov/grants/ .	Adaptation
OPR Regional Resilience Planning and Implementation Grant Program (RRGP)	The ICARP Regional Resilience Planning and Implementation Grant Program (Regional Resilience Grant Program, or RRGP) will fund local public entities, California Native American Tribes, and Community-Based Organizations that are planning and implementing projects that advance climate resilience and respond to the greatest climate risks in their regions. Over multiple funding rounds, the RRGP will invest \$125 million into regions advancing resilience and responding to their regions' greatest climate risks through three major activities: capacity building, planning (including identifying climate resilience priorities), and project implementation. The first grant cycle will invest \$21.3 million. At least \$12.5 million of that total will be for regions planning for climate adaptation and developing action plans that prioritize projects or actions addressing the greatest climate risks facing a region, particularly in the most vulnerable communities. Grants will be made available both competitively and on a formula basis. Application period begins in Spring 2023.	Adaptation
SGC Transformative Climate Communities (TCC)	The Transformative Climate Communities (TCC) Program funds development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. More info here: Transformative Climate Communities: Community-led transformation for a sustainable California	All sectors
SGC Community Assistance for Climate Equity (CACE)	The SGC's CACE Program provides technical assistance and capacity building services to help under-resourced communities foster successful climate projects. Within CACE, the Boost Program supports under-resourced local governments in building capacity, optimizing existing resources, strengthening community partnerships, and transforming their approach to address and fund climate activities.	All sectors
SGC Community Resilience Centers (CRC) Grants Program	SGC's CRC program will fund new construction and upgrades of neighborhood-level resilience centers to provide shelter and resources during climate and other emergencies. The program will also fund year-round services and ongoing programming that build overall community resilience. More info here: Community Resilience Centers Program: Strengthening community resilience in neighborhoods across California	Adaptation

List of Potential Funding Options for CAAP Implementation		
Funding Option	Description	Potential CAAP Implementation
Climate Resilience Districts Act (Senate Bill 852)	Senate Bill 852 (Dodd, 2022) established the “Climate Resilience District”. This is a new public financing tool available to cities, counties, and special districts to undertake projects and programs to address climate change including wildfire, sea level rise, extreme heat and cold, drought, flooding, and related issues. The districts can be formed by one or public agencies and, once created, can raise revenue through tax increment funding, voter-approved supplemental property taxes, property benefit assessments, or fees.	Adaptation
CA Climate & Energy Collaborative (CCEC) Funding Resources	The CCEC provides several helpful resources to support funding for implementation of local climate and energy initiatives. These include a “How to Guide: Ways to Get Funded” resource that outlines both internal and external funding best practices (see Ways to get Funded – California Climate and Energy Collaborative (eecoordinator.info), as well as a regularly-updated list of current and upcoming funding opportunities with links (see Funding Resources – California Climate and Energy Collaborative (eecoordinator.info).	
California Grants Portal	The California Grants Portal (a project by the California State Library) is a one-stop destination to find all grants and loans offered on a competitive or first-come basis by California state agencies. See: Home - California Grants Portal	

MEMORANDUM



ITEM 11.1.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Stacy Leitner, City Clerk
SUBJECT: **PUBLIC HEARING ON DRAFT BOUNDARY MAPS OF COUNCIL DISTRICTS AND FIRST READING OF AN ORDINANCE PROVIDING FOR THE ELECTION OF COUNCIL MEMBERS BY FIVE DISTRICTS AND ESTABLISHING THE BOUNDARIES AND ELECTION ORDER OF EACH DISTRICT**

RECOMMENDATION

1. Open the public hearing, receive public comments, close the public hearing, provide feedback to the demographic consultant and staff regarding the draft Council District boundary maps.
2. Vote to designate a preferred map, designate the sequence and preferred election years for each district to be included in the proposed Ordinance.
3. Waive the first reading and introduce the proposed Ordinance, as revised by the Council direction in Step 2 above, establishing five districts for election of five City Council Members, which would continue the practice of the City Council annually appointing a member of the City Council to serve for one year as Mayor of the City and amending and adding new sections to Chapter 2.42 Elections of the Rancho Cordova Municipal Code to provide for City Council Election Districts.

RESULT OF RECOMMENDED ACTION

Consultant will present the draft Council District boundary maps received for Council to consider and designate a preferred map establishing five districts for election of five City Council Members. The City Council will also designate the sequence and preferred election years for each district, and vote to introduce the proposed ordinance establishing five districts for election of five City Council Members. Designating five districts would continue the practice of the City Council annually appointing a member of the City Council to serve for one year as Mayor of the City. This action would also amend and add sections to Chapter 2.42 Elections of the Rancho Cordova Municipal Code to provide for City Council Election Districts.

BACKGROUND

The City Council was elected under an at-large election system, whereby Council Members are elected by voters of the entire City. On June 7, 2023, the City received a letter from attorney Scott J. Rafferty asserting that the at-large election system violates the California Voting Rights

Act (CVRA) and threatened litigation if the City declines to voluntarily convert to district-based elections. District-based elections is a method of electing the members to the City Council in which the candidate must reside within an election district and is elected only by voters residing within that election district.

On July 17, 2023, the City Council adopted Resolution No. 108-2023 initiating the process to consider changing to a district-based election system. To assist with the transition from an at-large to a district-based election system, the City entered into an agreement with National Demographics Corporation (NDC). Since that time, the City has engaged in an extensive public engagement process to identify communities of interest and to encourage the community to provide input on the transition and on the specific election district maps.

The public engagement process included messaging through the City's website, newspapers, flyers, a postcard mailed to residences, social media, a website dedicated to district-based elections, and outreach to organizations in the City. Language translation was also available in Spanish and Russian. As a result of the extensive public outreach, the City initially received a total of thirty-two (32) maps submitted by members of the public, including twenty (20) five-district maps, seven (7) six-district maps, and five (5) seven-district maps. One (1) seven-district map was prepared by the City's consultant based on the public comments, applicable legal standards, and other relevant factors. Thirteen (13) of the submitted maps were either duplicates, not population balanced, or raised concerns around the Fair and Inclusive Redistricting for Municipalities and Political Subdivisions (FAIR MAPS) Act, resulting in twenty (20) unique, contiguous, population-balanced draft maps.

The City held community forums to solicit public comment on this transition on August 10, 2023, and August 30, 2023. City Council public hearings were held on August 7, 2023, and August 14, 2023, to receive input regarding the composition of the City's voting districts before any draft maps were drawn. At the City Council public hearing held on August 29, 2023, and this evening on September 18, 2023, the public has been invited to provide input regarding the content of the draft maps released at least seven (7) days before each meeting, and the proposed sequence of elections.

After receiving public input at the August 29, 2023, public hearing, the Council narrowed the list of draft maps under consideration from the initial twenty (20) unique, contiguous, population-balanced draft maps to three (3) focus maps: Map 508b (revised version of Map 508 drawn to incorporate Council direction at the public hearing), Map 511, and Map 516b (revised version of Map 516 drawn to incorporate Council direction at the public hearing). Furthermore, Map 508c (revised version of Map 508) and Map 516c (revised version of Map 516) were subsequently created by NDC because the City Council's original direction at the August 29, 2023, public hearing created a map that NDC later determined was not population-balanced. Each of these five (5) focus maps, Map 508b, Map 508c, Map 511, Map 516b, and Map 516c have five districts. By selecting a five-district map, the City would continue the practice of the City Council annually appointing a member of the City Council to serve for one year as Mayor of the City.

The proposed sequencing, which is the timeline for implementing the district-based election system, is as follows, depending on which map the Council selects:

Year	Maps 508b & 508c	Map 511	Maps 516b & 516c
1 st election in 2024	1 and 5 with (3 or 4)	1 and 5 with (2 or 3)	1 and 4 with (2 or 3)
1 st election in 2026	2 with (3 or 4)	4 with (2 or 3)	5 with (2 or 3)

The City also received three (3) additional maps from the public on or before the September 7, 2023, deadline to submit new or revised public maps. These maps are Map 511b, Map 521 (not population-balanced, not contiguous), and Map 522. All maps received or revised at the direction of the City Council and demographic profiles for each map have been posted on the City website, included in this report as Attachment 1, Attachment 2, and Attachment 3 and can be accessed at the following url: <https://drawranchocordova.org/draft-maps/>

After selecting its preferred map, the City Council must decide which districts are up for election in 2024, with the others thus being up for election in 2026. Under Section 10010(b) of the California Elections Code:

In determining the final sequence of the district elections conducted in a political subdivision in which members of the governing body will be elected at different times to provide for staggered terms of office, the governing body shall give special consideration to the purposes of the California Voting Rights Act of 2001 (Chapter 1.5 (commencing with Section 14025) of Division 14 of this code), and it shall take into account the preferences expressed by members of the districts.

Given the statutory timing requirements, in order to avoid litigation and significant exposure to attorney's fees, by the end of the City Council meeting on September 18, the Council needs to have completed this fourth public hearing, and have introduced the attached Ordinance for adoption at the City Council meeting on October 2, 2023.

At this time, staff recommends the City Council select its preferred map, designate their preferred election years for each district, and vote to waive the first reading and introduce the proposed Ordinance, as revised by Council direction, establishing five districts for election of five City Council Members and adding new sections to Chapter 2.42 Elections, of the Rancho Cordova Municipal Code to provide for City Council Election Districts.

FISCAL IMPACT AND FUNDING SOURCE

Neighborhood Elections Now will receive a partial reimbursement, capped at approximately \$37,000 if the City complies with the process to transition from at-large to district-based elections.

The City is working with a professional demographer at an estimated cost of \$60,000-\$80,000 to assist the City with the process of transitioning from at-large to district-based elections.

The City will also incur additional fees for City Attorney time, community meetings, assistance from consultants for public outreach, and staff time.

ATTACHMENT(S)

1. Draft Focus Maps and Demographic Profiles
2. Additional Draft Maps and Demographic Profiles Submitted on or Before September 7, 2023
3. Original Draft Maps and Demographic Profiles Submitted on or Before August 18, 2023
4. PowerPoint Presentation
5. Ordinance

From: [James Garcia](#)
To: [districts](#)
Subject: New 5 District Map submission with a rotating Mayor
Date: Monday, September 4, 2023 10:11:26 AM

I wanted to provide justification for the map submitted:

<https://davesredistricting.org/join/88f666e6-058f-4588-8e26-94814b52146b>

1. The city council wanted to have a map that would provide neighborhoods with a way to stick together and not be broken up. This map keeps neighborhoods together. Cordova Meadows and Cordova Gardens have a slight overflow between them as their blocks are not set to their neighborhood boundaries. Cordova Gardens is kept intact with only a small unavoidable portion of Cordova Meadows being added to District 3. All other neighborhoods are kept together that contain any population.
2. I also wanted to keep communities of interest together and as such, kept the western part of the city together into District 1 as they share a common zip code. They also share a common education need for the Afghani population in that the children travel south over Routier Rd.
3. There was also a lot of talking that Folsom Blvd and the freeway were not borders we needed to follow as many neighborhoods frequently traveled back and forth over the freeway to join others. As such, keeping both White Rock's together and linking to Cordova Gardens in District 3. District 4 utilizes the middle school as a means for a shared interest for those living in the south of the freeway part to join with those in Walnut Wood.
4. I also wanted to keep the area East of Sunrise Blvd. intact as that was another concern of the council, and I did such in District 2.
5. For District 5, they kept the distinction of being North of Coloma Rd. and along the river's edge. I also kept Cordova Vineyards and Cordova Lane together as many maps had portions broken up splitting them apart.
6. I would also like to have the election sequences be Districts 1, 3, and 5 in 2024. Districts 2 and 4 be in 2026. The CVRA is designed to have the lower turnout districts run in Presidential election years while the more affluent districts run in Non-Presidential years.

From: [Fayzah Mughal](#)
To: [City Clerk Mailbox; districts](#)
Subject: General Public Comment for Regular Mtg 09/05/23 re:Item 13 + Districts email submission
Date: Tuesday, September 5, 2023 9:06:30 AM
Attachments: [Author-Revised 511\(b\) Justifications \(2\).pdf](#)
[map-image \(3\).png](#)
[RanchoNeighborhoods.png](#)
[511\(b\)SupportPg.1.png](#)
[511\(b\)SupportPg.2.png](#)

Hello,

Please attach all of the following documents to the agenda as my general public comment for tonight's Regular Mtg, including the signatures of support (with emails redacted).

I am also submitting all the attached items to the Districts email: **Author-Revised Map 511(b)'s proposed Election Sequencing is explicitly stated in my Map Justifications and should be displayed on/with my map (D1, D3, D5 in 2024, then D2, D4 in 2026).** I am also submitting signatures of support, and will re-submit them if the numbers increase by Public Hearing #4. The map URL is located inside of the pdf and the map is 'published' on Dave's mapping tool.

Thank you,

Fayzah Mughal

Email Address	Name	Your Rancho Cordova Neighborhood	Are you in favor of AUTHOR-REVISED Map #511(b)?
	Fayzah Mughal	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Michael Dack	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Dr. Lysha Lewis	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Michael Powell	Lincoln village	I fully support AUTHOR-REVISED Map #511(b)!
	Amber Verdugo	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Philip E. Lutz	Sun River	I fully support AUTHOR-REVISED Map #511(b)!
	Ibyan Rivera	Mills Ranch	I fully support AUTHOR-REVISED Map #511(b)!
	Susan Taylor	White Rock	I fully support AUTHOR-REVISED Map #511(b)!
	Sheree DeLaney	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Angel Ball	Vineyards	I fully support AUTHOR-REVISED Map #511(b)!
	Greg Ball	Rancho Cordova	I fully support AUTHOR-REVISED Map #511(b)!
	Diana Lentz	Cordova Vineyards	I fully support AUTHOR-REVISED Map #511(b)!
	Maryam Abdur-Rahim	Lincoln village	I fully support AUTHOR-REVISED Map #511(b)!
	Joyce Rosenberg	Cordova Lane	I fully support AUTHOR-REVISED Map #511(b)!
	Janine	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Wayne Kaiser	Briarwood Coloma	I fully support AUTHOR-REVISED Map #511(b)!
	Rachel Johnson	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Aaron roundtree	Mcgregor and folsom area	I fully support AUTHOR-REVISED Map #511(b)!
	Antoinetta Johnsom	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Sergio Diaz	Tiffany West	I fully support AUTHOR-REVISED Map #511(b)!
	Kimberlee Wilson	Cordova meadows	I fully support AUTHOR-REVISED Map #511(b)!
	Mari Bailey-Day	Lincoln Village Dr	I fully support AUTHOR-REVISED Map #511(b)!
	Cindy Latu	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Isa Abdur-Rahim	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Becky Gunvordahl	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Lupe Trevizo Hernandez	Sunriver	I fully support AUTHOR-REVISED Map #511(b)!
	Alex St. John	South White Rock	I fully support AUTHOR-REVISED Map #511(b)!
	Julie Gasbarro	Cordova Lane	I fully support AUTHOR-REVISED Map #511(b)!
	Robert Gasbarro	Cordova Lane	I fully support AUTHOR-REVISED Map #511(b)!
	Alison Gasbarro	Cordova Lane	I fully support AUTHOR-REVISED Map #511(b)!
	Jason Gasbarro	Cordova Lane	I fully support AUTHOR-REVISED Map #511(b)!
	Tayler Hagen	Sun River (current) and Countryside (childhood / mother still lives there)	I fully support AUTHOR-REVISED Map #511(b)!
	Anne Nicolaou	Sun River	I fully support AUTHOR-REVISED Map #511(b)!
	Alejandro Vasquez	Sun River	I fully support AUTHOR-REVISED Map #511(b)!
	Ace	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Heather	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Nancy Alpert-Fogler	Sunriver	I fully support AUTHOR-REVISED Map #511(b)!
	Larry Leroy Ladd	Sunriver	I fully support AUTHOR-REVISED Map #511(b)!
	Judy Johnson		3 I fully support AUTHOR-REVISED Map #511(b)!
	James Johnson		3 I fully support AUTHOR-REVISED Map #511(b)!
	Monica Milton	Cordova Towne	I fully support AUTHOR-REVISED Map #511(b)!

Email Address	Name	Your Rancho Cordova Neighborhood	Are you in favor of AUTHOR-REVISED Map #511(b)?
	Michelle BEJARANO	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Robert BEJARANO	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Heather Mangum	Lincoln village	I fully support AUTHOR-REVISED Map #511(b)!
	Jacqueline Koenig	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Kayla Lopez	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Adan Lopez	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Isabella Lopez	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!
	Deborah Green	Sunridge Park	I fully support AUTHOR-REVISED Map #511(b)!
	Antonia Marez	Lincoln Village	I fully support AUTHOR-REVISED Map #511(b)!

AUTHOR-REVISED Map 511(b): Map Justifications

Map 511(b) URL:

<https://davesredistricting.org/join/6410400f-93fa-4b65-a11e-2cff2a48ec8e>

After Public Hearing #3 on 08/29 I took note of some of the Council's feedback that adhering to the City's map of neighborhood boundaries was more important to them than keeping the **Communities of Interest (Col)** on Map #511 together.

Although the LAW PRIORITIZES keeping Col together before the preservation of boundaries, I've attempted to marry the two criteria, respecting existing neighborhood boundaries while still preserving as much diversity as possible to guard against dilution.

The law requires that we base district size on the 2020 Census population data and MUST NOT earmark districts in anticipation of future growth; we must redistrict at the appropriate time after population growth actually takes place. For this reason I opted to adjust the shape of the district to the east of Sunrise to keep my map LAWFUL and contiguous. I grouped the whole of D4 together to meet population balance, which is the #1 PRIORITY of the Fair Maps Act law. Drawing D4 this way allowed me to meet the #2 PRIORITY of the law, which is to preserve COI, as well as meet maximum compliance with the #3 PRIORITY of the law, which is to respect existing boundaries (i.e.city/neighborhood boundaries).

Author-Revised Map 511(b) has a 96.2% rate of neighborhood boundary preservation as depicted on the city's neighborhood map handout. Unlabeled on the neighborhood map is the Mobil Country Park, which I have treated as a distinct neighborhood (bringing the total to 27) and kept whole.

PROPOSED ELECTION SEQUENCE: D1, D3, D5 in 2024 (filling empty seats/giving more under-represented Col a voice), then D2, D4 in 2026.

Author-Revised Map 511(b)'s Neighborhood Preservation rate is 96.2%*

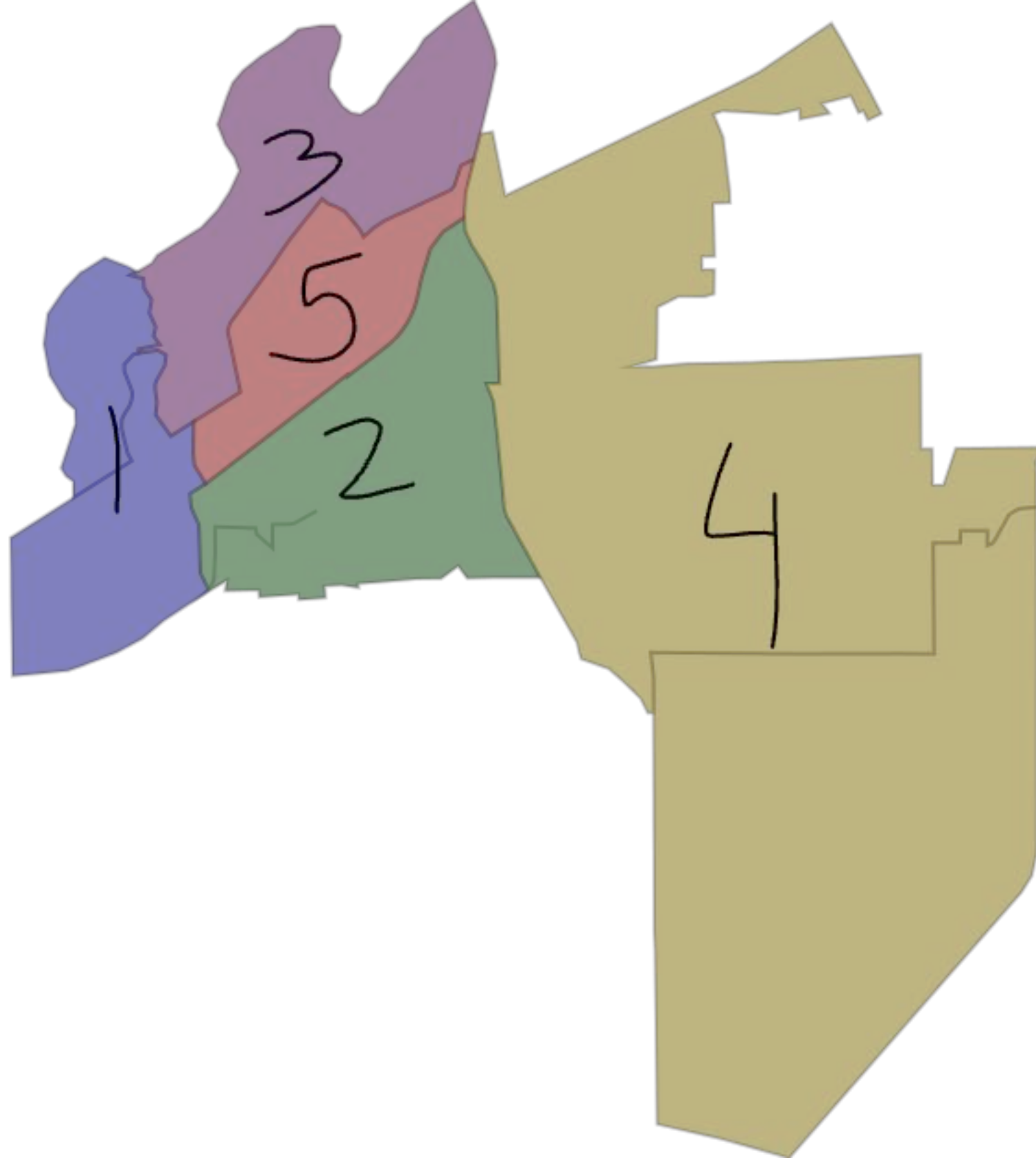
*includes several Biz Parks + Mobil Country Club as distinct 'neighborhoods', as depicted on city's neighborhood map

District	D1	D2	D3	D4	D5
Neighborhoods	Lincoln Village Countryside Brookside Cordova Meadows	Mather Business Park South White Rock Stone Creek Capital Village Prospect Park	Cordova Gardens Mills Ranch Sunriver ½ Walnut Wood	Mobil Country Club Sunrise Industrial Aerojet Business Park Sunrise Industrial South Rio Del Oro Somerset Ranch Sunridge Anatolia Sunridge Park Sunridge East Kavala Ranch Sunrise/Jackson	White Rock Cordova Vineyards Cordova Lane ½ Walnut Wood

AUTHOR-REVISED Map 511(b): Map Justifications

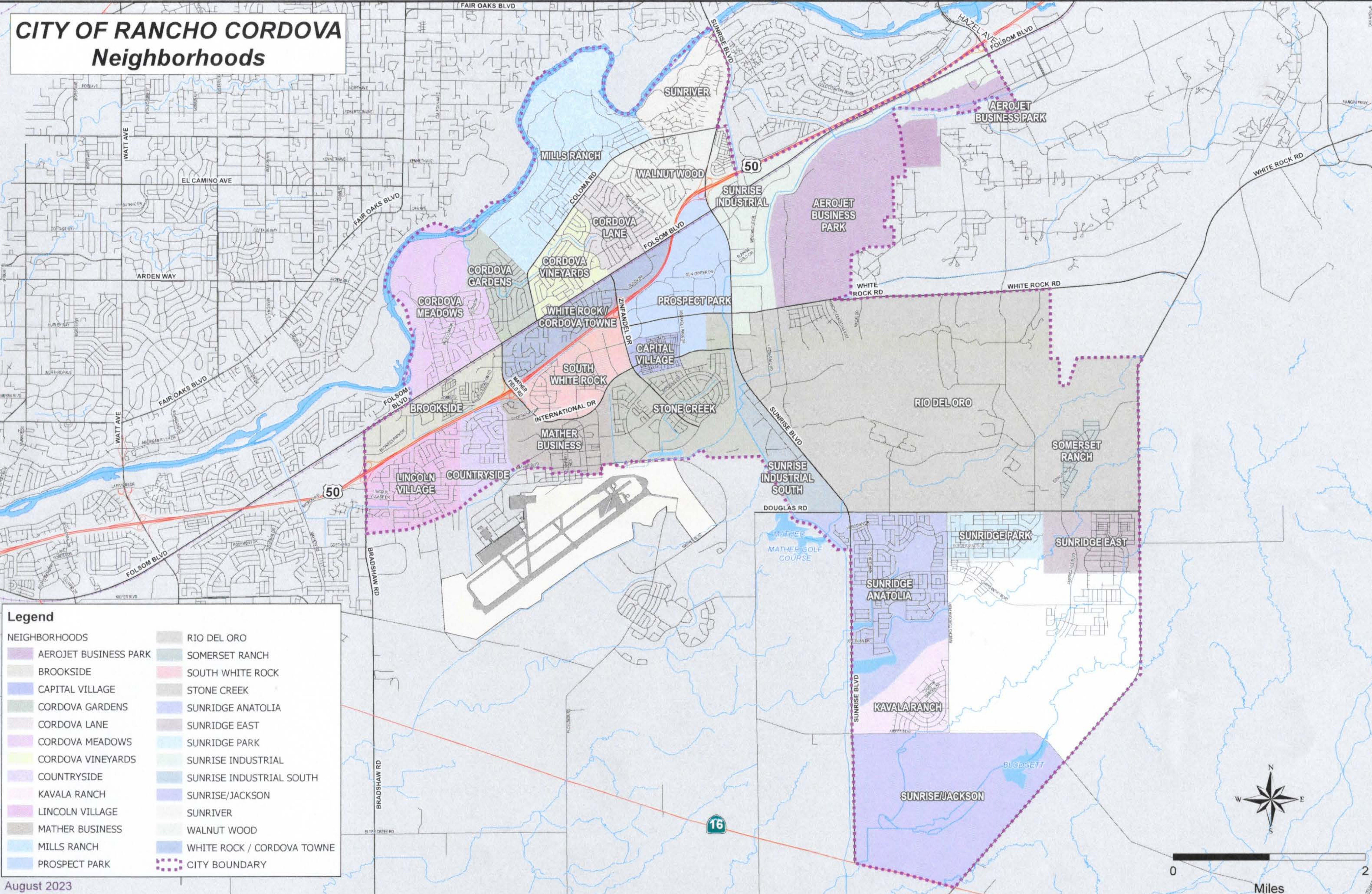
*Residents may **sign their support for Map 511(b)** by scanning this QR Code:*





CITY OF RANCHO CORDOVA

Neighborhoods

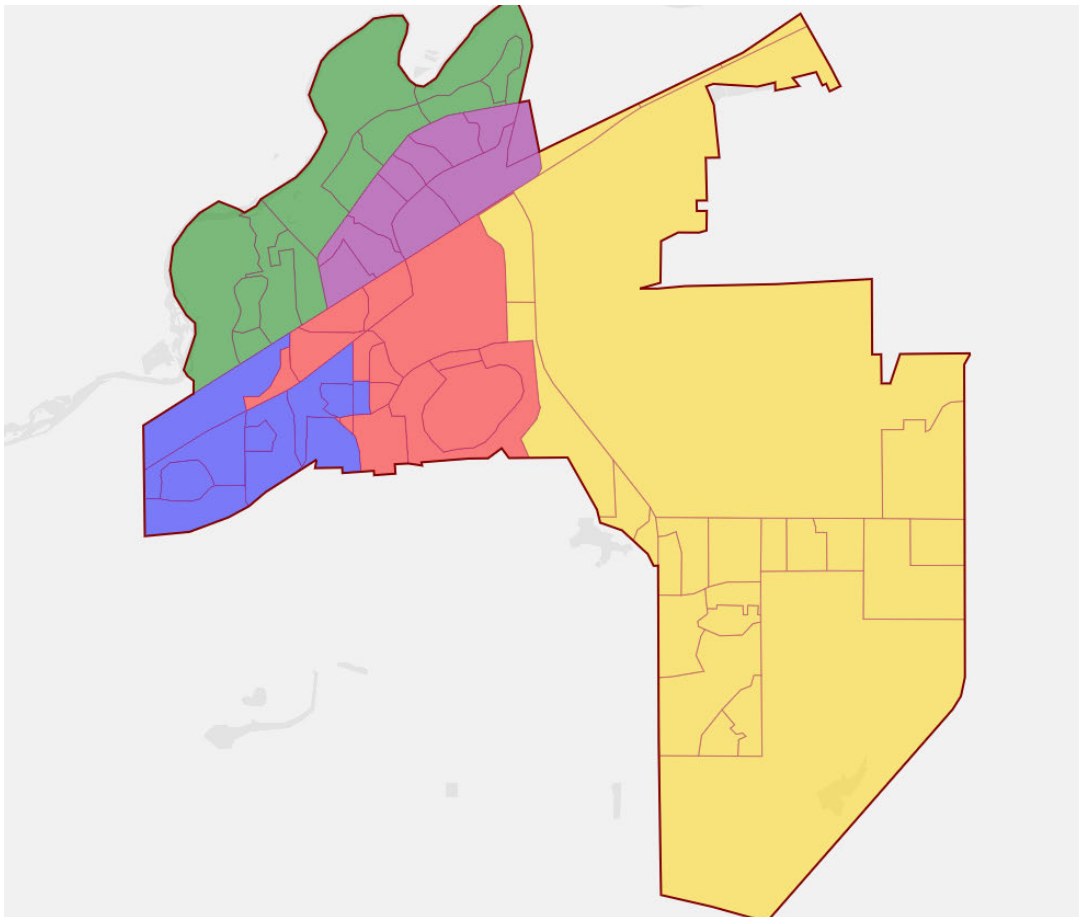


From: [Scott Rafferty](#)
To: [districts](#)
Subject: Failed Attempt to maintain Folsom Blvd.
Date: Thursday, September 7, 2023 10:25:49 PM
Attachments: [image.png](#)
[image.png](#)
[Dont cross Folsom Blvd.csv](#)

The Pico decision requires CVRA remedies to improve the minority's ability to elect or to influence elections. Ms. Mughal's map creates a strong minority district with a near majority of Latinos and Blacks. Most of the city's Afghan refugees live in this district, and many are just becoming citizens. It preserves neighborhoods to an extraordinary degree, and avoids combining disparate neighborhoods. The result is distinct districts that provide greatly improved representation for voters of all races.

Several members suggested that it was desirable to maintain Folsom Blvd as a boundary. This simply doesn't work. It requires underpopulating the districts North of Folsom and East of Sunrise, while overpopulating the historically underrepresented areas of the city that have socio-economic needs that impair their political influence. Maintaining high concentrations of the protected groups, combined with irregular census blocks, is not consistent with a natural division between the two remedial districts south of Folsom. The attached map demonstrates these incurable defects.

Ms. Mughal's scores high on all the FAIRMAPS Act criteria and is an effective remedy for the groups protected by the CVRA. It is widely supported by the community, for good reason.



ID ↑	Population		Shapes		Partisan Lean			Demographics (CVAP)					
	Total	+/-			Dem	Rep	Oth	Total	White	Minority	Hispanic	Black	Asian
Un	0				0%	0%	0%	0	0%	0%	0%	0%	0%
1	16,445	3.65%			60.29%	37.19%	2.52%	10,287	47.41%	52.59%	16.23%	22.95%	9.68%
2	15,394	-2.98%			53.29%	43.97%	2.74%	9,515	66.37%	33.63%	15.55%	6.03%	9.69%
3	15,393	-2.98%			51.73%	45.51%	2.76%	10,900	63.85%	36.15%	17.2%	9.9%	7.1%
4	16,473	3.82%			56.97%	40.93%	2.1%	9,818	50.72%	49.28%	13.77%	11.27%	19.77%
5	15,627	-1.51%			55.28%	42.57%	2.15%	8,377	49.62%	50.38%	11.85%	11.82%	25.62%
	15,866	6.81%			55.35%	42.19%	2.46%	9,779	55.81%	44.19%	15.07%	12.5%	13.86%

Scott Rafferty



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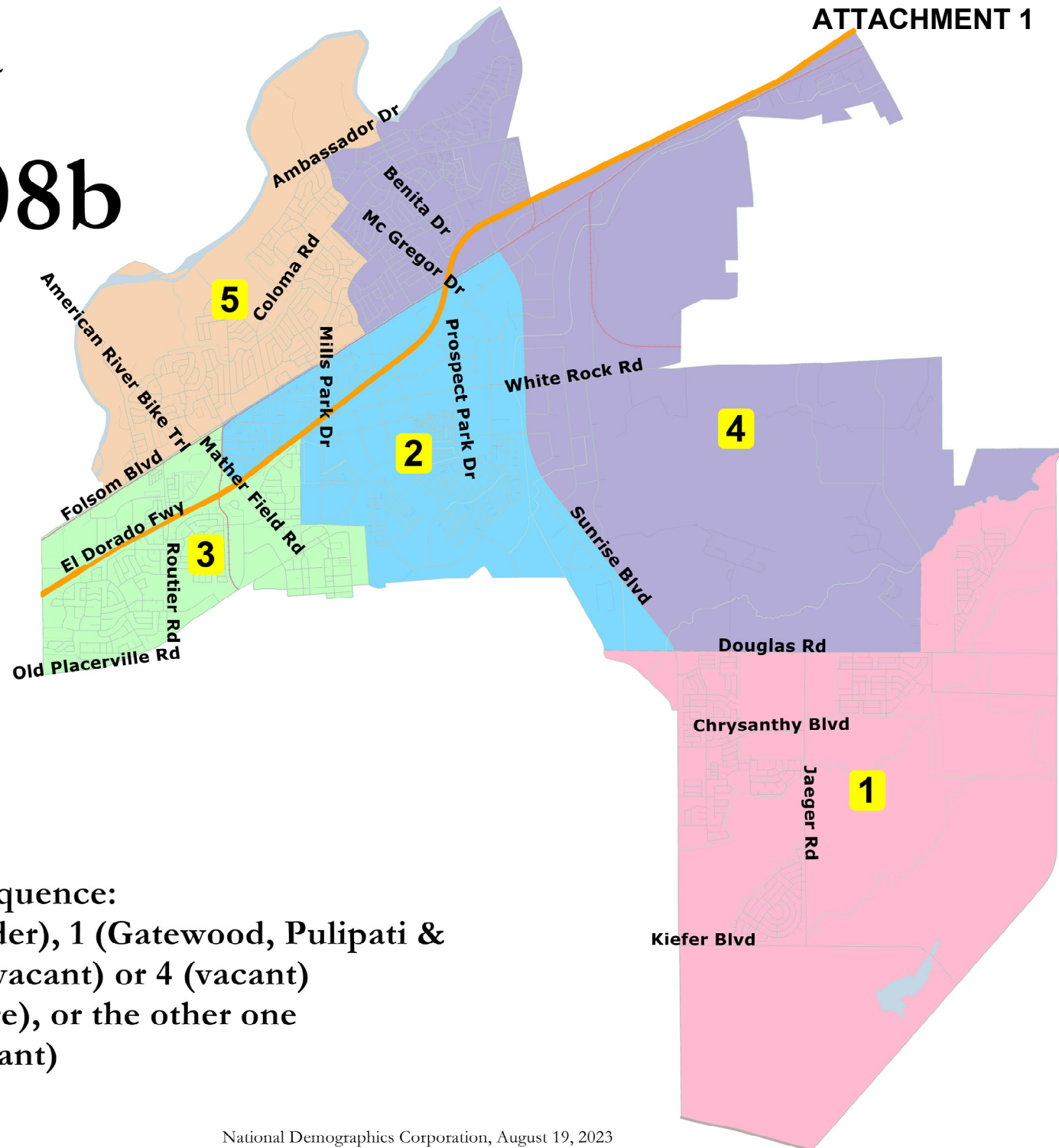
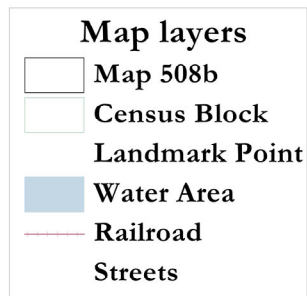
[illegible]

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6.07E+13	5
6.07E+13	5

Rancho Cordova
2023 Districting

Map 508b



Proposed Election Sequence:

2024: Districts 5 (Sander), 1 (Gatewood, Pulipati & Terry), and one of 3 (vacant) or 4 (vacant)

2026: District 2 (Budge), or the other one of 3 (vacant) or 4 (vacant)

ITEM 11.1.

Map 508b

ATTACHMENT 1

District		1	2	3	4	5	Total
	Total Pop	15,373	16,776	16,316	15,297	15,881	79,643
	Deviation from ideal	-556	847	387	-632	-48	1,479
	% Deviation	-3.49%	5.32%	2.43%	-3.97%	-0.30%	9.28%
Total Pop	% Hisp	13.5%	21%	24%	24%	25%	22%
	% NH White	39%	41%	43%	52%	49%	45%
	% NH Black	8%	11%	14%	9%	10%	11%
	% Asian-American	34%	22%	12%	9%	10%	17%
Citizen Voting Age Pop	Total	9,149	11,455	9,754	10,782	10,365	51,505
	% Hisp	15%	13%	19%	15%	18%	16%
	% NH White	44%	49%	45%	67%	63%	54%
	% NH Black	10%	15%	21%	9%	7%	13%
	% Asian/Pac.Isl.	30%	19%	13%	8%	9%	15%
Voter Registration (Nov 2020)	Total	9,145	8,574	8,049	8,419	8,625	42,812
	% Latino est.	14%	15%	17%	14%	14%	15%
	% Spanish-Surnamed	13%	14%	16%	13%	13%	14%
	% Asian-Surnamed	12%	9%	5%	3%	3%	6%
	% Filipino-Surnamed	4%	3%	1%	1%	1%	2%
	% NH White est.	61%	59%	55%	74%	77%	65%
	% NH Black	9%	14%	22%	8%	5%	11%
Voter Turnout (Nov 2020)	Total	7,798	6,761	5,969	6,655	6,768	33,951
	% Latino est.	14%	13%	15%	13%	13%	13%
	% Spanish-Surnamed	13%	13%	14%	12%	12%	13%
	% Asian-Surnamed	11%	9%	5%	2%	3%	6%
	% Filipino-Surnamed	3%	3%	1%	2%	1%	2%
	% NH White est.	62%	60%	56%	75%	78%	66%
	% NH Black	9%	13%	22%	8%	5%	11%
Voter Turnout (Nov 2018)	Total	4,572	4,248	3,687	4,782	4,783	22,072
	% Latino est.	13%	12%	14%	10%	10%	12%
	% Spanish-Surnamed	12%	12%	13%	10%	10%	11%
	% Asian-Surnamed	9%	7%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	1%	2%	2%
	% NH White est.	63%	63%	56%	78%	80%	69%
	% NH Black est.	9%	13%	21%	7%	4%	11%
ACS Pop. Est.	Total	13,821	17,572	14,814	15,761	16,534	78,502
Age	age0-19	31%	27%	27%	24%	29%	28%
	age20-60	54%	57%	56%	55%	53%	55%
	age60plus	15%	16%	17%	20%	18%	17%
Immigration	immigrants	26%	25%	24%	23%	22%	24%
	naturalized	85%	58%	62%	52%	47%	61%
Language spoken at home	english	68%	62%	63%	71%	63%	65%
	spanish	3%	13%	17%	11%	16%	12%
	asian-lang	17%	12%	7%	5%	4%	9%
	other lang	12%	13%	14%	13%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	18%	18%	14%	17%	16%
Education (among those age 25+)	hs-grad	48%	59%	65%	68%	63%	61%
	bachelor	32%	20%	13%	15%	18%	19%
	graduatedegree	15%	9%	4%	6%	7%	8%
Child in Household	child-under18	47%	36%	35%	32%	37%	37%
Pct of Pop. Age 16+	employed	73%	69%	65%	64%	63%	67%
Household Income	income 0-25k	4%	10%	21%	17%	13%	14%
	income 25-50k	3%	15%	25%	17%	20%	17%
	income 50-75k	13%	19%	17%	19%	21%	18%
	income 75-200k	55%	49%	34%	43%	43%	44%
	income 200k-plus	25%	7%	3%	4%	3%	7%
Housing Stats	single family	99%	66%	68%	74%	69%	74%
	multi-family	1%	34%	32%	26%	31%	26%
	rented	13%	50%	52%	47%	48%	44%
	owned	87%	50%	48%	53%	52%	56%

Total population data from the 2020 Decennial Census.

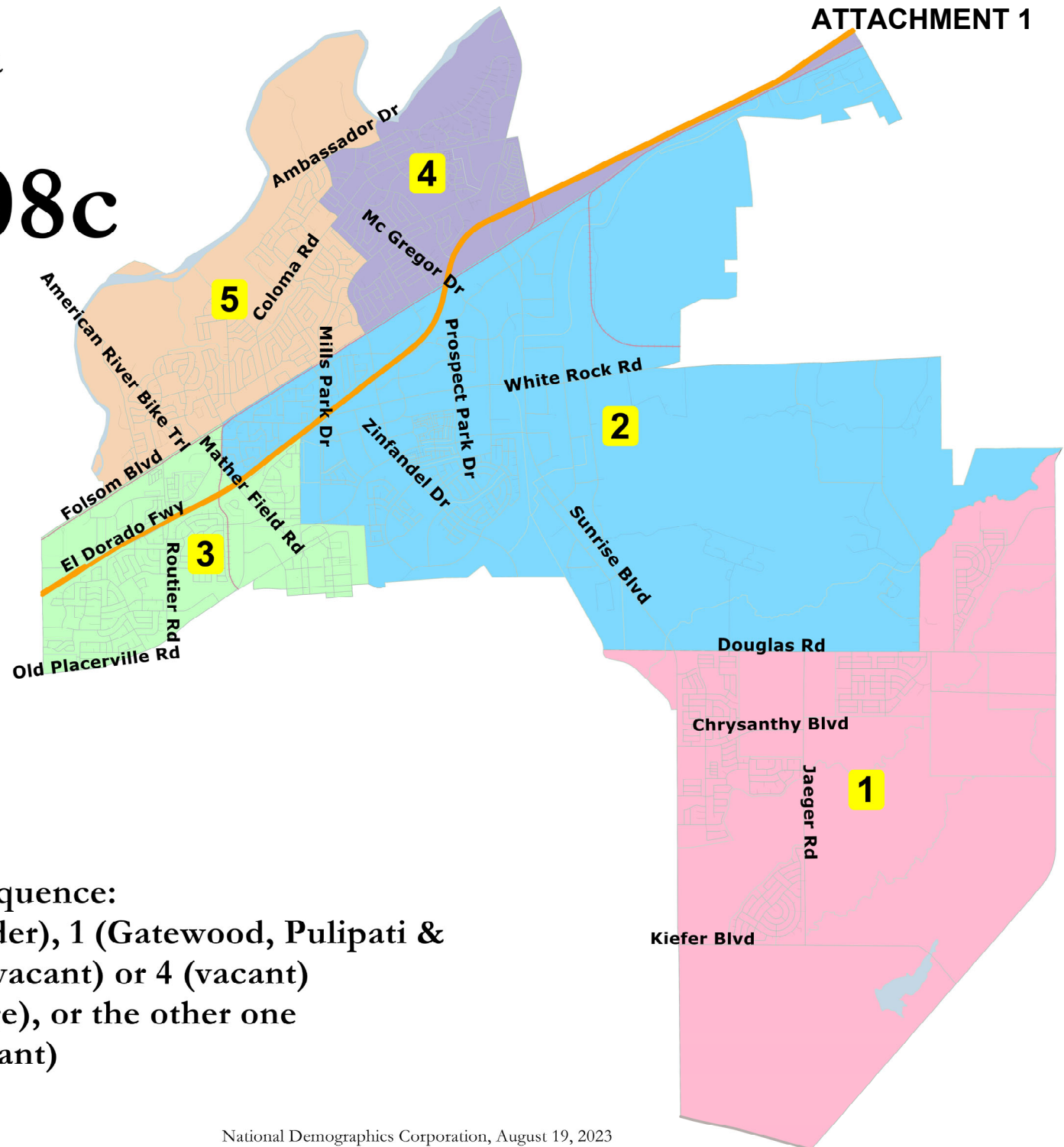
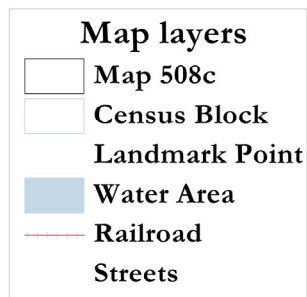
Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

ITEM 11.1.
Rancho Cordova
2023 Districting

Map 508c

ATTACHMENT 1



Proposed Election Sequence:

2024: Districts 5 (Sander), 1 (Gatewood, Pulipati & Terry), and one of 3 (vacant) or 4 (vacant)

2026: District 2 (Budge), or the other one of 3 (vacant) or 4 (vacant)

ITEM 11.1.

Map 508c

ATTACHMENT 1

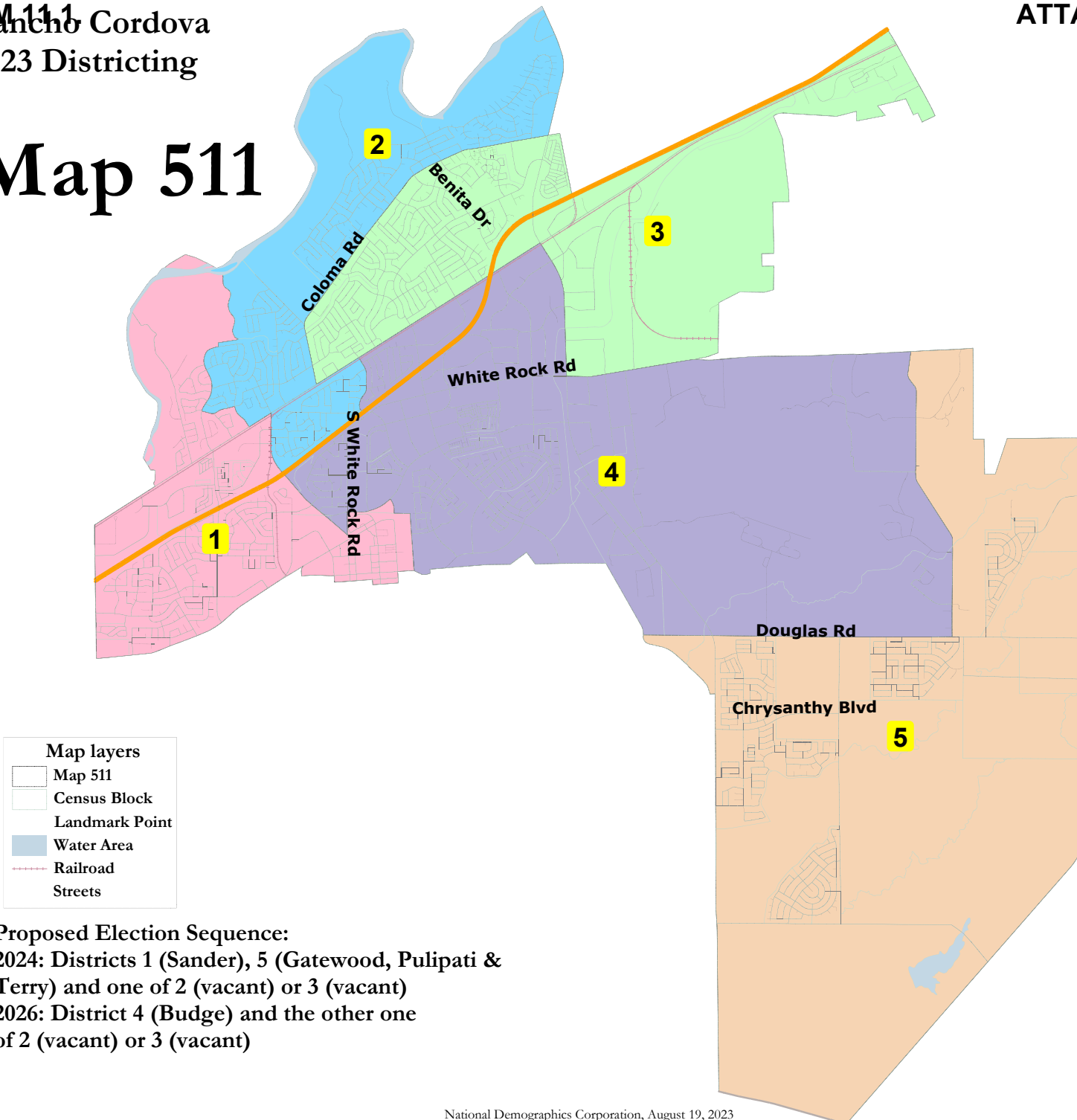
District		1	2	3	4	5	Total
	Total Pop	15,373	16,859	16,316	15,488	15,607	79,643
	Deviation from ideal	-556	930	387	-441	-322	1,486
	% Deviation	-3.49%	5.84%	2.43%	-2.77%	-2.02%	9.33%
Total Pop	% Hisp	13.5%	21%	24%	24%	25%	22%
	% NH White	39%	41%	43%	52%	49%	45%
	% NH Black	8%	11%	14%	9%	11%	11%
	% Asian-American	34%	22%	12%	9%	10%	17%
Citizen Voting Age Pop	Total	9,149	11,455	9,754	10,920	10,227	51,505
	% Hisp	15%	13%	19%	15%	18%	16%
	% NH White	44%	49%	45%	66%	63%	54%
	% NH Black	10%	15%	21%	8%	7%	13%
	% Asian/Pac.Isl.	30%	19%	13%	8%	9%	15%
Voter Registration (Nov 2020)	Total	9,145	8,593	8,049	8,523	8,502	42,812
	% Latino est.	14%	15%	17%	14%	14%	15%
	% Spanish-Surnamed	13%	14%	16%	13%	13%	14%
	% Asian-Surnamed	12%	9%	5%	3%	3%	6%
	% Filipino-Surnamed	4%	3%	1%	1%	1%	2%
	% NH White est.	61%	59%	55%	74%	77%	65%
	% NH Black	9%	14%	22%	8%	5%	11%
Voter Turnout (Nov 2020)	Total	7,798	6,774	5,969	6,738	6,672	33,951
	% Latino est.	14%	14%	15%	13%	12%	13%
	% Spanish-Surnamed	13%	13%	14%	12%	12%	13%
	% Asian-Surnamed	11%	9%	5%	2%	3%	6%
	% Filipino-Surnamed	3%	3%	1%	2%	1%	2%
	% NH White est.	62%	60%	56%	75%	78%	66%
	% NH Black	9%	13%	22%	7%	5%	11%
Voter Turnout (Nov 2018)	Total	4,572	4,250	3,687	4,837	4,726	22,072
	% Latino est.	13%	12%	14%	10%	10%	12%
	% Spanish-Surnamed	12%	12%	13%	10%	10%	11%
	% Asian-Surnamed	9%	7%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	1%	2%	2%
	% NH White est.	63%	63%	56%	78%	80%	69%
	% NH Black est.	9%	13%	21%	7%	4%	11%
ACS Pop. Est.	Total	13,821	17,572	14,814	15,982	16,313	78,502
Age	age0-19	31%	27%	27%	24%	29%	28%
	age20-60	54%	57%	56%	55%	53%	55%
	age60plus	15%	16%	17%	21%	18%	17%
Immigration	immigrants	26%	25%	24%	23%	22%	24%
	naturalized	85%	58%	62%	52%	47%	61%
Language spoken at home	english	68%	62%	63%	71%	63%	65%
	spanish	3%	13%	17%	11%	16%	12%
	asian-lang	17%	12%	7%	5%	4%	9%
	other lang	12%	13%	14%	13%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	18%	18%	14%	16%	16%
Education (among those age 25+)	hs-grad	48%	59%	65%	69%	63%	61%
	bachelor	32%	20%	13%	15%	18%	19%
	graduatedegree	15%	9%	4%	6%	7%	8%
Child in Household	child-under18	47%	36%	35%	32%	37%	37%
Pct of Pop. Age 16+	employed	73%	69%	65%	64%	63%	67%
Household Income	income 0-25k	4%	10%	21%	17%	13%	14%
	income 25-50k	3%	15%	25%	17%	20%	17%
	income 50-75k	13%	19%	17%	19%	21%	18%
	income 75-200k	55%	49%	34%	43%	43%	44%
	income 200k-plus	25%	7%	3%	4%	3%	7%
Housing Stats	single family	99%	66%	68%	73%	70%	74%
	multi-family	1%	34%	32%	27%	30%	26%
	rented	13%	50%	52%	47%	48%	44%
	owned	87%	50%	48%	53%	52%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 511



ITEM 11.1.

Map 511

ATTACHMENT 1

District		1	2	3	4	5	Total
	Total Pop	16,386	16,139	15,670	16,055	15,393	79,643
	Deviation from ideal	457	210	-259	126	-536	993
	% Deviation	2.87%	1.32%	-1.63%	0.79%	-3.36%	6.23%
Total Pop	% Hisp	24.0%	23%	27%	19%	14%	22%
	% NH White	43%	52%	48%	40%	39%	45%
	% NH Black	14%	10%	9%	12%	8%	11%
	% Asian-American	12%	9%	9%	23%	34%	17%
Citizen Voting Age Pop	Total	10,370	10,359	11,093	10,534	9,149	51,505
	% Hisp	18%	16%	18%	13%	15%	16%
	% NH White	47%	65%	64%	48%	44%	54%
	% NH Black	20%	7%	9%	16%	10%	13%
	% Asian/Pac.Isl.	13%	10%	7%	19%	30%	15%
Voter Registration (Nov 2020)	Total	8,222	8,891	8,223	8,324	9,152	42,812
	% Latino est.	16%	13%	15%	14%	14%	15%
	% Spanish-Surnamed	15%	12%	14%	13%	13%	14%
	% Asian-Surnamed	5%	3%	2%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	4%	2%
	% NH White est.	58%	76%	73%	58%	61%	65%
	% NH Black	19%	6%	8%	15%	9%	11%
Voter Turnout (Nov 2020)	Total	6,163	7,034	6,345	6,607	7,802	33,951
	% Latino est.	15%	12%	14%	13%	14%	13%
	% Spanish-Surnamed	14%	11%	13%	12%	13%	13%
	% Asian-Surnamed	5%	3%	2%	9%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	3%	2%
	% NH White est.	59%	78%	73%	59%	62%	66%
	% NH Black	19%	6%	8%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	3,938	5,032	4,483	4,047	4,572	22,072
	% Latino est.	13%	10%	11%	12%	13%	12%
	% Spanish-Surnamed	13%	10%	11%	11%	12%	11%
	% Asian-Surnamed	5%	2%	2%	7%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	60%	79%	76%	62%	63%	69%
	% NH Black est.	18%	5%	7%	14%	9%	11%
ACS Pop. Est.	Total	16,196	16,146	16,461	15,877	13,821	78,502
Age	age0-19	28%	28%	26%	26%	31%	28%
	age20-60	55%	53%	55%	59%	54%	55%
	age60plus	17%	19%	20%	15%	15%	17%
Immigration	immigrants	23%	26%	21%	25%	26%	24%
	naturalized	56%	50%	53%	61%	85%	61%
Language spoken at home	english	62%	63%	69%	64%	68%	65%
	spanish	17%	12%	15%	12%	3%	12%
	asian-lang	7%	8%	3%	10%	17%	9%
	other lang	14%	17%	12%	13%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	19%	13%	17%	13%	16%
Education (among those age 25+)	hs-grad	62%	66%	66%	61%	48%	61%
	bachelor	14%	14%	16%	22%	32%	19%
	graduatedegree	5%	6%	6%	9%	15%	8%
Child in Household	child-under18	35%	36%	35%	33%	47%	37%
Pct of Pop. Age 16+	employed	63%	65%	62%	72%	73%	67%
Household Income	income 0-25k	20%	16%	16%	10%	4%	14%
	income 25-50k	23%	17%	19%	18%	3%	17%
	income 50-75k	17%	22%	20%	17%	13%	18%
	income 75-200k	35%	43%	43%	48%	55%	44%
	income 200k-plus	4%	3%	2%	7%	25%	7%
Housing Stats	single family	69%	75%	72%	62%	99%	74%
	multi-family	31%	25%	28%	38%	1%	26%
	rented	50%	43%	49%	55%	13%	44%
	owned	50%	57%	51%	45%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

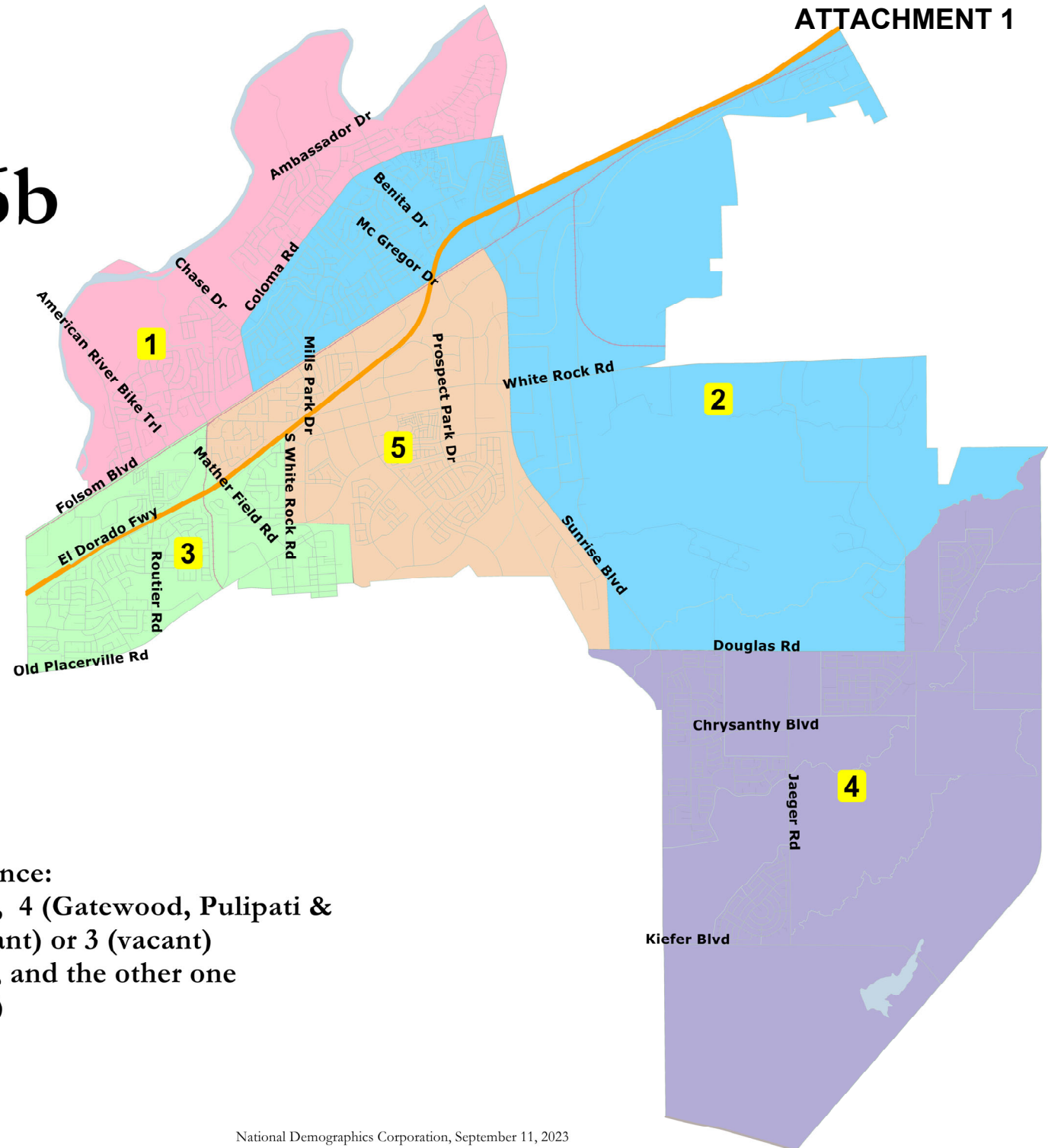
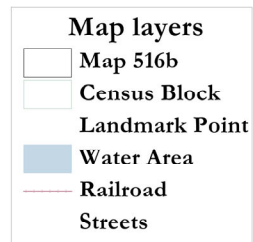
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ITEM 11.1.

Rancho Cordova 2023 Districting

Map 516b

ATTACHMENT 1



Proposed Election Sequence:

2024: Districts 1 (Sander), 4 (Gatewood, Pulipati & Terry), and one of 2 (vacant) or 3 (vacant)

2026: Districts 5 (Budge), and the other one of 2 (vacant) or 3 (vacant)

ITEM 11.1.

Map 516b

ATTACHMENT 1

District		1	2	3	4	5	Total
	Total Pop	15,454	15,724	16,316	15,373	16,776	79,643
	Deviation from ideal	-475	-205	387	-556	847	1,403
	% Deviation	-2.98%	-1.29%	2.43%	-3.49%	5.32%	8.81%
Total Pop	% Hisp	21.1%	27%	24%	14%	21%	22%
	% NH White	52%	48%	43%	39%	41%	45%
	% NH Black	11%	9%	14%	8%	11%	11%
	% Asian-American	10%	9%	12%	34%	22%	17%
Citizen Voting Age Pop	Total	10,054	11,093	9,754	9,149	11,455	51,505
	% Hisp	16%	18%	19%	15%	13%	16%
	% NH White	65%	64%	45%	44%	49%	54%
	% NH Black	7%	9%	21%	10%	15%	13%
	% Asian/Pac.Isl.	10%	7%	13%	30%	19%	15%
Voter Registration (Nov 2020)	Total	8,804	8,240	8,049	9,145	8,574	42,812
	% Latino est.	12%	15%	17%	14%	15%	15%
	% Spanish-Surnamed	12%	14%	16%	13%	14%	14%
	% Asian-Surnamed	3%	2%	5%	12%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	4%	3%	2%
	% NH White est.	79%	72%	55%	61%	59%	65%
	% NH Black	5%	8%	22%	9%	14%	11%
Voter Turnout (Nov 2020)	Total	7,067	6,356	5,969	7,798	6,761	33,951
	% Latino est.	11%	14%	15%	14%	13%	13%
	% Spanish-Surnamed	11%	13%	14%	13%	13%	13%
	% Asian-Surnamed	3%	2%	5%	11%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	80%	73%	56%	62%	60%	66%
	% NH Black	5%	8%	22%	9%	13%	11%
Voter Turnout (Nov 2018)	Total	5,082	4,483	3,687	4,572	4,248	22,072
	% Latino est.	10%	11%	14%	13%	12%	12%
	% Spanish-Surnamed	9%	11%	13%	12%	12%	11%
	% Asian-Surnamed	2%	2%	5%	9%	7%	5%
	% Filipino-Surnamed	1%	2%	2%	3%	3%	2%
	% NH White est.	81%	76%	56%	63%	63%	69%
	% NH Black est.	4%	7%	21%	9%	13%	11%
ACS Pop. Est.	Total	15,834	16,461	14,814	13,821	17,572	78,502
Age	age0-19	28%	26%	27%	31%	27%	28%
	age20-60	53%	55%	56%	54%	57%	55%
	age60plus	19%	20%	17%	15%	16%	17%
Immigration	immigrants	24%	21%	24%	26%	25%	24%
	naturalized	46%	53%	62%	85%	58%	61%
Language spoken at home	english	64%	69%	63%	68%	62%	65%
	spanish	12%	15%	17%	3%	13%	12%
	asian-lang	6%	3%	7%	17%	12%	9%
	other lang	18%	12%	14%	12%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	13%	18%	13%	18%	16%
Education (among those age 25+)	hs-grad	66%	66%	65%	48%	59%	61%
	bachelor	17%	16%	13%	32%	20%	19%
	graduatedegree	7%	6%	4%	15%	9%	8%
Child in Household	child-under18	34%	35%	35%	47%	36%	37%
Pct of Pop. Age 16+	employed	65%	62%	65%	73%	69%	67%
Household Income	income 0-25k	14%	16%	21%	4%	10%	14%
	income 25-50k	18%	19%	25%	3%	15%	17%
	income 50-75k	20%	20%	17%	13%	19%	18%
	income 75-200k	42%	43%	34%	55%	49%	44%
	income 200k-plus	5%	2%	3%	25%	7%	7%
Housing Stats	single family	70%	72%	68%	99%	66%	74%
	multi-family	30%	28%	32%	1%	34%	26%
	rented	46%	49%	52%	13%	50%	44%
	owned	54%	51%	48%	87%	50%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

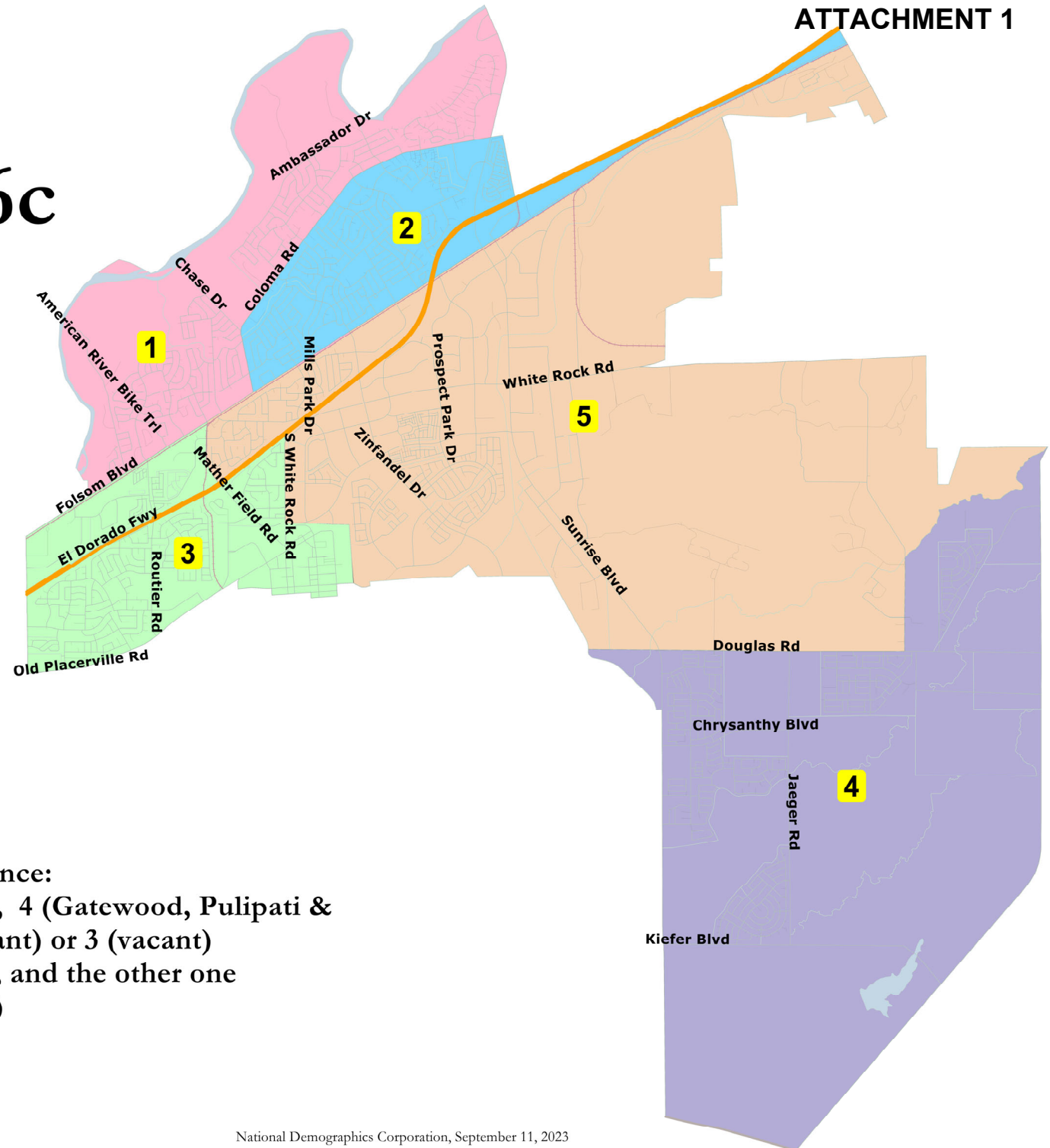
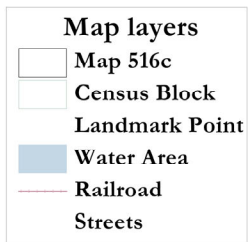
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ITEM 11.1.

Rancho Cordova
2023 Districting

Map 516c

ATTACHMENT 1



Proposed Election Sequence:

2024: Districts 1 (Sander), 4 (Gatewood, Pulipati & Terry), and one of 2 (vacant) or 3 (vacant)
2026: Districts 5 (Budge), and the other one of 2 (vacant) or 3 (vacant)

ITEM 11.1.

Map 516c

ATTACHMENT 1

District		1	2	3	4	5	Total
	Total Pop	15,454	15,641	16,316	15,373	16,859	79,643
	Deviation from ideal	-475	-288	387	-556	930	1,486
	% Deviation	-2.98%	-1.81%	2.43%	-3.49%	5.84%	9.33%
Total Pop	% Hisp	21.1%	27%	24%	14%	21%	22%
	% NH White	52%	49%	43%	39%	41%	45%
	% NH Black	11%	9%	14%	8%	11%	11%
	% Asian-American	10%	9%	12%	34%	22%	17%
Citizen Voting Age Pop	Total	10,054	11,093	9,754	9,149	11,455	51,505
	% Hisp	16%	18%	19%	15%	13%	16%
	% NH White	65%	64%	45%	44%	49%	54%
	% NH Black	7%	9%	21%	10%	15%	13%
	% Asian/Pac.Isl.	10%	7%	13%	30%	19%	15%
Voter Registration (Nov 2020)	Total	8,804	8,221	8,049	9,145	8,593	42,812
	% Latino est.	12%	15%	17%	14%	15%	15%
	% Spanish-Surnamed	12%	14%	16%	13%	14%	14%
	% Asian-Surnamed	3%	2%	5%	12%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	4%	3%	2%
	% NH White est.	79%	73%	55%	61%	59%	65%
	% NH Black	5%	8%	22%	9%	14%	11%
Voter Turnout (Nov 2020)	Total	7,067	6,343	5,969	7,798	6,774	33,951
	% Latino est.	11%	14%	15%	14%	14%	13%
	% Spanish-Surnamed	11%	13%	14%	13%	13%	13%
	% Asian-Surnamed	3%	2%	5%	11%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	80%	73%	56%	62%	60%	66%
	% NH Black	5%	8%	22%	9%	13%	11%
Voter Turnout (Nov 2018)	Total	5,082	4,481	3,687	4,572	4,250	22,072
	% Latino est.	10%	11%	14%	13%	12%	12%
	% Spanish-Surnamed	9%	11%	13%	12%	12%	11%
	% Asian-Surnamed	2%	2%	5%	9%	7%	5%
	% Filipino-Surnamed	1%	2%	2%	3%	3%	2%
	% NH White est.	81%	76%	56%	63%	63%	69%
	% NH Black est.	4%	7%	21%	9%	13%	11%
ACS Pop. Est.	Total	15,834	16,461	14,814	13,821	17,572	78,502
Age	age0-19	28%	26%	27%	31%	27%	28%
	age20-60	53%	55%	56%	54%	57%	55%
	age60plus	19%	20%	17%	15%	16%	17%
Immigration	immigrants	24%	21%	24%	26%	25%	24%
	naturalized	46%	53%	62%	85%	58%	61%
Language spoken at home	english	64%	69%	63%	68%	62%	65%
	spanish	12%	15%	17%	3%	13%	12%
	asian-lang	6%	3%	7%	17%	12%	9%
	other lang	18%	12%	14%	12%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	13%	18%	13%	18%	16%
Education (among those age 25+)	hs-grad	66%	66%	65%	48%	59%	61%
	bachelor	17%	16%	13%	32%	20%	19%
	graduatedegree	7%	6%	4%	15%	9%	8%
Child in Household	child-under18	34%	35%	35%	47%	36%	37%
Pct of Pop. Age 16+	employed	65%	62%	65%	73%	69%	67%
Household Income	income 0-25k	14%	16%	21%	4%	10%	14%
	income 25-50k	18%	19%	25%	3%	15%	17%
	income 50-75k	20%	20%	17%	13%	19%	18%
	income 75-200k	42%	43%	34%	55%	49%	44%
	income 200k-plus	5%	2%	3%	25%	7%	7%
Housing Stats	single family	70%	72%	68%	99%	66%	74%
	multi-family	30%	28%	32%	1%	34%	26%
	rented	46%	49%	52%	13%	50%	44%
	owned	54%	51%	48%	87%	50%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

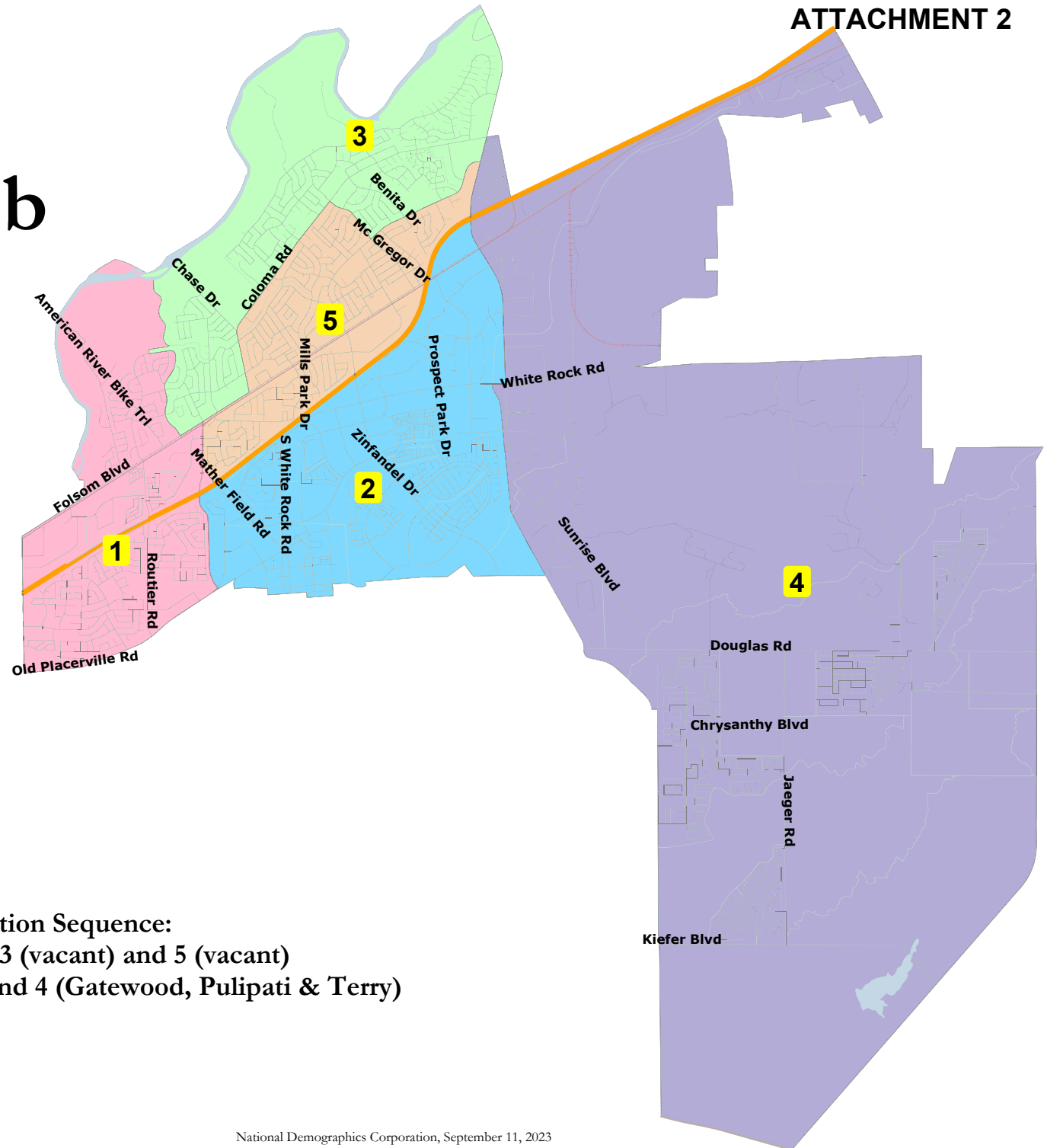
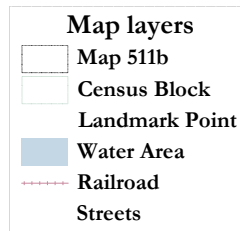
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ITEM 11.1.

Rancho Cordova
2023 Districting

Map 511b

ATTACHMENT 2



Submitter's Proposed Election Sequence:

2024: Districts 1 (Sander), 3 (vacant) and 5 (vacant)

2026: Districts 2 (Budge) and 4 (Gatewood, Pulipati & Terry)

ITEM 11.1.

Map 511b

ATTACHMENT 2

District		1	2	3	4	5	Total
	Total Pop	16,727	15,388	15,579	16,385	15,564	79,643
	Deviation from ideal	798	-541	-350	456	-365	1,339
	% Deviation	5.01%	-3.40%	-2.20%	2.86%	-2.29%	8.41%
Total Pop	% Hisp	24.7%	18%	21%	14%	30%	22%
	% NH White	43%	40%	55%	40%	45%	45%
	% NH Black	13%	12%	10%	8%	9%	11%
	% Asian-American	12%	23%	9%	32%	10%	17%
Citizen Voting Age Pop	Total	10,571	9,843	10,804	9,656	10,631	51,505
	% Hisp	18%	12%	14%	15%	20%	16%
	% NH White	48%	47%	69%	46%	58%	54%
	% NH Black	18%	18%	6%	10%	10%	13%
	% Asian/Pac.Isl.	13%	20%	8%	28%	10%	15%
Voter Registration (Nov 2020)	Total	8,663	7,671	8,772	9,772	7,934	42,812
	% Latino est.	16%	14%	13%	14%	17%	15%
	% Spanish-Surnamed	15%	13%	12%	13%	16%	14%
	% Asian-Surnamed	5%	10%	2%	11%	3%	6%
	% Filipino-Surnamed	1%	3%	1%	3%	2%	2%
	% NH White est.	59%	57%	78%	62%	69%	65%
	% NH Black	18%	16%	6%	9%	9%	11%
Voter Turnout (Nov 2020)	Total	6,532	6,094	7,048	8,311	5,966	33,951
	% Latino est.	15%	12%	12%	13%	15%	13%
	% Spanish-Surnamed	14%	12%	11%	13%	14%	13%
	% Asian-Surnamed	5%	9%	2%	11%	3%	6%
	% Filipino-Surnamed	1%	3%	1%	3%	2%	2%
	% NH White est.	60%	59%	79%	63%	71%	66%
	% NH Black	18%	15%	5%	9%	9%	11%
Voter Turnout (Nov 2018)	Total	4,251	3,689	5,023	4,965	4,144	22,072
	% Latino est.	13%	11%	10%	12%	12%	12%
	% Spanish-Surnamed	13%	11%	9%	12%	12%	11%
	% Asian-Surnamed	4%	8%	2%	9%	3%	5%
	% Filipino-Surnamed	2%	3%	1%	3%	2%	2%
	% NH White est.	61%	61%	81%	65%	73%	69%
	% NH Black est.	17%	15%	5%	9%	9%	11%
ACS Pop. Est.	Total	16,716	14,637	16,463	14,400	16,286	78,502
Age	age0-19	29%	25%	26%	30%	28%	28%
	age20-60	54%	60%	56%	53%	53%	55%
	age60plus	17%	15%	18%	17%	19%	17%
Immigration	immigrants	23%	25%	25%	26%	21%	24%
	naturalized	53%	62%	53%	83%	50%	61%
Language spoken at home	english	62%	66%	64%	68%	66%	65%
	spanish	17%	10%	10%	4%	19%	12%
	asian-lang	7%	10%	5%	17%	7%	9%
	other lang	15%	14%	21%	11%	8%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	16%	18%	13%	15%	16%
Education (among those age 25+)	hs-grad	61%	62%	68%	49%	63%	61%
	bachelor	15%	22%	16%	31%	15%	19%
	graduatedegree	6%	9%	6%	14%	6%	8%
Child in Household	child-under18	36%	33%	35%	43%	37%	37%
Pct of Pop. Age 16+	employed	63%	72%	64%	71%	64%	67%
Household Income	income 0-25k	18%	12%	15%	6%	15%	14%
	income 25-50k	24%	17%	18%	6%	16%	17%
	income 50-75k	18%	16%	21%	13%	21%	18%
	income 75-200k	36%	47%	43%	52%	46%	44%
	income 200k-plus	4%	7%	3%	23%	2%	7%
Housing Stats	single family	73%	57%	70%	99%	76%	74%
	multi-family	27%	43%	30%	1%	24%	26%
	rented	48%	59%	48%	13%	45%	44%
	owned	52%	41%	52%	87%	55%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

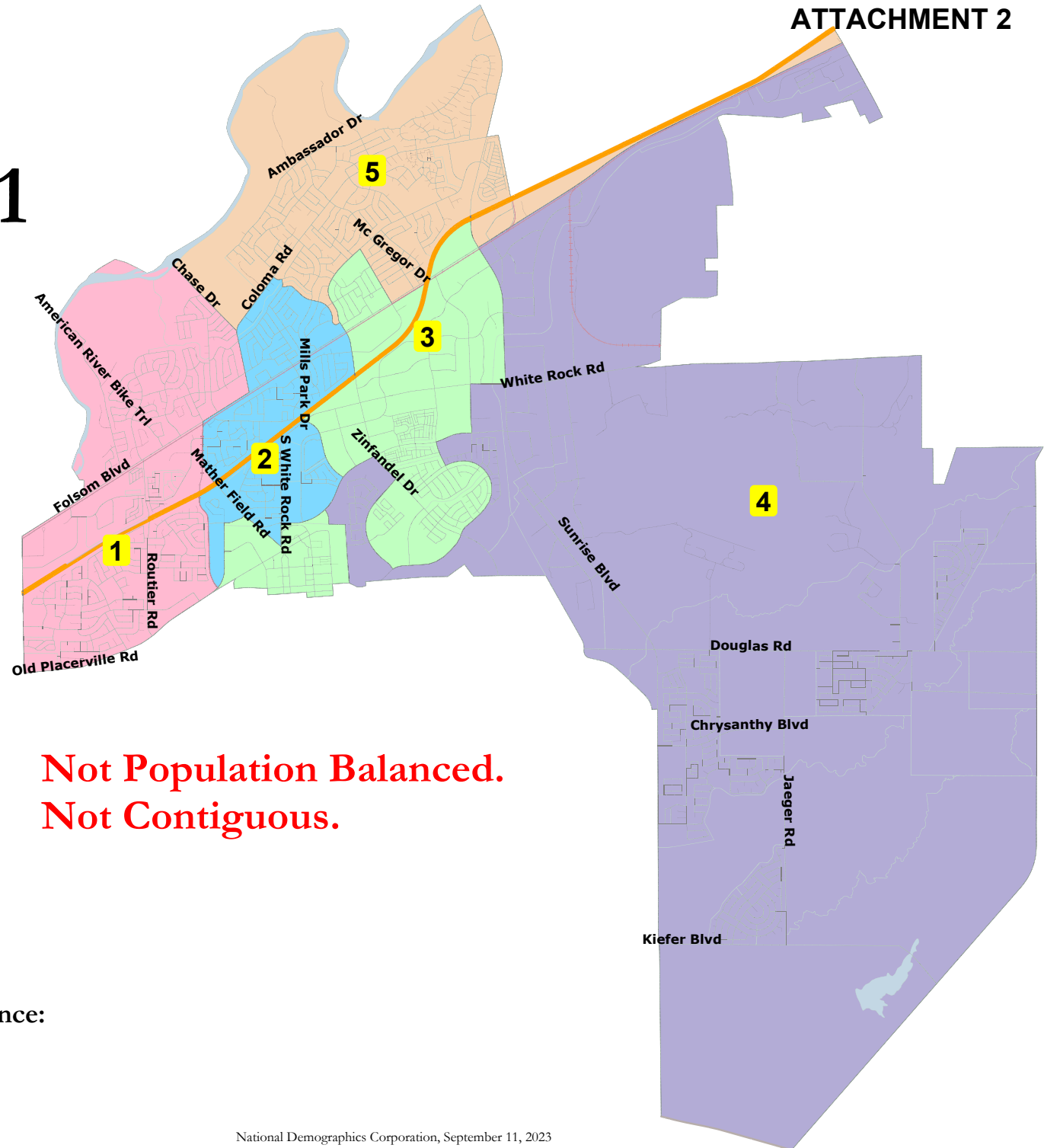
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ITEM 11.1.

Rancho Cordova
2023 Districting

Map 521

ATTACHMENT 2



Map layers	
	Map 521
	Census Block
	Landmark Point
	Water Area
	Railroad
	Streets

**Not Population Balanced.
Not Contiguous.**

Proposed Election Sequence:
not applicable

ITEM 11.1.

Map 521

ATTACHMENT 2

District		1	2	3	4	5	Total
	Total Pop	20,506	16,311	7,903	17,250	17,673	79,643
	Deviation from ideal	4,577	382	-8,026	1,321	1,744	12,603
	% Deviation	28.73%	2.40%	-50.39%	8.29%	10.95%	79.12%
Total Pop	% Hisp	24.5%	29%	18%	13%	21%	22%
	% NH White	44%	38%	42%	41%	56%	45%
	% NH Black	13%	13%	9%	8%	8%	11%
	% Asian-American	11%	13%	26%	33%	9%	17%
Citizen Voting Age Pop	Total	12,936	10,533	5,375	10,089	12,573	51,505
	% Hisp	18%	18%	10%	15%	15%	16%
	% NH White	52%	48%	53%	44%	69%	54%
	% NH Black	16%	18%	13%	10%	7%	13%
	% Asian/Pac.Isl.	12%	13%	21%	29%	7%	15%
Voter Registration (Nov 2020)	Total	10,773	7,526	3,974	10,261	10,278	42,812
	% Latino est.	16%	18%	13%	14%	13%	15%
	% Spanish-Surnamed	15%	16%	12%	13%	12%	14%
	% Asian-Surnamed	4%	4%	11%	12%	3%	6%
	% Filipino-Surnamed	1%	1%	4%	3%	1%	2%
	% NH White est.	63%	59%	62%	61%	76%	65%
	% NH Black	15%	18%	9%	9%	6%	11%
Voter Turnout (Nov 2020)	Total	8,187	5,463	3,278	8,755	8,268	33,951
	% Latino est.	15%	15%	12%	13%	12%	13%
	% Spanish-Surnamed	14%	14%	12%	13%	11%	13%
	% Asian-Surnamed	4%	4%	11%	12%	2%	6%
	% Filipino-Surnamed	1%	2%	4%	3%	2%	2%
	% NH White est.	65%	61%	62%	62%	77%	66%
	% NH Black	15%	18%	9%	9%	6%	11%
Voter Turnout (Nov 2018)	Total	5,434	3,394	2,034	5,197	6,013	22,072
	% Latino est.	12%	14%	11%	12%	10%	12%
	% Spanish-Surnamed	12%	13%	11%	12%	9%	11%
	% Asian-Surnamed	4%	3%	8%	10%	2%	5%
	% Filipino-Surnamed	1%	2%	4%	3%	1%	2%
	% NH White est.	67%	63%	65%	64%	79%	69%
	% NH Black est.	14%	17%	9%	9%	6%	11%
ACS Pop. Est.	Total	20,226	16,805	7,779	15,327	18,365	78,502
Age	age0-19	29%	29%	23%	31%	24%	28%
	age20-60	54%	56%	59%	54%	55%	55%
	age60plus	17%	16%	17%	15%	21%	17%
Immigration	immigrants	21%	22%	24%	27%	26%	24%
	naturalized	52%	55%	61%	83%	53%	61%
Language spoken at home	english	64%	63%	70%	66%	66%	65%
	spanish	16%	19%	8%	4%	11%	12%
	asian-lang	6%	7%	12%	17%	4%	9%
	other lang	13%	11%	10%	13%	19%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	17%	18%	13%	13%	17%	16%
Education (among those age 25+)	hs-grad	61%	61%	63%	48%	70%	61%
	bachelor	16%	17%	20%	32%	15%	19%
	graduatedegree	6%	6%	9%	15%	6%	8%
Child in Household	child-under18	36%	36%	34%	46%	32%	37%
Pct of Pop. Age 16+	employed	64%	68%	69%	72%	63%	67%
Household Income	income 0-25k	17%	15%	11%	4%	16%	14%
	income 25-50k	22%	21%	10%	4%	18%	17%
	income 50-75k	18%	22%	14%	12%	19%	18%
	income 75-200k	38%	40%	52%	56%	43%	44%
	income 200k-plus	4%	2%	12%	23%	3%	7%
Housing Stats	single family	74%	48%	83%	99%	75%	74%
	multi-family	26%	52%	17%	1%	25%	26%
	rented	46%	67%	36%	15%	44%	44%
	owned	54%	33%	64%	85%	56%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

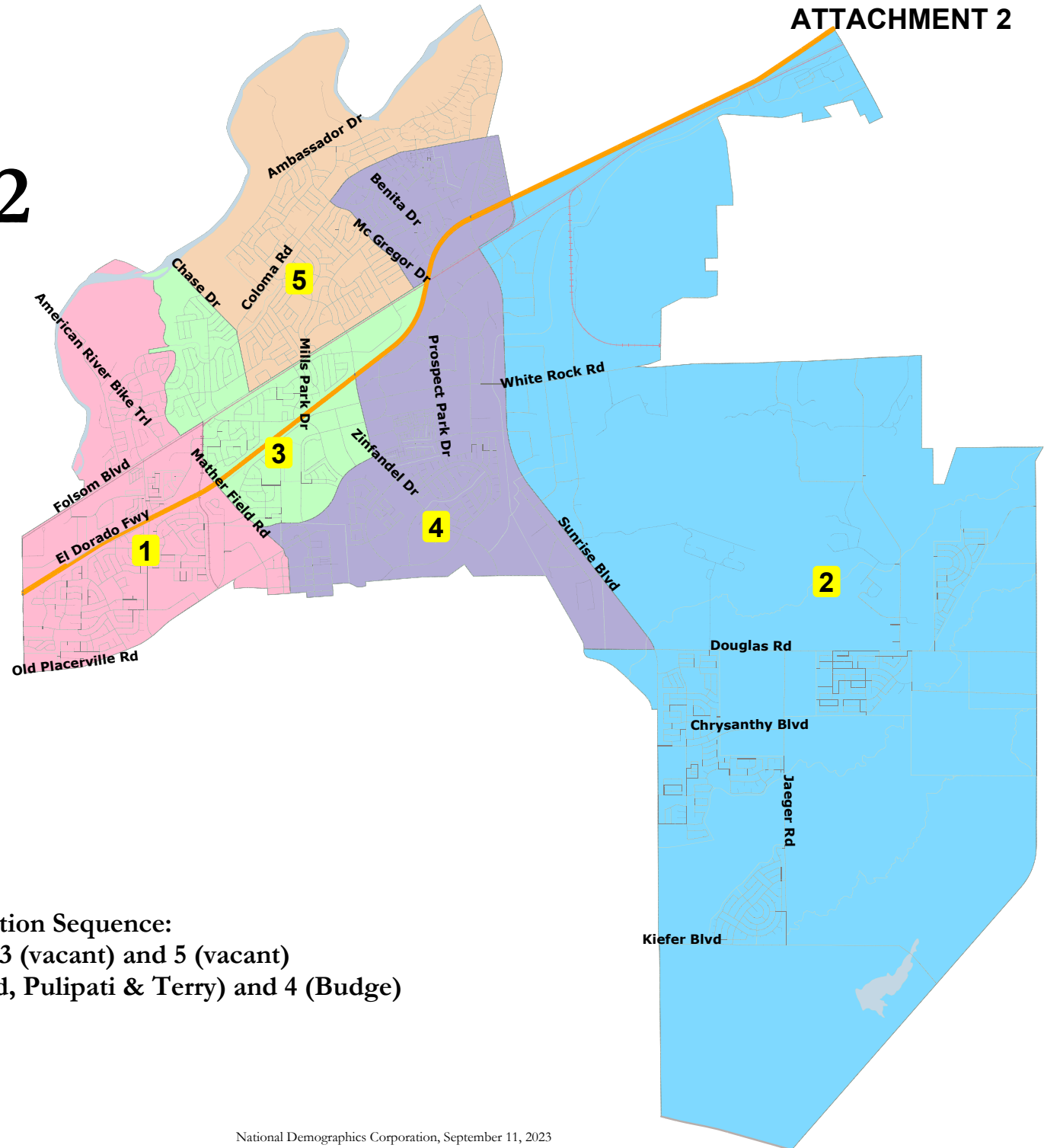
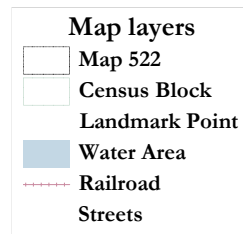
Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

ITEM 11.1.

Rancho Cordova
2023 Districting

ATTACHMENT 2

Map 522



Submitter's Proposed Election Sequence:

2024: Districts 1 (Sander), 3 (vacant) and 5 (vacant)

2026: Districts 2 (Gatewood, Pulipati & Terry) and 4 (Budge)

ITEM 11.1.

Map 522

ATTACHMENT 2

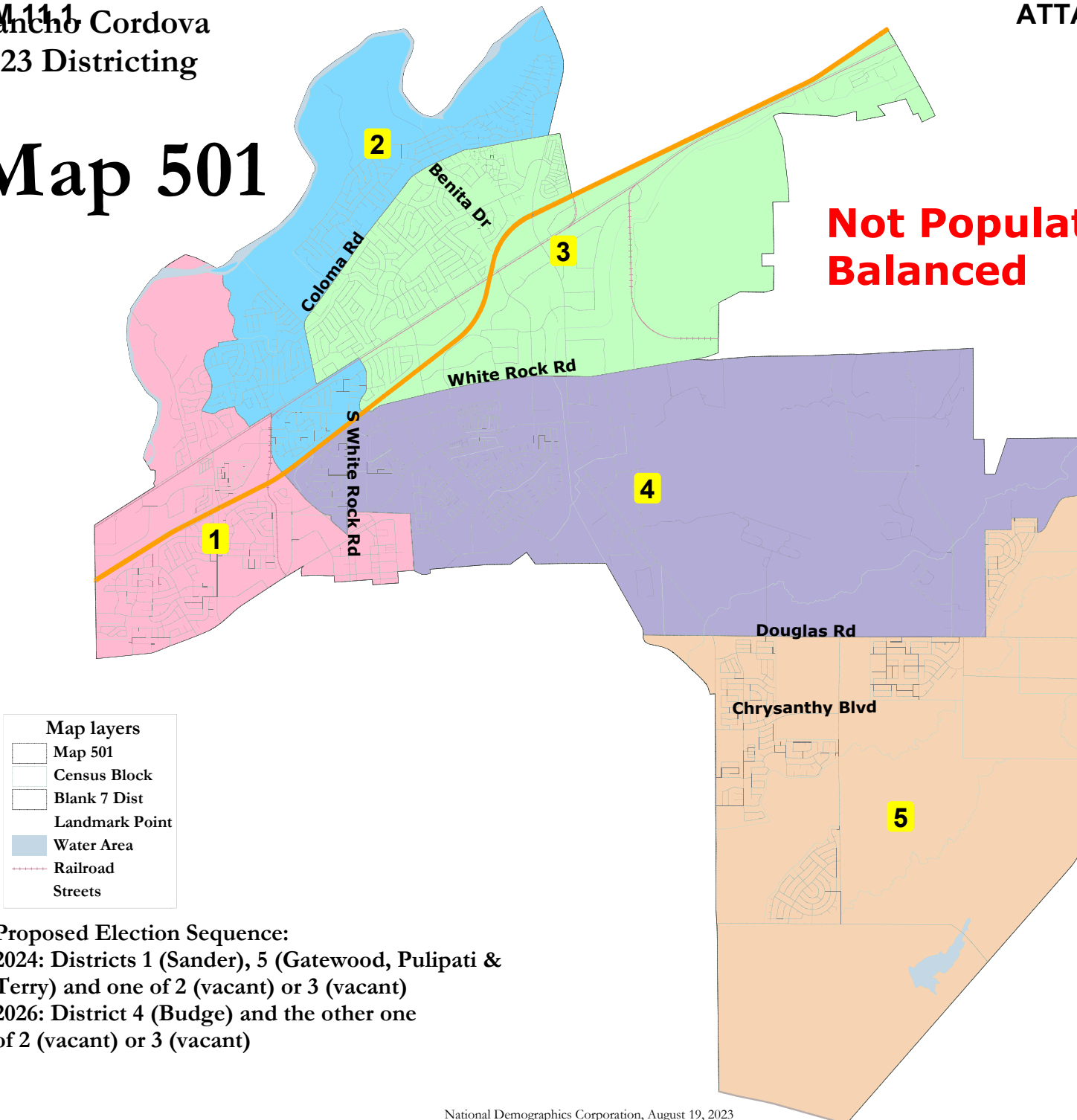
District		1	2	3	4	5	Total
	Total Pop	16,728	15,631	16,238	15,338	15,708	79,643
	Deviation from ideal	799	-298	309	-591	-221	1,390
	% Deviation	5.02%	-1.87%	1.94%	-3.71%	-1.39%	8.73%
Total Pop	% Hisp	24.7%	14%	27%	18%	24%	22%
	% NH White	43%	39%	40%	47%	54%	45%
	% NH Black	13%	8%	14%	10%	7%	11%
	% Asian-American	12%	33%	13%	19%	9%	17%
Citizen Voting Age Pop	Total	10,571	9,185	10,478	10,268	11,003	51,505
	% Hisp	18%	15%	17%	12%	17%	16%
	% NH White	48%	44%	50%	59%	66%	54%
	% NH Black	18%	10%	17%	10%	7%	13%
	% Asian/Pac.Isl.	13%	30%	13%	16%	7%	15%
Voter Registration (Nov 2020)	Total	8,667	9,179	7,751	8,275	8,940	42,812
	% Latino est.	16%	14%	17%	13%	13%	15%
	% Spanish-Surnamed	15%	13%	15%	12%	12%	14%
	% Asian-Surnamed	5%	12%	4%	8%	3%	6%
	% Filipino-Surnamed	1%	4%	1%	3%	1%	2%
	% NH White est.	59%	61%	62%	66%	77%	65%
	% NH Black	18%	9%	16%	9%	5%	11%
Voter Turnout (Nov 2020)	Total	6,533	7,823	5,736	6,675	7,184	33,951
	% Latino est.	15%	14%	14%	12%	12%	13%
	% Spanish-Surnamed	14%	13%	13%	12%	12%	13%
	% Asian-Surnamed	5%	11%	4%	8%	2%	6%
	% Filipino-Surnamed	1%	3%	1%	3%	2%	2%
	% NH White est.	60%	62%	64%	67%	78%	66%
	% NH Black	18%	9%	16%	9%	5%	11%
Voter Turnout (Nov 2018)	Total	4,251	4,577	3,636	4,457	5,151	22,072
	% Latino est.	13%	13%	12%	10%	10%	12%
	% Spanish-Surnamed	13%	12%	12%	10%	10%	11%
	% Asian-Surnamed	4%	9%	3%	6%	2%	5%
	% Filipino-Surnamed	2%	3%	1%	2%	2%	2%
	% NH White est.	61%	63%	67%	70%	80%	69%
	% NH Black est.	17%	9%	15%	8%	5%	11%
ACS Pop. Est.	Total	16,717	13,870	16,421	15,008	16,485	78,502
Age	age0-19	29%	31%	29%	25%	25%	28%
	age20-60	54%	54%	56%	56%	55%	55%
	age60plus	17%	15%	15%	19%	20%	17%
Immigration	immigrants	23%	26%	21%	26%	23%	24%
	naturalized	53%	85%	52%	60%	53%	61%
Language spoken at home	english	62%	68%	65%	66%	66%	65%
	spanish	17%	3%	17%	10%	12%	12%
	asian-lang	7%	17%	8%	8%	5%	9%
	other lang	15%	12%	10%	15%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	13%	18%	14%	16%	16%
Education (among those age 25+)	hs-grad	61%	48%	61%	63%	69%	61%
	bachelor	15%	32%	17%	19%	16%	19%
	graduatedegree	6%	15%	6%	9%	6%	8%
Child in Household	child-under18	36%	47%	35%	34%	34%	37%
Pct of Pop. Age 16+	employed	63%	73%	69%	64%	65%	67%
Household Income	income 0-25k	18%	4%	16%	14%	12%	14%
	income 25-50k	24%	3%	20%	17%	16%	17%
	income 50-75k	18%	13%	22%	16%	20%	18%
	income 75-200k	36%	55%	41%	46%	48%	44%
	income 200k-plus	4%	25%	1%	8%	4%	7%
Housing Stats	single family	73%	99%	52%	79%	75%	74%
	multi-family	27%	1%	48%	21%	25%	26%
	rented	48%	13%	63%	40%	45%	44%
	owned	52%	87%	37%	60%	55%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 501



Proposed Election Sequence:

2024: Districts 1 (Sander), 5 (Gatewood, Pulipati & Terry) and one of 2 (vacant) or 3 (vacant)

2026: District 4 (Budge) and the other one of 2 (vacant) or 3 (vacant)

ITEM 11.1.

Map 501

ATTACHMENT 3

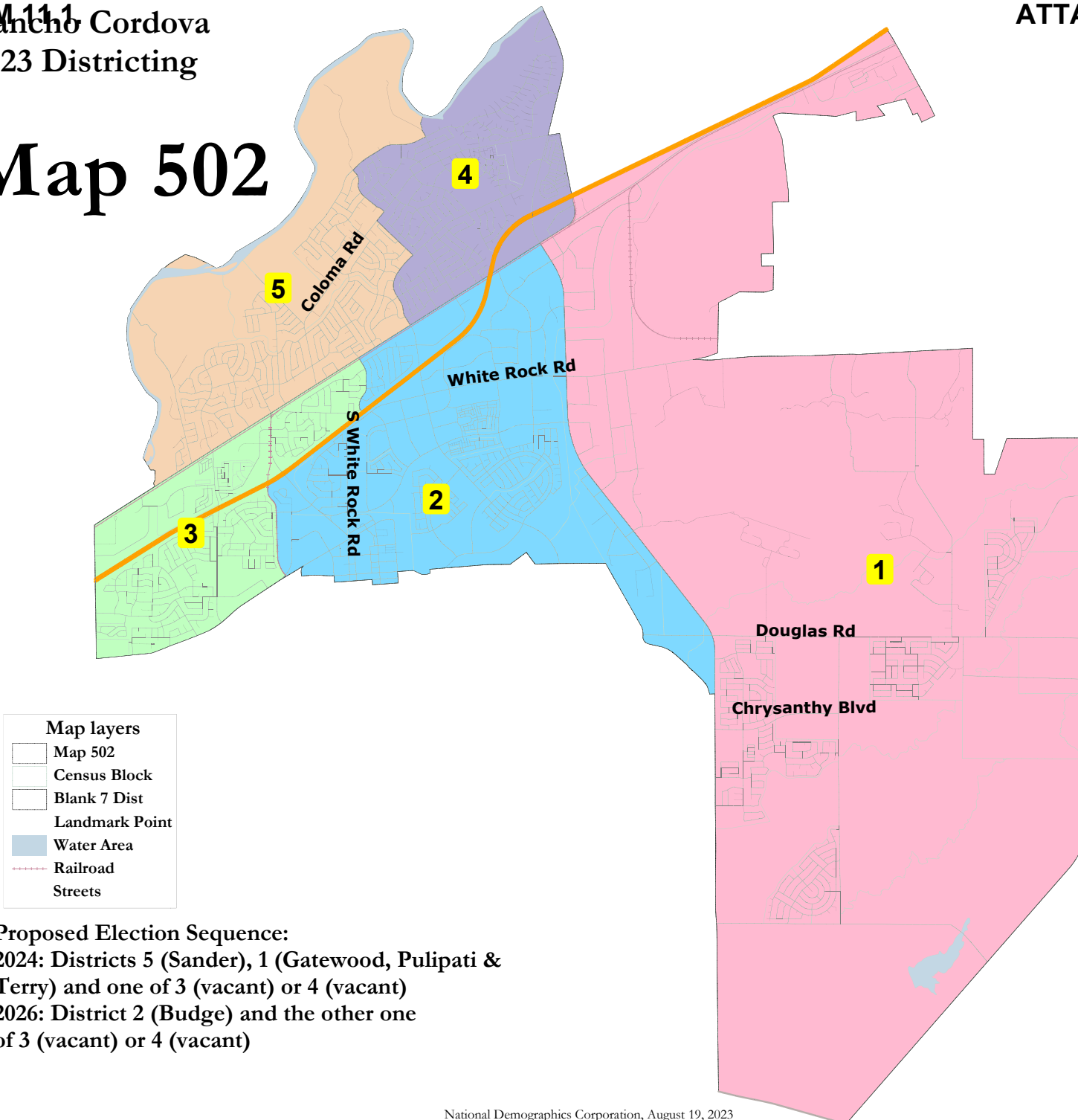
District		1	2	3	4	5	Total
	Total Pop	16,385	16,139	17,136	14,624	15,359	79,643
	Deviation from ideal	456	210	1,207	-1,305	-570	2,512
	% Deviation	2.86%	1.32%	7.58%	-8.19%	-3.58%	15.77%
Total Pop	% Hisp	24.0%	23%	27%	18%	14%	22%
	% NH White	43%	52%	48%	40%	39%	45%
	% NH Black	14%	10%	9%	12%	8%	11%
	% Asian-American	12%	9%	9%	24%	34%	17%
Citizen Voting Age Pop	Total	10,369	10,359	12,196	9,433	9,149	51,505
	% Hisp	18%	16%	18%	12%	15%	16%
	% NH White	47%	65%	64%	47%	44%	54%
	% NH Black	20%	7%	9%	17%	10%	13%
	% Asian/Pac.Isl.	13%	10%	8%	20%	30%	15%
Voter Registration (Nov 2020)	Total	8,221	8,891	9,024	7,539	9,137	42,812
	% Latino est.	16%	13%	16%	14%	14%	15%
	% Spanish-Surnamed	15%	12%	15%	13%	13%	14%
	% Asian-Surnamed	5%	3%	3%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	4%	2%
	% NH White est.	58%	76%	72%	57%	61%	65%
	% NH Black	19%	6%	8%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	6,162	7,034	6,946	6,015	7,794	33,951
	% Latino est.	15%	12%	14%	13%	14%	13%
	% Spanish-Surnamed	14%	11%	13%	12%	13%	13%
	% Asian-Surnamed	5%	3%	2%	10%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	3%	2%
	% NH White est.	59%	78%	73%	58%	62%	66%
	% NH Black	19%	6%	8%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	3,937	5,032	4,872	3,661	4,570	22,072
	% Latino est.	13%	10%	11%	12%	13%	12%
	% Spanish-Surnamed	13%	10%	11%	11%	12%	11%
	% Asian-Surnamed	5%	2%	2%	8%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	60%	79%	76%	61%	63%	69%
	% NH Black est.	18%	5%	8%	15%	9%	11%
ACS Pop. Est.	Total	16,196	16,146	18,255	14,085	13,821	78,502
Age	age0-19	28%	28%	26%	25%	31%	28%
	age20-60	55%	53%	55%	59%	54%	55%
	age60plus	17%	19%	19%	15%	15%	17%
Immigration	immigrants	23%	26%	21%	25%	26%	24%
	naturalized	56%	50%	53%	62%	85%	61%
Language spoken at home	english	62%	63%	69%	65%	68%	65%
	spanish	17%	12%	16%	10%	3%	12%
	asian-lang	7%	8%	4%	10%	17%	9%
	other lang	14%	17%	11%	14%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	19%	14%	17%	13%	16%
Education (among those age 25+)	hs-grad	62%	66%	65%	61%	48%	61%
	bachelor	14%	14%	16%	22%	32%	19%
	graduatedegree	5%	6%	6%	9%	15%	8%
Child in Household	child-under18	35%	36%	35%	33%	47%	37%
Pct of Pop. Age 16+	employed	63%	65%	62%	72%	73%	67%
Household Income	income 0-25k	20%	16%	15%	10%	4%	14%
	income 25-50k	23%	17%	19%	18%	3%	17%
	income 50-75k	17%	22%	19%	17%	13%	18%
	income 75-200k	35%	43%	44%	48%	55%	44%
	income 200k-plus	4%	3%	2%	8%	25%	7%
Housing Stats	single family	69%	75%	74%	58%	99%	74%
	multi-family	31%	25%	26%	42%	1%	26%
	rented	50%	43%	47%	58%	13%	44%
	owned	50%	57%	53%	42%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 502



ITEM 11.1.

Map 502

ATTACHMENT 3

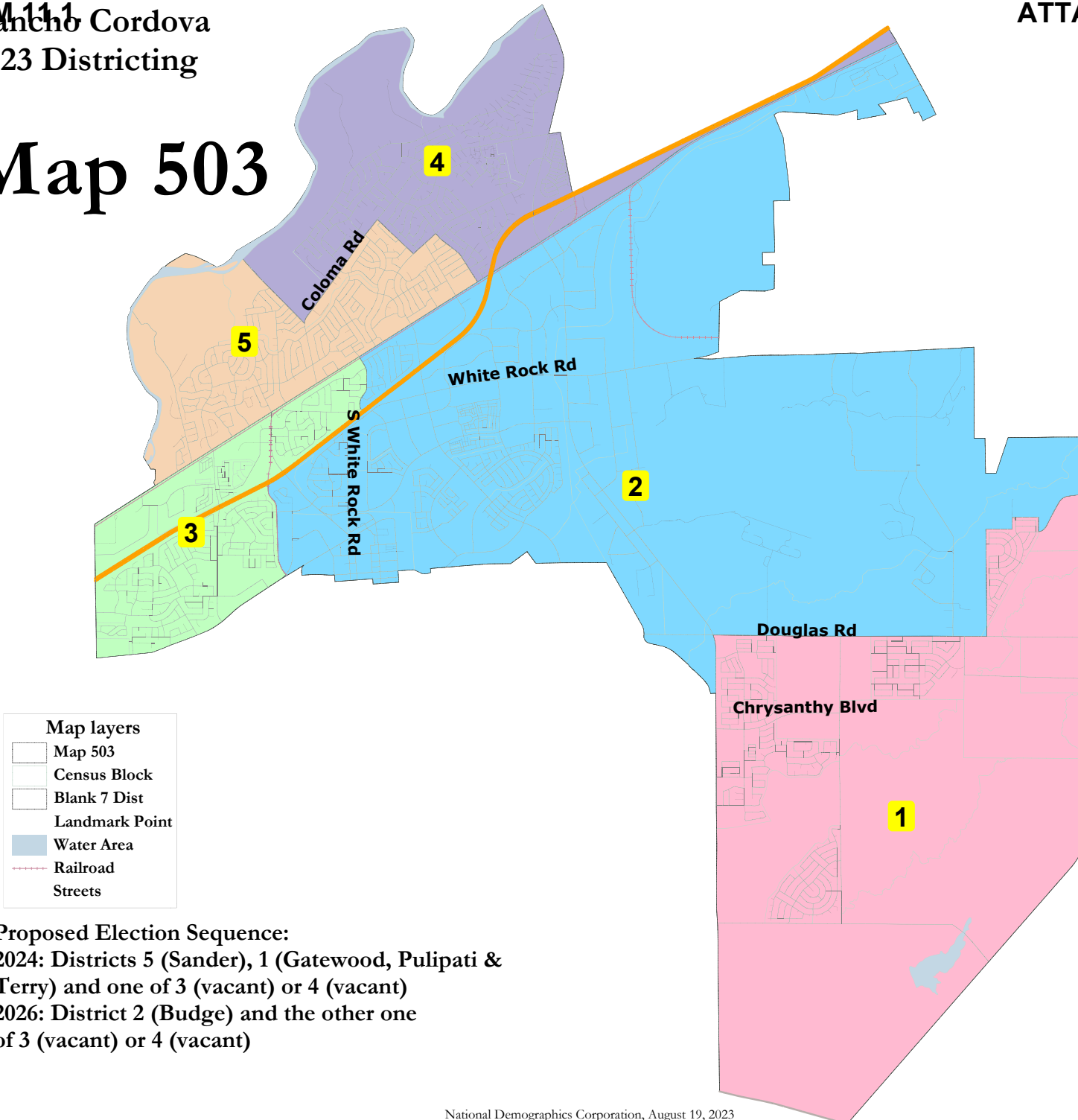
District		1	2	3	4	5	Total
	Total Pop	15,631	16,707	16,385	15,578	15,342	79,643
	Deviation from ideal	-298	778	456	-351	-587	1,365
	% Deviation	-1.87%	4.88%	2.86%	-2.20%	-3.69%	8.57%
Total Pop	% Hisp	13.7%	19%	26%	24%	25%	22%
	% NH White	39%	40%	44%	52%	48%	45%
	% NH Black	8%	12%	12%	9%	11%	11%
	% Asian-American	33%	22%	12%	9%	10%	17%
Citizen Voting Age Pop	Total	9,185	10,832	10,377	11,054	10,057	51,505
	% Hisp	15%	13%	18%	15%	18%	16%
	% NH White	44%	47%	48%	67%	62%	54%
	% NH Black	10%	17%	19%	8%	7%	13%
	% Asian/Pac.Isl.	30%	19%	14%	8%	9%	15%
Voter Registration (Nov 2020)	Total	9,179	8,440	8,183	8,723	8,287	42,812
	% Latino est.	14%	14%	18%	14%	14%	15%
	% Spanish-Surnamed	13%	13%	16%	13%	13%	14%
	% Asian-Surnamed	12%	9%	5%	3%	3%	6%
	% Filipino-Surnamed	4%	3%	1%	2%	1%	2%
	% NH White est.	61%	58%	56%	74%	77%	65%
	% NH Black	9%	15%	20%	7%	5%	11%
Voter Turnout (Nov 2020)	Total	7,823	6,671	6,059	6,901	6,497	33,951
	% Latino est.	14%	13%	16%	13%	13%	13%
	% Spanish-Surnamed	13%	12%	15%	12%	12%	13%
	% Asian-Surnamed	11%	9%	5%	2%	3%	6%
	% Filipino-Surnamed	3%	3%	1%	2%	1%	2%
	% NH White est.	62%	59%	57%	75%	78%	66%
	% NH Black	9%	15%	20%	7%	5%	11%
Voter Turnout (Nov 2018)	Total	4,577	4,074	3,861	4,957	4,603	22,072
	% Latino est.	13%	12%	14%	10%	10%	12%
	% Spanish-Surnamed	12%	11%	14%	10%	10%	11%
	% Asian-Surnamed	9%	7%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	1%	1%	2%
	% NH White est.	63%	62%	57%	78%	80%	69%
	% NH Black est.	9%	14%	20%	7%	4%	11%
ACS Pop. Est.	Total	13,870	16,293	16,093	16,147	16,099	78,502
Age	age0-19	31%	26%	28%	24%	29%	28%
	age20-60	54%	59%	54%	55%	53%	55%
	age60plus	15%	15%	18%	21%	18%	17%
Immigration	immigrants	26%	25%	24%	23%	21%	24%
	naturalized	85%	61%	58%	52%	47%	61%
Language spoken at home	english	68%	65%	60%	70%	63%	65%
	spanish	3%	12%	18%	11%	16%	12%
	asian-lang	17%	10%	9%	5%	4%	9%
	other lang	12%	13%	13%	13%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	16%	20%	15%	16%	16%
Education (among those age 25+)	hs-grad	48%	61%	62%	69%	63%	61%
	bachelor	32%	21%	12%	15%	18%	19%
	graduatedegree	15%	8%	5%	6%	7%	8%
Child in Household	child-under18	47%	34%	37%	32%	37%	37%
Pct of Pop. Age 16+	employed	73%	71%	63%	64%	63%	67%
Household Income	income 0-25k	4%	12%	20%	17%	13%	14%
	income 25-50k	3%	17%	22%	17%	21%	17%
	income 50-75k	13%	16%	20%	19%	20%	18%
	income 75-200k	55%	48%	36%	43%	43%	44%
	income 200k-plus	25%	7%	2%	4%	3%	7%
Housing Stats	single family	99%	60%	76%	73%	70%	74%
	multi-family	1%	40%	24%	27%	30%	26%
	rented	13%	56%	45%	48%	48%	44%
	owned	87%	44%	55%	52%	52%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 503



ITEM 11.1.

Map 503

ATTACHMENT 3

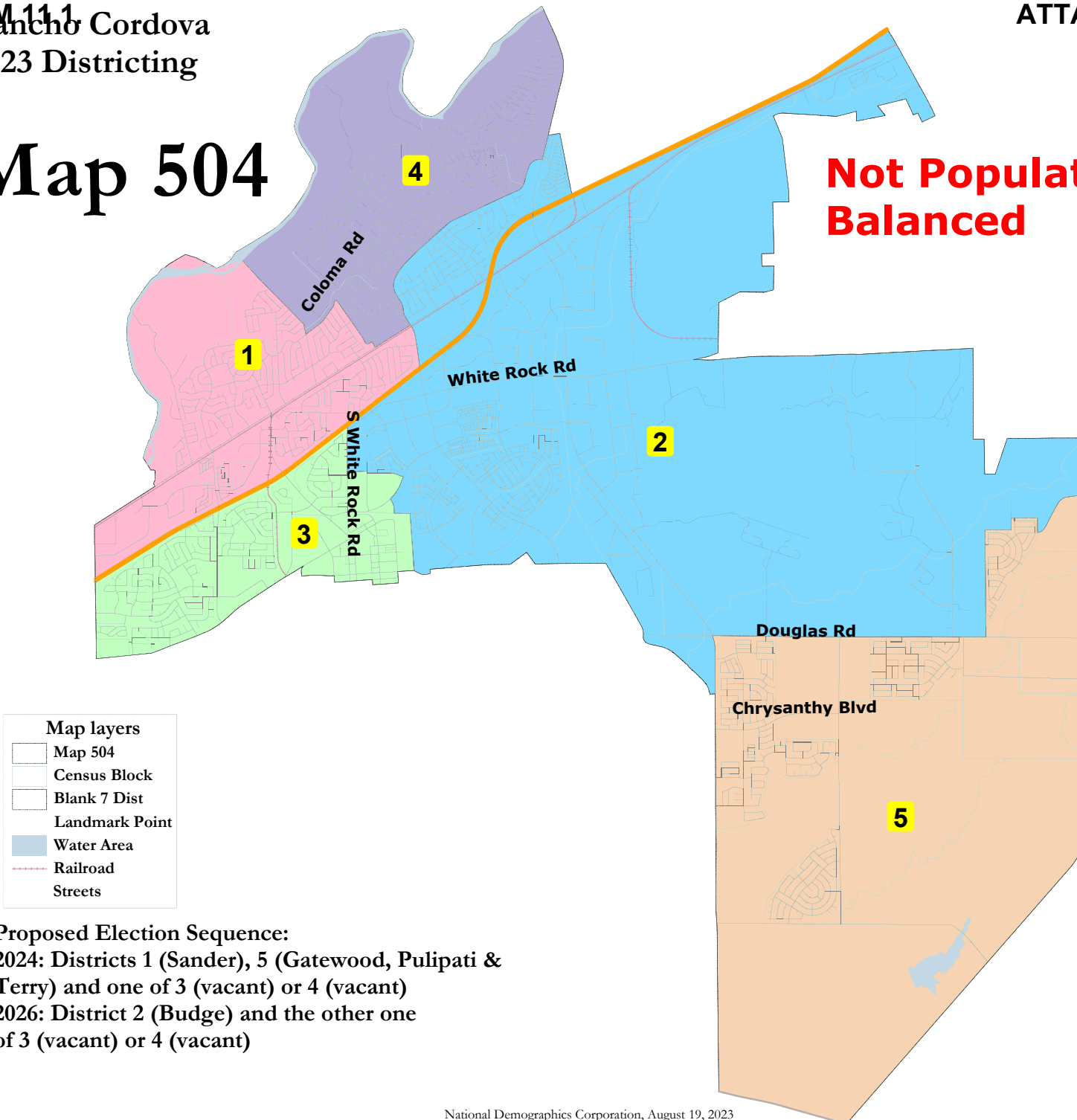
District		1	2	3	4	5	Total
	Total Pop	15,359	16,804	16,385	15,868	15,227	79,643
	Deviation from ideal	-570	875	456	-61	-702	1,577
	% Deviation	-3.58%	5.49%	2.86%	-0.38%	-4.41%	9.90%
Total Pop	% Hisp	13.5%	19%	26%	21%	28%	22%
	% NH White	39%	40%	44%	56%	44%	45%
	% NH Black	8%	12%	12%	9%	11%	11%
	% Asian-American	34%	22%	12%	9%	11%	17%
Citizen Voting Age Pop	Total	9,149	10,832	10,377	11,025	10,122	51,505
	% Hisp	15%	13%	18%	14%	19%	16%
	% NH White	44%	47%	48%	70%	59%	54%
	% NH Black	10%	17%	19%	6%	9%	13%
	% Asian/Pac.Isl.	30%	19%	14%	8%	9%	15%
Voter Registration (Nov 2020)	Total	9,137	8,467	8,183	9,106	7,919	42,812
	% Latino est.	14%	14%	18%	13%	15%	15%
	% Spanish-Surnamed	13%	13%	16%	12%	14%	14%
	% Asian-Surnamed	12%	9%	5%	3%	3%	6%
	% Filipino-Surnamed	4%	3%	1%	1%	1%	2%
	% NH White est.	61%	58%	56%	77%	74%	65%
	% NH Black	9%	15%	20%	6%	7%	11%
Voter Turnout (Nov 2020)	Total	7,794	6,688	6,059	7,294	6,116	33,951
	% Latino est.	14%	13%	16%	12%	14%	13%
	% Spanish-Surnamed	13%	12%	15%	11%	13%	13%
	% Asian-Surnamed	11%	9%	5%	2%	3%	6%
	% Filipino-Surnamed	3%	3%	1%	1%	1%	2%
	% NH White est.	62%	59%	57%	78%	75%	66%
	% NH Black	9%	15%	20%	6%	6%	11%
Voter Turnout (Nov 2018)	Total	4,570	4,078	3,861	5,254	4,309	22,072
	% Latino est.	13%	12%	14%	10%	11%	12%
	% Spanish-Surnamed	12%	11%	14%	9%	10%	11%
	% Asian-Surnamed	9%	7%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	1%	2%	2%
	% NH White est.	63%	62%	57%	80%	78%	69%
	% NH Black est.	9%	14%	20%	6%	6%	11%
ACS Pop. Est.	Total	13,821	16,293	16,093	16,417	15,878	78,502
Age	age0-19	31%	26%	28%	24%	29%	28%
	age20-60	54%	59%	54%	55%	53%	55%
	age60plus	15%	15%	18%	21%	17%	17%
Immigration	immigrants	26%	25%	24%	27%	18%	24%
	naturalized	85%	61%	58%	53%	43%	61%
Language spoken at home	english	68%	65%	60%	65%	68%	65%
	spanish	3%	12%	18%	10%	17%	12%
	asian-lang	17%	10%	9%	4%	5%	9%
	other lang	12%	13%	13%	20%	9%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	16%	20%	18%	13%	16%
Education (among those age 25+)	hs-grad	48%	61%	62%	70%	62%	61%
	bachelor	32%	21%	12%	15%	18%	19%
	graduatedegree	15%	8%	5%	6%	7%	8%
Child in Household	child-under18	47%	34%	37%	32%	37%	37%
Pct of Pop. Age 16+	employed	73%	71%	63%	63%	64%	67%
Household Income	income 0-25k	4%	12%	20%	16%	14%	14%
	income 25-50k	3%	17%	22%	19%	19%	17%
	income 50-75k	13%	16%	20%	20%	20%	18%
	income 75-200k	55%	48%	36%	42%	44%	44%
	income 200k-plus	25%	7%	2%	4%	3%	7%
Housing Stats	single family	99%	60%	76%	73%	69%	74%
	multi-family	1%	40%	24%	27%	31%	26%
	rented	13%	56%	45%	45%	51%	44%
	owned	87%	44%	55%	55%	49%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 504



ITEM 11.1.

Map 504

ATTACHMENT 3

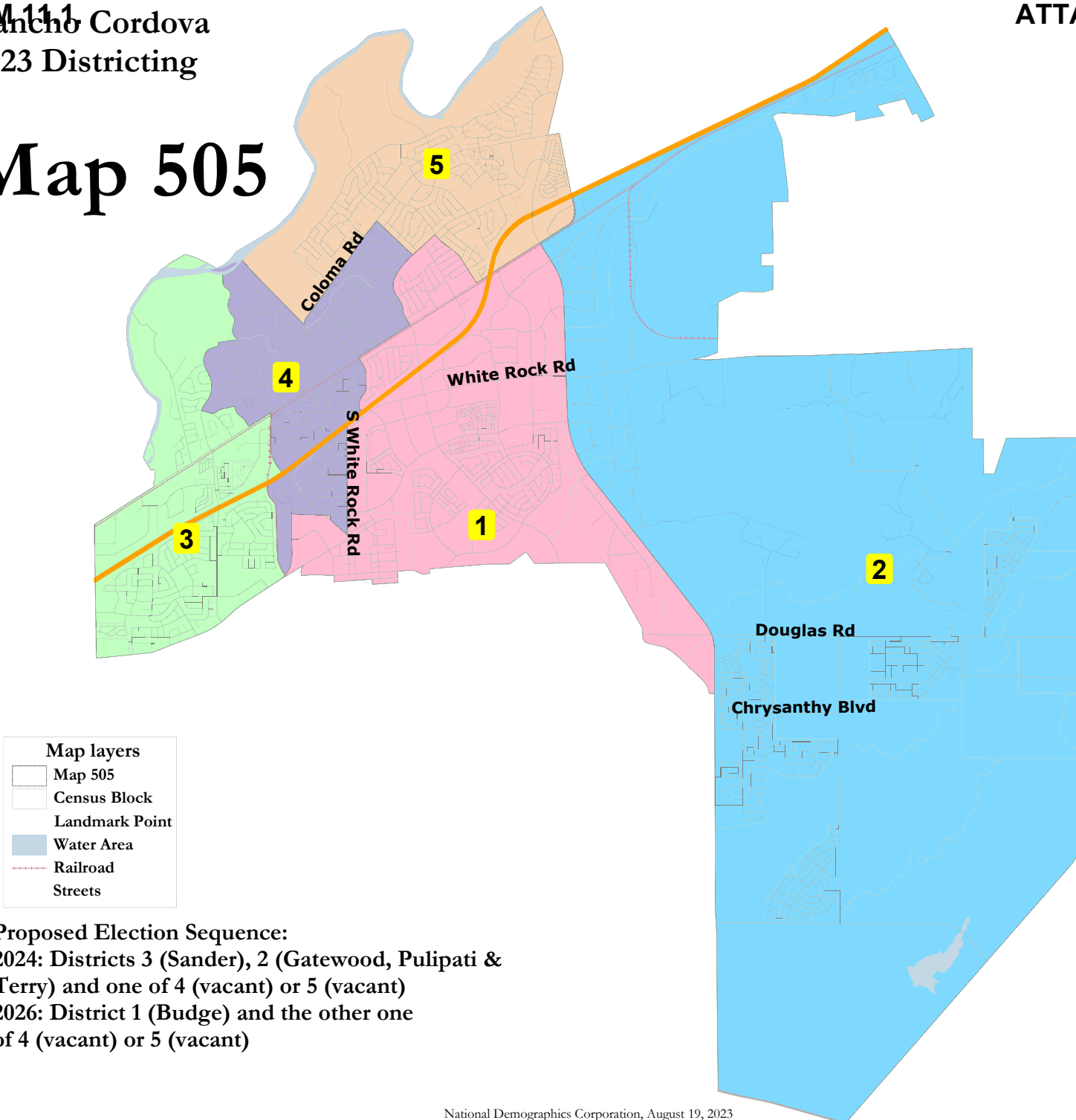
District		1	2	3	4	5	Total
	Total Pop	17,546	15,752	15,293	15,693	15,359	79,643
	Deviation from ideal	1,617	-177	-636	-236	-570	2,253
	% Deviation	10.15%	-1.11%	-3.99%	-1.48%	-3.58%	14.14%
Total Pop	% Hisp	29.5%	19%	24%	21%	14%	22%
	% NH White	41%	45%	43%	56%	39%	45%
	% NH Black	13%	8%	15%	8%	8%	11%
	% Asian-American	10%	22%	12%	9%	34%	17%
Citizen Voting Age Pop	Total	10,668	10,224	9,676	11,788	9,149	51,505
	% Hisp	21%	12%	18%	14%	15%	16%
	% NH White	52%	56%	44%	69%	44%	54%
	% NH Black	13%	10%	24%	6%	10%	13%
	% Asian/Pac.Isl.	11%	18%	13%	8%	30%	15%
Voter Registration (Nov 2020)	Total	8,486	8,586	7,560	9,043	9,137	42,812
	% Latino est.	17%	13%	17%	13%	14%	15%
	% Spanish-Surnamed	16%	13%	15%	12%	13%	14%
	% Asian-Surnamed	3%	9%	6%	3%	12%	6%
	% Filipino-Surnamed	1%	3%	1%	1%	4%	2%
	% NH White est.	68%	64%	54%	77%	61%	65%
	% NH Black	11%	10%	22%	6%	9%	11%
Voter Turnout (Nov 2020)	Total	6,286	7,010	5,604	7,257	7,794	33,951
	% Latino est.	15%	13%	15%	12%	14%	13%
	% Spanish-Surnamed	14%	12%	14%	11%	13%	13%
	% Asian-Surnamed	3%	8%	5%	2%	11%	6%
	% Filipino-Surnamed	1%	3%	1%	1%	3%	2%
	% NH White est.	71%	65%	55%	78%	62%	66%
	% NH Black	10%	10%	23%	6%	9%	11%
Voter Turnout (Nov 2018)	Total	4,246	4,587	3,468	5,201	4,570	22,072
	% Latino est.	12%	10%	14%	10%	13%	12%
	% Spanish-Surnamed	11%	10%	14%	10%	12%	11%
	% Asian-Surnamed	2%	6%	5%	2%	9%	5%
	% Filipino-Surnamed	1%	3%	2%	1%	3%	2%
	% NH White est.	74%	68%	55%	79%	63%	69%
	% NH Black est.	9%	10%	22%	6%	9%	11%
ACS Pop. Est.	Total	17,506	14,910	14,997	17,268	13,821	78,502
Age	age0-19	31%	24%	29%	24%	31%	28%
	age20-60	53%	57%	57%	55%	54%	55%
	age60plus	17%	19%	15%	21%	15%	17%
Immigration	immigrants	22%	24%	22%	26%	26%	24%
	naturalized	47%	57%	61%	55%	85%	61%
Language spoken at home	english	64%	67%	63%	65%	68%	65%
	spanish	21%	9%	17%	9%	3%	12%
	asian-lang	7%	10%	6%	4%	17%	9%
	other lang	8%	14%	13%	21%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	16%	16%	19%	17%	13%	16%
Education (among those age 25+)	hs-grad	58%	61%	66%	69%	48%	61%
	bachelor	15%	22%	13%	16%	32%	19%
	graduatedegree	7%	10%	3%	6%	15%	8%
Child in Household	child-under18	37%	30%	37%	35%	47%	37%
Pct of Pop. Age 16+	employed	65%	68%	67%	62%	73%	67%
Household Income	income 0-25k	17%	11%	20%	13%	4%	14%
	income 25-50k	21%	15%	24%	17%	3%	17%
	income 50-75k	21%	15%	19%	19%	13%	18%
	income 75-200k	38%	50%	35%	46%	55%	44%
	income 200k-plus	3%	8%	3%	4%	25%	7%
Housing Stats	single family	66%	78%	60%	73%	99%	74%
	multi-family	34%	22%	40%	27%	1%	26%
	rented	49%	43%	60%	46%	13%	44%
	owned	51%	57%	40%	54%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 505



ITEM 11.1.

Map 505

ATTACHMENT 3

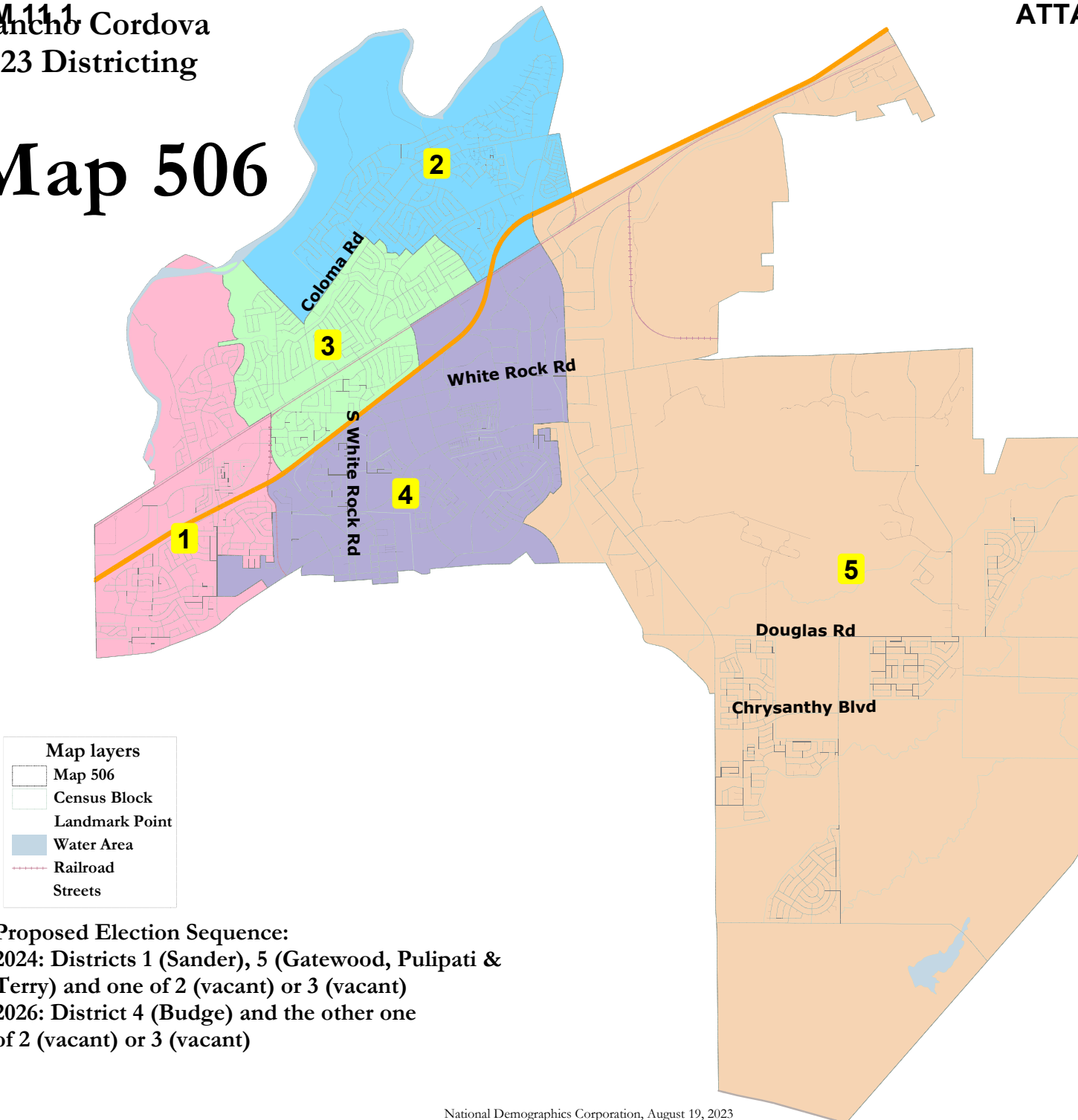
District		1	2	3	4	5	Total
	Total Pop	15,913	15,631	15,700	16,706	15,693	79,643
	Deviation from ideal	-16	-298	-229	777	-236	1,075
	% Deviation	-0.10%	-1.87%	-1.44%	4.88%	-1.48%	6.75%
Total Pop	% Hisp	19.4%	14%	24%	29%	21%	22%
	% NH White	42%	39%	43%	43%	56%	45%
	% NH Black	10%	8%	13%	12%	9%	11%
	% Asian-American	22%	33%	13%	10%	9%	17%
Citizen Voting Age Pop	Total	11,031	9,185	10,072	10,228	10,989	51,505
	% Hisp	12%	15%	19%	20%	14%	16%
	% NH White	51%	44%	47%	55%	70%	54%
	% NH Black	16%	10%	19%	11%	7%	13%
	% Asian/Pac.Isl.	17%	30%	13%	12%	8%	15%
Voter Registration (Nov 2020)	Total	8,236	9,179	8,096	8,210	9,091	42,812
	% Latino est.	14%	14%	17%	16%	13%	15%
	% Spanish-Surnamed	13%	13%	15%	15%	12%	14%
	% Asian-Surnamed	9%	12%	5%	3%	3%	6%
	% Filipino-Surnamed	3%	4%	1%	1%	1%	2%
	% NH White est.	61%	61%	58%	69%	77%	65%
	% NH Black	13%	9%	19%	10%	6%	11%
Voter Turnout (Nov 2020)	Total	6,634	7,823	6,092	6,120	7,282	33,951
	% Latino est.	13%	14%	15%	14%	12%	13%
	% Spanish-Surnamed	12%	13%	14%	13%	11%	13%
	% Asian-Surnamed	9%	11%	5%	3%	2%	6%
	% Filipino-Surnamed	3%	3%	1%	1%	1%	2%
	% NH White est.	61%	62%	59%	71%	78%	66%
	% NH Black	13%	9%	19%	10%	6%	11%
Voter Turnout (Nov 2018)	Total	4,172	4,577	3,911	4,161	5,251	22,072
	% Latino est.	11%	13%	13%	12%	10%	12%
	% Spanish-Surnamed	11%	12%	13%	12%	9%	11%
	% Asian-Surnamed	7%	9%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	2%	1%	2%
	% NH White est.	64%	63%	60%	73%	80%	69%
	% NH Black est.	12%	9%	18%	9%	6%	11%
ACS Pop. Est.	Total	16,666	13,870	15,781	15,817	16,368	78,502
Age	age0-19	26%	31%	28%	29%	24%	28%
	age20-60	59%	54%	55%	53%	55%	55%
	age60plus	15%	15%	17%	18%	21%	17%
Immigration	immigrants	23%	26%	23%	21%	27%	24%
	naturalized	58%	85%	55%	52%	53%	61%
Language spoken at home	english	67%	68%	61%	65%	65%	65%
	spanish	10%	3%	17%	20%	10%	12%
	asian-lang	10%	17%	7%	7%	4%	9%
	other lang	13%	12%	15%	8%	20%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	16%	13%	19%	14%	18%	16%
Education (among those age 25+)	hs-grad	61%	48%	62%	62%	70%	61%
	bachelor	22%	32%	14%	14%	15%	19%
	graduatedegree	8%	15%	5%	6%	6%	8%
Child in Household	child-under18	34%	47%	35%	38%	32%	37%
Pct of Pop. Age 16+	employed	70%	73%	63%	65%	63%	67%
Household Income	income 0-25k	11%	4%	18%	16%	16%	14%
	income 25-50k	14%	3%	24%	20%	19%	17%
	income 50-75k	17%	13%	18%	22%	20%	18%
	income 75-200k	50%	55%	36%	41%	42%	44%
	income 200k-plus	7%	25%	4%	1%	4%	7%
Housing Stats	single family	64%	99%	71%	68%	73%	74%
	multi-family	36%	1%	29%	32%	27%	26%
	rented	54%	13%	48%	50%	45%	44%
	owned	46%	87%	52%	50%	55%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 506



ITEM 11.1.

Map 506

ATTACHMENT 3

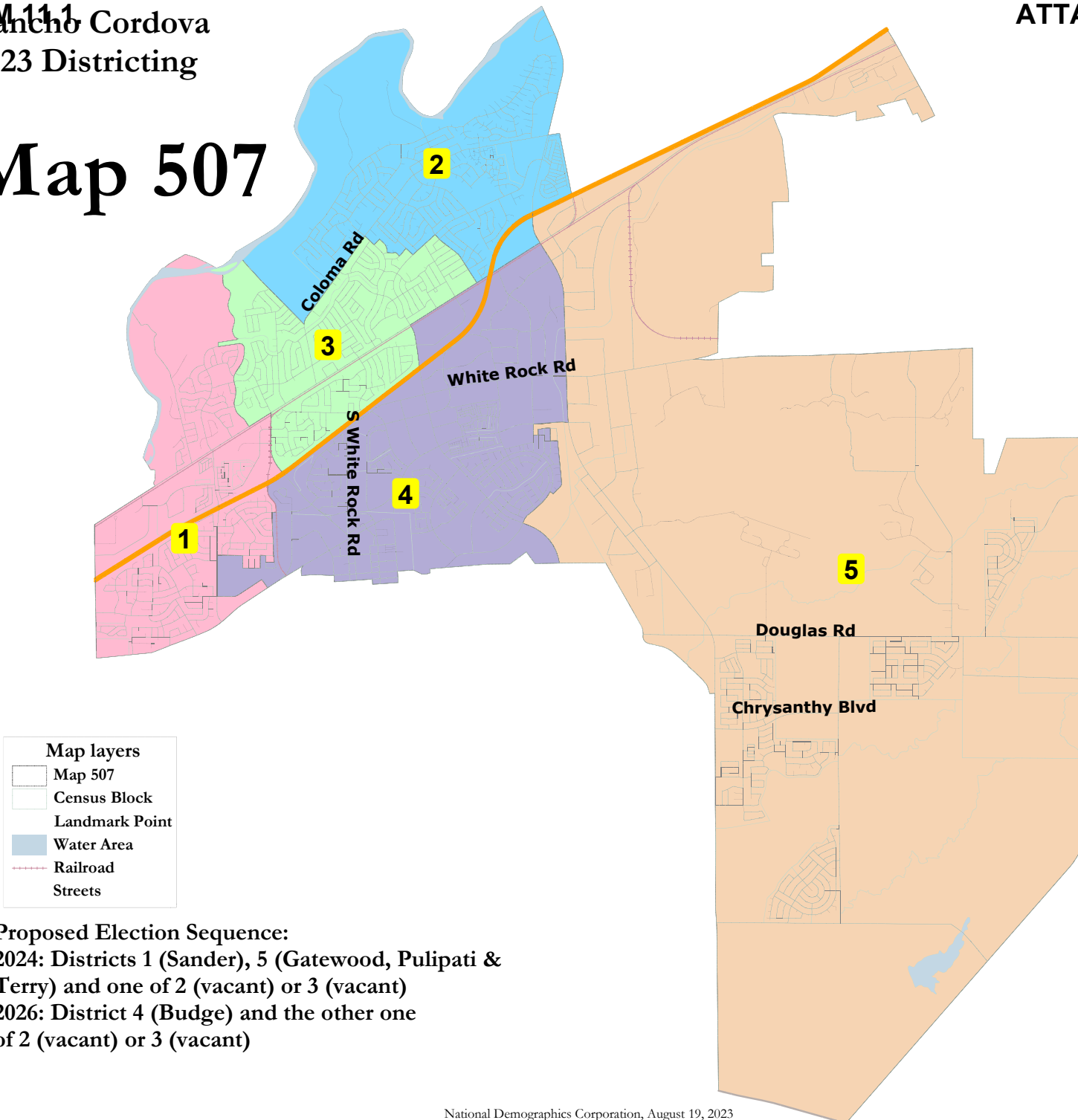
District		1	2	3	4	5	Total
	Total Pop	15,878	15,912	15,961	16,035	15,857	79,643
	Deviation from ideal	-51	-17	32	106	-72	178
	% Deviation	-0.32%	-0.11%	0.20%	0.67%	-0.45%	1.12%
Total Pop	% Hisp	24.9%	21%	30%	19%	14%	22%
	% NH White	43%	56%	45%	40%	39%	45%
	% NH Black	13%	9%	10%	12%	8%	11%
	% Asian-American	12%	9%	9%	23%	33%	17%
Citizen Voting Age Pop	Total	9,976	11,169	10,717	10,297	9,345	51,505
	% Hisp	18%	14%	20%	12%	15%	16%
	% NH White	49%	70%	58%	46%	44%	54%
	% NH Black	18%	6%	10%	19%	10%	13%
	% Asian/Pac.Isl.	13%	8%	10%	19%	29%	15%
Voter Registration (Nov 2020)	Total	8,263	9,207	8,075	7,898	9,369	42,812
	% Latino est.	16%	13%	16%	14%	14%	15%
	% Spanish-Surnamed	15%	12%	15%	13%	13%	14%
	% Asian-Surnamed	5%	3%	3%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	4%	2%
	% NH White est.	59%	77%	71%	57%	60%	65%
	% NH Black	18%	6%	8%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	6,201	7,379	6,107	6,281	7,983	33,951
	% Latino est.	15%	12%	15%	13%	14%	13%
	% Spanish-Surnamed	14%	11%	14%	12%	13%	13%
	% Asian-Surnamed	5%	2%	3%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	60%	78%	73%	59%	61%	66%
	% NH Black	18%	6%	8%	16%	9%	11%
Voter Turnout (Nov 2018)	Total	4,064	5,335	4,217	3,817	4,639	22,072
	% Latino est.	13%	10%	12%	12%	13%	12%
	% Spanish-Surnamed	13%	9%	11%	11%	12%	11%
	% Asian-Surnamed	4%	2%	2%	8%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	62%	80%	75%	61%	63%	69%
	% NH Black est.	17%	6%	7%	15%	10%	11%
ACS Pop. Est.	Total	15,896	16,601	16,654	15,289	14,061	78,502
Age	age0-19	29%	24%	29%	25%	31%	28%
	age20-60	54%	55%	53%	60%	54%	55%
	age60plus	17%	21%	18%	15%	15%	17%
Immigration	immigrants	23%	27%	19%	25%	26%	24%
	naturalized	53%	53%	50%	62%	85%	61%
Language spoken at home	english	62%	65%	66%	66%	67%	65%
	spanish	16%	10%	19%	11%	3%	12%
	asian-lang	7%	4%	7%	10%	17%	9%
	other lang	15%	20%	8%	13%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	18%	15%	16%	13%	16%
Education (among those age 25+)	hs-grad	61%	70%	61%	62%	48%	61%
	bachelor	15%	15%	16%	21%	32%	19%
	graduatedegree	6%	6%	5%	9%	15%	8%
Child in Household	child-under18	36%	32%	38%	34%	47%	37%
Pct of Pop. Age 16+	employed	63%	63%	64%	71%	73%	67%
Household Income	income 0-25k	18%	16%	15%	12%	4%	14%
	income 25-50k	24%	19%	17%	17%	3%	17%
	income 50-75k	18%	20%	22%	16%	12%	18%
	income 75-200k	36%	42%	45%	47%	55%	44%
	income 200k-plus	4%	4%	1%	7%	25%	7%
Housing Stats	single family	72%	74%	73%	58%	99%	74%
	multi-family	28%	26%	27%	42%	1%	26%
	rented	48%	44%	47%	58%	14%	44%
	owned	52%	56%	53%	42%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 507



ITEM 11.1.

Map 507

ATTACHMENT 3

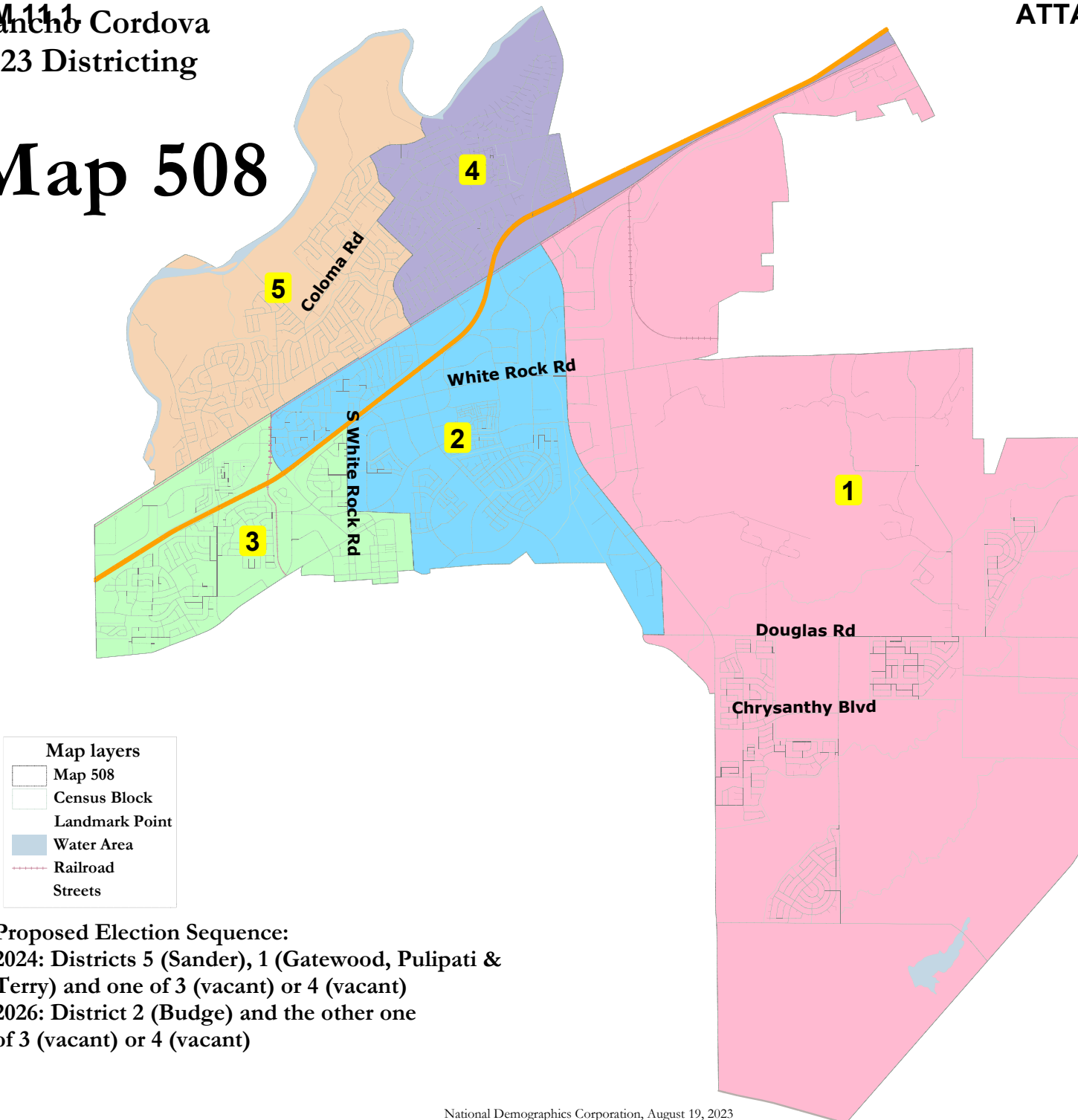
District		1	2	3	4	5	Total
	Total Pop	15,878	15,912	15,961	16,035	15,857	79,643
	Deviation from ideal	-51	-17	32	106	-72	178
	% Deviation	-0.32%	-0.11%	0.20%	0.67%	-0.45%	1.12%
Total Pop	% Hisp	24.9%	21%	30%	19%	14%	22%
	% NH White	43%	56%	45%	40%	39%	45%
	% NH Black	13%	9%	10%	12%	8%	11%
	% Asian-American	12%	9%	9%	23%	33%	17%
Citizen Voting Age Pop	Total	9,976	11,169	10,717	10,297	9,345	51,505
	% Hisp	18%	14%	20%	12%	15%	16%
	% NH White	49%	70%	58%	46%	44%	54%
	% NH Black	18%	6%	10%	19%	10%	13%
	% Asian/Pac.Isl.	13%	8%	10%	19%	29%	15%
Voter Registration (Nov 2020)	Total	8,263	9,207	8,075	7,898	9,369	42,812
	% Latino est.	16%	13%	16%	14%	14%	15%
	% Spanish-Surnamed	15%	12%	15%	13%	13%	14%
	% Asian-Surnamed	5%	3%	3%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	4%	2%
	% NH White est.	59%	77%	71%	57%	60%	65%
	% NH Black	18%	6%	8%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	6,201	7,379	6,107	6,281	7,983	33,951
	% Latino est.	15%	12%	15%	13%	14%	13%
	% Spanish-Surnamed	14%	11%	14%	12%	13%	13%
	% Asian-Surnamed	5%	2%	3%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	60%	78%	73%	59%	61%	66%
	% NH Black	18%	6%	8%	16%	9%	11%
Voter Turnout (Nov 2018)	Total	4,064	5,335	4,217	3,817	4,639	22,072
	% Latino est.	13%	10%	12%	12%	13%	12%
	% Spanish-Surnamed	13%	9%	11%	11%	12%	11%
	% Asian-Surnamed	4%	2%	2%	8%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	62%	80%	75%	61%	63%	69%
	% NH Black est.	17%	6%	7%	15%	10%	11%
ACS Pop. Est.	Total	15,896	16,601	16,654	15,289	14,061	78,502
Age	age0-19	29%	24%	29%	25%	31%	28%
	age20-60	54%	55%	53%	60%	54%	55%
	age60plus	17%	21%	18%	15%	15%	17%
Immigration	immigrants	23%	27%	19%	25%	26%	24%
	naturalized	53%	53%	50%	62%	85%	61%
Language spoken at home	english	62%	65%	66%	66%	67%	65%
	spanish	16%	10%	19%	11%	3%	12%
	asian-lang	7%	4%	7%	10%	17%	9%
	other lang	15%	20%	8%	13%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	18%	15%	16%	13%	16%
Education (among those age 25+)	hs-grad	61%	70%	61%	62%	48%	61%
	bachelor	15%	15%	16%	21%	32%	19%
	graduatedegree	6%	6%	5%	9%	15%	8%
Child in Household	child-under18	36%	32%	38%	34%	47%	37%
Pct of Pop. Age 16+	employed	63%	63%	64%	71%	73%	67%
Household Income	income 0-25k	18%	16%	15%	12%	4%	14%
	income 25-50k	24%	19%	17%	17%	3%	17%
	income 50-75k	18%	20%	22%	16%	12%	18%
	income 75-200k	36%	42%	45%	47%	55%	44%
	income 200k-plus	4%	4%	1%	7%	25%	7%
Housing Stats	single family	72%	74%	73%	58%	99%	74%
	multi-family	28%	26%	27%	42%	1%	26%
	rented	48%	44%	47%	58%	14%	44%
	owned	52%	56%	53%	42%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 508



ITEM 11.1.

Map 508

ATTACHMENT 3

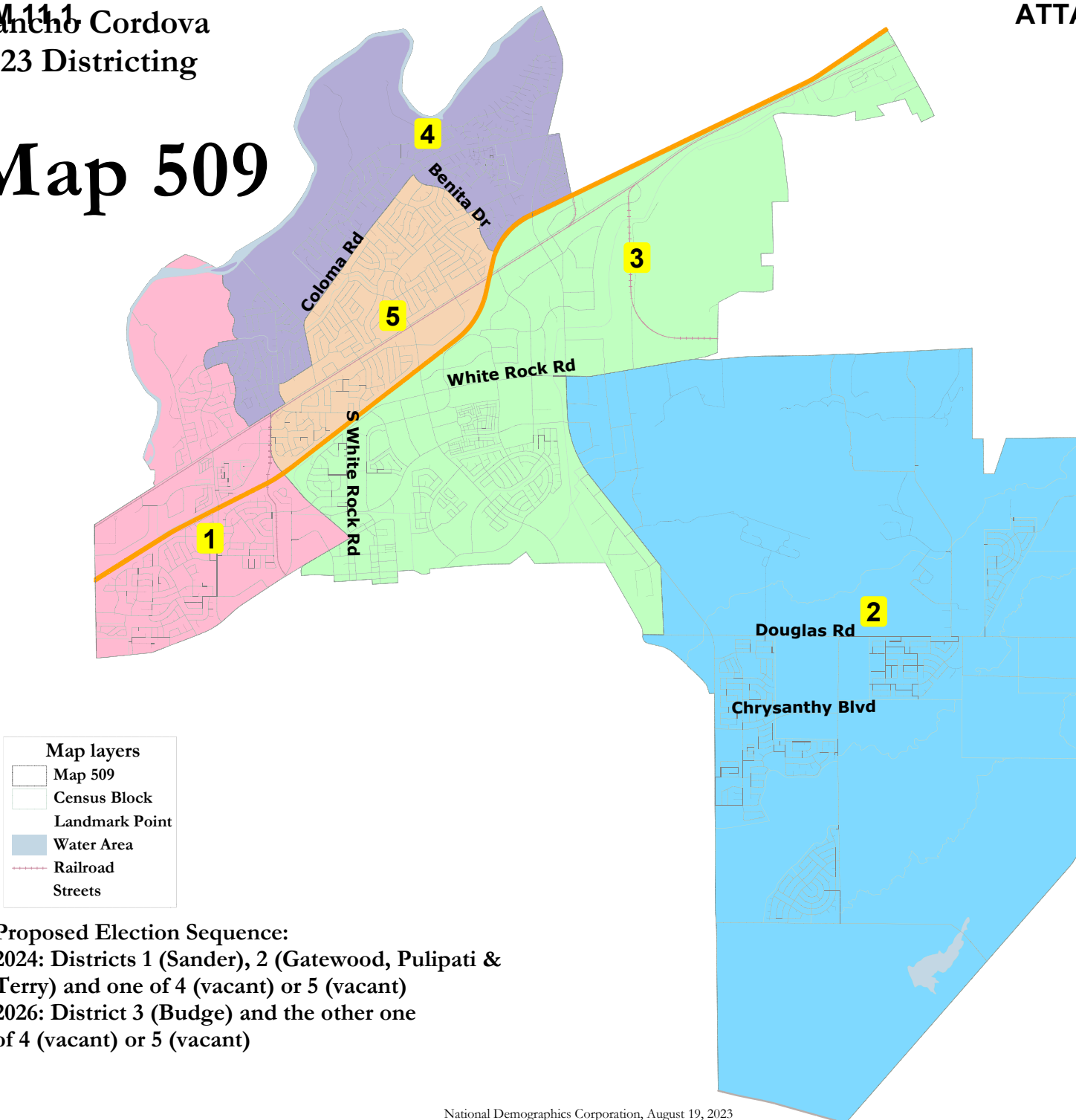
District		1	2	3	4	5	Total
	Total Pop	15,456	16,776	16,316	15,214	15,881	79,643
	Deviation from ideal	-473	847	387	-715	-48	1,562
	% Deviation	-2.97%	5.32%	2.43%	-4.49%	-0.30%	9.81%
Total Pop	% Hisp	13.6%	21%	24%	24%	25%	22%
	% NH White	39%	41%	43%	52%	49%	45%
	% NH Black	8%	11%	14%	9%	10%	11%
	% Asian-American	34%	22%	12%	9%	10%	17%
Citizen Voting Age Pop	Total	9,149	11,455	9,754	10,782	10,365	51,505
	% Hisp	15%	13%	19%	15%	18%	16%
	% NH White	44%	49%	45%	67%	63%	54%
	% NH Black	10%	15%	21%	9%	7%	13%
	% Asian/Pac.Isl.	30%	19%	13%	8%	9%	15%
Voter Registration (Nov 2020)	Total	9,164	8,574	8,049	8,400	8,625	42,812
	% Latino est.	14%	15%	17%	14%	14%	15%
	% Spanish-Surnamed	13%	14%	16%	13%	13%	14%
	% Asian-Surnamed	12%	9%	5%	3%	3%	6%
	% Filipino-Surnamed	4%	3%	1%	1%	1%	2%
	% NH White est.	61%	59%	55%	74%	77%	65%
	% NH Black	9%	14%	22%	8%	5%	11%
Voter Turnout (Nov 2020)	Total	7,811	6,761	5,969	6,642	6,768	33,951
	% Latino est.	14%	13%	15%	13%	13%	13%
	% Spanish-Surnamed	13%	13%	14%	12%	12%	13%
	% Asian-Surnamed	11%	9%	5%	2%	3%	6%
	% Filipino-Surnamed	3%	3%	1%	2%	1%	2%
	% NH White est.	62%	60%	56%	75%	78%	66%
	% NH Black	9%	13%	22%	8%	5%	11%
Voter Turnout (Nov 2018)	Total	4,574	4,248	3,687	4,780	4,783	22,072
	% Latino est.	13%	12%	14%	10%	10%	12%
	% Spanish-Surnamed	12%	12%	13%	10%	10%	11%
	% Asian-Surnamed	9%	7%	5%	2%	2%	5%
	% Filipino-Surnamed	3%	3%	2%	1%	2%	2%
	% NH White est.	63%	63%	56%	78%	80%	69%
	% NH Black est.	9%	13%	21%	7%	4%	11%
ACS Pop. Est.	Total	13,821	17,572	14,814	15,761	16,534	78,502
Age	age0-19	31%	27%	27%	24%	29%	28%
	age20-60	54%	57%	56%	55%	53%	55%
	age60plus	15%	16%	17%	20%	18%	17%
Immigration	immigrants	26%	25%	24%	23%	22%	24%
	naturalized	85%	58%	62%	52%	47%	61%
Language spoken at home	english	68%	62%	63%	71%	63%	65%
	spanish	3%	13%	17%	11%	16%	12%
	asian-lang	17%	12%	7%	5%	4%	9%
	other lang	12%	13%	14%	13%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	18%	18%	14%	17%	16%
Education (among those age 25+)	hs-grad	48%	59%	65%	68%	63%	61%
	bachelor	32%	20%	13%	15%	18%	19%
	graduatedegree	15%	9%	4%	6%	7%	8%
Child in Household	child-under18	47%	36%	35%	32%	37%	37%
Pct of Pop. Age 16+	employed	73%	69%	65%	64%	63%	67%
Household Income	income 0-25k	4%	10%	21%	17%	13%	14%
	income 25-50k	3%	15%	25%	17%	20%	17%
	income 50-75k	13%	19%	17%	19%	21%	18%
	income 75-200k	55%	49%	34%	43%	43%	44%
	income 200k-plus	25%	7%	3%	4%	3%	7%
Housing Stats	single family	99%	66%	68%	73%	69%	74%
	multi-family	1%	34%	32%	27%	31%	26%
	rented	13%	50%	52%	47%	48%	44%
	owned	87%	50%	48%	53%	52%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 509



Proposed Election Sequence:

2024: Districts 1 (Sander), 2 (Gatewood, Pulipati & Terry) and one of 4 (vacant) or 5 (vacant)

2026: District 3 (Budge) and the other one of 4 (vacant) or 5 (vacant)

ITEM 11.1.

Map 509

ATTACHMENT 3

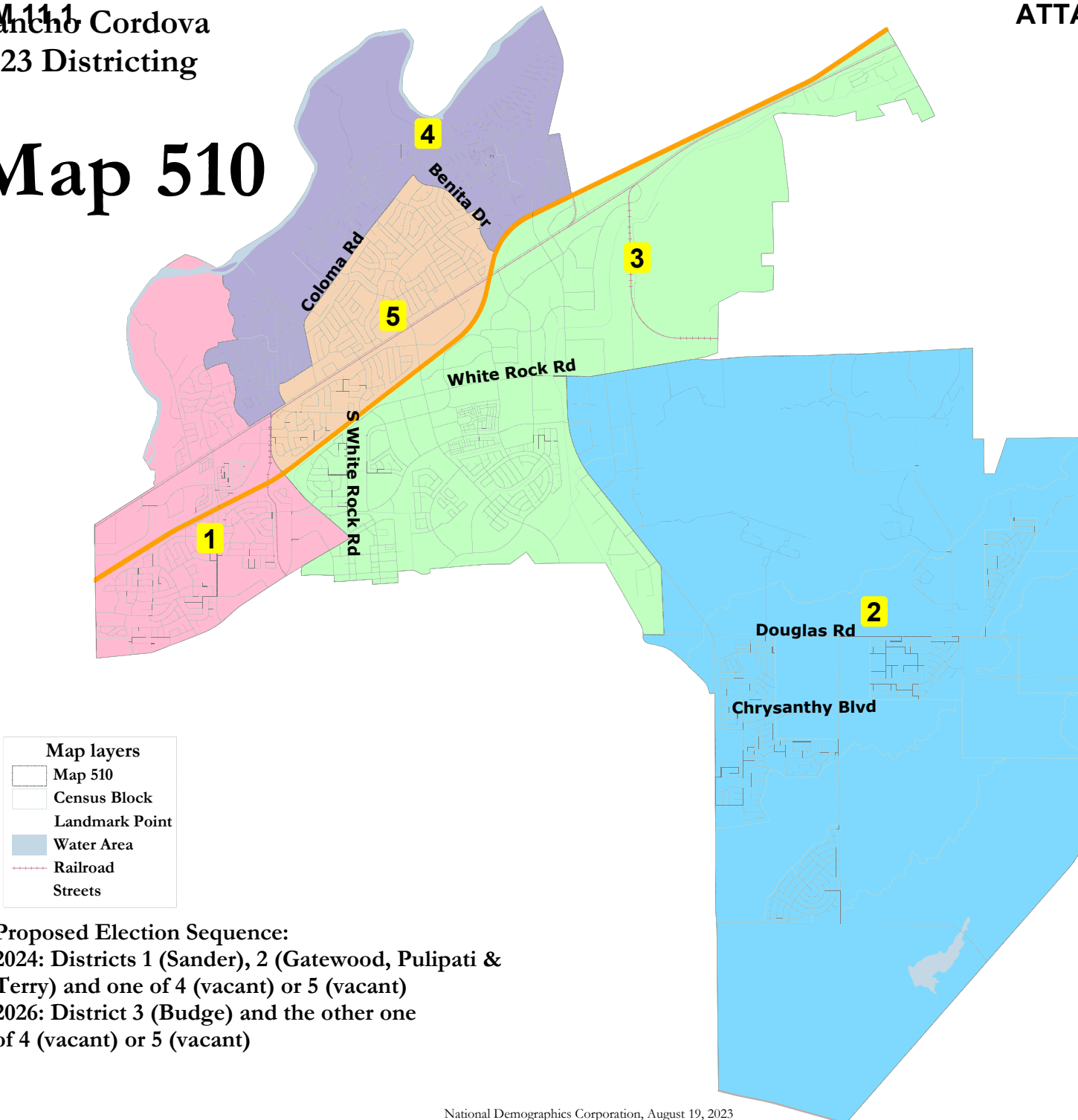
District		1	2	3	4	5	Total
	Total Pop	16,247	15,427	15,615	16,407	15,947	79,643
	Deviation from ideal	318	-502	-314	478	18	980
	% Deviation	2.00%	-3.15%	-1.97%	3.00%	0.11%	6.15%
Total Pop	% Hisp	24.6%	14%	18%	20%	31%	22%
	% NH White	43%	39%	40%	56%	45%	45%
	% NH Black	13%	8%	13%	9%	9%	11%
	% Asian-American	13%	34%	23%	9%	10%	17%
Citizen Voting Age Pop	Total	10,328	9,149	9,890	10,638	11,500	51,505
	% Hisp	18%	15%	12%	14%	20%	16%
	% NH White	48%	44%	47%	69%	59%	54%
	% NH Black	19%	10%	18%	6%	10%	13%
	% Asian/Pac.Isl.	13%	30%	20%	9%	9%	15%
Voter Registration (Nov 2020)	Total	8,377	9,162	7,709	9,470	8,094	42,812
	% Latino est.	17%	14%	14%	12%	17%	15%
	% Spanish-Surnamed	15%	13%	13%	12%	16%	14%
	% Asian-Surnamed	5%	12%	10%	2%	3%	6%
	% Filipino-Surnamed	1%	4%	3%	1%	2%	2%
	% NH White est.	58%	61%	57%	79%	68%	65%
	% NH Black	19%	9%	16%	5%	10%	11%
Voter Turnout (Nov 2020)	Total	6,297	7,809	6,127	7,643	6,075	33,951
	% Latino est.	15%	14%	12%	12%	15%	13%
	% Spanish-Surnamed	14%	13%	12%	11%	14%	13%
	% Asian-Surnamed	5%	11%	9%	2%	3%	6%
	% Filipino-Surnamed	1%	3%	3%	1%	2%	2%
	% NH White est.	59%	62%	59%	80%	70%	66%
	% NH Black	19%	9%	15%	4%	10%	11%
Voter Turnout (Nov 2018)	Total	4,071	4,572	3,697	5,533	4,199	22,072
	% Latino est.	13%	13%	11%	9%	12%	12%
	% Spanish-Surnamed	13%	12%	11%	9%	12%	11%
	% Asian-Surnamed	5%	9%	8%	2%	2%	5%
	% Filipino-Surnamed	2%	3%	3%	1%	2%	2%
	% NH White est.	61%	63%	61%	82%	72%	69%
	% NH Black est.	18%	9%	15%	4%	9%	11%
ACS Pop. Est.	Total	16,280	13,821	14,707	16,059	17,635	78,502
Age	age0-19	28%	31%	25%	26%	28%	28%
	age20-60	54%	54%	60%	53%	54%	55%
	age60plus	17%	15%	15%	21%	18%	17%
Immigration	immigrants	23%	26%	25%	25%	21%	24%
	naturalized	54%	85%	62%	51%	52%	61%
Language spoken at home	english	62%	68%	66%	68%	64%	65%
	spanish	17%	3%	10%	9%	20%	12%
	asian-lang	7%	17%	10%	5%	6%	9%
	other lang	15%	12%	14%	19%	10%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	13%	16%	16%	16%	16%
Education (among those age 25+)	hs-grad	61%	48%	62%	67%	65%	61%
	bachelor	15%	32%	22%	17%	14%	19%
	graduatedegree	6%	15%	9%	7%	5%	8%
Child in Household	child-under18	36%	47%	33%	33%	38%	37%
Pct of Pop. Age 16+	employed	63%	73%	72%	65%	62%	67%
Household Income	income 0-25k	18%	4%	12%	16%	15%	14%
	income 25-50k	24%	3%	17%	19%	17%	17%
	income 50-75k	18%	13%	16%	19%	22%	18%
	income 75-200k	36%	55%	47%	43%	44%	44%
	income 200k-plus	4%	25%	7%	3%	2%	7%
Housing Stats	single family	72%	99%	57%	73%	75%	74%
	multi-family	28%	1%	43%	27%	25%	26%
	rented	48%	13%	59%	46%	44%	44%
	owned	52%	87%	41%	54%	56%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 510



ITEM 11.1.

Map 510

ATTACHMENT 3

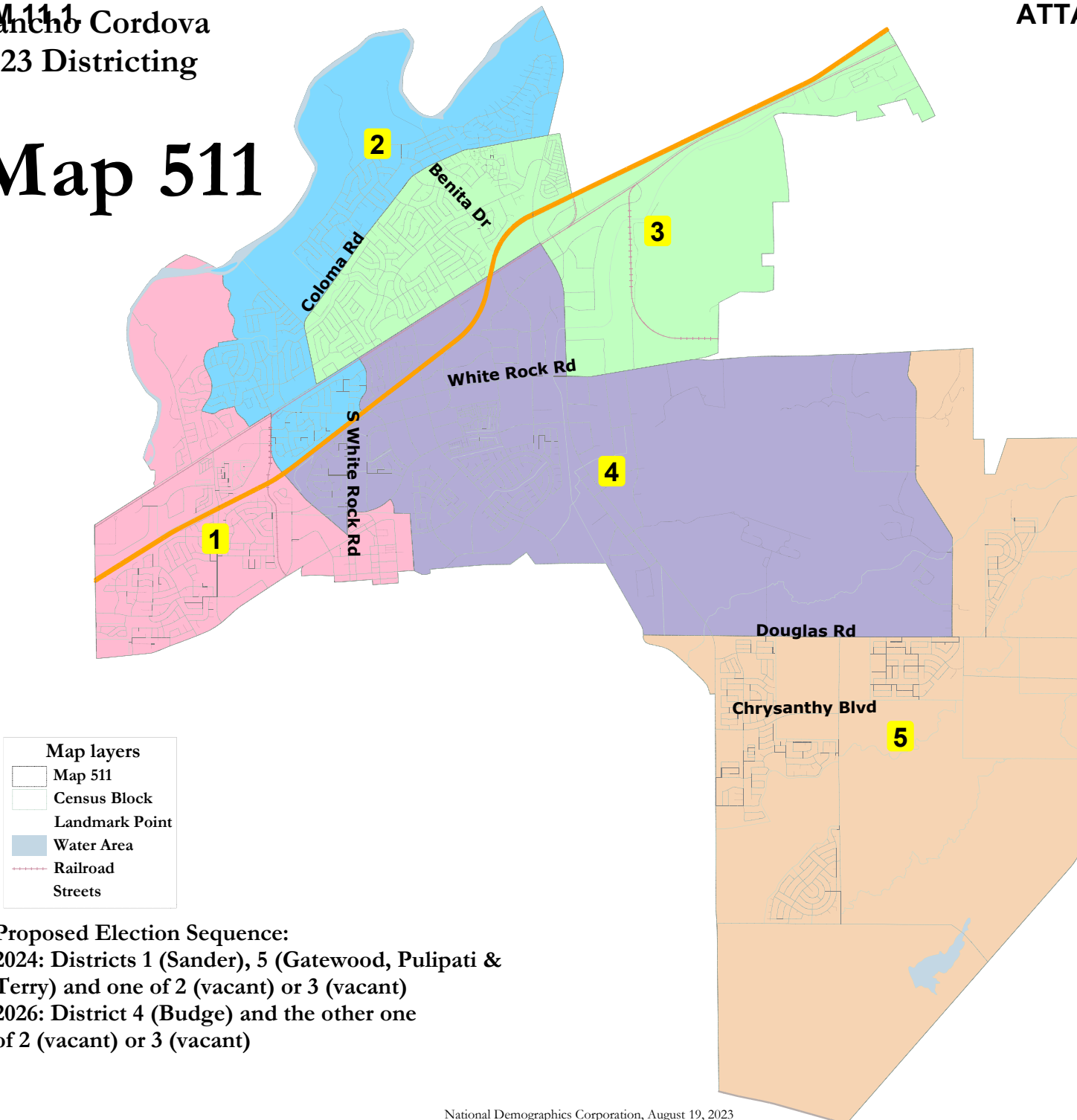
District		1	2	3	4	5	Total
	Total Pop	16,247	15,427	15,615	16,407	15,947	79,643
	Deviation from ideal	318	-502	-314	478	18	980
	% Deviation	2.00%	-3.15%	-1.97%	3.00%	0.11%	6.15%
Total Pop	% Hisp	24.6%	14%	18%	20%	31%	22%
	% NH White	43%	39%	40%	56%	45%	45%
	% NH Black	13%	8%	13%	9%	9%	11%
	% Asian-American	13%	34%	23%	9%	10%	17%
Citizen Voting Age Pop	Total	10,328	9,149	9,890	10,638	11,500	51,505
	% Hisp	18%	15%	12%	14%	20%	16%
	% NH White	48%	44%	47%	69%	59%	54%
	% NH Black	19%	10%	18%	6%	10%	13%
	% Asian/Pac.Isl.	13%	30%	20%	9%	9%	15%
Voter Registration (Nov 2020)	Total	8,377	9,162	7,709	9,470	8,094	42,812
	% Latino est.	17%	14%	14%	12%	17%	15%
	% Spanish-Surnamed	15%	13%	13%	12%	16%	14%
	% Asian-Surnamed	5%	12%	10%	2%	3%	6%
	% Filipino-Surnamed	1%	4%	3%	1%	2%	2%
	% NH White est.	58%	61%	57%	79%	68%	65%
	% NH Black	19%	9%	16%	5%	10%	11%
Voter Turnout (Nov 2020)	Total	6,297	7,809	6,127	7,643	6,075	33,951
	% Latino est.	15%	14%	12%	12%	15%	13%
	% Spanish-Surnamed	14%	13%	12%	11%	14%	13%
	% Asian-Surnamed	5%	11%	9%	2%	3%	6%
	% Filipino-Surnamed	1%	3%	3%	1%	2%	2%
	% NH White est.	59%	62%	59%	80%	70%	66%
	% NH Black	19%	9%	15%	4%	10%	11%
Voter Turnout (Nov 2018)	Total	4,071	4,572	3,697	5,533	4,199	22,072
	% Latino est.	13%	13%	11%	9%	12%	12%
	% Spanish-Surnamed	13%	12%	11%	9%	12%	11%
	% Asian-Surnamed	5%	9%	8%	2%	2%	5%
	% Filipino-Surnamed	2%	3%	3%	1%	2%	2%
	% NH White est.	61%	63%	61%	82%	72%	69%
	% NH Black est.	18%	9%	15%	4%	9%	11%
ACS Pop. Est.	Total	16,280	13,821	14,707	16,059	17,635	78,502
Age	age0-19	28%	31%	25%	26%	28%	28%
	age20-60	54%	54%	60%	53%	54%	55%
	age60plus	17%	15%	15%	21%	18%	17%
Immigration	immigrants	23%	26%	25%	25%	21%	24%
	naturalized	54%	85%	62%	51%	52%	61%
Language spoken at home	english	62%	68%	66%	68%	64%	65%
	spanish	17%	3%	10%	9%	20%	12%
	asian-lang	7%	17%	10%	5%	6%	9%
	other lang	15%	12%	14%	19%	10%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	13%	16%	16%	16%	16%
Education (among those age 25+)	hs-grad	61%	48%	62%	67%	65%	61%
	bachelor	15%	32%	22%	17%	14%	19%
	graduatedegree	6%	15%	9%	7%	5%	8%
Child in Household	child-under18	36%	47%	33%	33%	38%	37%
Pct of Pop. Age 16+	employed	63%	73%	72%	65%	62%	67%
Household Income	income 0-25k	18%	4%	12%	16%	15%	14%
	income 25-50k	24%	3%	17%	19%	17%	17%
	income 50-75k	18%	13%	16%	19%	22%	18%
	income 75-200k	36%	55%	47%	43%	44%	44%
	income 200k-plus	4%	25%	7%	3%	2%	7%
Housing Stats	single family	72%	99%	57%	73%	75%	74%
	multi-family	28%	1%	43%	27%	25%	26%
	rented	48%	13%	59%	46%	44%	44%
	owned	52%	87%	41%	54%	56%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 511



Proposed Election Sequence:

2024: Districts 1 (Sander), 5 (Gatewood, Pulipati & Terry) and one of 2 (vacant) or 3 (vacant)

2026: District 4 (Budge) and the other one of 2 (vacant) or 3 (vacant)

ITEM 11.1.

Map 511

ATTACHMENT 3

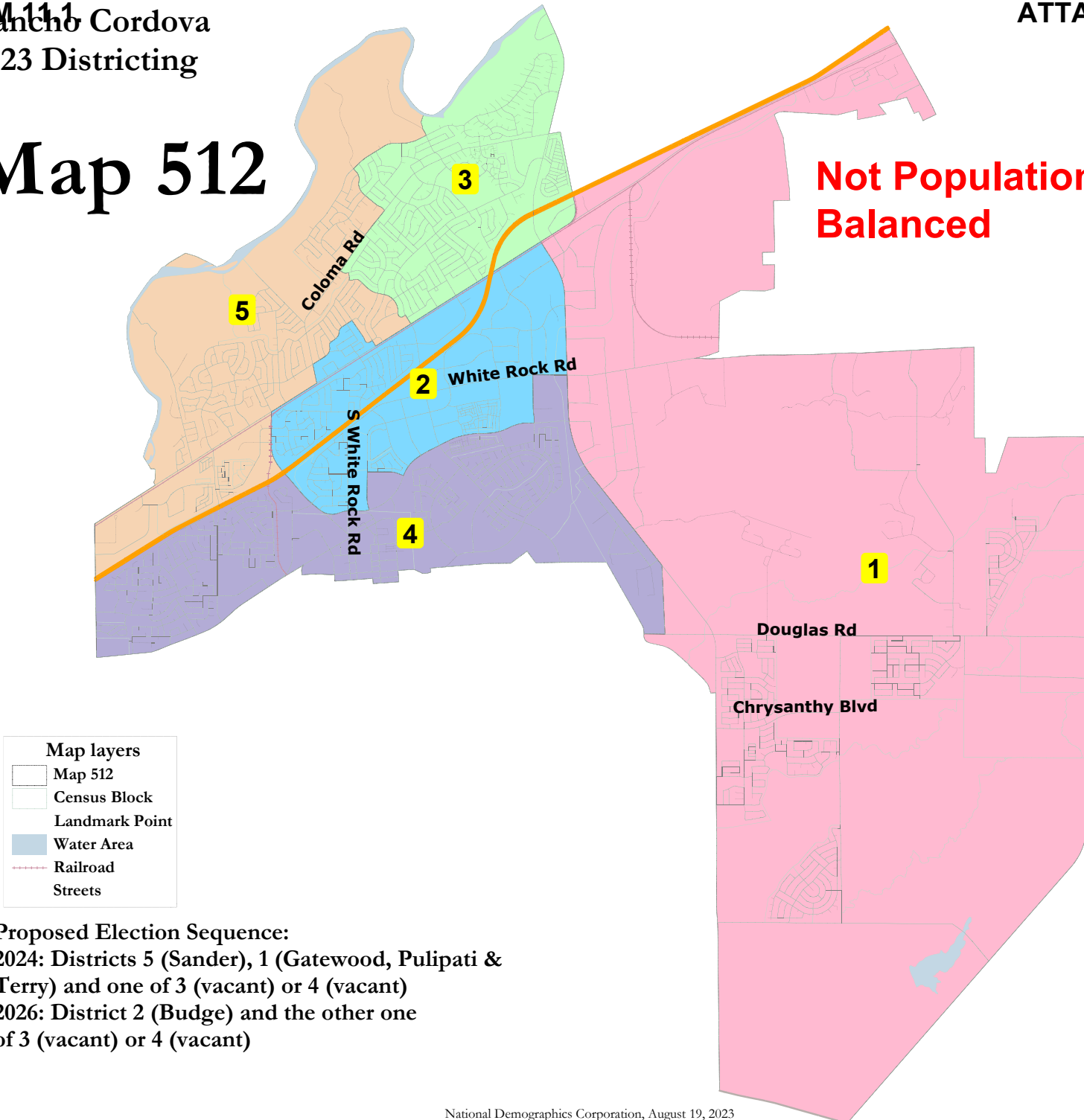
District		1	2	3	4	5	Total
	Total Pop	16,386	16,139	15,670	16,055	15,393	79,643
	Deviation from ideal	457	210	-259	126	-536	993
	% Deviation	2.87%	1.32%	-1.63%	0.79%	-3.36%	6.23%
Total Pop	% Hisp	24.0%	23%	27%	19%	14%	22%
	% NH White	43%	52%	48%	40%	39%	45%
	% NH Black	14%	10%	9%	12%	8%	11%
	% Asian-American	12%	9%	9%	23%	34%	17%
Citizen Voting Age Pop	Total	10,370	10,359	11,093	10,534	9,149	51,505
	% Hisp	18%	16%	18%	13%	15%	16%
	% NH White	47%	65%	64%	48%	44%	54%
	% NH Black	20%	7%	9%	16%	10%	13%
	% Asian/Pac.Isl.	13%	10%	7%	19%	30%	15%
Voter Registration (Nov 2020)	Total	8,222	8,891	8,223	8,324	9,152	42,812
	% Latino est.	16%	13%	15%	14%	14%	15%
	% Spanish-Surnamed	15%	12%	14%	13%	13%	14%
	% Asian-Surnamed	5%	3%	2%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	4%	2%
	% NH White est.	58%	76%	73%	58%	61%	65%
	% NH Black	19%	6%	8%	15%	9%	11%
Voter Turnout (Nov 2020)	Total	6,163	7,034	6,345	6,607	7,802	33,951
	% Latino est.	15%	12%	14%	13%	14%	13%
	% Spanish-Surnamed	14%	11%	13%	12%	13%	13%
	% Asian-Surnamed	5%	3%	2%	9%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	3%	2%
	% NH White est.	59%	78%	73%	59%	62%	66%
	% NH Black	19%	6%	8%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	3,938	5,032	4,483	4,047	4,572	22,072
	% Latino est.	13%	10%	11%	12%	13%	12%
	% Spanish-Surnamed	13%	10%	11%	11%	12%	11%
	% Asian-Surnamed	5%	2%	2%	7%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	60%	79%	76%	62%	63%	69%
	% NH Black est.	18%	5%	7%	14%	9%	11%
ACS Pop. Est.	Total	16,196	16,146	16,461	15,877	13,821	78,502
Age	age0-19	28%	28%	26%	26%	31%	28%
	age20-60	55%	53%	55%	59%	54%	55%
	age60plus	17%	19%	20%	15%	15%	17%
Immigration	immigrants	23%	26%	21%	25%	26%	24%
	naturalized	56%	50%	53%	61%	85%	61%
Language spoken at home	english	62%	63%	69%	64%	68%	65%
	spanish	17%	12%	15%	12%	3%	12%
	asian-lang	7%	8%	3%	10%	17%	9%
	other lang	14%	17%	12%	13%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	19%	13%	17%	13%	16%
Education (among those age 25+)	hs-grad	62%	66%	66%	61%	48%	61%
	bachelor	14%	14%	16%	22%	32%	19%
	graduatedegree	5%	6%	6%	9%	15%	8%
Child in Household	child-under18	35%	36%	35%	33%	47%	37%
Pct of Pop. Age 16+	employed	63%	65%	62%	72%	73%	67%
Household Income	income 0-25k	20%	16%	16%	10%	4%	14%
	income 25-50k	23%	17%	19%	18%	3%	17%
	income 50-75k	17%	22%	20%	17%	13%	18%
	income 75-200k	35%	43%	43%	48%	55%	44%
	income 200k-plus	4%	3%	2%	7%	25%	7%
Housing Stats	single family	69%	75%	72%	62%	99%	74%
	multi-family	31%	25%	28%	38%	1%	26%
	rented	50%	43%	49%	55%	13%	44%
	owned	50%	57%	51%	45%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 512



Proposed Election Sequence:

2024: Districts 5 (Sander), 1 (Gatewood, Pulipati & Terry) and one of 3 (vacant) or 4 (vacant)

2026: District 2 (Budge) and the other one of 3 (vacant) or 4 (vacant)

ITEM 11.1.

Map 512

ATTACHMENT 3

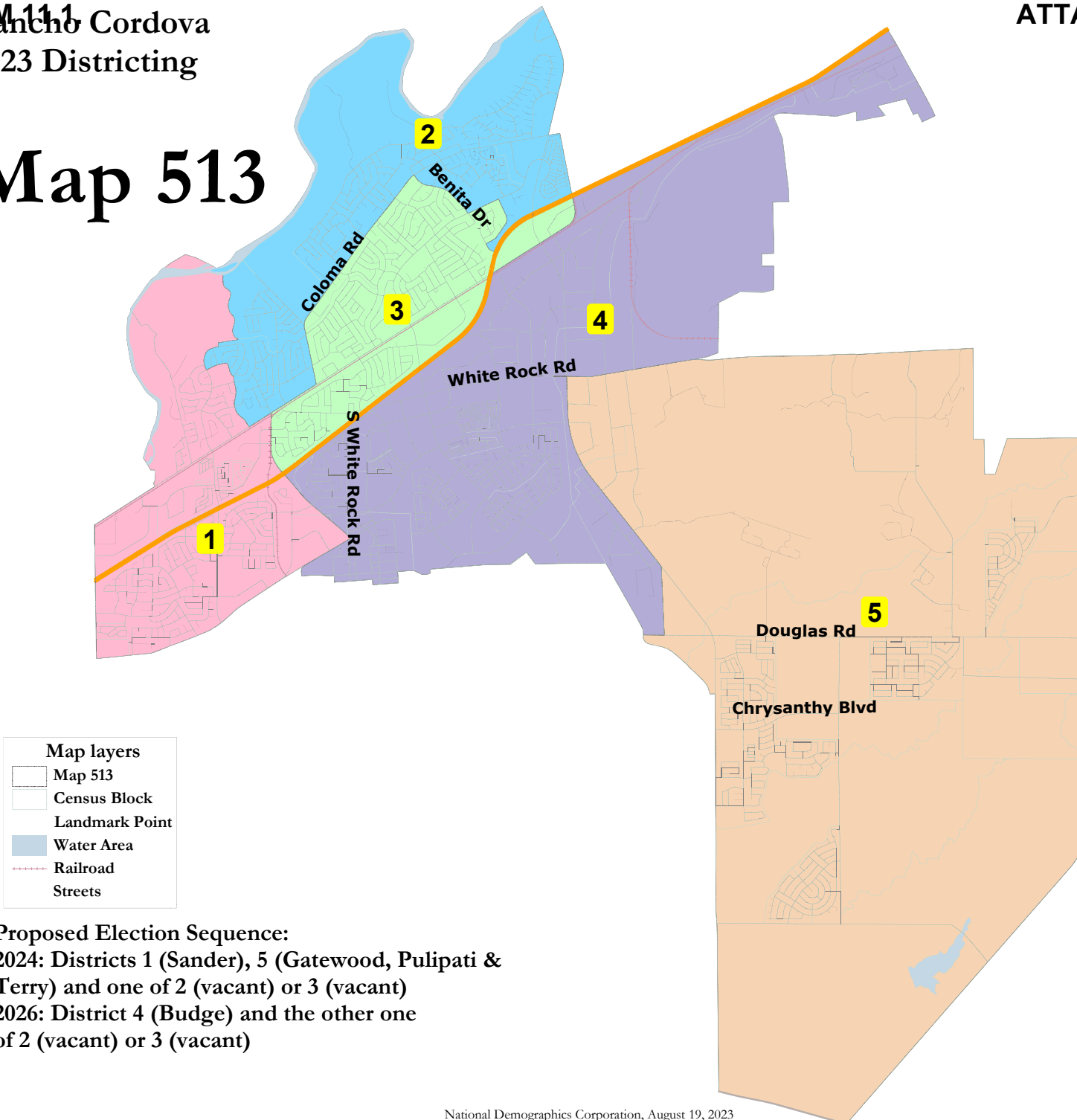
District		1	2	3	4	5	Total
	Total Pop	15,631	15,330	16,860	16,725	15,097	79,643
	Deviation from ideal	-298	-599	931	796	-832	1,763
	% Deviation	-1.87%	-3.76%	5.84%	5.00%	-5.22%	11.07%
Total Pop	% Hisp	13.7%	28%	23%	19%	23%	22%
	% NH White	39%	37%	53%	46%	48%	45%
	% NH Black	8%	14%	9%	11%	12%	11%
	% Asian-American	33%	15%	9%	19%	10%	17%
Citizen Voting Age Pop	Total	9,185	9,939	12,134	10,455	9,793	51,505
	% Hisp	15%	18%	17%	15%	15%	16%
	% NH White	44%	45%	66%	49%	62%	54%
	% NH Black	10%	20%	8%	15%	10%	13%
	% Asian/Pac.Isl.	30%	16%	8%	18%	9%	15%
Voter Registration (Nov 2020)	Total	9,179	6,681	9,567	9,179	8,206	42,812
	% Latino est.	14%	18%	14%	15%	14%	15%
	% Spanish-Surnamed	13%	16%	13%	14%	13%	14%
	% Asian-Surnamed	12%	5%	3%	9%	3%	6%
	% Filipino-Surnamed	4%	2%	2%	2%	1%	2%
	% NH White est.	61%	56%	74%	58%	75%	65%
	% NH Black	9%	20%	7%	15%	7%	11%
Voter Turnout (Nov 2020)	Total	7,823	4,877	7,594	7,275	6,382	33,951
	% Latino est.	14%	15%	13%	14%	13%	13%
	% Spanish-Surnamed	13%	14%	12%	13%	12%	13%
	% Asian-Surnamed	11%	5%	2%	9%	2%	6%
	% Filipino-Surnamed	3%	2%	2%	2%	1%	2%
	% NH White est.	62%	57%	75%	59%	76%	66%
	% NH Black	9%	20%	7%	15%	6%	11%
Voter Turnout (Nov 2018)	Total	4,577	2,935	5,495	4,646	4,419	22,072
	% Latino est.	13%	13%	10%	13%	10%	12%
	% Spanish-Surnamed	12%	13%	10%	12%	10%	11%
	% Asian-Surnamed	9%	5%	2%	7%	2%	5%
	% Filipino-Surnamed	3%	2%	2%	2%	1%	2%
	% NH White est.	63%	58%	78%	60%	79%	69%
	% NH Black est.	9%	19%	7%	15%	6%	11%
ACS Pop. Est.	Total	13,870	15,554	17,483	16,047	15,547	78,502
Age	age0-19	31%	28%	24%	28%	29%	28%
	age20-60	54%	58%	55%	55%	53%	55%
	age60plus	15%	14%	21%	18%	18%	17%
Immigration	immigrants	26%	23%	23%	26%	22%	24%
	naturalized	85%	54%	52%	63%	48%	61%
Language spoken at home	english	68%	64%	70%	58%	66%	65%
	spanish	3%	18%	12%	14%	13%	12%
	asian-lang	17%	8%	5%	11%	4%	9%
	other lang	12%	10%	13%	17%	17%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	18%	14%	20%	15%	16%
Education (among those age 25+)	hs-grad	48%	62%	69%	61%	62%	61%
	bachelor	32%	16%	15%	18%	18%	19%
	graduatedegree	15%	6%	6%	7%	7%	8%
Child in Household	child-under18	47%	35%	32%	38%	35%	37%
Pct of Pop. Age 16+	employed	73%	70%	64%	65%	62%	67%
Household Income	income 0-25k	4%	15%	17%	14%	14%	14%
	income 25-50k	3%	20%	17%	18%	22%	17%
	income 50-75k	13%	20%	19%	16%	20%	18%
	income 75-200k	55%	42%	44%	44%	40%	44%
	income 200k-plus	25%	3%	3%	8%	3%	7%
Housing Stats	single family	99%	50%	74%	85%	67%	74%
	multi-family	1%	50%	26%	15%	33%	26%
	rented	13%	65%	46%	38%	49%	44%
	owned	87%	35%	54%	62%	51%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

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Map 513



ITEM 11.1.

Map 513

ATTACHMENT 3

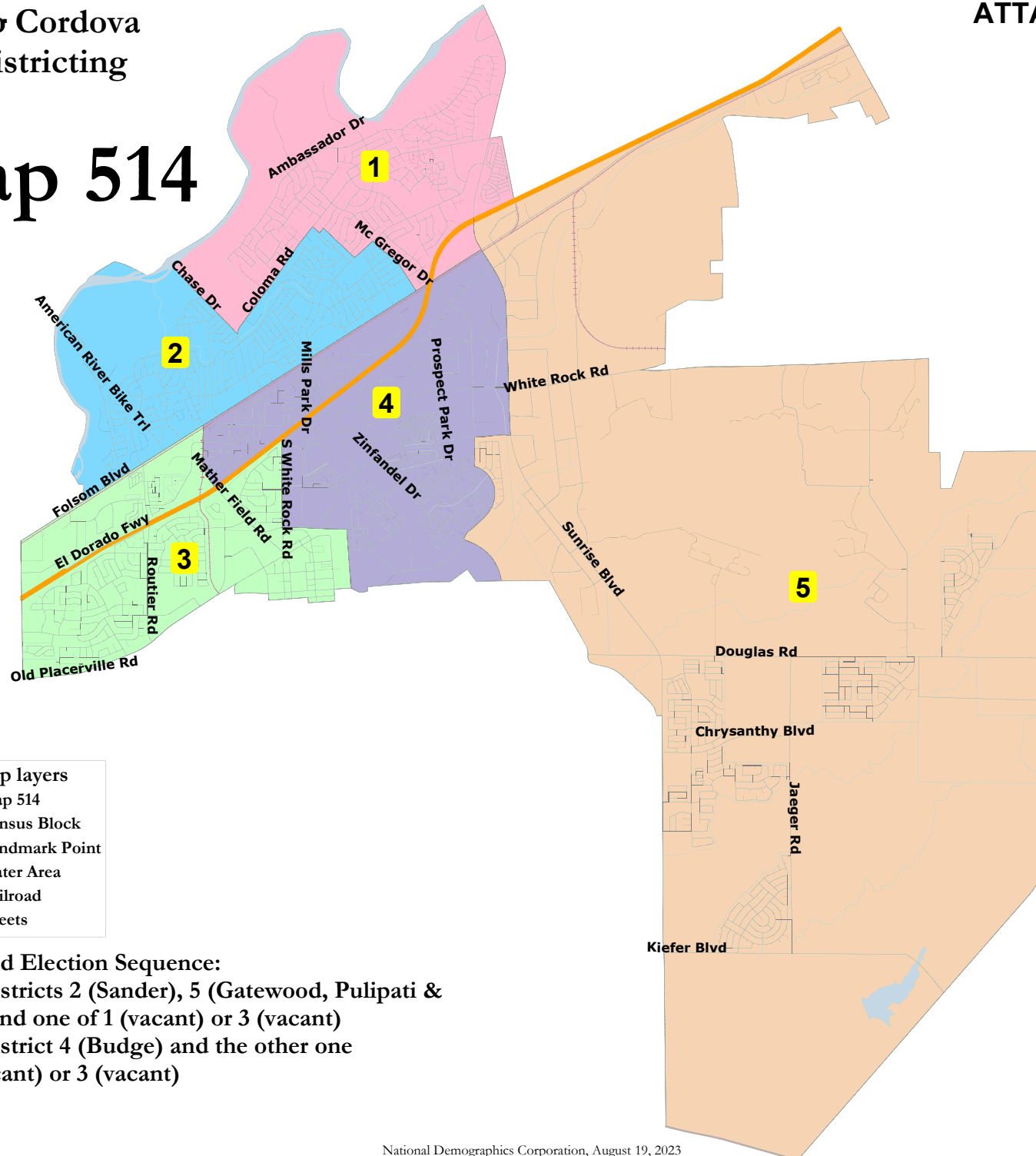
District		1	2	3	4	5	Total
	Total Pop	16,247	16,039	16,359	15,571	15,427	79,643
	Deviation from ideal	318	110	430	-358	-502	932
	% Deviation	2.00%	0.69%	2.70%	-2.25%	-3.15%	5.85%
Total Pop	% Hisp	24.6%	20%	31%	18%	14%	22%
	% NH White	43%	56%	45%	40%	39%	45%
	% NH Black	13%	9%	9%	13%	8%	11%
	% Asian-American	13%	9%	10%	23%	34%	17%
Citizen Voting Age Pop	Total	10,328	10,401	11,754	9,874	9,149	51,505
	% Hisp	18%	14%	20%	11%	15%	16%
	% NH White	48%	69%	59%	47%	44%	54%
	% NH Black	19%	6%	10%	18%	10%	13%
	% Asian/Pac.Isl.	13%	9%	9%	20%	30%	15%
Voter Registration (Nov 2020)	Total	8,377	9,263	8,332	7,678	9,162	42,812
	% Latino est.	17%	12%	17%	14%	14%	15%
	% Spanish-Surnamed	15%	11%	16%	13%	13%	14%
	% Asian-Surnamed	5%	3%	3%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	4%	2%
	% NH White est.	58%	79%	68%	57%	61%	65%
	% NH Black	19%	5%	10%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	6,297	7,472	6,268	6,105	7,809	33,951
	% Latino est.	15%	11%	15%	12%	14%	13%
	% Spanish-Surnamed	14%	11%	14%	12%	13%	13%
	% Asian-Surnamed	5%	2%	3%	9%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	3%	2%
	% NH White est.	59%	80%	70%	59%	62%	66%
	% NH Black	19%	4%	10%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	4,071	5,401	4,334	3,694	4,572	22,072
	% Latino est.	13%	9%	12%	11%	13%	12%
	% Spanish-Surnamed	13%	9%	12%	11%	12%	11%
	% Asian-Surnamed	5%	2%	2%	8%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	61%	82%	72%	61%	63%	69%
	% NH Black est.	18%	4%	9%	15%	9%	11%
ACS Pop. Est.	Total	16,280	15,740	17,991	14,669	13,821	78,502
Age	age0-19	28%	26%	28%	25%	31%	28%
	age20-60	54%	53%	54%	60%	54%	55%
	age60plus	17%	21%	18%	15%	15%	17%
Immigration	immigrants	23%	26%	21%	25%	26%	24%
	naturalized	54%	51%	51%	62%	85%	61%
Language spoken at home	english	62%	67%	64%	66%	68%	65%
	spanish	17%	9%	20%	10%	3%	12%
	asian-lang	7%	5%	6%	10%	17%	9%
	other lang	15%	19%	10%	14%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	16%	16%	16%	13%	16%
Education (among those age 25+)	hs-grad	61%	67%	65%	62%	48%	61%
	bachelor	15%	17%	14%	22%	32%	19%
	graduatedegree	6%	7%	5%	9%	15%	8%
Child in Household	child-under18	36%	33%	37%	33%	47%	37%
Pct of Pop. Age 16+	employed	63%	65%	62%	72%	73%	67%
Household Income	income 0-25k	18%	16%	15%	12%	4%	14%
	income 25-50k	24%	19%	17%	17%	3%	17%
	income 50-75k	18%	20%	22%	16%	13%	18%
	income 75-200k	36%	43%	44%	47%	55%	44%
	income 200k-plus	4%	3%	2%	7%	25%	7%
Housing Stats	single family	72%	73%	75%	57%	99%	74%
	multi-family	28%	27%	25%	43%	1%	26%
	rented	48%	46%	44%	59%	13%	44%
	owned	52%	54%	56%	41%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 514



ITEM 11.1.

Map 514

ATTACHMENT 3

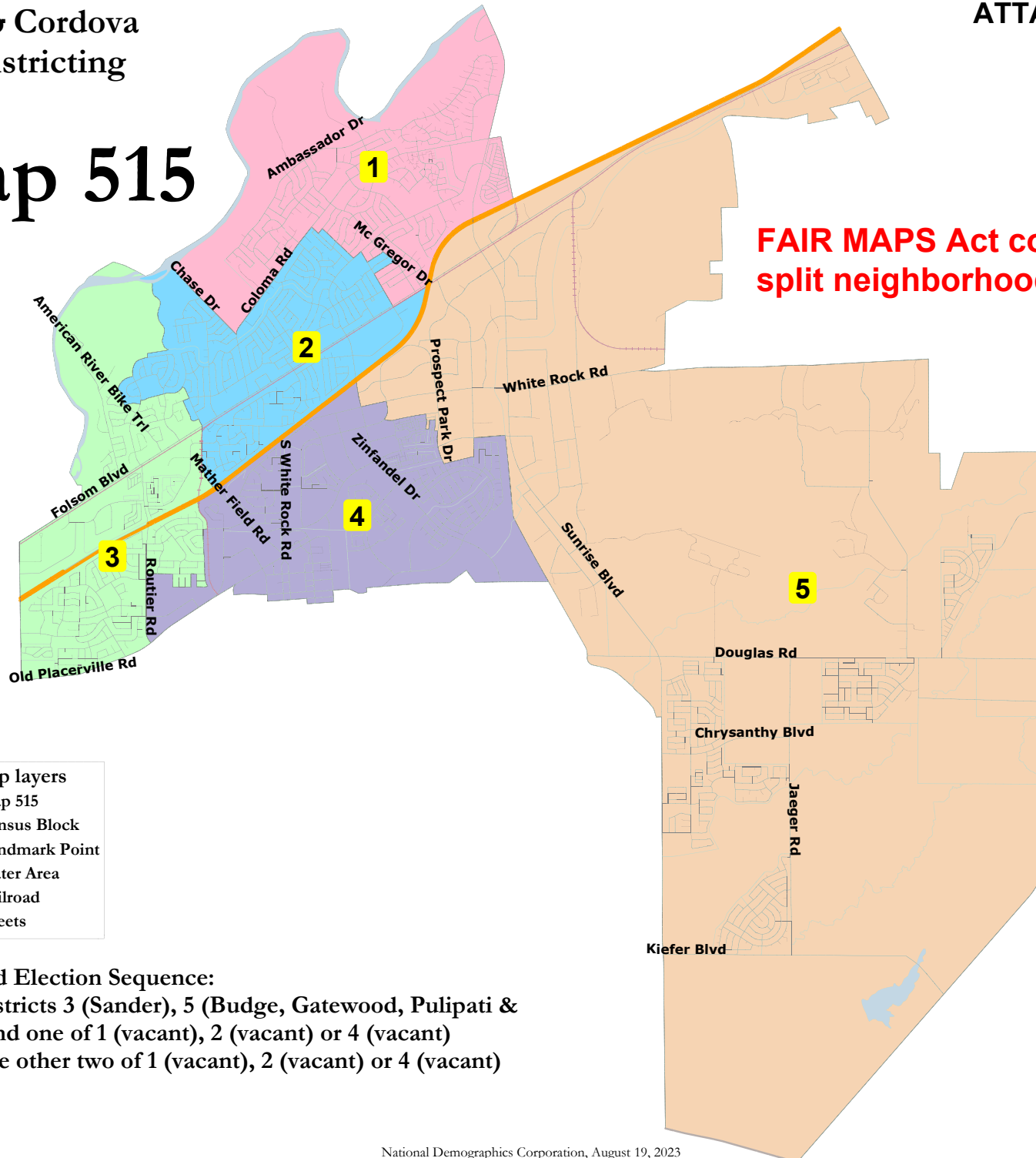
District		1	2	3	4	5	Total
	Total Pop	15,512	15,384	16,316	16,114	16,317	79,643
	Deviation from ideal	-417	-545	387	185	388	933
	% Deviation	-2.62%	-3.42%	2.43%	1.16%	2.44%	5.86%
Total Pop	% Hisp	20.8%	28%	24%	21%	14%	22%
	% NH White	56%	44%	43%	40%	40%	45%
	% NH Black	9%	11%	14%	11%	8%	11%
	% Asian-American	9%	11%	12%	22%	33%	17%
Citizen Voting Age Pop	Total	10,855	10,244	9,754	11,095	9,557	51,505
	% Hisp	14%	19%	19%	13%	15%	16%
	% NH White	70%	59%	45%	50%	44%	54%
	% NH Black	7%	9%	21%	16%	10%	13%
	% Asian/Pac.Isl.	7%	9%	13%	19%	29%	15%
Voter Registration (Nov 2020)	Total	8,986	8,002	8,049	8,126	9,649	42,812
	% Latino est.	13%	15%	17%	15%	14%	15%
	% Spanish-Surnamed	12%	14%	16%	14%	13%	14%
	% Asian-Surnamed	3%	3%	5%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	77%	74%	55%	59%	61%	65%
	% NH Black	6%	7%	22%	14%	9%	11%
Voter Turnout (Nov 2020)	Total	7,205	6,176	5,969	6,382	8,219	33,951
	% Latino est.	12%	14%	15%	14%	14%	13%
	% Spanish-Surnamed	11%	13%	14%	13%	13%	13%
	% Asian-Surnamed	2%	3%	5%	9%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	78%	75%	56%	60%	62%	66%
	% NH Black	6%	6%	22%	14%	9%	11%
Voter Turnout (Nov 2018)	Total	5,198	4,359	3,687	4,034	4,794	22,072
	% Latino est.	10%	11%	14%	12%	13%	12%
	% Spanish-Surnamed	9%	10%	13%	12%	12%	11%
	% Asian-Surnamed	2%	2%	5%	7%	9%	5%
	% Filipino-Surnamed	1%	2%	2%	3%	3%	2%
	% NH White est.	80%	78%	56%	62%	64%	69%
	% NH Black est.	6%	6%	21%	14%	9%	11%
ACS Pop. Est.	Total	16,185	16,041	14,814	17,014	14,449	78,502
Age	age0-19	25%	29%	27%	27%	31%	28%
	age20-60	55%	53%	56%	57%	54%	55%
	age60plus	21%	18%	17%	16%	15%	17%
Immigration	immigrants	27%	18%	24%	25%	26%	24%
	naturalized	53%	44%	62%	57%	84%	61%
Language spoken at home	english	65%	69%	63%	63%	67%	65%
	spanish	10%	17%	17%	13%	3%	12%
	asian-lang	4%	5%	7%	12%	17%	9%
	other lang	21%	9%	14%	12%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	13%	18%	18%	13%	16%
Education (among those age 25+)	hs-grad	70%	62%	65%	59%	48%	61%
	bachelor	15%	18%	13%	20%	32%	19%
	graduatedegree	6%	7%	4%	9%	15%	8%
Child in Household	child-under18	32%	37%	35%	36%	46%	37%
Pct of Pop. Age 16+	employed	63%	64%	65%	69%	73%	67%
Household Income	income 0-25k	16%	14%	21%	11%	4%	14%
	income 25-50k	19%	19%	25%	15%	3%	17%
	income 50-75k	20%	20%	17%	19%	12%	18%
	income 75-200k	42%	44%	34%	48%	56%	44%
	income 200k-plus	4%	3%	3%	7%	24%	7%
Housing Stats	single family	73%	69%	68%	65%	99%	74%
	multi-family	27%	31%	32%	35%	1%	26%
	rented	45%	50%	52%	51%	14%	44%
	owned	55%	50%	48%	49%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 515



Proposed Election Sequence:

2024: Districts 3 (Sander), 5 (Budge, Gatewood, Pulipati & Terry) and one of 1 (vacant), 2 (vacant) or 4 (vacant)

2026: The other two of 1 (vacant), 2 (vacant) or 4 (vacant)

ITEM 11.1.

Map 515

ATTACHMENT 3

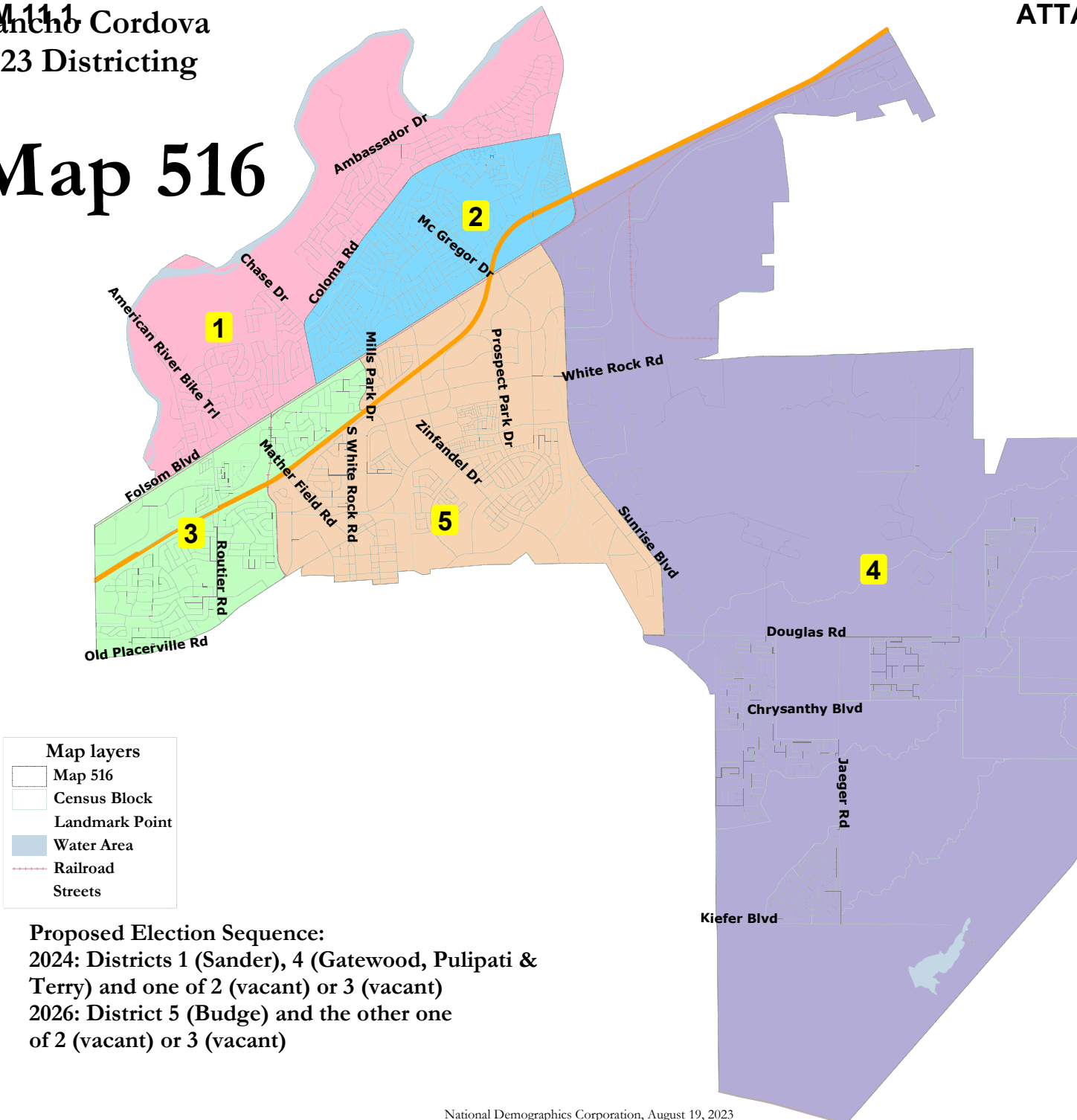
District		1	2	3	4	5	Total
	Total Pop	15,926	15,927	15,963	15,896	15,931	79,643
	Deviation from ideal	-3	-2	34	-33	2	67
	% Deviation	-0.02%	-0.01%	0.21%	-0.21%	0.01%	0.42%
Total Pop	% Hisp	20.9%	30%	25%	18%	14%	22%
	% NH White	56%	45%	42%	41%	39%	45%
	% NH Black	8%	9%	14%	12%	8%	11%
	% Asian-American	9%	9%	12%	23%	33%	17%
Citizen Voting Age Pop	Total	11,211	10,737	9,971	10,237	9,349	51,505
	% Hisp	14%	20%	19%	12%	15%	16%
	% NH White	70%	58%	49%	46%	44%	54%
	% NH Black	7%	10%	18%	19%	11%	13%
	% Asian/Pac.Isl.	7%	10%	13%	19%	30%	15%
Voter Registration (Nov 2020)	Total	9,241	8,187	8,134	7,942	9,308	42,812
	% Latino est.	13%	16%	17%	14%	14%	15%
	% Spanish-Surnamed	12%	15%	16%	13%	13%	14%
	% Asian-Surnamed	3%	3%	5%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	77%	72%	58%	58%	60%	65%
	% NH Black	6%	8%	19%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	7,418	6,219	6,068	6,310	7,936	33,951
	% Latino est.	12%	14%	16%	12%	14%	13%
	% Spanish-Surnamed	11%	14%	15%	12%	13%	13%
	% Asian-Surnamed	2%	3%	5%	9%	11%	6%
	% Filipino-Surnamed	2%	1%	1%	3%	3%	2%
	% NH White est.	78%	73%	59%	59%	61%	66%
	% NH Black	6%	7%	18%	16%	9%	11%
Voter Turnout (Nov 2018)	Total	5,358	4,351	3,923	3,805	4,635	22,072
	% Latino est.	10%	12%	13%	12%	13%	12%
	% Spanish-Surnamed	9%	11%	13%	11%	12%	11%
	% Asian-Surnamed	2%	2%	4%	8%	9%	5%
	% Filipino-Surnamed	1%	2%	2%	3%	3%	2%
	% NH White est.	80%	75%	61%	61%	63%	69%
	% NH Black est.	6%	7%	18%	15%	10%	11%
ACS Pop. Est.	Total	16,671	16,548	15,997	15,142	14,144	78,502
Age	age0-19	25%	29%	29%	25%	31%	28%
	age20-60	55%	53%	54%	60%	54%	55%
	age60plus	21%	18%	17%	15%	15%	17%
Immigration	immigrants	26%	20%	23%	25%	26%	24%
	naturalized	53%	49%	54%	62%	84%	61%
Language spoken at home	english	65%	66%	62%	65%	68%	65%
	spanish	10%	19%	17%	11%	3%	12%
	asian-lang	5%	7%	7%	10%	17%	9%
	other lang	20%	8%	14%	14%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	15%	19%	16%	13%	16%
Education (among those age 25+)	hs-grad	70%	61%	61%	62%	48%	61%
	bachelor	15%	16%	15%	21%	32%	19%
	graduatedegree	6%	6%	5%	9%	15%	8%
Child in Household	child-under18	32%	38%	36%	34%	47%	37%
Pct of Pop. Age 16+	employed	63%	64%	63%	71%	73%	67%
Household Income	income 0-25k	16%	15%	18%	12%	4%	14%
	income 25-50k	19%	17%	24%	17%	3%	17%
	income 50-75k	20%	21%	18%	16%	12%	18%
	income 75-200k	42%	45%	36%	47%	55%	44%
	income 200k-plus	4%	2%	4%	7%	25%	7%
Housing Stats	single family	73%	75%	71%	58%	99%	74%
	multi-family	27%	25%	29%	42%	1%	26%
	rented	45%	45%	49%	58%	14%	44%
	owned	55%	55%	51%	42%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 516



ITEM 11.1.

Map 516

ATTACHMENT 3

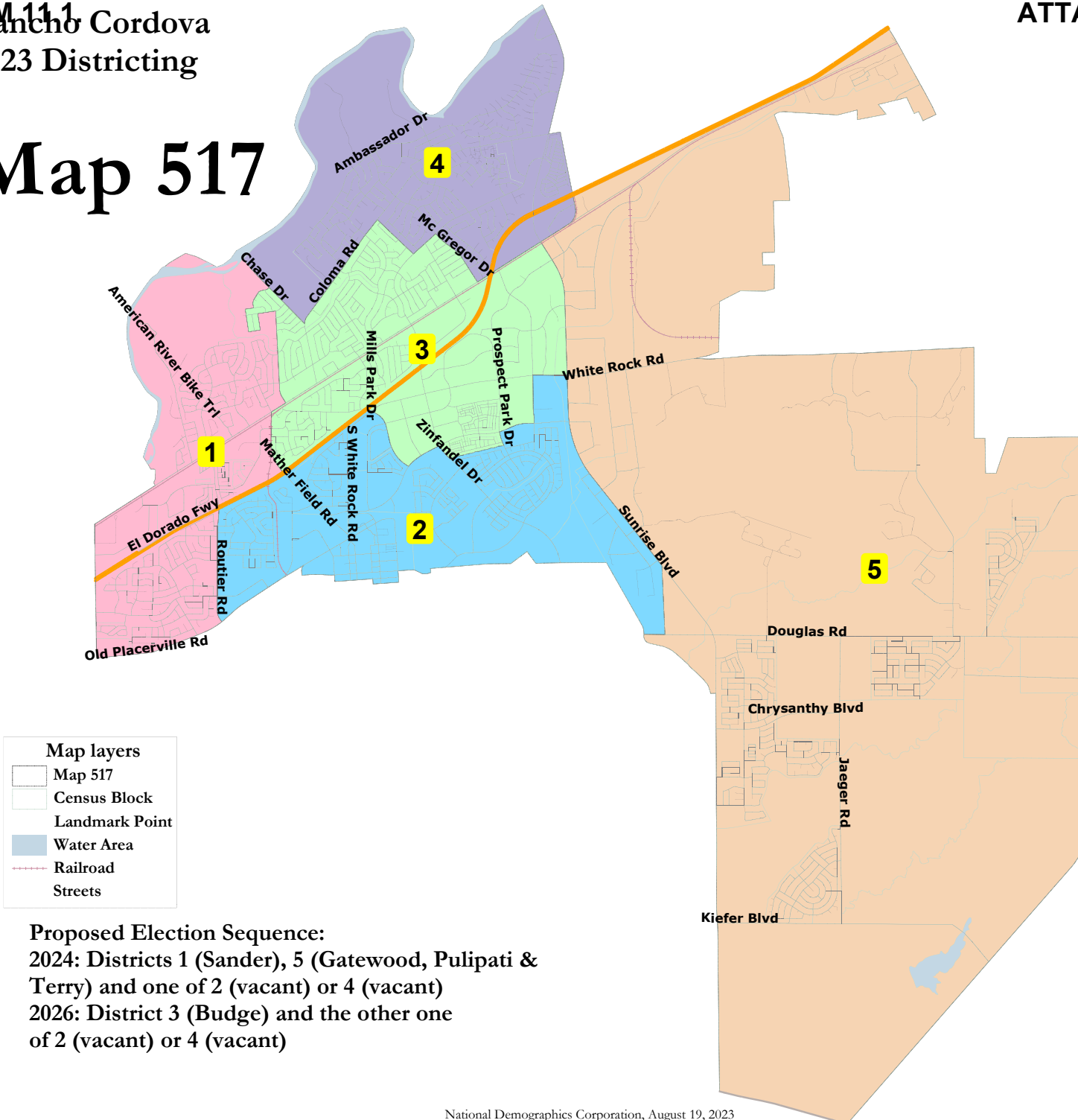
District		1	2	3	4	5	Total
	Total Pop	15,454	15,466	16,385	15,631	16,707	79,643
	Deviation from ideal	-475	-463	456	-298	778	1,253
	% Deviation	-2.98%	-2.91%	2.86%	-1.87%	4.88%	7.87%
Total Pop	% Hisp	21.1%	27%	26%	14%	19%	22%
	% NH White	52%	49%	44%	39%	40%	45%
	% NH Black	11%	9%	12%	8%	12%	11%
	% Asian-American	10%	9%	12%	33%	22%	17%
Citizen Voting Age Pop	Total	10,054	11,057	10,377	9,185	10,832	51,505
	% Hisp	16%	18%	18%	15%	13%	16%
	% NH White	65%	64%	48%	44%	47%	54%
	% NH Black	7%	9%	19%	10%	17%	13%
	% Asian/Pac.Isl.	10%	7%	14%	30%	19%	15%
Voter Registration (Nov 2020)	Total	8,804	8,206	8,183	9,179	8,440	42,812
	% Latino est.	12%	15%	18%	14%	14%	15%
	% Spanish-Surnamed	12%	14%	16%	13%	13%	14%
	% Asian-Surnamed	3%	2%	5%	12%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	4%	3%	2%
	% NH White est.	79%	73%	56%	61%	58%	65%
	% NH Black	5%	8%	20%	9%	15%	11%
Voter Turnout (Nov 2020)	Total	7,067	6,331	6,059	7,823	6,671	33,951
	% Latino est.	11%	14%	16%	14%	13%	13%
	% Spanish-Surnamed	11%	13%	15%	13%	12%	13%
	% Asian-Surnamed	3%	2%	5%	11%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	80%	73%	57%	62%	59%	66%
	% NH Black	5%	8%	20%	9%	15%	11%
Voter Turnout (Nov 2018)	Total	5,082	4,478	3,861	4,577	4,074	22,072
	% Latino est.	10%	11%	14%	13%	12%	12%
	% Spanish-Surnamed	9%	11%	14%	12%	11%	11%
	% Asian-Surnamed	2%	2%	5%	9%	7%	5%
	% Filipino-Surnamed	1%	2%	2%	3%	3%	2%
	% NH White est.	81%	76%	57%	63%	62%	69%
	% NH Black est.	4%	7%	20%	9%	14%	11%
ACS Pop. Est.	Total	15,834	16,412	16,093	13,870	16,293	78,502
Age	age0-19	28%	26%	28%	31%	26%	28%
	age20-60	53%	55%	54%	54%	59%	55%
	age60plus	19%	20%	18%	15%	15%	17%
Immigration	immigrants	24%	21%	24%	26%	25%	24%
	naturalized	46%	53%	58%	85%	61%	61%
Language spoken at home	english	64%	69%	60%	68%	65%	65%
	spanish	12%	15%	18%	3%	12%	12%
	asian-lang	6%	3%	9%	17%	10%	9%
	other lang	18%	12%	13%	12%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	13%	20%	13%	16%	16%
Education (among those age 25+)	hs-grad	66%	66%	62%	48%	61%	61%
	bachelor	17%	16%	12%	32%	21%	19%
	graduatedegree	7%	6%	5%	15%	8%	8%
Child in Household	child-under18	34%	35%	37%	47%	34%	37%
Pct of Pop. Age 16+	employed	65%	62%	63%	73%	71%	67%
Household Income	income 0-25k	14%	16%	20%	4%	12%	14%
	income 25-50k	18%	19%	22%	3%	17%	17%
	income 50-75k	20%	20%	20%	13%	16%	18%
	income 75-200k	42%	43%	36%	55%	48%	44%
	income 200k-plus	5%	2%	2%	25%	7%	7%
Housing Stats	single family	70%	72%	76%	99%	60%	74%
	multi-family	30%	28%	24%	1%	40%	26%
	rented	46%	49%	45%	13%	56%	44%
	owned	54%	51%	55%	87%	44%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 517



ITEM 11.1.

Map 517

ATTACHMENT 3

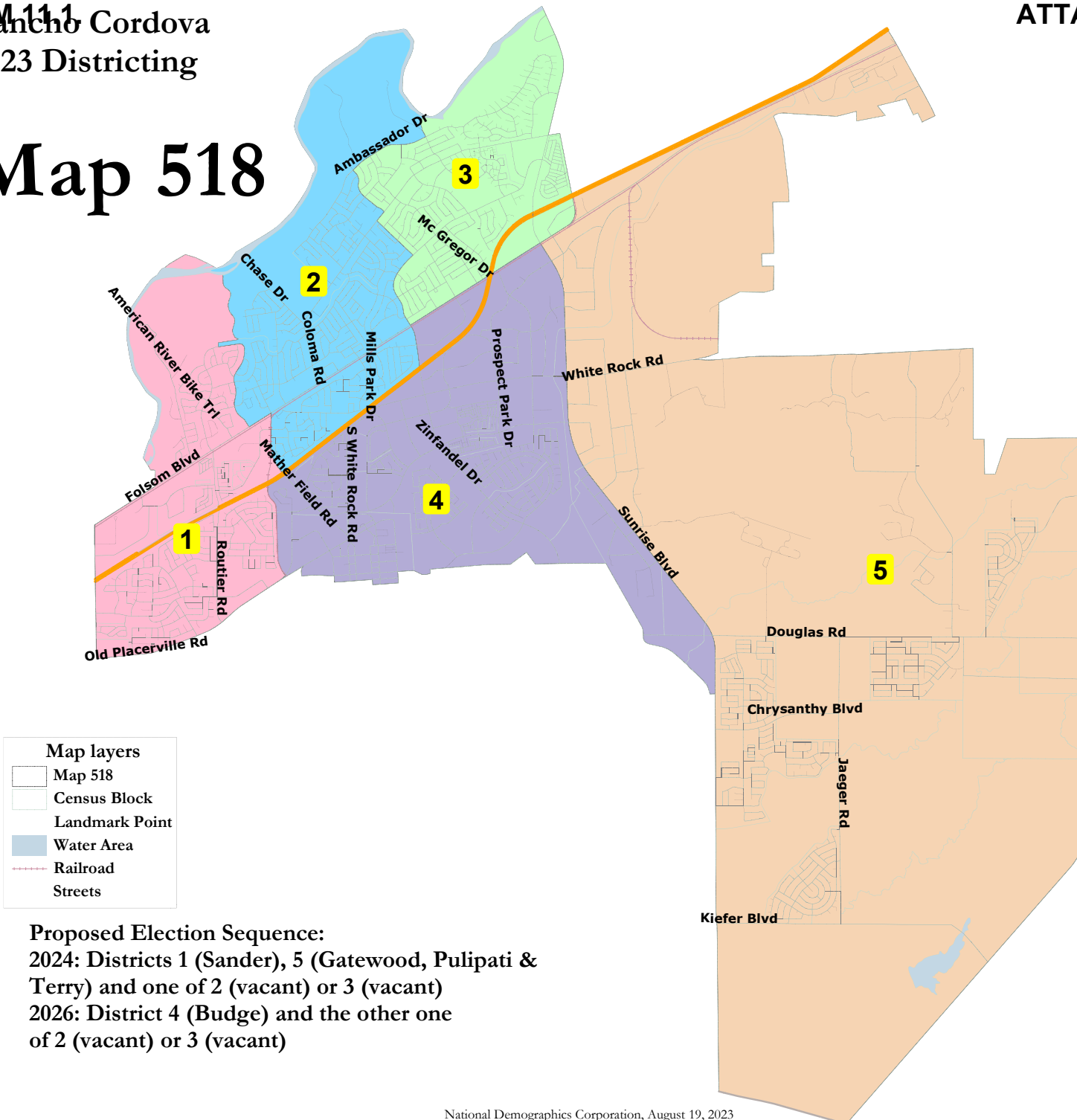
District		1	2	3	4	5	Total
	Total Pop	15,679	16,136	16,504	15,693	15,631	79,643
	Deviation from ideal	-250	207	575	-236	-298	873
	% Deviation	-1.57%	1.30%	3.61%	-1.48%	-1.87%	5.48%
Total Pop	% Hisp	24.8%	20%	28%	21%	14%	22%
	% NH White	42%	42%	43%	56%	39%	45%
	% NH Black	14%	13%	9%	9%	8%	11%
	% Asian-American	12%	20%	13%	9%	33%	17%
Citizen Voting Age Pop	Total	9,832	10,016	11,483	10,989	9,185	51,505
	% Hisp	19%	13%	18%	14%	15%	16%
	% NH White	52%	45%	56%	70%	44%	54%
	% NH Black	15%	21%	11%	7%	10%	13%
	% Asian/Pac.Isl.	12%	17%	13%	8%	30%	15%
Voter Registration (Nov 2020)	Total	8,142	8,039	8,361	9,091	9,179	42,812
	% Latino est.	16%	14%	16%	13%	14%	15%
	% Spanish-Surnamed	15%	13%	15%	12%	13%	14%
	% Asian-Surnamed	4%	9%	4%	3%	12%	6%
	% Filipino-Surnamed	1%	2%	2%	1%	4%	2%
	% NH White est.	62%	57%	67%	77%	61%	65%
	% NH Black	16%	18%	9%	6%	9%	11%
Voter Turnout (Nov 2020)	Total	6,122	6,277	6,447	7,282	7,823	33,951
	% Latino est.	15%	13%	15%	12%	14%	13%
	% Spanish-Surnamed	14%	12%	14%	11%	13%	13%
	% Asian-Surnamed	4%	9%	4%	2%	11%	6%
	% Filipino-Surnamed	1%	2%	2%	1%	3%	2%
	% NH White est.	64%	59%	69%	78%	62%	66%
	% NH Black	15%	17%	9%	6%	9%	11%
Voter Turnout (Nov 2018)	Total	4,057	3,854	4,333	5,251	4,577	22,072
	% Latino est.	12%	12%	12%	10%	13%	12%
	% Spanish-Surnamed	12%	11%	12%	9%	12%	11%
	% Asian-Surnamed	4%	7%	3%	2%	9%	5%
	% Filipino-Surnamed	1%	2%	2%	1%	3%	2%
	% NH White est.	66%	60%	72%	80%	63%	69%
	% NH Black est.	15%	16%	8%	6%	9%	11%
ACS Pop. Est.	Total	15,547	15,449	17,268	16,368	13,870	78,502
Age	age0-19	29%	28%	27%	24%	31%	28%
	age20-60	54%	57%	56%	55%	54%	55%
	age60plus	17%	15%	17%	21%	15%	17%
Immigration	immigrants	22%	24%	21%	27%	26%	24%
	naturalized	50%	63%	52%	53%	85%	61%
Language spoken at home	english	66%	61%	66%	65%	68%	65%
	spanish	15%	13%	19%	10%	3%	12%
	asian-lang	6%	9%	8%	4%	17%	9%
	other lang	12%	17%	7%	20%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	17%	19%	14%	18%	13%	16%
Education (among those age 25+)	hs-grad	61%	61%	62%	70%	48%	61%
	bachelor	16%	20%	16%	15%	32%	19%
	graduatedegree	6%	8%	6%	6%	15%	8%
Child in Household	child-under18	35%	36%	37%	32%	47%	37%
Pct of Pop. Age 16+	employed	63%	69%	66%	63%	73%	67%
Household Income	income 0-25k	17%	15%	13%	16%	4%	14%
	income 25-50k	22%	20%	16%	19%	3%	17%
	income 50-75k	18%	19%	18%	20%	13%	18%
	income 75-200k	38%	41%	49%	42%	55%	44%
	income 200k-plus	4%	5%	4%	4%	25%	7%
Housing Stats	single family	71%	54%	78%	73%	99%	74%
	multi-family	29%	46%	22%	27%	1%	26%
	rented	47%	63%	43%	45%	13%	44%
	owned	53%	37%	57%	55%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 518



ITEM 11.1.

Map 518

ATTACHMENT 3

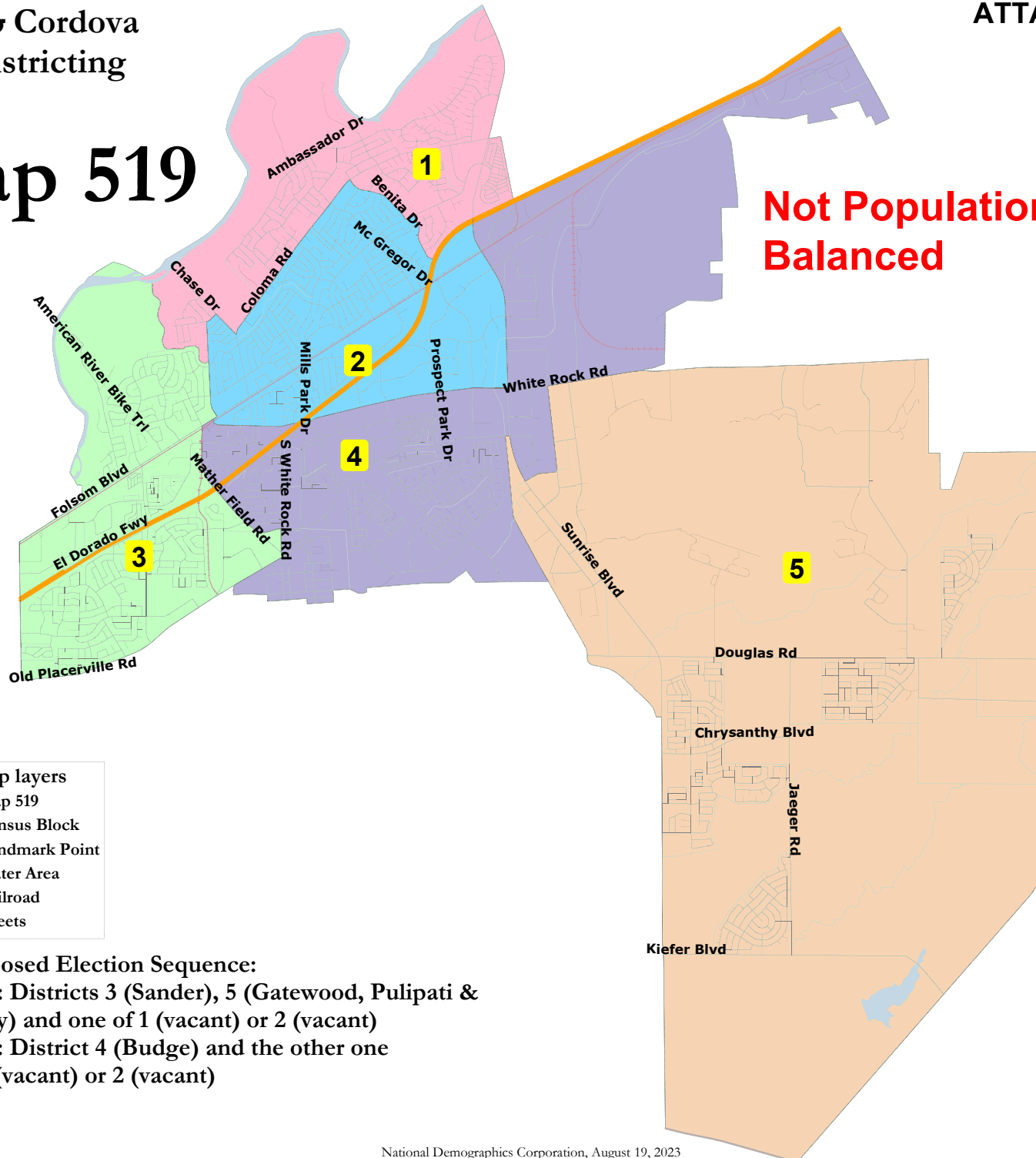
District		1	2	3	4	5	Total
	Total Pop	16,727	16,319	15,578	15,388	15,631	79,643
	Deviation from ideal	798	390	-351	-541	-298	1,339
	% Deviation	5.01%	2.45%	-2.20%	-3.40%	-1.87%	8.41%
Total Pop	% Hisp	24.7%	27%	24%	18%	14%	22%
	% NH White	43%	49%	52%	40%	39%	45%
	% NH Black	13%	10%	9%	13%	8%	11%
	% Asian-American	12%	9%	9%	23%	33%	17%
Citizen Voting Age Pop	Total	10,571	10,843	11,054	9,852	9,185	51,505
	% Hisp	18%	19%	15%	12%	15%	16%
	% NH White	48%	61%	67%	47%	44%	54%
	% NH Black	18%	8%	8%	18%	10%	13%
	% Asian/Pac.Isl.	13%	10%	8%	20%	30%	15%
Voter Registration (Nov 2020)	Total	8,663	8,581	8,723	7,666	9,179	42,812
	% Latino est.	16%	15%	14%	14%	14%	15%
	% Spanish-Surnamed	15%	14%	13%	13%	13%	14%
	% Asian-Surnamed	5%	3%	3%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	4%	2%
	% NH White est.	59%	74%	74%	57%	61%	65%
	% NH Black	18%	7%	7%	16%	9%	11%
Voter Turnout (Nov 2020)	Total	6,532	6,602	6,901	6,093	7,823	33,951
	% Latino est.	15%	13%	13%	12%	14%	13%
	% Spanish-Surnamed	14%	13%	12%	12%	13%	13%
	% Asian-Surnamed	5%	3%	2%	9%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	3%	2%
	% NH White est.	60%	76%	75%	59%	62%	66%
	% NH Black	18%	6%	7%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	4,251	4,598	4,957	3,689	4,577	22,072
	% Latino est.	13%	11%	10%	11%	13%	12%
	% Spanish-Surnamed	13%	11%	10%	11%	12%	11%
	% Asian-Surnamed	4%	2%	2%	8%	9%	5%
	% Filipino-Surnamed	2%	1%	1%	3%	3%	2%
	% NH White est.	61%	78%	78%	61%	63%	69%
	% NH Black est.	17%	6%	7%	15%	9%	11%
ACS Pop. Est.	Total	16,716	17,129	16,147	14,640	13,870	78,502
Age	age0-19	29%	29%	24%	25%	31%	28%
	age20-60	54%	53%	55%	60%	54%	55%
	age60plus	17%	18%	21%	15%	15%	17%
Immigration	immigrants	23%	23%	23%	25%	26%	24%
	naturalized	53%	52%	52%	62%	85%	61%
Language spoken at home	english	62%	61%	70%	66%	68%	65%
	spanish	17%	18%	11%	10%	3%	12%
	asian-lang	7%	6%	5%	10%	17%	9%
	other lang	15%	15%	13%	14%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	17%	15%	16%	13%	16%
Education (among those age 25+)	hs-grad	61%	63%	69%	62%	48%	61%
	bachelor	15%	15%	15%	22%	32%	19%
	graduatedegree	6%	6%	6%	9%	15%	8%
Child in Household	child-under18	36%	38%	32%	33%	47%	37%
Pct of Pop. Age 16+	employed	63%	63%	64%	72%	73%	67%
Household Income	income 0-25k	18%	13%	17%	12%	4%	14%
	income 25-50k	24%	18%	17%	17%	3%	17%
	income 50-75k	18%	23%	19%	16%	13%	18%
	income 75-200k	36%	44%	43%	47%	55%	44%
	income 200k-plus	4%	2%	4%	7%	25%	7%
Housing Stats	single family	73%	75%	73%	57%	99%	74%
	multi-family	27%	25%	27%	43%	1%	26%
	rented	48%	43%	48%	59%	13%	44%
	owned	52%	57%	52%	41%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 519



ITEM 11.1.

Map 519

ATTACHMENT 3

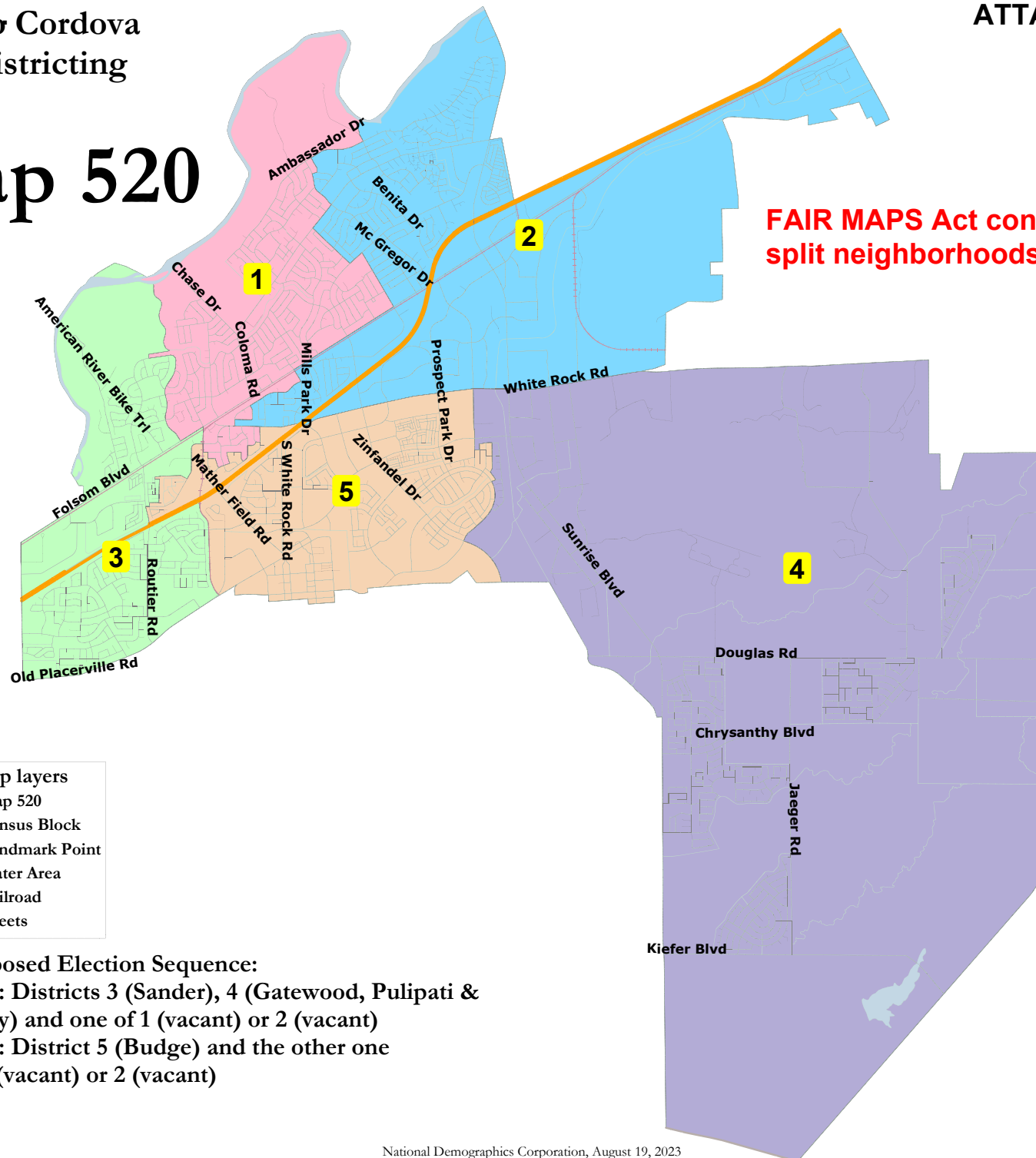
District		1	2	3	4	5	Total
	Total Pop	13,058	15,401	18,899	16,858	15,427	79,643
	Deviation from ideal	-2,871	-528	2,970	929	-502	5,841
	% Deviation	-18.02%	-3.31%	18.65%	5.83%	-3.15%	36.67%
Total Pop	% Hisp	19.0%	30%	24%	20%	14%	22%
	% NH White	58%	46%	43%	40%	39%	45%
	% NH Black	9%	8%	13%	13%	8%	11%
	% Asian-American	9%	9%	12%	22%	34%	17%
Citizen Voting Age Pop	Total	8,610	11,007	11,876	10,863	9,149	51,505
	% Hisp	14%	20%	19%	11%	15%	16%
	% NH White	69%	61%	50%	47%	44%	54%
	% NH Black	7%	9%	17%	17%	10%	13%
	% Asian/Pac.Isl.	9%	7%	12%	21%	30%	15%
Voter Registration (Nov 2020)	Total	7,584	7,925	9,730	8,410	9,163	42,812
	% Latino est.	12%	16%	16%	14%	14%	15%
	% Spanish-Surnamed	11%	15%	15%	13%	13%	14%
	% Asian-Surnamed	3%	3%	5%	9%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	4%	2%
	% NH White est.	79%	70%	61%	58%	61%	65%
	% NH Black	5%	9%	17%	15%	9%	11%
Voter Turnout (Nov 2020)	Total	6,164	6,012	7,337	6,627	7,811	33,951
	% Latino est.	11%	15%	15%	13%	14%	13%
	% Spanish-Surnamed	11%	14%	14%	12%	13%	13%
	% Asian-Surnamed	2%	3%	5%	9%	11%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	79%	72%	62%	59%	62%	66%
	% NH Black	5%	9%	16%	15%	9%	11%
Voter Turnout (Nov 2018)	Total	4,427	4,239	4,814	4,020	4,572	22,072
	% Latino est.	10%	12%	13%	12%	13%	12%
	% Spanish-Surnamed	9%	12%	12%	11%	12%	11%
	% Asian-Surnamed	2%	2%	4%	7%	9%	5%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	81%	74%	64%	62%	63%	69%
	% NH Black est.	5%	8%	16%	14%	9%	11%
ACS Pop. Est.	Total	12,944	16,882	18,766	16,089	13,821	78,502
Age	age0-19	25%	27%	29%	26%	31%	28%
	age20-60	54%	56%	54%	58%	54%	55%
	age60plus	22%	17%	17%	16%	15%	17%
Immigration	immigrants	28%	20%	22%	26%	26%	24%
	naturalized	53%	51%	53%	61%	85%	61%
Language spoken at home	english	66%	66%	63%	64%	68%	65%
	spanish	7%	21%	17%	9%	3%	12%
	asian-lang	5%	3%	6%	13%	17%	9%
	other lang	22%	10%	14%	13%	12%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	15%	18%	17%	13%	16%
Education (among those age 25+)	hs-grad	68%	67%	61%	60%	48%	61%
	bachelor	16%	14%	15%	21%	32%	19%
	graduatedegree	7%	5%	6%	9%	15%	8%
Child in Household	child-under18	32%	37%	36%	34%	47%	37%
Pct of Pop. Age 16+	employed	64%	63%	64%	70%	73%	67%
Household Income	income 0-25k	16%	15%	18%	12%	4%	14%
	income 25-50k	19%	17%	23%	17%	3%	17%
	income 50-75k	19%	21%	19%	17%	13%	18%
	income 75-200k	42%	45%	37%	47%	55%	44%
	income 200k-plus	4%	2%	4%	7%	25%	7%
Housing Stats	single family	71%	76%	72%	59%	99%	74%
	multi-family	29%	24%	28%	41%	1%	26%
	rented	48%	46%	48%	55%	13%	44%
	owned	52%	54%	52%	45%	87%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 520



**FAIR MAPS Act concerns:
split neighborhoods**

Proposed Election Sequence:
2024: Districts 3 (Sander), 4 (Gatewood, Pulipati & Terry) and one of 1 (vacant) or 2 (vacant)
2026: District 5 (Budge) and the other one of 1 (vacant) or 2 (vacant)

ITEM 11.1.

Map 520

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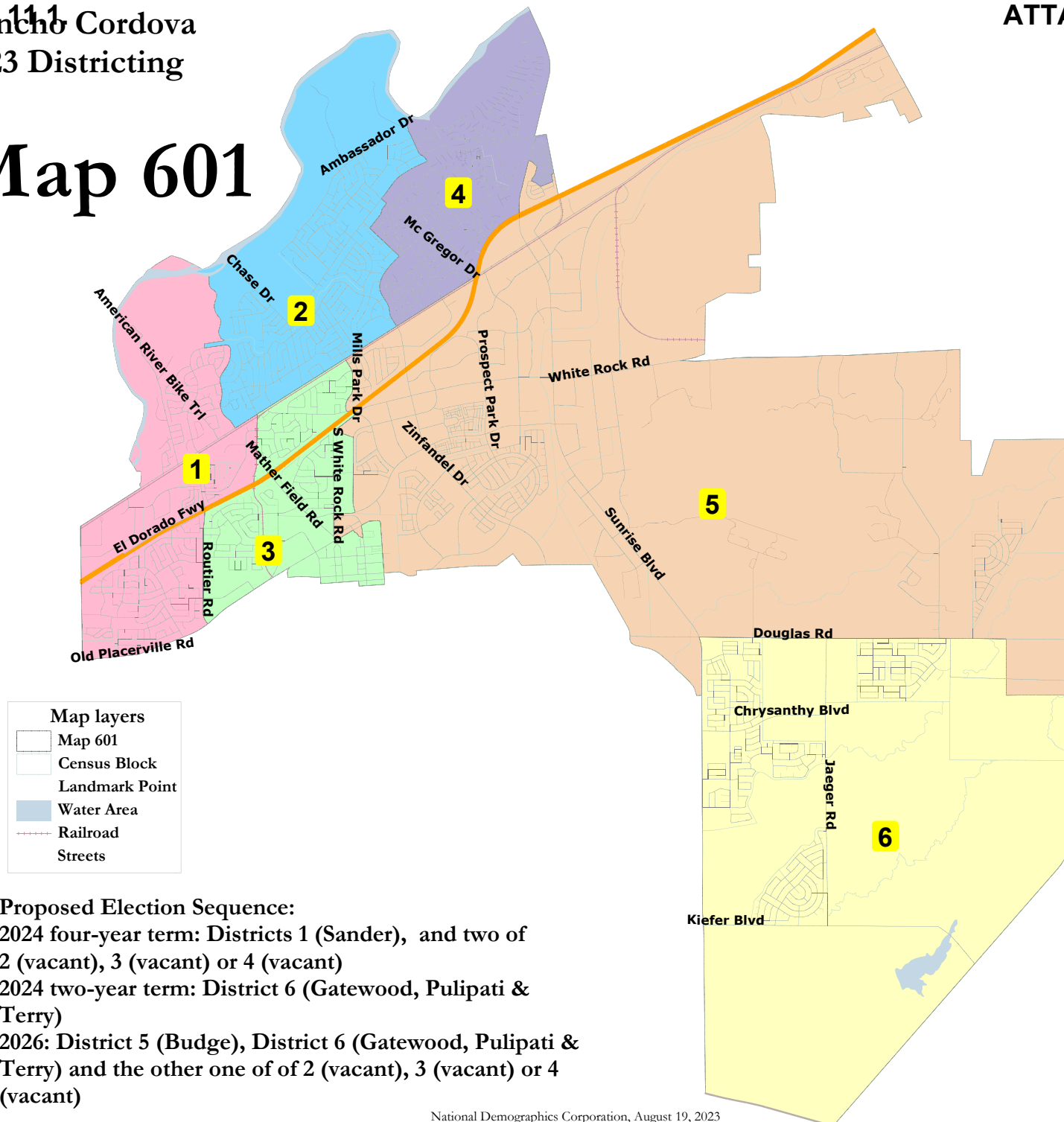
District		1	2	3	4	5	Total
	Total Pop	15,896	15,898	16,134	15,824	15,891	79,643
	Deviation from ideal	-33	-31	205	-105	-38	310
	% Deviation	-0.21%	-0.19%	1.29%	-0.66%	-0.24%	1.95%
Total Pop	% Hisp	27.0%	23%	24%	13%	20%	22%
	% NH White	49%	52%	43%	39%	40%	45%
	% NH Black	9%	10%	14%	8%	12%	11%
	% Asian-American	10%	9%	13%	33%	22%	17%
Citizen Voting Age Pop	Total	10,509	11,198	10,273	9,381	10,145	51,505
	% Hisp	18%	16%	18%	15%	12%	16%
	% NH White	62%	66%	48%	44%	47%	54%
	% NH Black	8%	8%	19%	10%	18%	13%
	% Asian/Pac.Isl.	9%	8%	13%	29%	20%	15%
Voter Registration (Nov 2020)	Total	8,242	8,826	8,346	9,429	7,969	42,812
	% Latino est.	15%	14%	16%	14%	14%	15%
	% Spanish-Surnamed	14%	13%	15%	13%	13%	14%
	% Asian-Surnamed	3%	3%	5%	12%	9%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	3%	2%
	% NH White est.	75%	73%	58%	61%	58%	65%
	% NH Black	6%	8%	19%	9%	15%	11%
Voter Turnout (Nov 2020)	Total	6,408	6,917	6,295	8,036	6,295	33,951
	% Latino est.	13%	13%	15%	14%	13%	13%
	% Spanish-Surnamed	13%	12%	14%	13%	12%	13%
	% Asian-Surnamed	3%	3%	5%	12%	9%	6%
	% Filipino-Surnamed	1%	2%	1%	3%	3%	2%
	% NH White est.	77%	74%	59%	62%	59%	66%
	% NH Black	5%	8%	19%	9%	15%	11%
Voter Turnout (Nov 2018)	Total	4,421	4,994	4,102	4,691	3,864	22,072
	% Latino est.	10%	11%	13%	13%	12%	12%
	% Spanish-Surnamed	10%	10%	13%	12%	11%	11%
	% Asian-Surnamed	2%	2%	5%	9%	7%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	3%	2%
	% NH White est.	79%	76%	60%	64%	62%	69%
	% NH Black est.	5%	8%	18%	9%	14%	11%
ACS Pop. Est.	Total	16,483	16,512	16,224	14,155	15,128	78,502
Age	age0-19	28%	25%	29%	31%	25%	28%
	age20-60	54%	55%	54%	54%	59%	55%
	age60plus	18%	20%	17%	15%	15%	17%
Immigration	immigrants	22%	24%	23%	26%	25%	24%
	naturalized	51%	52%	53%	84%	62%	61%
Language spoken at home	english	63%	69%	61%	67%	66%	65%
	spanish	16%	14%	17%	3%	10%	12%
	asian-lang	6%	5%	7%	17%	10%	9%
	other lang	16%	12%	15%	12%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	17%	15%	19%	13%	16%	16%
Education (among those age 25+)	hs-grad	65%	67%	61%	48%	62%	61%
	bachelor	16%	15%	15%	32%	21%	19%
	graduatedegree	6%	6%	6%	15%	9%	8%
Child in Household	child-under18	37%	32%	37%	47%	33%	37%
Pct of Pop. Age 16+	employed	63%	65%	63%	73%	71%	67%
Household Income	income 0-25k	14%	16%	18%	4%	13%	14%
	income 25-50k	18%	18%	24%	3%	18%	17%
	income 50-75k	23%	18%	18%	12%	17%	18%
	income 75-200k	44%	44%	36%	55%	46%	44%
	income 200k-plus	1%	4%	5%	25%	7%	7%
Housing Stats	single family	72%	75%	73%	99%	56%	74%
	multi-family	28%	25%	27%	1%	44%	26%
	rented	46%	45%	48%	14%	58%	44%
	owned	54%	55%	52%	86%	42%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 601



ITEM 11.1.

Map 601

ATTACHMENT 3

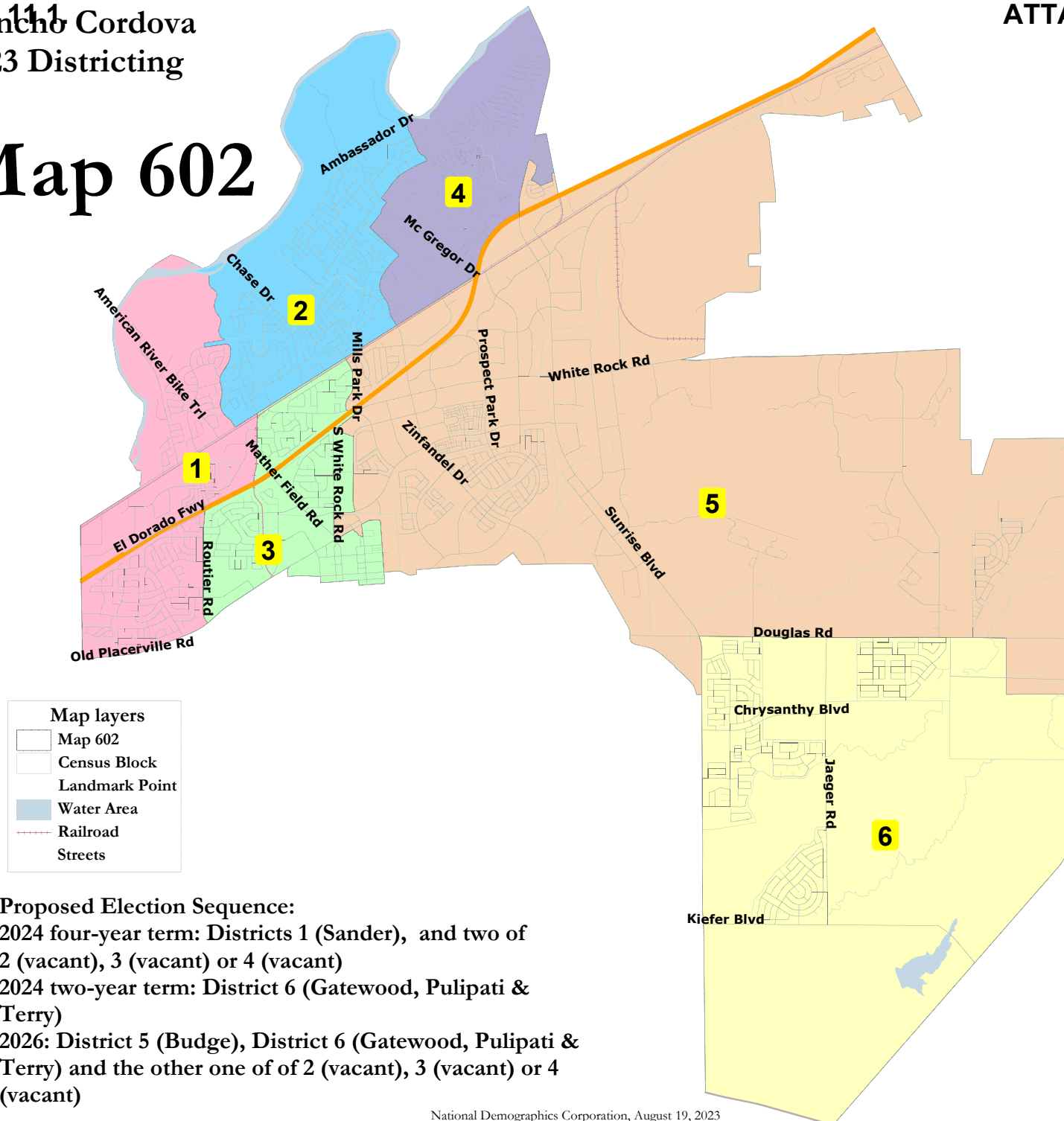
District		1	2	3	4	5	6	Total
	Total Pop	13,418	13,133	13,122	13,335	13,346	13,289	79,643
	Deviation from ideal	144	-141	-152	61	72	15	296
	% Deviation	1.08%	-1.06%	-1.15%	0.46%	0.54%	0.11%	2.23%
Total Pop	% Hisp	25.3%	25%	27%	24%	16%	13%	22%
	% NH White	42%	52%	40%	52%	43%	39%	45%
	% NH Black	14%	9%	15%	9%	8%	8%	11%
	% Asian-American	12%	8%	13%	10%	26%	34%	17%
Citizen Voting Age Pop	Total	8,457	8,525	8,123	9,804	8,316	8,279	51,505
	% Hisp	19%	18%	18%	15%	12%	14%	16%
	% NH White	49%	67%	41%	67%	52%	45%	54%
	% NH Black	17%	5%	25%	9%	10%	10%	13%
	% Asian/Pac.Isl.	14%	7%	13%	8%	22%	30%	15%
Voter Registration (Nov 2020)	Total	6,983	7,241	5,748	7,505	7,593	7,742	42,812
	% Latino est.	17%	14%	17%	14%	13%	14%	15%
	% Spanish-Surnamed	16%	13%	16%	13%	13%	13%	14%
	% Asian-Surnamed	4%	2%	5%	3%	11%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	2%	3%	4%	2%
	% NH White est.	59%	79%	54%	74%	63%	59%	65%
	% NH Black	18%	3%	22%	8%	8%	11%	11%
Voter Turnout (Nov 2020)	Total	5,244	5,730	4,108	5,947	6,323	6,599	33,951
	% Latino est.	15%	12%	15%	13%	13%	13%	13%
	% Spanish-Surnamed	14%	12%	14%	12%	12%	13%	13%
	% Asian-Surnamed	4%	2%	5%	2%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	2%	3%	3%	2%
	% NH White est.	61%	80%	56%	75%	64%	60%	66%
	% NH Black	18%	3%	22%	8%	8%	11%	11%
Voter Turnout (Nov 2018)	Total	3,460	4,067	2,472	4,280	3,638	4,155	22,072
	% Latino est.	13%	10%	14%	10%	11%	13%	12%
	% Spanish-Surnamed	13%	10%	13%	10%	11%	12%	11%
	% Asian-Surnamed	4%	2%	5%	2%	8%	10%	5%
	% Filipino-Surnamed	2%	2%	2%	1%	3%	3%	2%
	% NH White est.	62%	82%	56%	77%	67%	62%	69%
	% NH Black est.	17%	3%	22%	8%	9%	10%	11%
ACS Pop. Est.	Total	13,364	13,113	12,861	14,338	12,288	12,538	78,502
Age	age0-19	28%	27%	30%	25%	24%	31%	28%
	age20-60	54%	54%	55%	56%	58%	53%	55%
	age60plus	18%	19%	14%	20%	18%	15%	17%
Immigration	immigrants	24%	24%	23%	20%	25%	27%	24%
	naturalized	51%	53%	58%	51%	61%	86%	61%
Language spoken at home	english	65%	64%	61%	71%	64%	66%	65%
	spanish	15%	15%	20%	11%	10%	3%	12%
	asian-lang	7%	3%	9%	6%	12%	18%	9%
	other lang	13%	19%	10%	12%	15%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	16%	19%	14%	16%	14%	16%
Education (among those age 25+)	hs-grad	61%	67%	64%	68%	58%	46%	61%
	bachelor	15%	17%	11%	15%	24%	33%	19%
	graduatedegree	6%	6%	4%	6%	11%	15%	8%
Child in Household	child-under18	34%	36%	39%	33%	34%	46%	37%
Pct of Pop. Age 16+	employed	63%	63%	68%	65%	70%	72%	67%
Household Income	income 0-25k	18%	13%	22%	16%	6%	5%	14%
	income 25-50k	24%	17%	23%	17%	13%	3%	17%
	income 50-75k	17%	23%	22%	18%	13%	13%	18%
	income 75-200k	37%	45%	32%	45%	54%	56%	44%
Housing Stats	income 200k-plus	5%	1%	1%	4%	14%	23%	7%
	single family	71%	73%	46%	75%	84%	99%	74%
	multi-family	29%	27%	54%	25%	16%	1%	26%
	rented	46%	45%	70%	48%	34%	14%	44%
	owned	54%	55%	30%	52%	66%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 602



ITEM 11.1.

Map 602

ATTACHMENT 3

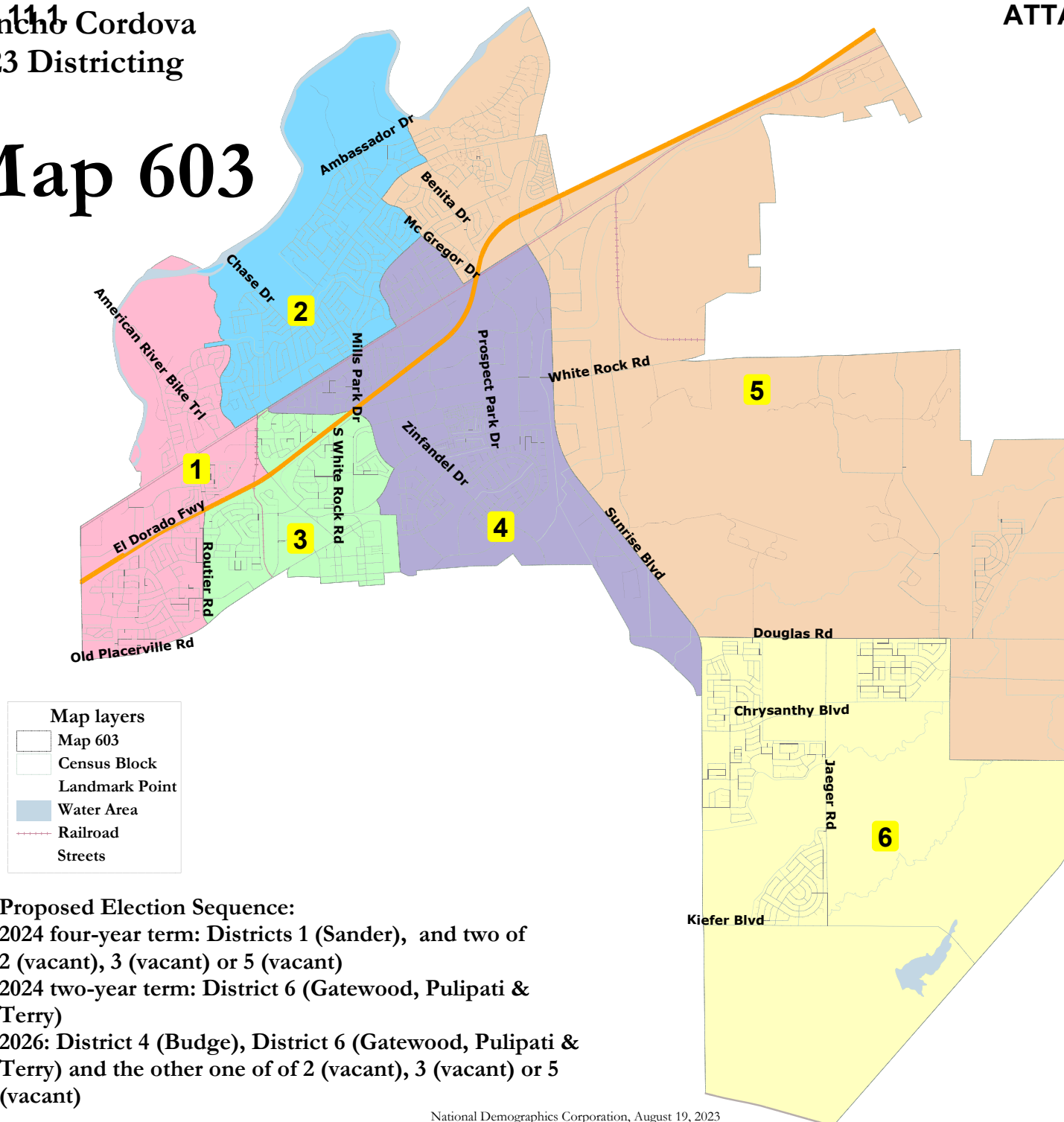
District		1	2	3	4	5	6	Total
	Total Pop	13,418	13,133	13,122	13,335	13,346	13,289	79,643
	Deviation from ideal	144	-141	-152	61	72	15	296
	% Deviation	1.08%	-1.06%	-1.15%	0.46%	0.54%	0.11%	2.23%
Total Pop	% Hisp	25.3%	25%	27%	24%	16%	13%	22%
	% NH White	42%	52%	40%	52%	43%	39%	45%
	% NH Black	14%	9%	15%	9%	8%	8%	11%
	% Asian-American	12%	8%	13%	10%	26%	34%	17%
Citizen Voting Age Pop	Total	8,457	8,525	8,123	9,804	8,316	8,279	51,505
	% Hisp	19%	18%	18%	15%	12%	14%	16%
	% NH White	49%	67%	41%	67%	52%	45%	54%
	% NH Black	17%	5%	25%	9%	10%	10%	13%
	% Asian/Pac.Isl.	14%	7%	13%	8%	22%	30%	15%
Voter Registration (Nov 2020)	Total	6,983	7,241	5,748	7,505	7,593	7,742	42,812
	% Latino est.	17%	14%	17%	14%	13%	14%	15%
	% Spanish-Surnamed	16%	13%	16%	13%	13%	13%	14%
	% Asian-Surnamed	4%	2%	5%	3%	11%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	2%	3%	4%	2%
	% NH White est.	59%	79%	54%	74%	63%	59%	65%
	% NH Black	18%	3%	22%	8%	8%	11%	11%
Voter Turnout (Nov 2020)	Total	5,244	5,730	4,108	5,947	6,323	6,599	33,951
	% Latino est.	15%	12%	15%	13%	13%	13%	13%
	% Spanish-Surnamed	14%	12%	14%	12%	12%	13%	13%
	% Asian-Surnamed	4%	2%	5%	2%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	2%	3%	3%	2%
	% NH White est.	61%	80%	56%	75%	64%	60%	66%
	% NH Black	18%	3%	22%	8%	8%	11%	11%
Voter Turnout (Nov 2018)	Total	3,460	4,067	2,472	4,280	3,638	4,155	22,072
	% Latino est.	13%	10%	14%	10%	11%	13%	12%
	% Spanish-Surnamed	13%	10%	13%	10%	11%	12%	11%
	% Asian-Surnamed	4%	2%	5%	2%	8%	10%	5%
	% Filipino-Surnamed	2%	2%	2%	1%	3%	3%	2%
	% NH White est.	62%	82%	56%	77%	67%	62%	69%
	% NH Black est.	17%	3%	22%	8%	9%	10%	11%
ACS Pop. Est.	Total	13,364	13,113	12,861	14,338	12,288	12,538	78,502
Age	age0-19	28%	27%	30%	25%	24%	31%	28%
	age20-60	54%	54%	55%	56%	58%	53%	55%
	age60plus	18%	19%	14%	20%	18%	15%	17%
Immigration	immigrants	24%	24%	23%	20%	25%	27%	24%
	naturalized	51%	53%	58%	51%	61%	86%	61%
Language spoken at home	english	65%	64%	61%	71%	64%	66%	65%
	spanish	15%	15%	20%	11%	10%	3%	12%
	asian-lang	7%	3%	9%	6%	12%	18%	9%
	other lang	13%	19%	10%	12%	15%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	16%	19%	14%	16%	14%	16%
Education (among those age 25+)	hs-grad	61%	67%	64%	68%	58%	46%	61%
	bachelor	15%	17%	11%	15%	24%	33%	19%
	graduatedegree	6%	6%	4%	6%	11%	15%	8%
Child in Household	child-under18	34%	36%	39%	33%	34%	46%	37%
Pct of Pop. Age 16+	employed	63%	63%	68%	65%	70%	72%	67%
Household Income	income 0-25k	18%	13%	22%	16%	6%	5%	14%
	income 25-50k	24%	17%	23%	17%	13%	3%	17%
	income 50-75k	17%	23%	22%	18%	13%	13%	18%
	income 75-200k	37%	45%	32%	45%	54%	56%	44%
Housing Stats	income 200k-plus	5%	1%	1%	4%	14%	23%	7%
	single family	71%	73%	46%	75%	84%	99%	74%
	multi-family	29%	27%	54%	25%	16%	1%	26%
	rented	46%	45%	70%	48%	34%	14%	44%
	owned	54%	55%	30%	52%	66%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 603



ITEM 11.1.

Map 603

ATTACHMENT 3

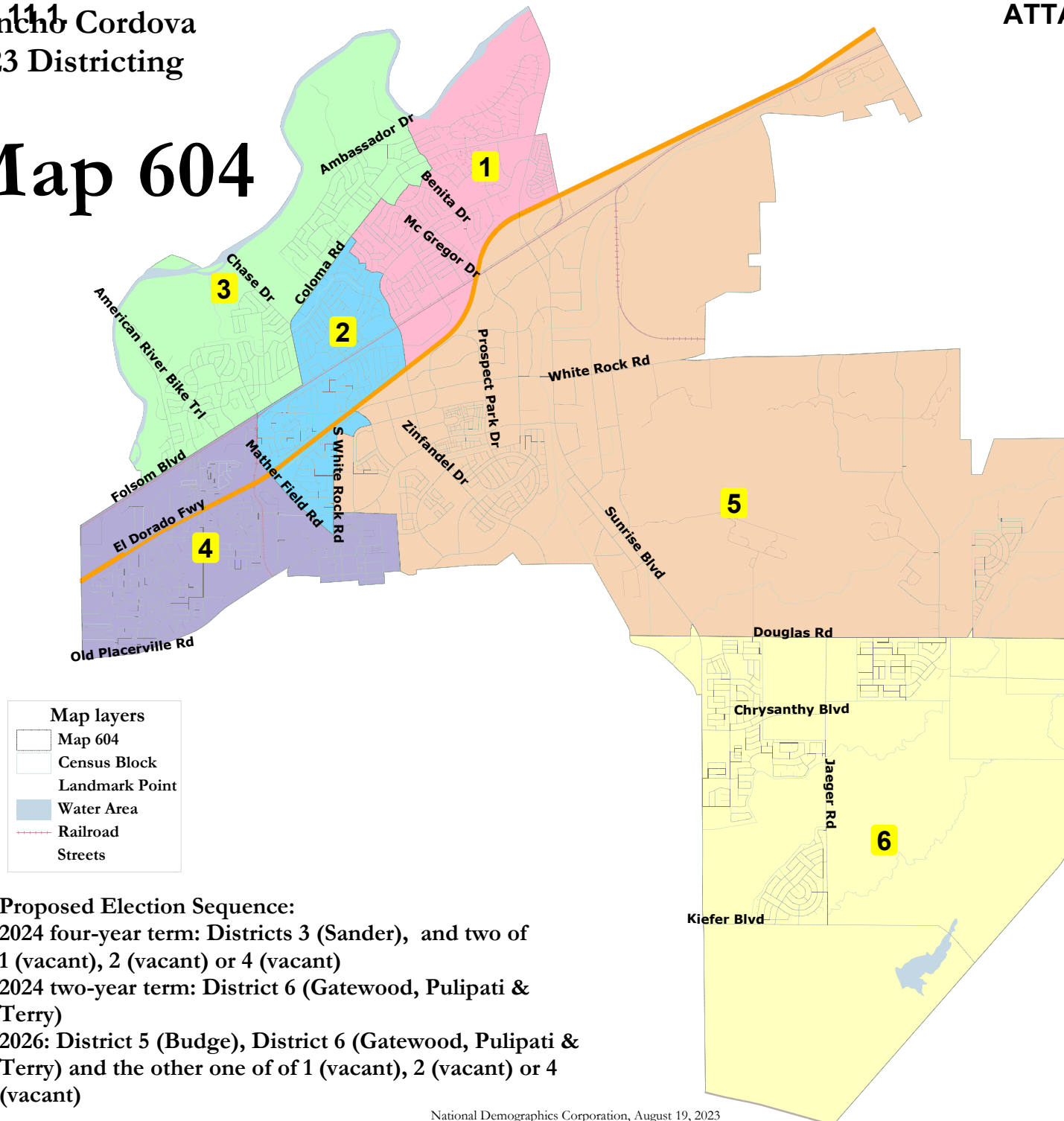
District		1	2	3	4	5	6	Total
	Total Pop	13,418	14,034	13,175	13,010	12,717	13,289	79,643
	Deviation from ideal	144	760	-99	-264	-557	15	1,317
	% Deviation	1.08%	5.73%	-0.75%	-1.99%	-4.20%	0.11%	9.92%
Total Pop	% Hisp	25.3%	25%	24%	21%	20%	13%	22%
	% NH White	42%	52%	39%	44%	52%	39%	45%
	% NH Black	14%	9%	15%	8%	9%	8%	11%
	% Asian-American	12%	8%	15%	22%	12%	34%	17%
Citizen Voting Age Pop	Total	8,457	9,267	8,461	8,624	8,417	8,279	51,505
	% Hisp	19%	18%	15%	15%	15%	14%	16%
	% NH White	49%	68%	43%	52%	65%	45%	54%
	% NH Black	17%	5%	24%	12%	8%	10%	13%
	% Asian/Pac.Isl.	14%	7%	16%	17%	9%	30%	15%
Voter Registration (Nov 2020)	Total	6,983	7,746	6,035	6,784	7,522	7,742	42,812
	% Latino est.	17%	14%	17%	14%	14%	14%	15%
	% Spanish-Surnamed	16%	13%	15%	13%	13%	13%	14%
	% Asian-Surnamed	4%	2%	5%	10%	4%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	3%	2%	4%	2%
	% NH White est.	59%	79%	55%	61%	74%	59%	65%
	% NH Black	18%	3%	22%	11%	6%	11%	11%
Voter Turnout (Nov 2020)	Total	5,244	6,122	4,442	5,495	6,049	6,599	33,951
	% Latino est.	15%	12%	15%	13%	13%	13%	13%
	% Spanish-Surnamed	14%	12%	14%	12%	12%	13%	13%
	% Asian-Surnamed	4%	2%	5%	10%	4%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	3%	2%	3%	2%
	% NH White est.	61%	80%	56%	63%	75%	60%	66%
	% NH Black	18%	3%	22%	10%	6%	11%	11%
Voter Turnout (Nov 2018)	Total	3,460	4,348	2,606	3,563	3,940	4,155	22,072
	% Latino est.	13%	10%	13%	11%	10%	13%	12%
	% Spanish-Surnamed	13%	10%	13%	11%	10%	12%	11%
	% Asian-Surnamed	4%	2%	5%	8%	3%	10%	5%
	% Filipino-Surnamed	2%	1%	2%	3%	1%	3%	2%
	% NH White est.	62%	83%	57%	65%	78%	62%	69%
	% NH Black est.	17%	3%	22%	10%	6%	10%	11%
ACS Pop. Est.	Total	13,364	14,044	12,952	13,351	12,253	12,538	78,502
Age	age0-19	28%	26%	28%	27%	25%	31%	28%
	age20-60	54%	54%	57%	56%	55%	53%	55%
	age60plus	18%	20%	15%	16%	20%	15%	17%
Immigration	immigrants	24%	25%	22%	25%	21%	27%	24%
	naturalized	51%	53%	59%	58%	53%	86%	61%
Language spoken at home	english	65%	65%	61%	63%	72%	66%	65%
	spanish	15%	15%	15%	15%	10%	3%	12%
	asian-lang	7%	3%	9%	11%	6%	18%	9%
	other lang	13%	18%	15%	11%	12%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	18%	16%	20%	16%	13%	14%	16%
Education (among those age 25+)	hs-grad	61%	67%	62%	61%	67%	46%	61%
	bachelor	15%	17%	16%	19%	16%	33%	19%
	graduatedegree	6%	6%	6%	8%	7%	15%	8%
Child in Household	child-under18	34%	35%	36%	36%	33%	46%	37%
Pct of Pop. Age 16+	employed	63%	63%	69%	68%	65%	72%	67%
Household Income	income 0-25k	18%	13%	19%	11%	14%	5%	14%
	income 25-50k	24%	17%	22%	14%	18%	3%	17%
	income 50-75k	17%	22%	21%	17%	16%	13%	18%
	income 75-200k	37%	46%	36%	49%	44%	56%	44%
Housing Stats	income 200k-plus	5%	2%	2%	9%	8%	23%	7%
	single family	71%	74%	44%	83%	78%	99%	74%
	multi-family	29%	26%	56%	17%	22%	1%	26%
	rented	46%	43%	71%	39%	42%	14%	44%
	owned	54%	57%	29%	61%	58%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 604



ITEM 11.1.

Map 604

ATTACHMENT 3

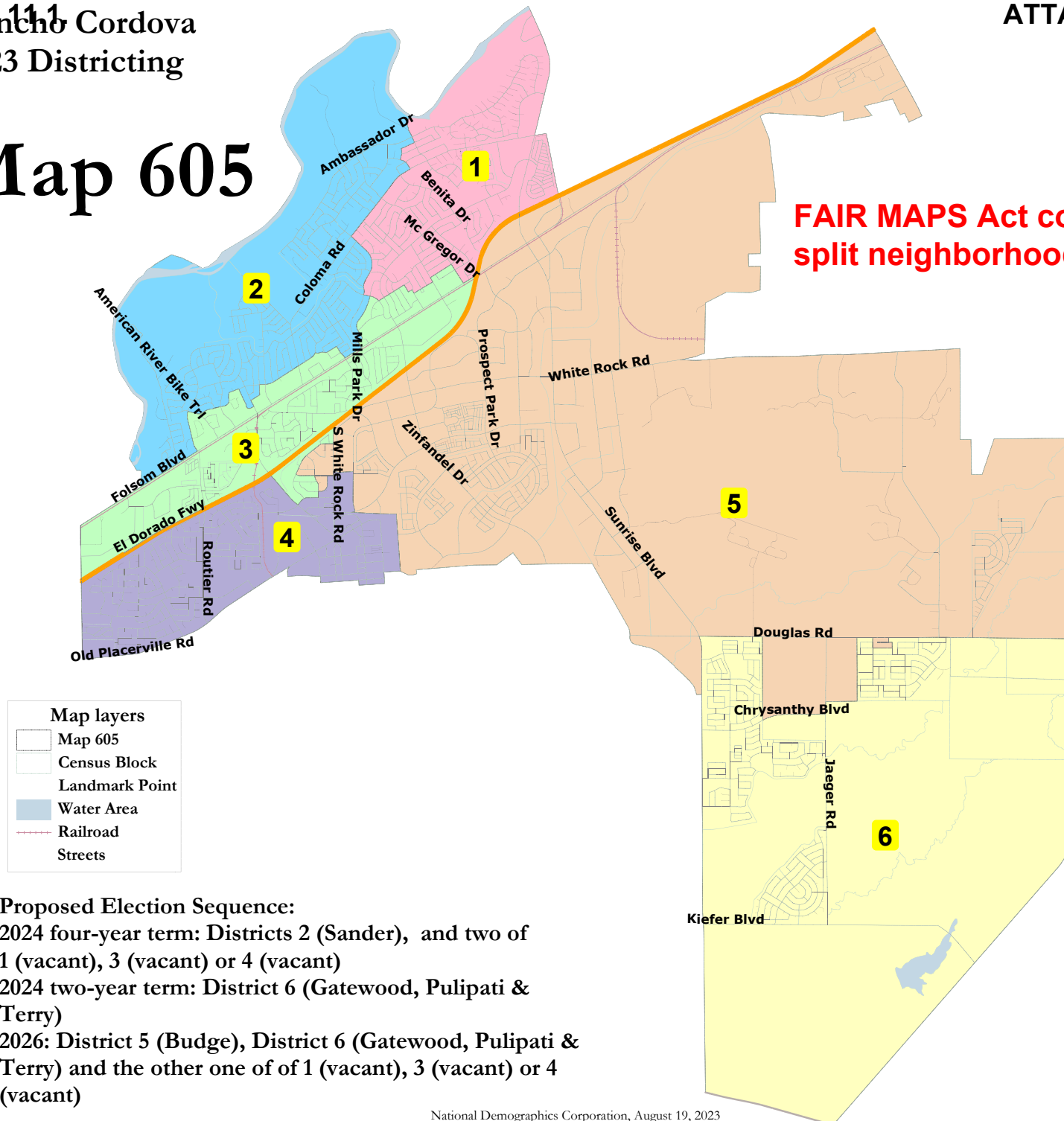
District		1	2	3	4	5	6	Total
	Total Pop	13,332	13,196	13,254	13,212	13,192	13,457	79,643
	Deviation from ideal	58	-78	-20	-62	-82	183	265
	% Deviation	0.44%	-0.59%	-0.15%	-0.47%	-0.62%	1.38%	2.00%
Total Pop	% Hisp	22.6%	31%	23%	24%	16%	13%	22%
	% NH White	54%	40%	49%	45%	42%	39%	45%
	% NH Black	8%	12%	12%	13%	10%	8%	11%
	% Asian-American	10%	11%	10%	11%	27%	34%	17%
Citizen Voting Age Pop	Total	9,849	8,154	8,345	8,244	8,584	8,329	51,505
	% Hisp	15%	22%	17%	18%	10%	14%	16%
	% NH White	67%	49%	63%	48%	49%	45%	54%
	% NH Black	8%	13%	8%	21%	16%	10%	13%
	% Asian/Pac.Isl.	8%	13%	9%	12%	21%	31%	15%
Voter Registration (Nov 2020)	Total	7,775	6,194	6,939	6,729	7,374	7,801	42,812
	% Latino est.	13%	18%	13%	17%	13%	14%	15%
	% Spanish-Surnamed	12%	17%	12%	16%	13%	13%	14%
	% Asian-Surnamed	3%	4%	3%	5%	11%	12%	6%
	% Filipino-Surnamed	2%	1%	1%	1%	3%	4%	2%
	% NH White est.	75%	62%	77%	56%	61%	59%	65%
	% NH Black	7%	15%	6%	20%	10%	11%	11%
Voter Turnout (Nov 2020)	Total	6,202	4,510	5,457	5,042	6,095	6,645	33,951
	% Latino est.	12%	15%	12%	16%	13%	14%	13%
	% Spanish-Surnamed	12%	14%	11%	15%	12%	13%	13%
	% Asian-Surnamed	2%	4%	3%	5%	10%	12%	6%
	% Filipino-Surnamed	2%	1%	1%	1%	3%	3%	2%
	% NH White est.	76%	64%	78%	57%	63%	60%	66%
	% NH Black	7%	15%	6%	20%	10%	11%	11%
Voter Turnout (Nov 2018)	Total	4,563	2,889	3,806	3,184	3,475	4,155	22,072
	% Latino est.	10%	13%	10%	14%	11%	13%	12%
	% Spanish-Surnamed	9%	13%	10%	13%	11%	12%	11%
	% Asian-Surnamed	2%	3%	2%	5%	8%	10%	5%
	% Filipino-Surnamed	1%	2%	1%	2%	3%	3%	2%
	% NH White est.	78%	66%	81%	57%	65%	62%	69%
	% NH Black est.	7%	14%	5%	20%	10%	10%	11%
ACS Pop. Est.	Total	13,968	12,848	13,826	12,519	12,744	12,598	78,502
Age	age0-19	24%	28%	29%	27%	26%	31%	28%
	age20-60	55%	54%	54%	56%	59%	53%	55%
	age60plus	21%	18%	17%	17%	15%	15%	17%
Immigration	immigrants	20%	24%	26%	23%	24%	27%	24%
	naturalized	51%	55%	46%	61%	62%	86%	61%
Language spoken at home	english	72%	61%	61%	63%	68%	66%	65%
	spanish	11%	23%	14%	16%	7%	3%	12%
	asian-lang	6%	8%	4%	7%	11%	18%	9%
	other lang	11%	9%	22%	14%	14%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	17%	20%	18%	15%	14%	16%
Education (among those age 25+)	hs-grad	67%	61%	65%	64%	60%	46%	61%
	bachelor	16%	14%	16%	14%	24%	33%	19%
	graduatedegree	6%	5%	7%	4%	11%	16%	8%
Child in Household	child-under18	31%	38%	36%	36%	35%	46%	37%
Pct of Pop. Age 16+	employed	65%	65%	62%	64%	72%	72%	67%
Household Income	income 0-25k	16%	16%	16%	21%	6%	5%	14%
	income 25-50k	17%	22%	21%	22%	13%	3%	17%
	income 50-75k	17%	21%	23%	17%	15%	14%	18%
	income 75-200k	46%	40%	37%	37%	53%	56%	44%
	income 200k-plus	4%	2%	4%	3%	13%	23%	7%
Housing Stats	single family	77%	61%	65%	76%	69%	99%	74%
	multi-family	23%	39%	35%	24%	31%	1%	26%
	rented	46%	55%	49%	46%	48%	14%	44%
	owned	54%	45%	51%	54%	52%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 605



ITEM 11.1.

Map 605

ATTACHMENT 3

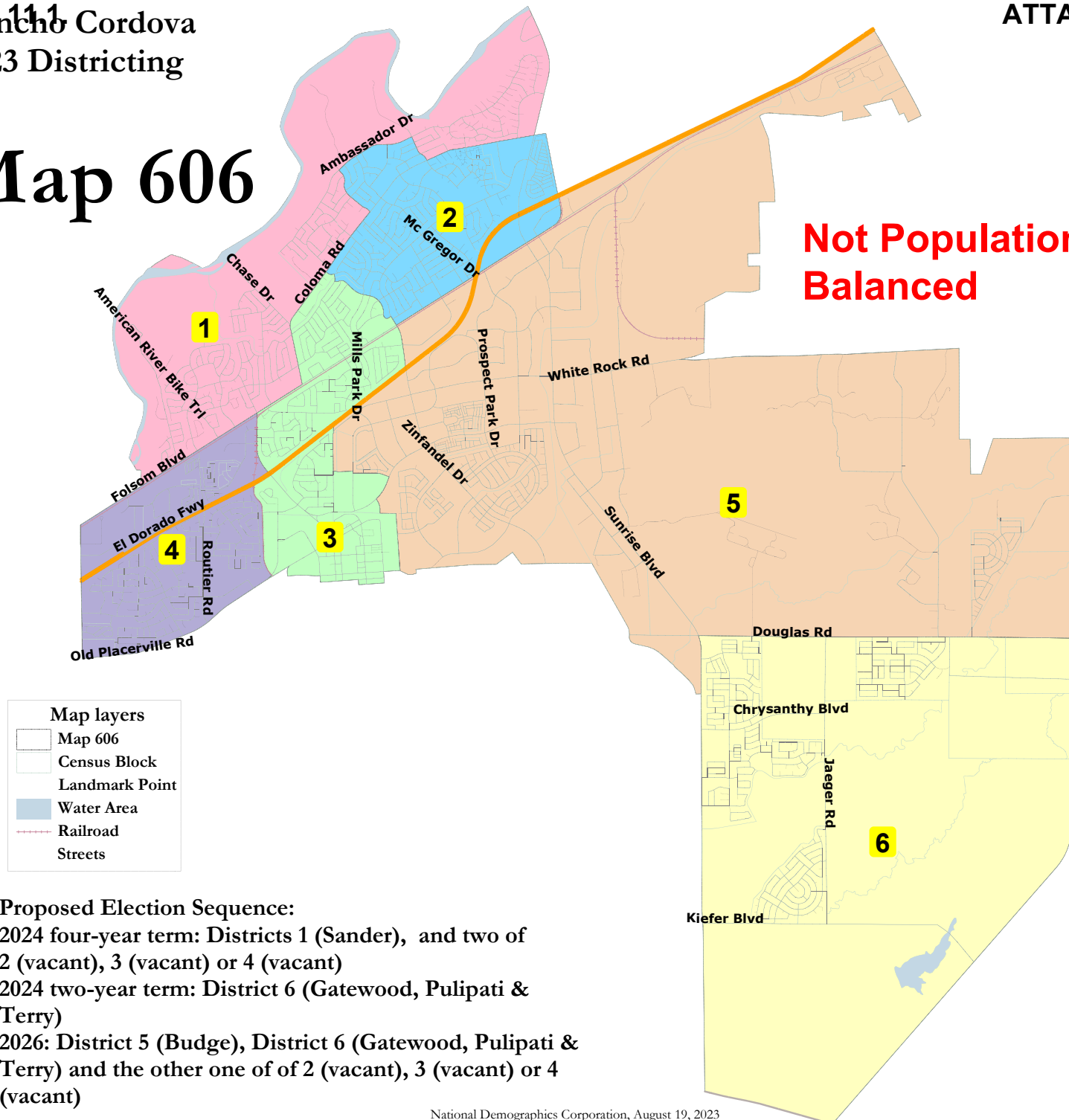
District		1	2	3	4	5	6	Total
	Total Pop	13,282	13,280	13,274	13,265	13,268	13,274	79,643
	Deviation from ideal	8	6		-9	-6		17
	% Deviation	0.06%	0.05%	0.00%	-0.07%	-0.05%	0.00%	0.13%
Total Pop	% Hisp	21.8%	24%	31%	24%	16%	13%	22%
	% NH White	54%	52%	37%	44%	42%	39%	45%
	% NH Black	9%	9%	14%	14%	9%	8%	11%
	% Asian-American	9%	9%	12%	12%	27%	34%	17%
Citizen Voting Age Pop	Total	9,792	8,646	8,130	8,758	7,919	8,260	51,505
	% Hisp	15%	16%	22%	18%	11%	14%	16%
	% NH White	68%	66%	45%	45%	51%	45%	54%
	% NH Black	7%	5%	19%	23%	11%	10%	13%
	% Asian/Pac.Isl.	8%	9%	11%	12%	23%	31%	15%
Voter Registration (Nov 2020)	Total	7,696	7,586	5,784	6,673	7,383	7,690	42,812
	% Latino est.	13%	13%	18%	17%	13%	14%	15%
	% Spanish-Surnamed	12%	13%	17%	16%	13%	13%	14%
	% Asian-Surnamed	3%	2%	4%	6%	11%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	1%	3%	4%	2%
	% NH White est.	75%	79%	58%	55%	61%	59%	65%
	% NH Black	7%	4%	18%	21%	10%	11%	11%
Voter Turnout (Nov 2020)	Total	6,101	6,090	4,083	4,975	6,146	6,556	33,951
	% Latino est.	12%	12%	16%	16%	13%	14%	13%
	% Spanish-Surnamed	11%	12%	15%	15%	12%	13%	13%
	% Asian-Surnamed	3%	2%	4%	5%	10%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	1%	3%	3%	2%
	% NH White est.	76%	80%	61%	56%	62%	60%	66%
	% NH Black	7%	4%	18%	21%	10%	11%	11%
Voter Turnout (Nov 2018)	Total	4,490	4,369	2,496	3,139	3,485	4,093	22,072
	% Latino est.	10%	10%	14%	14%	11%	13%	12%
	% Spanish-Surnamed	9%	10%	13%	14%	11%	12%	11%
	% Asian-Surnamed	2%	2%	3%	5%	8%	10%	5%
	% Filipino-Surnamed	1%	2%	2%	2%	3%	3%	2%
	% NH White est.	78%	81%	63%	56%	65%	62%	69%
	% NH Black est.	7%	3%	16%	21%	11%	10%	11%
ACS Pop. Est.	Total	13,970	13,255	13,585	13,574	11,622	12,495	78,502
Age	age0-19	24%	27%	30%	29%	24%	31%	28%
	age20-60	55%	53%	54%	56%	59%	53%	55%
	age60plus	21%	20%	16%	15%	17%	15%	17%
Immigration	immigrants	22%	25%	23%	21%	26%	27%	24%
	naturalized	53%	49%	50%	60%	62%	86%	61%
Language spoken at home	english	71%	63%	63%	64%	64%	66%	65%
	spanish	11%	13%	21%	17%	8%	3%	12%
	asian-lang	5%	4%	8%	6%	13%	18%	9%
	other lang	13%	20%	8%	14%	16%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	14%	17%	17%	19%	17%	14%	16%
Education (among those age 25+)	hs-grad	68%	64%	61%	65%	59%	46%	61%
	bachelor	15%	18%	12%	14%	25%	33%	19%
	graduatedegree	6%	7%	5%	3%	11%	16%	8%
Child in Household	child-under18	32%	35%	37%	38%	35%	46%	37%
Pct of Pop. Age 16+	employed	64%	62%	65%	66%	71%	72%	67%
Household Income	income 0-25k	16%	13%	19%	20%	6%	5%	14%
	income 25-50k	18%	19%	23%	22%	13%	3%	17%
	income 50-75k	17%	21%	22%	20%	12%	14%	18%
	income 75-200k	45%	43%	35%	36%	55%	56%	44%
	income 200k-plus	4%	4%	1%	3%	14%	23%	7%
Housing Stats	single family	77%	73%	58%	64%	77%	99%	74%
	multi-family	23%	27%	42%	36%	23%	1%	26%
	rented	44%	43%	57%	57%	40%	14%	44%
	owned	56%	57%	43%	43%	60%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 606



ITEM 11.1.

Map 606

ATTACHMENT 3

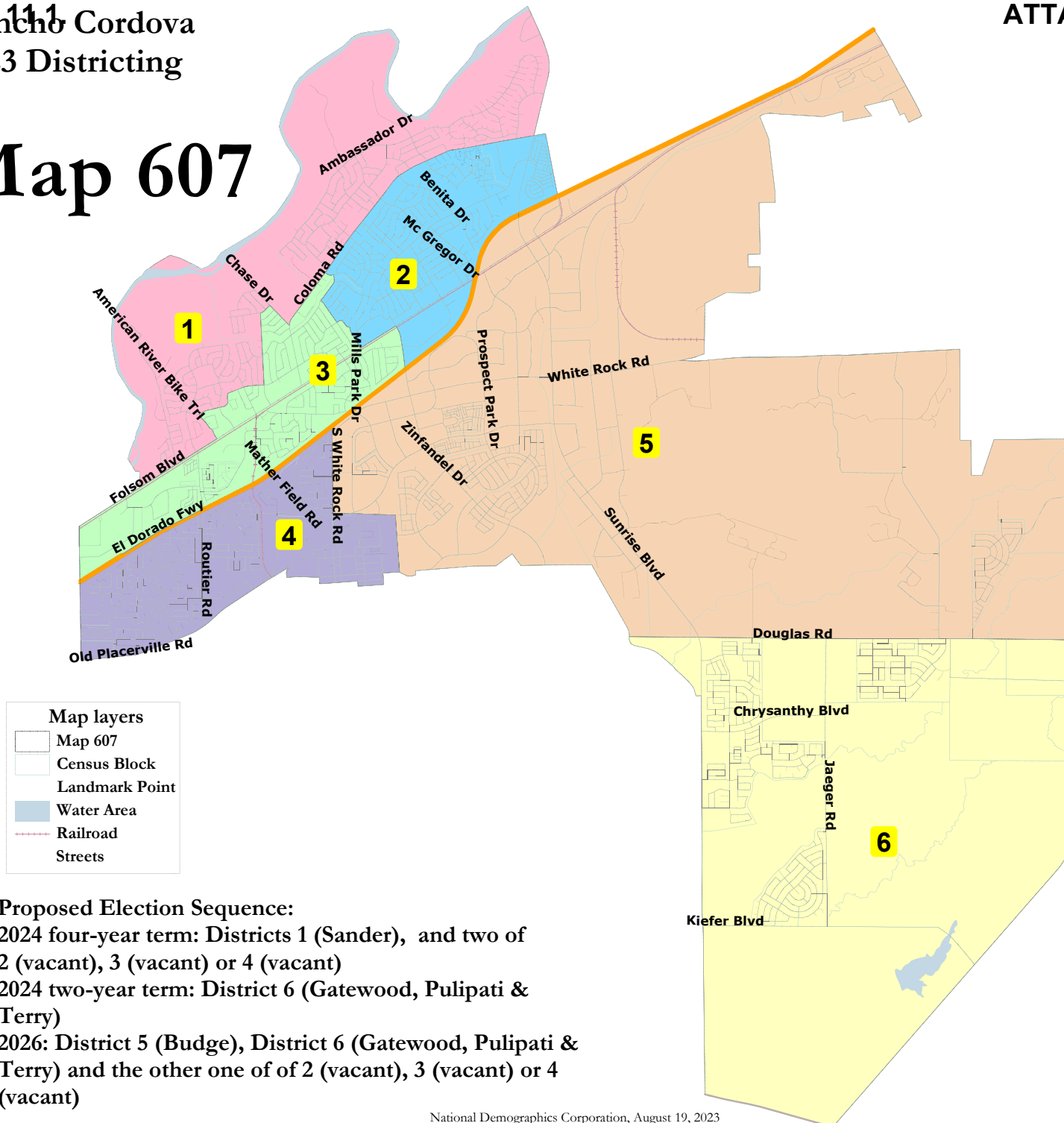
District		1	2	3	4	5	6	Total
	Total Pop	13,547	13,718	13,959	12,527	12,435	13,457	79,643
	Deviation from ideal	273	444	685	-747	-839	183	1,524
	% Deviation	2.06%	3.34%	5.16%	-5.63%	-6.32%	1.38%	11.48%
Total Pop	% Hisp	20.4%	25%	30%	24%	15%	13%	22%
	% NH White	53%	51%	39%	45%	42%	39%	45%
	% NH Black	11%	9%	14%	12%	9%	8%	11%
	% Asian-American	10%	9%	11%	11%	28%	34%	17%
Citizen Voting Age Pop	Total	9,025	9,742	8,872	7,947	7,590	8,329	51,505
	% Hisp	15%	18%	19%	18%	11%	14%	16%
	% NH White	65%	65%	46%	49%	51%	45%	54%
	% NH Black	7%	9%	20%	20%	11%	10%	13%
	% Asian/Pac.Isl.	10%	7%	12%	12%	24%	31%	15%
Voter Registration (Nov 2020)	Total	7,841	7,383	6,255	6,604	6,928	7,801	42,812
	% Latino est.	12%	15%	18%	17%	13%	14%	15%
	% Spanish-Surnamed	11%	14%	16%	16%	13%	13%	14%
	% Asian-Surnamed	3%	2%	4%	5%	11%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	3%	4%	2%
	% NH White est.	79%	73%	61%	55%	62%	59%	65%
	% NH Black	5%	8%	16%	21%	9%	11%	11%
Voter Turnout (Nov 2020)	Total	6,313	5,768	4,443	4,972	5,810	6,645	33,951
	% Latino est.	11%	13%	15%	16%	13%	14%	13%
	% Spanish-Surnamed	11%	13%	14%	15%	12%	13%	13%
	% Asian-Surnamed	3%	2%	4%	5%	11%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	3%	3%	2%
	% NH White est.	80%	73%	63%	56%	63%	60%	66%
	% NH Black	5%	8%	16%	20%	9%	11%	11%
Voter Turnout (Nov 2018)	Total	4,556	4,110	2,791	3,158	3,302	4,155	22,072
	% Latino est.	10%	10%	14%	14%	11%	13%	12%
	% Spanish-Surnamed	9%	10%	13%	13%	11%	12%	11%
	% Asian-Surnamed	2%	2%	3%	5%	9%	10%	5%
	% Filipino-Surnamed	1%	2%	1%	2%	3%	3%	2%
	% NH White est.	82%	76%	64%	57%	65%	62%	69%
	% NH Black est.	4%	8%	15%	20%	10%	10%	11%
ACS Pop. Est.	Total	14,294	14,201	14,239	12,104	11,066	12,598	78,502
Age	age0-19	28%	25%	30%	27%	24%	31%	28%
	age20-60	53%	55%	55%	55%	59%	53%	55%
	age60plus	18%	20%	15%	17%	17%	15%	17%
Immigration	immigrants	21%	24%	22%	23%	26%	27%	24%
	naturalized	45%	52%	55%	61%	62%	86%	61%
Language spoken at home	english	65%	69%	65%	62%	64%	66%	65%
	spanish	12%	13%	21%	16%	7%	3%	12%
	asian-lang	6%	4%	7%	7%	13%	18%	9%
	other lang	18%	14%	7%	15%	16%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	17%	15%	15%	19%	16%	14%	16%
Education (among those age 25+)	hs-grad	64%	69%	62%	63%	59%	46%	61%
	bachelor	18%	14%	14%	14%	25%	33%	19%
	graduatedegree	7%	6%	4%	5%	12%	16%	8%
Child in Household	child-under18	35%	32%	38%	35%	34%	46%	37%
Pct of Pop. Age 16+	employed	66%	61%	67%	64%	71%	72%	67%
Household Income	income 0-25k	13%	19%	18%	18%	5%	5%	14%
	income 25-50k	19%	18%	21%	23%	12%	3%	17%
	income 50-75k	18%	21%	22%	18%	12%	14%	18%
	income 75-200k	44%	40%	38%	38%	56%	56%	44%
	income 200k-plus	5%	2%	1%	3%	15%	23%	7%
Housing Stats	single family	73%	70%	51%	79%	79%	99%	74%
	multi-family	27%	30%	49%	21%	21%	1%	26%
	rented	45%	49%	64%	44%	39%	14%	44%
	owned	55%	51%	36%	56%	61%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 607



ITEM 11.1.

Map 607

ATTACHMENT 3

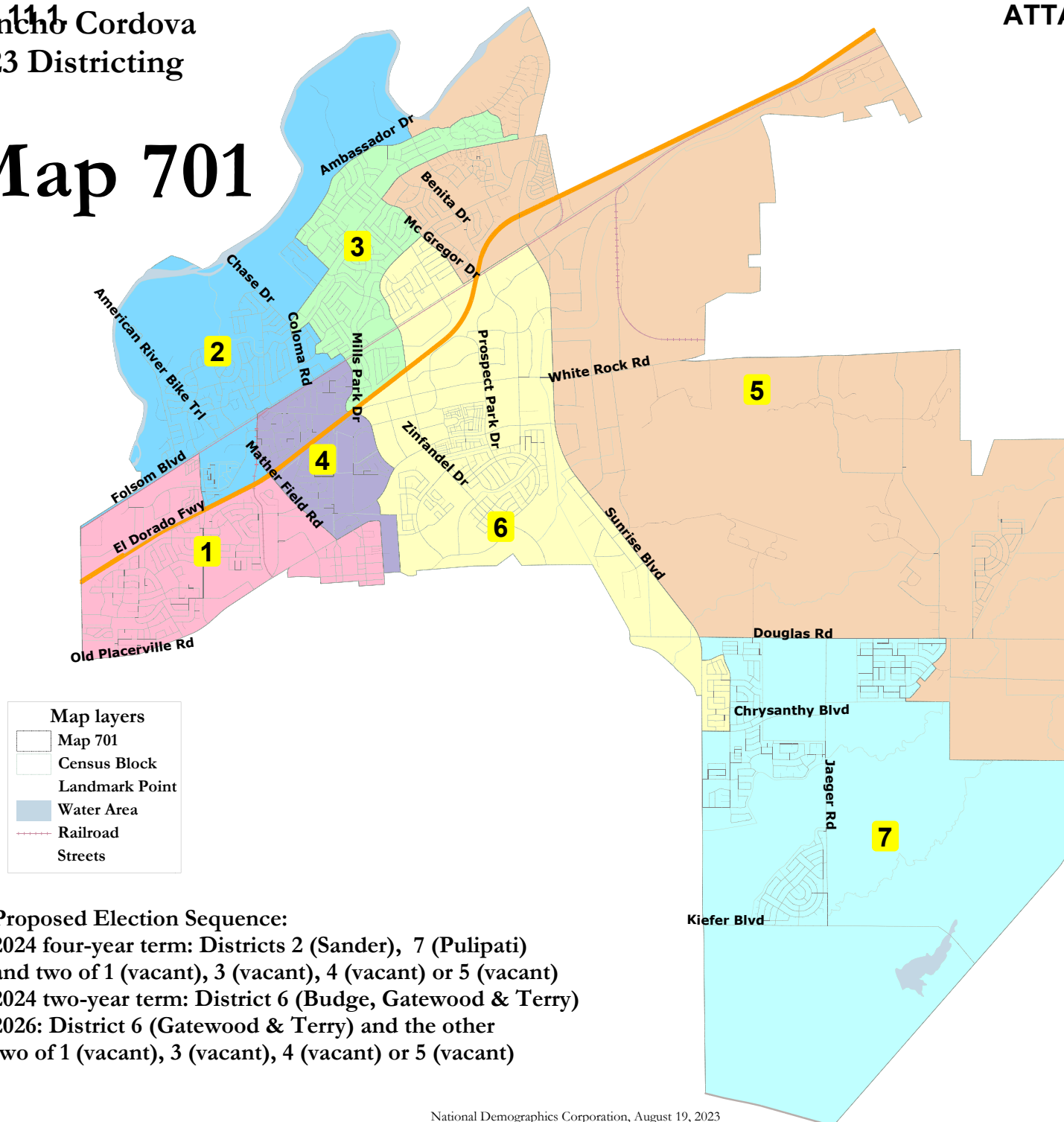
District		1	2	3	4	5	6	Total
	Total Pop	12,846	12,749	12,839	13,955	13,797	13,457	79,643
	Deviation from ideal	-428	-525	-435	681	523	183	1,206
	% Deviation	-3.22%	-3.96%	-3.28%	5.13%	3.94%	1.38%	9.09%
Total Pop	% Hisp	20.2%	25%	31%	24%	16%	13%	22%
	% NH White	54%	51%	40%	44%	41%	39%	45%
	% NH Black	9%	8%	13%	14%	10%	8%	11%
	% Asian-American	10%	10%	9%	12%	26%	34%	17%
Citizen Voting Age Pop	Total	8,481	9,586	7,841	8,365	8,904	8,329	51,505
	% Hisp	15%	16%	21%	19%	11%	14%	16%
	% NH White	67%	66%	50%	45%	49%	45%	54%
	% NH Black	6%	8%	16%	20%	16%	10%	13%
	% Asian/Pac.Isl.	9%	8%	11%	14%	21%	31%	15%
Voter Registration (Nov 2020)	Total	7,534	7,003	5,956	6,889	7,629	7,801	42,812
	% Latino est.	12%	15%	18%	16%	14%	14%	15%
	% Spanish-Surnamed	11%	14%	17%	15%	13%	13%	14%
	% Asian-Surnamed	3%	2%	3%	6%	11%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	3%	4%	2%
	% NH White est.	79%	73%	65%	54%	61%	59%	65%
	% NH Black	5%	8%	13%	22%	11%	11%	11%
Voter Turnout (Nov 2020)	Total	6,138	5,446	4,287	5,140	6,295	6,645	33,951
	% Latino est.	11%	14%	16%	15%	13%	14%	13%
	% Spanish-Surnamed	10%	13%	15%	14%	12%	13%	13%
	% Asian-Surnamed	3%	2%	3%	5%	10%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	3%	3%	2%
	% NH White est.	80%	73%	67%	55%	62%	60%	66%
	% NH Black	5%	8%	12%	22%	10%	11%	11%
Voter Turnout (Nov 2018)	Total	4,434	3,902	2,808	3,188	3,585	4,155	22,072
	% Latino est.	10%	10%	13%	14%	11%	13%	12%
	% Spanish-Surnamed	9%	10%	12%	14%	11%	12%	11%
	% Asian-Surnamed	3%	2%	2%	5%	8%	10%	5%
	% Filipino-Surnamed	1%	2%	1%	2%	3%	3%	2%
	% NH White est.	81%	76%	71%	55%	65%	62%	69%
	% NH Black est.	4%	8%	11%	22%	11%	10%	11%
ACS Pop. Est.	Total	13,173	13,803	12,847	12,861	13,220	12,598	78,502
Age	age0-19	27%	25%	30%	27%	26%	31%	28%
	age20-60	53%	55%	53%	56%	59%	53%	55%
	age60plus	20%	20%	17%	17%	15%	15%	17%
Immigration	immigrants	26%	21%	22%	24%	24%	27%	24%
	naturalized	47%	52%	52%	61%	61%	86%	61%
Language spoken at home	english	63%	71%	64%	59%	68%	66%	65%
	spanish	10%	12%	22%	18%	8%	3%	12%
	asian-lang	6%	4%	8%	7%	11%	18%	9%
	other lang	21%	13%	7%	16%	13%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	14%	15%	21%	15%	14%	16%
Education (among those age 25+)	hs-grad	66%	67%	60%	65%	60%	46%	61%
	bachelor	17%	15%	13%	13%	24%	33%	19%
	graduatedegree	7%	6%	6%	4%	10%	16%	8%
Child in Household	child-under18	34%	33%	37%	37%	35%	46%	37%
Pct of Pop. Age 16+	employed	65%	61%	65%	65%	72%	72%	67%
Household Income	income 0-25k	14%	17%	17%	21%	6%	5%	14%
	income 25-50k	18%	19%	20%	24%	13%	3%	17%
	income 50-75k	20%	19%	22%	17%	15%	14%	18%
	income 75-200k	43%	43%	39%	34%	53%	56%	44%
	income 200k-plus	6%	2%	1%	3%	12%	23%	7%
Housing Stats	single family	72%	74%	67%	70%	67%	99%	74%
	multi-family	28%	26%	33%	30%	33%	1%	26%
	rented	44%	48%	49%	53%	49%	14%	44%
	owned	56%	52%	51%	47%	51%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 701



ITEM 11.1.

Map 701

ATTACHMENT 3

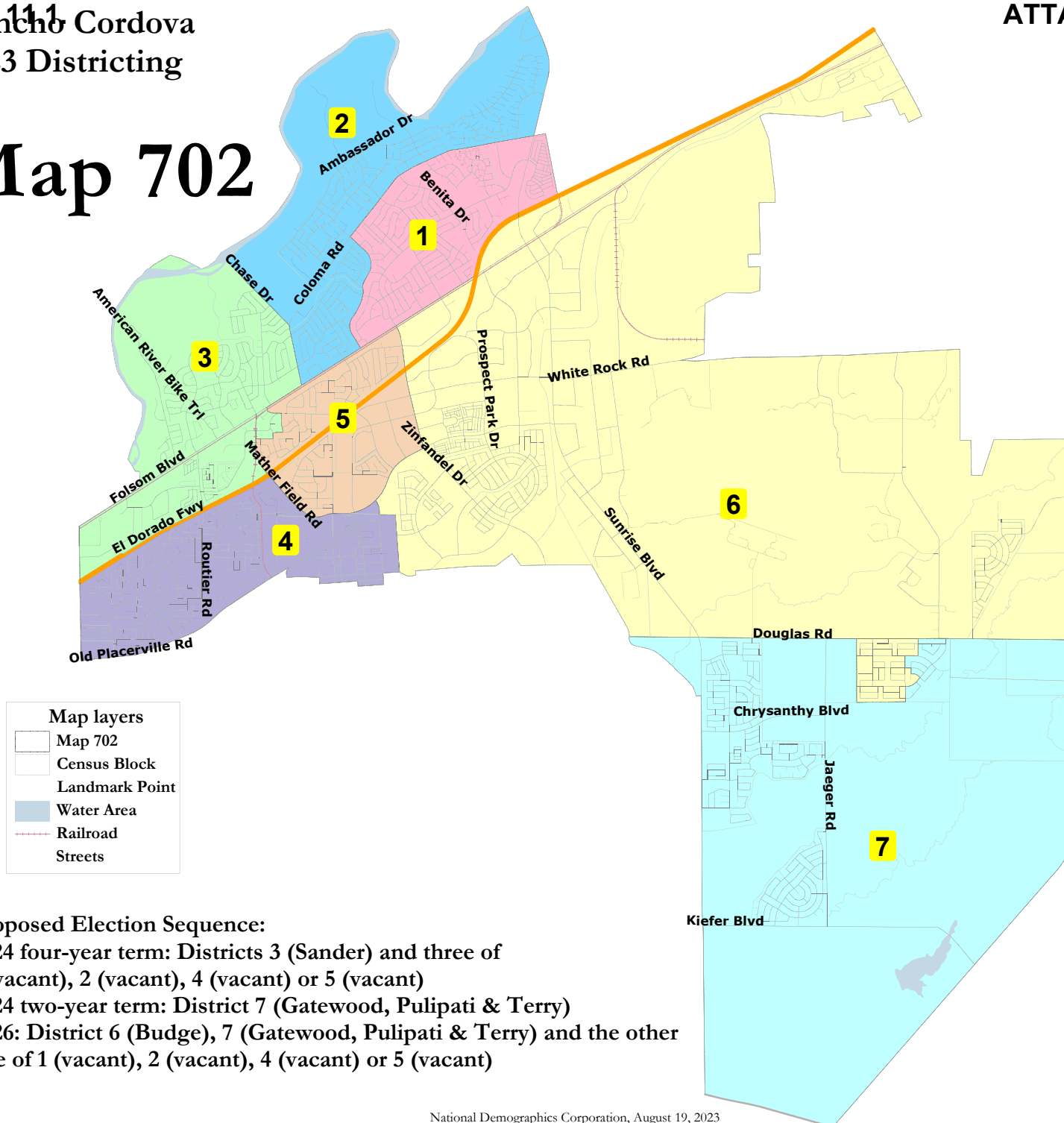
District		1	2	3	4	5	6	7	Total
	Total Pop	11,672	11,298	11,441	11,337	11,235	11,174	11,486	79,643
	Deviation from ideal	294	-80	63	-41	-143	-204	108	498
	% Deviation	2.58%	-0.70%	0.55%	-0.36%	-1.26%	-1.79%	0.95%	4.38%
Total Pop	% Hisp	23.6%	24%	26%	27%	21%	16%	13%	22%
	% NH White	46%	45%	51%	36%	51%	44%	39%	45%
	% NH Black	12%	14%	8%	15%	10%	7%	8%	11%
	% Asian-American	11%	10%	9%	16%	13%	27%	35%	17%
Citizen Voting Age Pop	Total	7,311	7,027	7,895	7,210	7,403	7,379	7,279	51,505
	% Hisp	18%	16%	20%	17%	15%	11%	14%	16%
	% NH White	49%	60%	63%	43%	64%	52%	45%	54%
	% NH Black	19%	12%	5%	22%	10%	12%	9%	13%
	% Asian/Pac.Isl.	13%	9%	9%	16%	9%	21%	31%	15%
Voter Registration (Nov 2020)	Total	5,976	5,859	6,532	4,963	6,610	5,978	6,894	42,812
	% Latino est.	17%	14%	15%	18%	14%	12%	14%	15%
	% Spanish-Surnamed	16%	13%	14%	16%	13%	12%	13%	14%
	% Asian-Surnamed	6%	3%	3%	5%	4%	12%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	1%	2%	4%	3%	2%
	% NH White est.	56%	75%	76%	53%	73%	62%	59%	65%
	% NH Black	20%	8%	5%	24%	7%	9%	11%	11%
Voter Turnout (Nov 2020)	Total	4,510	4,516	5,129	3,568	5,313	5,021	5,894	33,951
	% Latino est.	15%	13%	13%	15%	13%	12%	14%	13%
	% Spanish-Surnamed	15%	12%	13%	14%	12%	11%	13%	13%
	% Asian-Surnamed	5%	3%	3%	5%	4%	11%	12%	6%
	% Filipino-Surnamed	2%	1%	2%	2%	2%	3%	3%	2%
	% NH White est.	57%	76%	77%	54%	74%	63%	60%	66%
	% NH Black	20%	7%	5%	24%	7%	9%	11%	11%
Voter Turnout (Nov 2018)	Total	2,864	3,087	3,677	2,116	3,357	3,211	3,760	22,072
	% Latino est.	14%	9%	11%	14%	10%	11%	13%	12%
	% Spanish-Surnamed	14%	9%	11%	13%	10%	11%	13%	11%
	% Asian-Surnamed	5%	2%	2%	4%	3%	9%	9%	5%
	% Filipino-Surnamed	2%	1%	2%	2%	1%	3%	3%	2%
	% NH White est.	57%	80%	78%	55%	77%	66%	62%	69%
	% NH Black est.	20%	6%	5%	24%	7%	9%	10%	11%
ACS Pop. Est.	Total	11,246	11,740	11,306	11,401	10,983	10,854	10,973	78,502
Age	age0-19	28%	31%	24%	29%	25%	25%	31%	28%
	age20-60	55%	54%	53%	57%	55%	58%	53%	55%
	age60plus	17%	16%	23%	14%	20%	17%	16%	17%
Immigration	immigrants	23%	21%	27%	23%	21%	26%	27%	24%
	naturalized	61%	44%	55%	54%	53%	64%	87%	61%
Language spoken at home	english	61%	63%	69%	62%	71%	67%	64%	65%
	spanish	17%	15%	16%	16%	10%	8%	3%	12%
	asian-lang	7%	4%	4%	9%	6%	13%	19%	9%
	other lang	16%	18%	11%	12%	14%	13%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	20%	17%	14%	20%	14%	14%	14%	16%
Education (among those age 25+)	hs-grad	64%	63%	65%	62%	68%	60%	45%	61%
	bachelor	14%	17%	17%	15%	16%	22%	35%	19%
	graduatedegree	4%	7%	7%	5%	7%	11%	15%	8%
Child in Household	child-under18	38%	37%	32%	35%	34%	37%	44%	37%
Pct of Pop. Age 16+	employed	64%	65%	63%	70%	64%	69%	72%	67%
Household Income	income 0-25k	21%	17%	10%	18%	15%	7%	5%	14%
	income 25-50k	22%	24%	14%	22%	18%	12%	2%	17%
	income 50-75k	17%	20%	20%	23%	16%	13%	15%	18%
	income 75-200k	37%	37%	51%	35%	43%	55%	55%	44%
	income 200k-plus	3%	3%	4%	1%	7%	13%	23%	7%
Housing Stats	single family	78%	62%	82%	37%	76%	90%	99%	74%
	multi-family	22%	38%	18%	63%	24%	10%	1%	26%
	rented	45%	53%	37%	75%	42%	31%	15%	44%
	owned	55%	47%	63%	25%	58%	69%	85%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 702



ITEM 11.1.

Map 702

ATTACHMENT 3

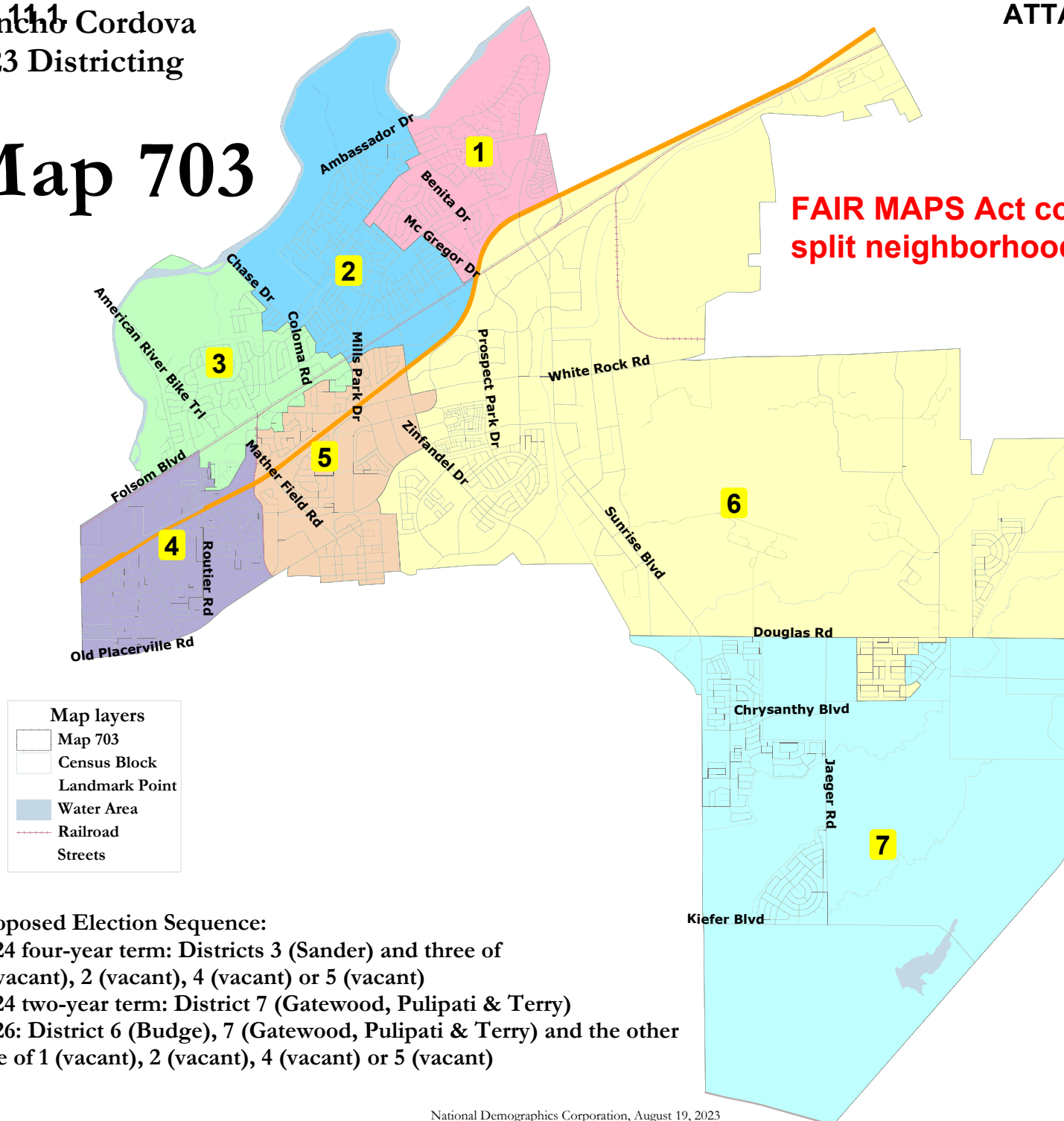
District		1	2	3	4	5	6	7	Total
	Total Pop	11,643	11,254	10,936	11,164	11,843	11,427	11,376	79,643
	Deviation from ideal	265	-124	-442	-214	465	49	-2	907
	% Deviation	2.33%	-1.09%	-3.88%	-1.88%	4.09%	0.43%	-0.02%	7.97%
Total Pop	% Hisp	24.9%	23%	26%	23%	27%	13%	13%	22%
	% NH White	50%	55%	42%	46%	38%	44%	38%	45%
	% NH Black	9%	8%	14%	13%	15%	7%	9%	11%
	% Asian-American	10%	8%	11%	12%	15%	30%	35%	17%
Citizen Voting Age Pop	Total	8,601	7,504	6,821	7,040	7,656	6,809	7,074	51,505
	% Hisp	15%	17%	17%	18%	18%	10%	15%	16%
	% NH White	66%	67%	55%	48%	45%	52%	42%	54%
	% NH Black	9%	6%	13%	19%	21%	9%	11%	13%
	% Asian/Pac.Isl.	8%	7%	12%	14%	13%	25%	31%	15%
Voter Registration (Nov 2020)	Total	6,243	6,567	5,562	5,679	5,407	6,865	6,489	42,812
	% Latino est.	15%	13%	15%	17%	17%	12%	14%	15%
	% Spanish-Surnamed	14%	12%	14%	16%	16%	12%	14%	14%
	% Asian-Surnamed	3%	2%	3%	6%	5%	12%	12%	6%
	% Filipino-Surnamed	2%	1%	1%	1%	1%	3%	4%	2%
	% NH White est.	72%	79%	72%	55%	54%	65%	57%	65%
	% NH Black	9%	4%	9%	20%	23%	6%	12%	11%
Voter Turnout (Nov 2020)	Total	4,843	5,318	4,184	4,288	3,940	5,849	5,529	33,951
	% Latino est.	13%	12%	14%	16%	15%	12%	14%	13%
	% Spanish-Surnamed	13%	11%	13%	15%	14%	12%	13%	13%
	% Asian-Surnamed	2%	2%	3%	6%	5%	12%	12%	6%
	% Filipino-Surnamed	2%	1%	1%	2%	2%	3%	3%	2%
	% NH White est.	73%	80%	74%	56%	56%	65%	58%	66%
	% NH Black	9%	4%	8%	21%	23%	6%	12%	11%
Voter Turnout (Nov 2018)	Total	3,463	3,818	2,834	2,735	2,394	3,429	3,399	22,072
	% Latino est.	10%	10%	10%	14%	13%	11%	13%	12%
	% Spanish-Surnamed	10%	10%	10%	14%	13%	11%	13%	11%
	% Asian-Surnamed	2%	2%	2%	5%	4%	9%	10%	5%
	% Filipino-Surnamed	2%	2%	1%	2%	2%	3%	3%	2%
	% NH White est.	76%	81%	78%	56%	57%	68%	60%	69%
	% NH Black est.	9%	4%	7%	21%	22%	6%	11%	11%
ACS Pop. Est.	Total	12,577	11,510	10,696	10,819	12,272	9,898	10,731	78,502
Age	age0-19	25%	26%	29%	28%	29%	25%	32%	28%
	age20-60	55%	54%	53%	55%	57%	57%	53%	55%
	age60plus	20%	20%	18%	17%	14%	18%	15%	17%
Immigration	immigrants	21%	26%	21%	23%	23%	26%	29%	24%
	naturalized	51%	54%	44%	61%	54%	66%	88%	61%
Language spoken at home	english	70%	62%	70%	59%	62%	67%	65%	65%
	spanish	12%	13%	14%	18%	18%	6%	3%	12%
	asian-lang	4%	5%	7%	7%	8%	16%	17%	9%
	other lang	13%	20%	9%	16%	12%	11%	15%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	14%	18%	13%	21%	20%	13%	14%	16%
Education (among those age 25+)	hs-grad	67%	69%	58%	64%	62%	58%	45%	61%
	bachelor	15%	16%	17%	14%	16%	25%	34%	19%
	graduatedegree	6%	6%	8%	4%	5%	13%	16%	8%
Child in Household	child-under18	33%	34%	33%	38%	35%	39%	45%	37%
Pct of Pop. Age 16+	employed	61%	66%	64%	64%	70%	71%	72%	67%
Household Income	income 0-25k	18%	11%	17%	21%	17%	1%	6%	14%
	income 25-50k	19%	17%	22%	22%	22%	8%	3%	17%
	income 50-75k	20%	20%	19%	17%	22%	11%	13%	18%
	income 75-200k	41%	48%	38%	37%	38%	61%	53%	44%
	income 200k-plus	2%	4%	3%	4%	2%	19%	25%	7%
Housing Stats	single family	72%	74%	66%	78%	42%	99%	99%	74%
	multi-family	28%	26%	34%	22%	58%	1%	1%	26%
	rented	49%	44%	48%	46%	72%	21%	12%	44%
	owned	51%	56%	52%	54%	28%	79%	88%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 703



ITEM 11.1.

Map 703

ATTACHMENT 3

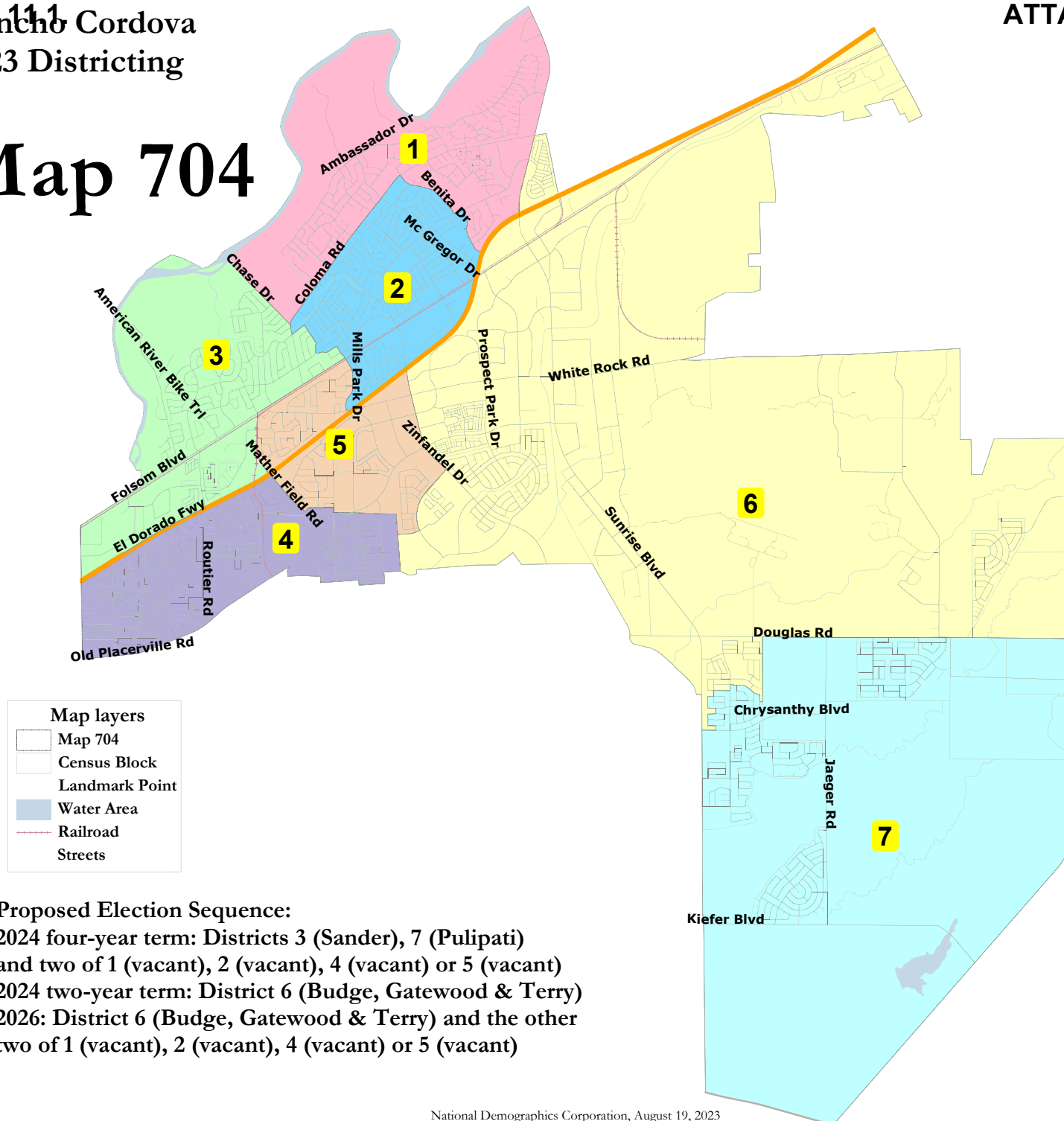
District		1	2	3	4	5	6	7	Total
	Total Pop	11,374	11,379	11,369	11,381	11,376	11,385	11,379	79,643
	Deviation from ideal	-4	1	-9	3	-2	7	1	16
	% Deviation	-0.04%	0.01%	-0.08%	0.03%	-0.02%	0.06%	0.01%	0.14%
Total Pop	% Hisp	21.9%	26%	27%	24%	25%	13%	13%	22%
	% NH White	54%	52%	40%	46%	39%	43%	38%	45%
	% NH Black	9%	7%	15%	11%	16%	7%	9%	11%
	% Asian-American	9%	9%	12%	12%	14%	30%	34%	17%
Citizen Voting Age Pop	Total	8,287	7,864	6,886	7,216	7,388	6,796	7,068	51,505
	% Hisp	14%	18%	20%	18%	16%	10%	15%	16%
	% NH White	69%	64%	53%	50%	44%	52%	42%	54%
	% NH Black	7%	8%	14%	18%	22%	9%	11%	13%
	% Asian/Pac.Isl.	8%	7%	11%	13%	15%	26%	31%	15%
Voter Registration (Nov 2020)	Total	6,601	6,202	5,414	6,039	5,205	6,878	6,473	42,812
	% Latino est.	13%	14%	16%	17%	17%	12%	14%	15%
	% Spanish-Surnamed	12%	13%	15%	16%	16%	12%	14%	14%
	% Asian-Surnamed	3%	2%	3%	6%	5%	13%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	1%	3%	4%	2%
	% NH White est.	76%	76%	70%	56%	55%	64%	57%	65%
	% NH Black	7%	6%	11%	19%	22%	6%	12%	11%
Voter Turnout (Nov 2020)	Total	5,224	4,937	4,033	4,587	3,795	5,851	5,524	33,951
	% Latino est.	12%	13%	14%	16%	14%	12%	14%	13%
	% Spanish-Surnamed	12%	13%	13%	15%	14%	12%	13%	13%
	% Asian-Surnamed	2%	2%	3%	5%	5%	12%	12%	6%
	% Filipino-Surnamed	2%	2%	1%	2%	2%	3%	3%	2%
	% NH White est.	77%	76%	72%	57%	57%	65%	58%	66%
	% NH Black	7%	6%	10%	20%	22%	6%	11%	11%
Voter Turnout (Nov 2018)	Total	3,818	3,492	2,721	2,934	2,279	3,413	3,415	22,072
	% Latino est.	10%	11%	10%	14%	13%	11%	13%	12%
	% Spanish-Surnamed	10%	10%	10%	14%	12%	11%	13%	11%
	% Asian-Surnamed	2%	2%	3%	5%	4%	9%	10%	5%
	% Filipino-Surnamed	1%	2%	1%	2%	2%	3%	3%	2%
	% NH White est.	79%	78%	76%	57%	58%	68%	60%	69%
	% NH Black est.	7%	6%	9%	20%	22%	6%	11%	11%
ACS Pop. Est.	Total	11,912	12,096	11,339	11,156	11,406	9,858	10,734	78,502
Age	age0-19	24%	26%	32%	28%	28%	25%	32%	28%
	age20-60	55%	55%	52%	55%	59%	57%	53%	55%
	age60plus	22%	19%	16%	17%	14%	18%	15%	17%
Immigration	immigrants	22%	24%	21%	23%	23%	26%	29%	24%
	naturalized	53%	52%	43%	61%	55%	66%	88%	61%
Language spoken at home	english	71%	62%	66%	60%	65%	67%	65%	65%
	spanish	11%	13%	19%	17%	15%	6%	3%	12%
	asian-lang	5%	4%	6%	7%	8%	16%	17%	9%
	other lang	13%	20%	9%	16%	12%	11%	15%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	18%	15%	20%	19%	13%	14%	16%
Education (among those age 25+)	hs-grad	68%	69%	59%	63%	62%	58%	45%	61%
	bachelor	15%	16%	16%	14%	17%	25%	34%	19%
	graduatedegree	7%	5%	7%	4%	5%	13%	16%	8%
Child in Household	child-under18	31%	36%	37%	37%	34%	39%	45%	37%
Pct of Pop. Age 16+	employed	64%	62%	64%	63%	71%	71%	72%	67%
Household Income	income 0-25k	15%	14%	18%	18%	18%	1%	6%	14%
	income 25-50k	18%	18%	21%	23%	21%	8%	3%	17%
	income 50-75k	17%	23%	21%	18%	21%	11%	13%	18%
	income 75-200k	45%	44%	37%	38%	39%	61%	53%	44%
	income 200k-plus	4%	2%	3%	3%	2%	19%	25%	7%
Housing Stats	single family	77%	70%	63%	82%	40%	99%	99%	74%
	multi-family	23%	30%	37%	18%	60%	1%	1%	26%
	rented	44%	48%	52%	43%	72%	21%	12%	44%
	owned	56%	52%	48%	57%	28%	79%	88%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 704



ITEM 11.1.

Map 704

ATTACHMENT 3

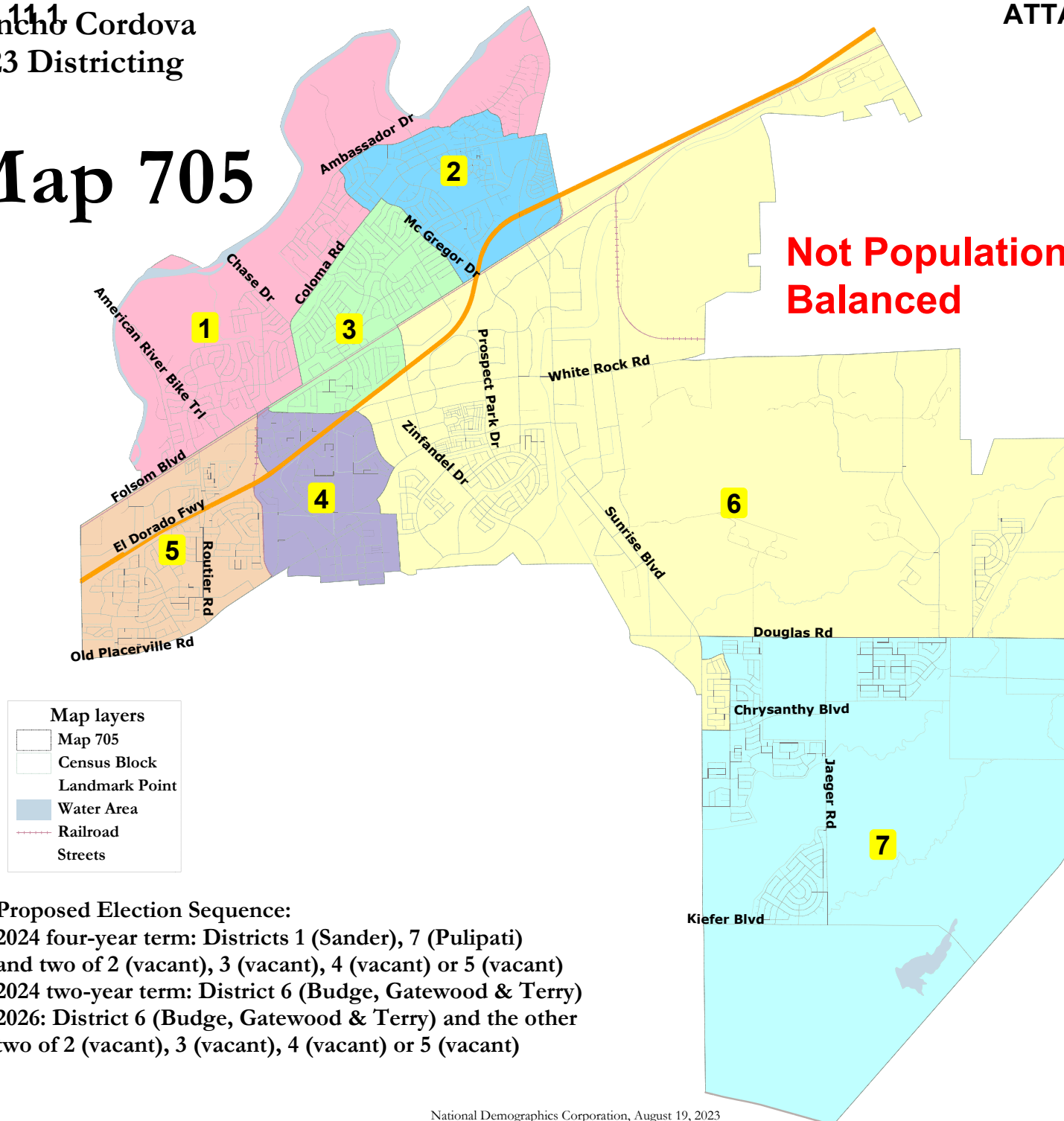
District		1	2	3	4	5	6	7	Total
	Total Pop	11,480	11,251	11,115	11,395	11,868	11,142	11,392	79,643
	Deviation from ideal	102	-127	-263	17	490	-236	14	753
	% Deviation	0.90%	-1.12%	-2.31%	0.15%	4.31%	-2.07%	0.12%	6.62%
Total Pop	% Hisp	18.9%	29%	27%	23%	26%	14%	13%	22%
	% NH White	58%	48%	42%	46%	38%	43%	39%	45%
	% NH Black	9%	8%	14%	13%	14%	8%	8%	11%
	% Asian-American	9%	9%	10%	12%	16%	30%	34%	17%
Citizen Voting Age Pop	Total	7,603	8,695	6,720	7,169	7,493	6,725	7,101	51,505
	% Hisp	14%	19%	19%	18%	16%	11%	14%	16%
	% NH White	68%	64%	55%	47%	44%	50%	47%	54%
	% NH Black	7%	8%	13%	19%	22%	11%	8%	13%
	% Asian/Pac.Isl.	9%	7%	10%	14%	16%	26%	30%	15%
Voter Registration (Nov 2020)	Total	6,544	6,184	5,618	5,760	5,356	6,716	6,634	42,812
	% Latino est.	12%	16%	15%	17%	17%	12%	14%	15%
	% Spanish-Surnamed	11%	15%	14%	16%	16%	12%	13%	14%
	% Asian-Surnamed	3%	3%	3%	6%	5%	12%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	1%	1%	4%	3%	2%
	% NH White est.	78%	71%	72%	55%	55%	64%	60%	65%
	% NH Black	6%	8%	9%	21%	22%	7%	10%	11%
Voter Turnout (Nov 2020)	Total	5,318	4,741	4,257	4,347	3,939	5,677	5,672	33,951
	% Latino est.	11%	14%	14%	16%	14%	12%	14%	13%
	% Spanish-Surnamed	11%	14%	13%	15%	14%	12%	13%	13%
	% Asian-Surnamed	3%	2%	3%	5%	5%	11%	12%	6%
	% Filipino-Surnamed	1%	2%	1%	2%	1%	4%	3%	2%
	% NH White est.	79%	72%	74%	56%	56%	65%	61%	66%
	% NH Black	6%	8%	8%	21%	22%	7%	10%	11%
Voter Turnout (Nov 2018)	Total	3,813	3,338	2,905	2,770	2,396	3,237	3,613	22,072
	% Latino est.	10%	12%	10%	14%	13%	11%	13%	12%
	% Spanish-Surnamed	9%	12%	10%	14%	12%	11%	13%	11%
	% Asian-Surnamed	2%	2%	2%	5%	5%	8%	10%	5%
	% Filipino-Surnamed	1%	2%	1%	2%	2%	3%	3%	2%
	% NH White est.	80%	75%	78%	56%	57%	68%	63%	69%
	% NH Black est.	6%	8%	7%	21%	21%	7%	10%	11%
ACS Pop. Est.	Total	11,659	12,908	10,757	11,005	11,873	9,666	10,634	78,502
Age	age0-19	26%	26%	30%	28%	29%	25%	30%	28%
	age20-60	55%	56%	53%	56%	57%	55%	54%	55%
	age60plus	20%	19%	17%	17%	14%	20%	16%	17%
Immigration	immigrants	29%	19%	20%	23%	24%	27%	27%	24%
	naturalized	54%	52%	44%	61%	55%	67%	87%	61%
Language spoken at home	english	64%	68%	70%	59%	61%	68%	66%	65%
	spanish	7%	18%	17%	18%	15%	6%	3%	12%
	asian-lang	6%	4%	5%	7%	10%	14%	18%	9%
	other lang	24%	10%	8%	16%	13%	11%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	14%	12%	21%	20%	12%	14%	16%
Education (among those age 25+)	hs-grad	68%	67%	59%	64%	61%	58%	46%	61%
	bachelor	16%	16%	17%	13%	16%	23%	34%	19%
	graduatedegree	7%	5%	8%	4%	6%	13%	15%	8%
Child in Household	child-under18	34%	36%	34%	38%	36%	37%	43%	37%
Pct of Pop. Age 16+	employed	65%	62%	65%	64%	69%	69%	72%	67%
Household Income	income 0-25k	16%	13%	17%	21%	17%	5%	4%	14%
	income 25-50k	18%	16%	22%	22%	21%	12%	3%	17%
	income 50-75k	19%	20%	19%	18%	22%	11%	15%	18%
	income 75-200k	44%	48%	38%	36%	38%	54%	55%	44%
	income 200k-plus	4%	3%	3%	3%	2%	19%	23%	7%
Housing Stats	single family	68%	79%	65%	77%	41%	99%	99%	74%
	multi-family	32%	21%	35%	23%	59%	1%	1%	26%
	rented	52%	42%	50%	47%	72%	17%	14%	44%
	owned	48%	58%	50%	53%	28%	83%	86%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 705



ITEM 11.1.

Map 705

ATTACHMENT 3

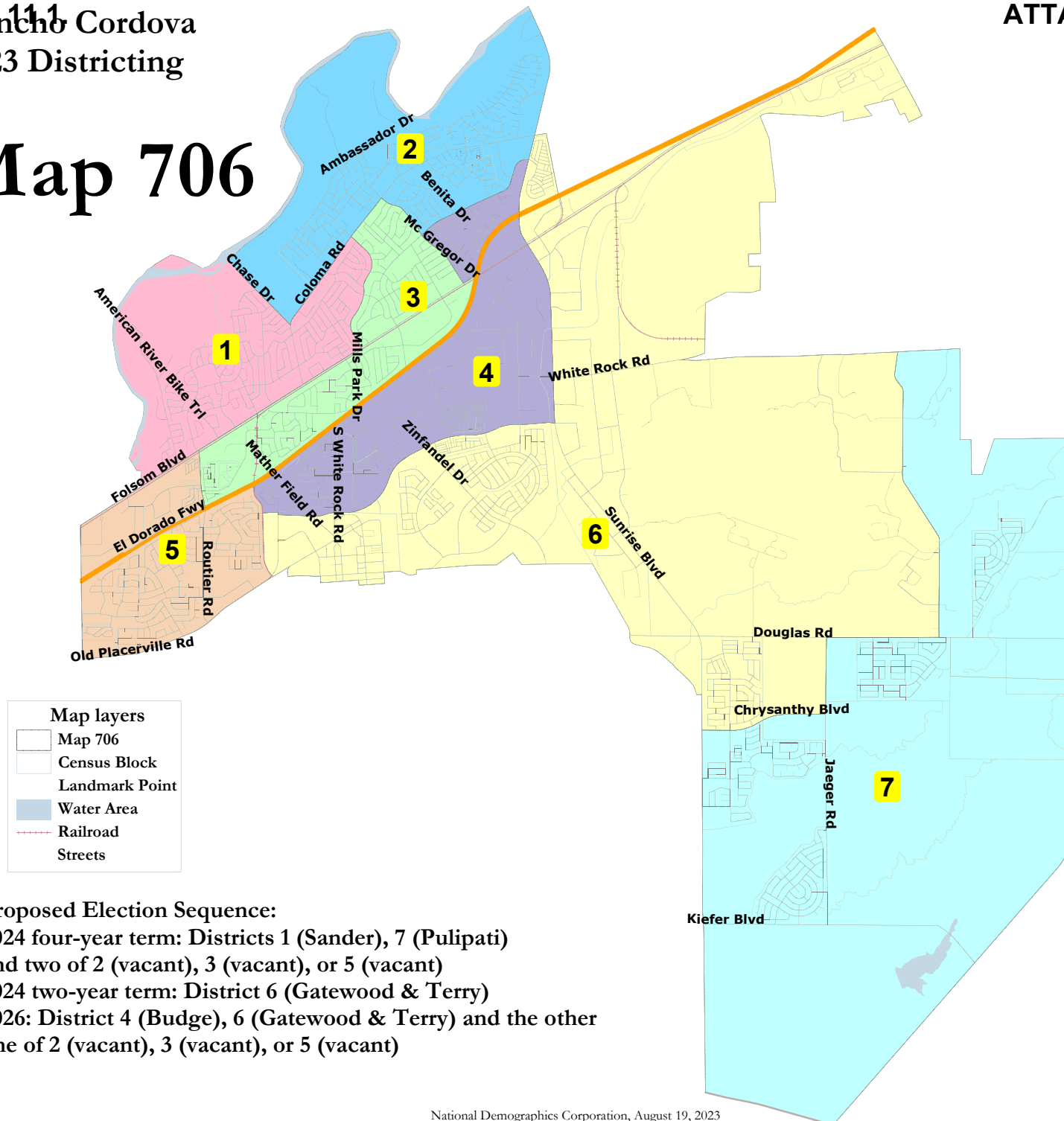
District		1	2	3	4	5	6	7	Total
	Total Pop	11,901	10,786	11,708	9,866	12,527	11,037	11,818	79,643
	Deviation from ideal	523	-592	330	-1,512	1,149	-341	440	2,661
	% Deviation	4.60%	-5.20%	2.90%	-13.29%	10.10%	-3.00%	3.87%	23.39%
Total Pop	% Hisp	20.6%	24%	31%	25%	24%	13%	13%	22%
	% NH White	52%	52%	45%	36%	45%	43%	39%	45%
	% NH Black	11%	10%	8%	17%	12%	8%	8%	11%
	% Asian-American	11%	9%	10%	15%	11%	30%	35%	17%
Citizen Voting Age Pop	Total	7,906	7,267	8,078	6,347	7,947	6,526	7,434	51,505
	% Hisp	15%	16%	22%	14%	18%	11%	14%	16%
	% NH White	65%	67%	59%	42%	49%	50%	45%	54%
	% NH Black	8%	7%	11%	23%	20%	11%	9%	13%
	% Asian/Pac.Isl.	9%	8%	7%	18%	12%	25%	31%	15%
Voter Registration (Nov 2020)	Total	6,782	5,923	5,812	4,355	6,604	6,236	7,100	42,812
	% Latino est.	12%	14%	17%	17%	17%	12%	14%	15%
	% Spanish-Surnamed	11%	13%	16%	16%	16%	12%	13%	14%
	% Asian-Surnamed	3%	2%	3%	5%	5%	13%	12%	6%
	% Filipino-Surnamed	1%	1%	2%	2%	1%	4%	3%	2%
	% NH White est.	79%	74%	69%	54%	55%	64%	59%	65%
	% NH Black	5%	8%	9%	23%	21%	6%	11%	11%
Voter Turnout (Nov 2020)	Total	5,460	4,606	4,394	3,154	4,972	5,308	6,057	33,951
	% Latino est.	11%	13%	15%	15%	16%	12%	14%	13%
	% Spanish-Surnamed	11%	12%	14%	14%	15%	11%	13%	13%
	% Asian-Surnamed	3%	2%	3%	5%	5%	12%	12%	6%
	% Filipino-Surnamed	1%	2%	2%	2%	1%	4%	3%	2%
	% NH White est.	80%	75%	71%	55%	56%	65%	60%	66%
	% NH Black	5%	8%	9%	24%	20%	6%	11%	11%
Voter Turnout (Nov 2018)	Total	3,938	3,277	3,057	1,815	3,158	3,032	3,795	22,072
	% Latino est.	9%	10%	12%	13%	14%	11%	13%	12%
	% Spanish-Surnamed	9%	10%	12%	12%	13%	11%	12%	11%
	% Asian-Surnamed	2%	2%	2%	4%	5%	10%	9%	5%
	% Filipino-Surnamed	1%	1%	2%	2%	2%	3%	3%	2%
	% NH White est.	82%	77%	73%	56%	57%	67%	62%	69%
	% NH Black est.	4%	7%	9%	23%	20%	6%	11%	11%
ACS Pop. Est.	Total	12,830	10,643	12,642	9,600	12,104	9,457	11,226	78,502
Age	age0-19	29%	25%	28%	27%	27%	25%	31%	28%
	age20-60	53%	54%	54%	59%	55%	57%	53%	55%
	age60plus	18%	20%	18%	14%	17%	17%	16%	17%
Immigration	immigrants	22%	27%	20%	22%	23%	28%	27%	24%
	naturalized	44%	53%	52%	57%	61%	68%	87%	61%
Language spoken at home	english	62%	69%	66%	65%	62%	68%	65%	65%
	spanish	12%	12%	22%	11%	16%	6%	3%	12%
	asian-lang	6%	3%	4%	11%	7%	13%	19%	9%
	other lang	20%	15%	8%	13%	15%	13%	13%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	19%	15%	15%	19%	19%	12%	14%	16%
Education (among those age 25+)	hs-grad	65%	67%	65%	62%	63%	59%	45%	61%
	bachelor	17%	14%	15%	17%	14%	24%	35%	19%
	graduatedegree	7%	7%	5%	6%	5%	13%	16%	8%
Child in Household	child-under18	36%	31%	38%	33%	35%	40%	44%	37%
Pct of Pop. Age 16+	employed	65%	61%	65%	70%	64%	71%	72%	67%
Household Income	income 0-25k	13%	19%	14%	19%	18%	2%	5%	14%
	income 25-50k	20%	20%	16%	21%	23%	10%	2%	17%
	income 50-75k	19%	20%	21%	21%	18%	9%	15%	18%
	income 75-200k	43%	38%	46%	37%	38%	59%	56%	44%
	income 200k-plus	5%	3%	2%	1%	3%	20%	23%	7%
Housing Stats	single family	70%	70%	73%	33%	79%	99%	99%	74%
	multi-family	30%	30%	27%	67%	21%	1%	1%	26%
	rented	46%	49%	50%	76%	44%	19%	15%	44%
	owned	54%	51%	50%	24%	56%	81%	85%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.

Map 706



ITEM 11.1.

Map 706

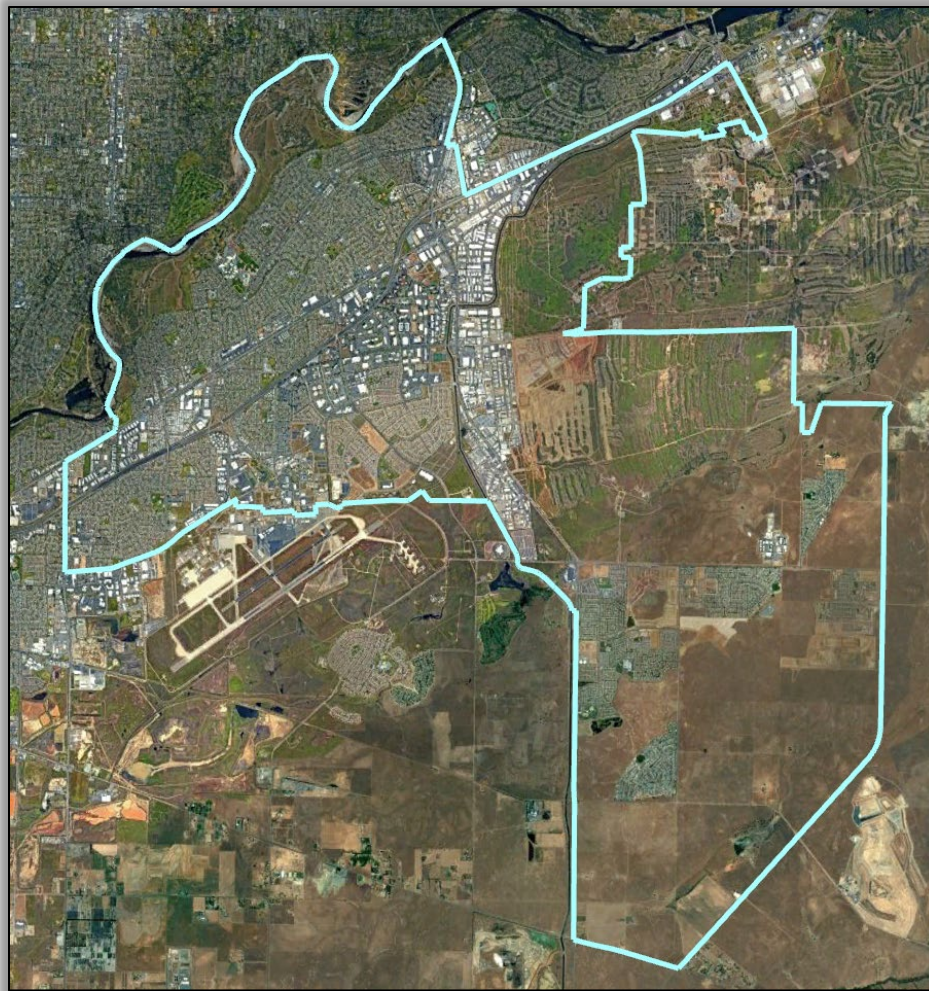
ATTACHMENT 3

District		1	2	3	4	5	6	7	Total
	Total Pop	11,758	11,800	11,191	10,964	10,987	11,166	11,777	79,643
	Deviation from ideal	380	422	-187	-414	-391	-212	399	836
	% Deviation	3.34%	3.71%	-1.64%	-3.64%	-3.44%	-1.86%	3.51%	7.35%
Total Pop	% Hisp	27.9%	20%	29%	24%	24%	13%	13%	22%
	% NH White	43%	56%	43%	39%	47%	44%	40%	45%
	% NH Black	12%	9%	10%	14%	11%	9%	8%	11%
	% Asian-American	10%	9%	11%	16%	12%	29%	33%	17%
Citizen Voting Age Pop	Total	7,428	8,439	7,856	7,215	7,014	6,429	7,124	51,505
	% Hisp	20%	14%	18%	14%	18%	11%	16%	16%
	% NH White	59%	69%	54%	49%	50%	48%	46%	54%
	% NH Black	8%	7%	15%	20%	18%	11%	9%	13%
	% Asian/Pac.Isl.	10%	7%	11%	15%	13%	26%	28%	15%
Voter Registration (Nov 2020)	Total	6,101	6,662	5,480	5,218	5,851	6,400	7,100	42,812
	% Latino est.	15%	12%	17%	16%	17%	12%	14%	15%
	% Spanish-Surnamed	14%	12%	16%	15%	16%	11%	14%	14%
	% Asian-Surnamed	2%	3%	4%	5%	6%	12%	12%	6%
	% Filipino-Surnamed	1%	1%	1%	2%	1%	4%	3%	2%
	% NH White est.	76%	77%	64%	58%	56%	62%	62%	65%
	% NH Black	6%	7%	14%	19%	20%	9%	8%	11%
Voter Turnout (Nov 2020)	Total	4,681	5,393	4,064	3,934	4,440	5,366	6,073	33,951
	% Latino est.	14%	11%	15%	14%	16%	12%	14%	13%
	% Spanish-Surnamed	13%	11%	14%	13%	15%	11%	13%	13%
	% Asian-Surnamed	2%	2%	3%	5%	5%	12%	11%	6%
	% Filipino-Surnamed	1%	1%	2%	2%	2%	3%	3%	2%
	% NH White est.	77%	78%	66%	59%	57%	63%	63%	66%
	% NH Black	5%	7%	13%	19%	20%	9%	8%	11%
Voter Turnout (Nov 2018)	Total	3,288	3,840	2,741	2,413	2,838	3,353	3,599	22,072
	% Latino est.	11%	10%	12%	12%	14%	10%	13%	12%
	% Spanish-Surnamed	10%	10%	12%	12%	14%	10%	13%	11%
	% Asian-Surnamed	2%	2%	3%	5%	5%	9%	9%	5%
	% Filipino-Surnamed	1%	1%	2%	2%	2%	3%	2%	2%
	% NH White est.	80%	79%	69%	61%	56%	66%	65%	69%
	% NH Black est.	4%	6%	13%	18%	20%	8%	9%	11%
ACS Pop. Est.	Total	11,920	12,953	11,909	10,593	10,832	9,879	10,416	78,502
Age	age0-19	30%	25%	27%	25%	28%	29%	29%	28%
	age20-60	52%	56%	54%	62%	55%	52%	54%	55%
	age60plus	17%	19%	19%	13%	17%	19%	16%	17%
Immigration	immigrants	19%	28%	23%	21%	23%	31%	24%	24%
	naturalized	43%	55%	52%	54%	60%	72%	86%	61%
Language spoken at home	english	67%	61%	66%	73%	59%	62%	69%	65%
	spanish	19%	9%	17%	12%	17%	7%	3%	12%
	asian-lang	4%	5%	9%	5%	7%	16%	17%	9%
	other lang	9%	25%	8%	10%	16%	15%	11%	14%
Language Fluency	Speaks Eng. "Less than Very Well"	13%	20%	16%	15%	21%	13%	14%	16%
Education (among those age 25+)	hs-grad	59%	70%	63%	65%	63%	54%	49%	61%
	bachelor	19%	15%	13%	19%	14%	25%	33%	19%
	graduatedegree	7%	6%	5%	8%	4%	14%	14%	8%
Child in Household	child-under18	38%	35%	35%	31%	37%	40%	43%	37%
Pct of Pop. Age 16+	employed	64%	63%	64%	73%	63%	67%	74%	67%
Household Income	income 0-25k	13%	15%	18%	14%	18%	11%	3%	14%
	income 25-50k	20%	18%	17%	20%	23%	13%	2%	17%
	income 50-75k	20%	21%	21%	17%	18%	12%	15%	18%
	income 75-200k	43%	41%	42%	45%	38%	50%	54%	44%
Housing Stats	income 200k-plus	4%	4%	2%	3%	4%	14%	26%	7%
	single family	68%	67%	72%	47%	82%	91%	99%	74%
	multi-family	32%	33%	28%	53%	18%	9%	1%	26%
	rented	50%	50%	45%	71%	43%	24%	12%	44%
	owned	50%	50%	55%	29%	57%	76%	88%	56%

Total population data from the 2020 Decennial Census.

Surname-based Voter Registration and Turnout data from the California Statewide Database.

Latino voter registration and turnout data are Spanish-surname counts adjusted using Census Population Department undercount estimates. NH White and NH Black registration and turnout counts estimated by NDC. Citizen Voting Age Pop., Age, Immigration, and other demographics from the 2015-2019 American Community Survey and Special Tabulation 5-year data.



Rancho Cordova Draft Maps Hearing

September 18,
2023

Districting Process

Step	Description
Hearing 1 August 7	Held prior to release of draft maps. Education and to solicit input on the composition of districts.
Community Forum August 10	Informal discussion of process, mapping tools, neighborhoods and communities of interest.
Hearing 2 August 14	Held prior to release of draft maps. Education and to solicit input on the composition of districts.
Initial Map Deadline August 18	Initial deadline for residents to submit draft maps for Council consideration at the August 29 hearing.
Draft Maps Posted August 22	All draft maps must be posted on the project website 7 days in advance of the August 29 hearing.
Hearing 3 August 29	First Council consideration of draft maps.
Community Forum August 30	Informal discussion of draft maps.
Final Map Submission Deadline September 7	Deadline for residents to submit draft maps for Council consideration at the September 18 hearing.
All Draft Maps Posted September 11	All draft maps must be posted on the project website 7 days in advance of the September 18 hearing.
Hearing 4 and Map Selection September 18	Council consideration of draft maps, selection of preferred map and election sequence, and introduction of ordinance adopting the map.
Hearing 5 and Map adoption October 2	Public hearing followed by second reading of the ordinance adopting the map.

Districting Rules and Goals

1. Federal Laws

Equal Population
Federal Voting Rights Act
No Racial Gerrymandering



2. California Criteria for Cities

1. **Geographically contiguous**
2. **Undivided neighborhoods and “communities of interest”**
(Socio-economic geographic areas that should be kept together)
3. **Easily identifiable boundaries**
4. **Compact**
(Do not bypass one group of people to get to a more distant group of people)

Prohibited: “Shall not favor or discriminate against a political party.”

3. Other Traditional Districting Principles

Respect voters’ choices / continuity in office
Future population growth

Initial Draft Maps

For the August 29th public hearing:

- ❑ 20 five-district maps submitted
- ❑ 7 six-district maps submitted
- ❑ 6 seven-district maps submitted

- ❑ In total, 20 population-balanced maps were considered

- Following the August 29th Public Hearing, Council:
 - 1. Focused on five-district maps;
 - 2. Selected maps 508, 511 and 516 as “focus maps,” with revisions requested to 508 and 516

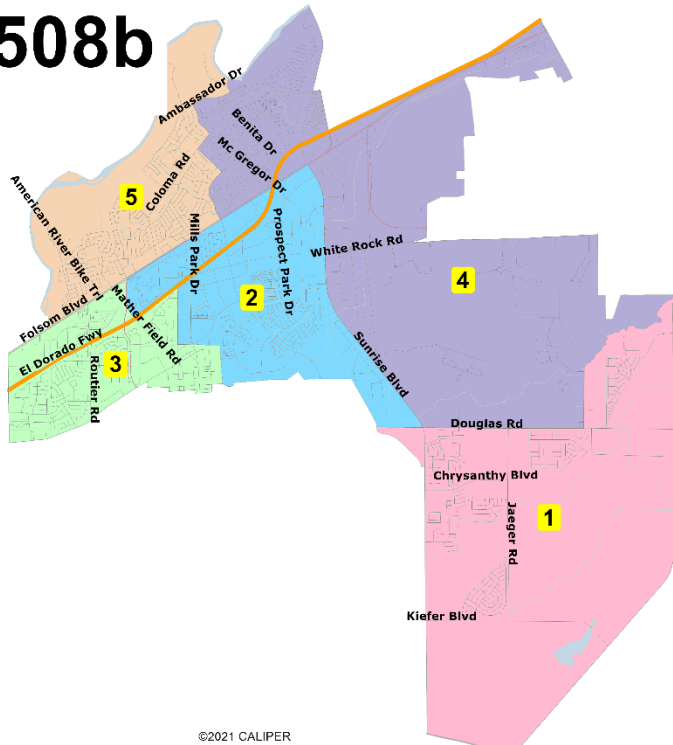
❑ Five Focus Maps

- ❑ Focus Map 508b & c
- ❑ Focus Map 511
- ❑ Focus Map 516b & c

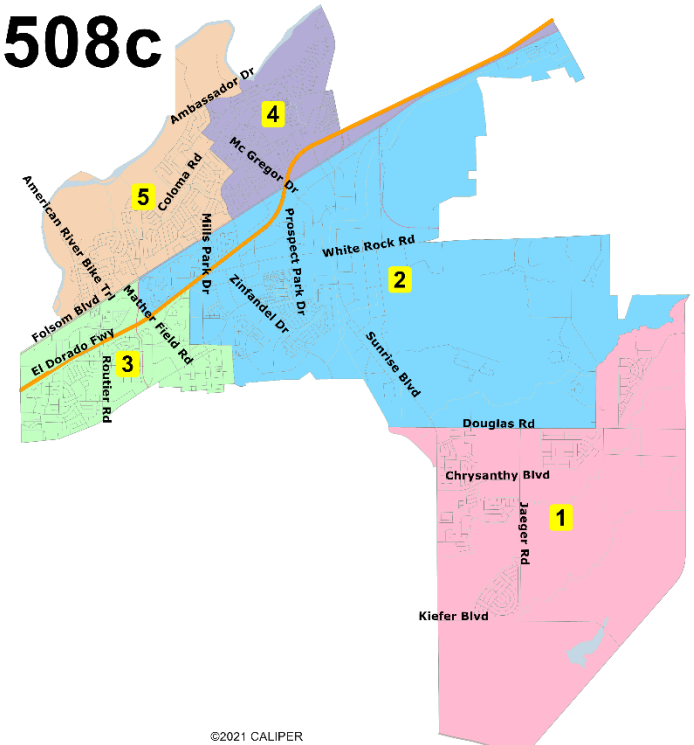
❑ Two New Public Map Submissions:

- ❑ New Map 511b
- ❑ New Map 522
- ❑ New public map submission 521 was neither population balanced nor contiguous.

Map 508b



Map 508c



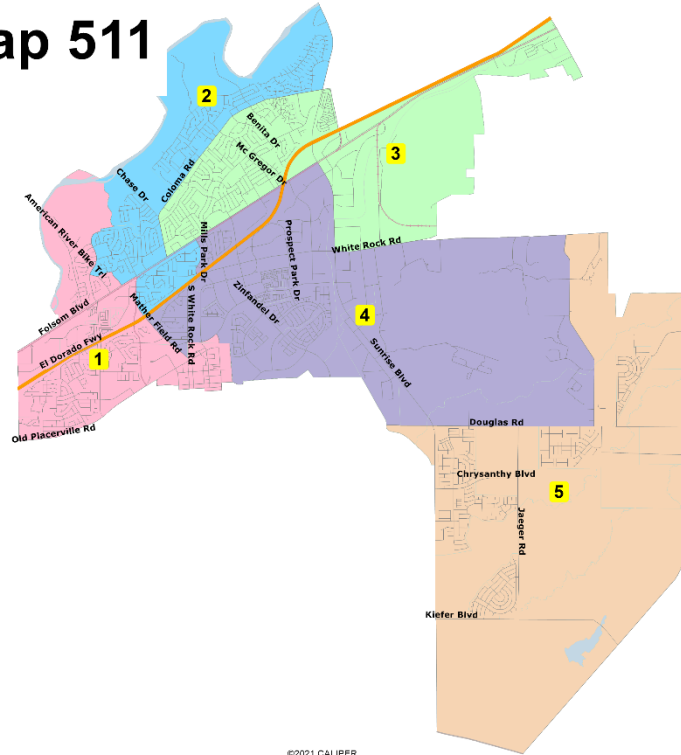
Focus Map 508b

- Map 508 with the generally undeveloped area north of Douglas moved into District 4

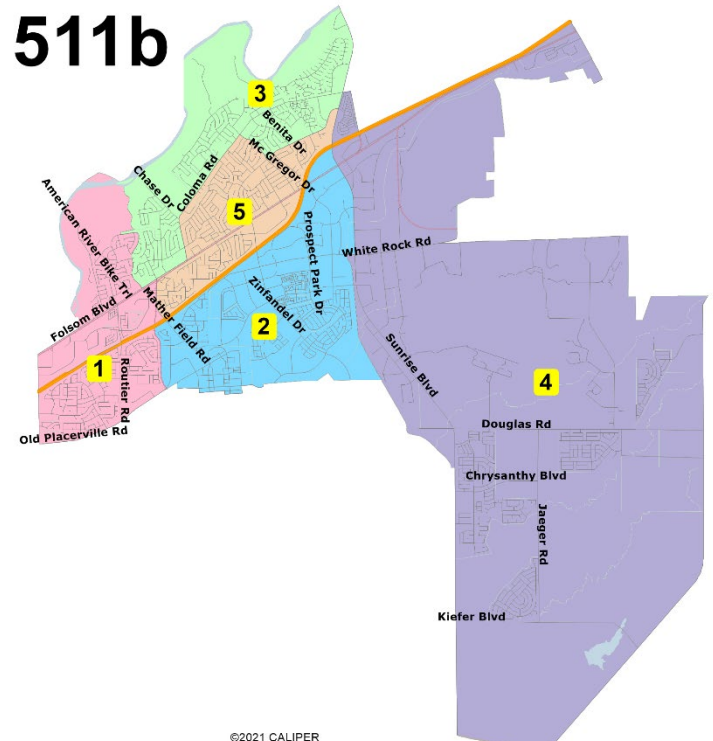
Focus Map 508c

- Map 508 with the generally undeveloped area north of Douglas moved into District 2 up to Folsom Blvd, and the area north of Folsom Blvd moved to District 4, with a small population-balancing change between Districts 4 and 5

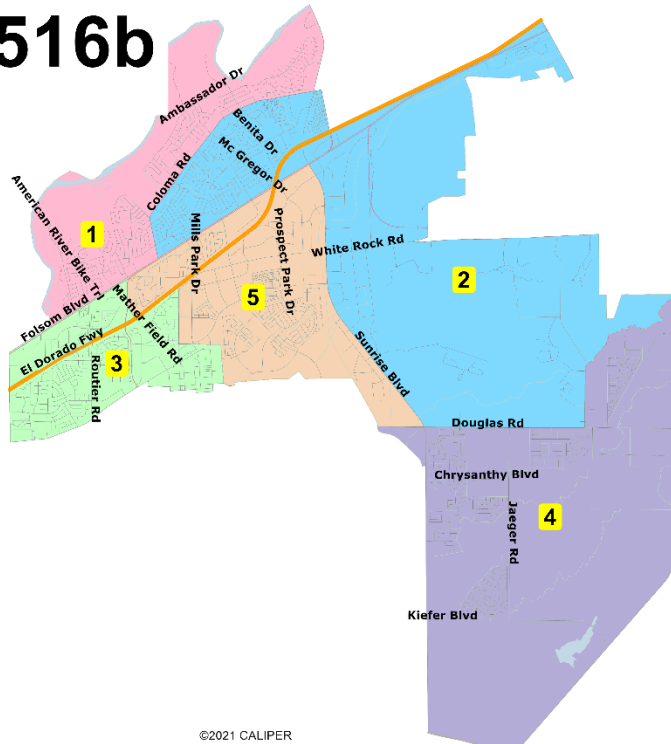
Map 511



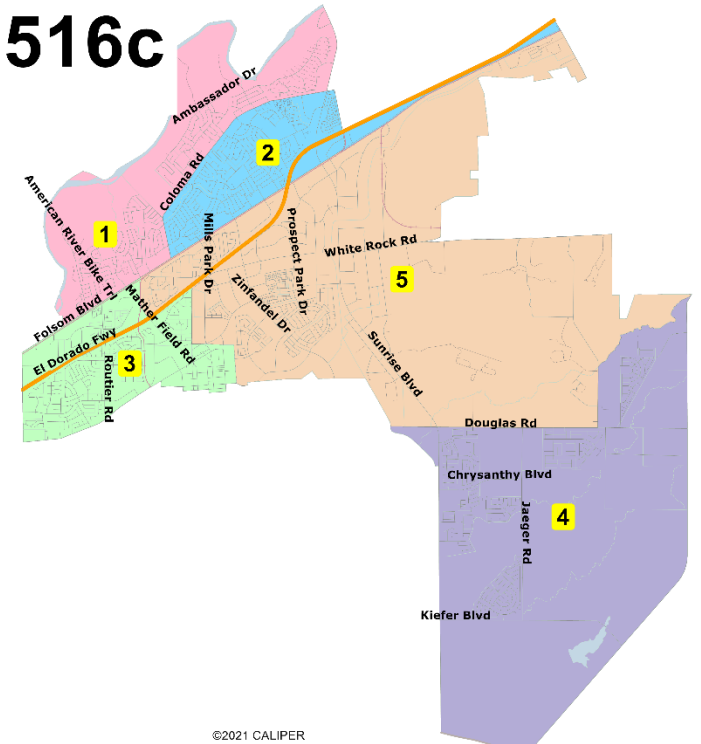
Map 511b



Map 516b



Map 516c

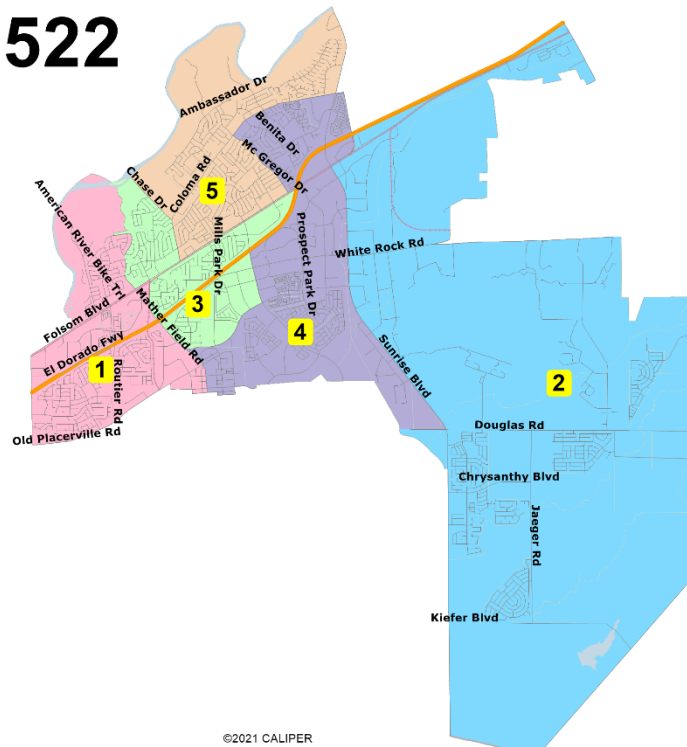


Focus Map 516b

- Keeps Districts 1 and 2 from Map 516, then uses the Map 508b versions of Districts 3 through 5

Focus Map 516c

- Keeps Districts 1 and 2 from Map 516, then uses the Map 508c versions of Districts 3 through 5

Map 522

Election Sequencing Rules

❑ Which districts are up for election in which year?

- ❑ The number of seats up for election each year does not change

- 3 in 2024, 2 in 2026

❑ Statutory Language:

- ❑ “the governing body shall give special consideration to the purposes of the California Voting Rights Act . . . and it shall take into account the preferences expressed by members of the districts.” (Elections Code 10010(b))

❑ Standard Practice after Section 10010(b) compliance:

- ❑ Let voters make re-election decisions by matching district election years to the year the term of the resident officeholder(s) expire.
- ❑ This gets complicated when 2024 and 2026 Councilmembers are in the same district:
 - An at-large Councilmember may run for a district seat mid-term.
 - A current Councilmember whose term ends and is in a district not up that year simply leaves the Council and cannot run for re-election that year.

Election Sequencing ATTACHMENT 4

- ❑ Three districts must hold elections in 2024, and two in 2026.
- ❑ All focus maps and both new maps have Councilmembers Gatewood (2026), Pulipati (2024) and Terry (2024) in one district.
- ❑ Simple part:
 - ❑ Respect the voters' wishes and authority: assign the district with Councilmember Sander to 2024 and the district with Councilmember Budge to 2026.
- ❑ Complicated part:
 - ❑ Assign two other districts to 2024 and one other district to 2026.
- ❑ Map by Map:
 - ❑ The PDF files posted online for each map include the proposed election sequencing for that map.

Public Hearing & Discussion

1. Public input on the focus and new maps and election sequencing
2. Council decision on a preferred map
3. Council decision on election sequencing for the preferred map
4. Introduce ordinance

CITY OF RANCHO CORDOVA

ORDINANCE NO. XX-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, ESTABLISHING A BY DISTRICT ELECTION SYSTEM IN FIVE COUNCIL DISTRICTS PURSUANT TO CALIFORNIA ELECTIONS CODE SECTION 10010, AND AMENDING AND ADDING NEW SECTIONS TO CHAPTER 2.42 ELECTIONS OF THE RANCHO CORDOVA MUNICIPAL CODE TO PROVIDE FOR CITY COUNCIL ELECTION DISTRICTS

WHEREAS, the members of the City Council of the City of Rancho Cordova are currently elected at-large, whereby all five (5) members are elected by all of the voters of the City; and

WHEREAS, the City also has a Council appointed Mayor, who is appointed every year to a one year term; and

WHEREAS, pursuant to California Government Code Sections 34886 and 34871(a), the City has the authority to adopt an ordinance requiring members of the City Council to be elected by district in five districts with a Council appointed Mayor; and

WHEREAS, in a by district election system, a candidate for City Council must reside in the district which they wish to represent, and only the voters of that district are entitled to vote to decide who their representative will be; and

WHEREAS, on June 7, 2023, the City received a letter from attorney Scott J. Rafferty asserting that the City's at-large election system violated the California Voting Rights Act (CVRA) and threatened litigation if the City declines to voluntarily convert to by district elections; and

WHEREAS, pursuant to California Government Code Section 34886, the Rancho Cordova City Council declares that this change in the method of electing members of the Rancho Cordova City Council is being made in furtherance of the purposes of the California Voting Rights Act of 2001 (California Elections Code Sections 14025 et. seq.) to avoid litigation; and

WHEREAS, at its regular meeting on July 17, 2023, the City Council adopted Resolution No. 108-2023, a Resolution of Intent to transition to a by district election system pursuant to Section 10010 of the California Elections Code; and

WHEREAS, pursuant to Section 10010 of the California Elections Code, a city that changes from an at-large method of election to a by district method of election shall hold at least two public hearings over a period of no more than thirty days, at which the public is invited to provide input regarding the composition of the districts before drawing a draft map or maps of the proposed boundaries of the districts; and

WHEREAS, before any maps of the proposed boundaries of the districts were considered, the City held public hearings on August 7, 2023, and August 14, 2023, and a community forum on August 10, 2023, at which time input from the public on the proposed composition of the districts was invited and heard; and

WHEREAS, on and prior to holding the third public hearing on August 29, 2023, pursuant to Section 10010 of the California Elections Code, the City published and made available for public review draft maps for consideration by the City Council seven (7) days before the meeting; and

WHEREAS, pursuant to Section 10010 of the California Elections Code, the City held a third public hearing on August 29, 2023, and also held a community forum on August 30, 2023, at which the public was invited to provide input regarding the content of the draft maps and the potential sequence of elections; and

WHEREAS, after the close of the public hearing on August 29, 2023, the City Council provided input on the draft maps. Three “focus” draft maps were selected by the City Council, published, and made available for public review along with two revised maps submitted by National Demographics Corporation. Additional maps were submitted by members of the public for further consideration before the September 7, 2023 deadline. These draft maps were made available to the public seven (7) days prior to the fourth public hearing pursuant to Section 10010 of the California Elections Code; and

WHEREAS, pursuant to Section 10010 of the California Elections Code, the City held a fourth public hearing on September 18, 2023, where the public provided input prior to the City Council adopting a final district map, determined the election sequence, and considered an ordinance that would establish a by district election system; and

WHEREAS, at the regular meeting of the City Council held on October 2, 2023, the City Council held a final public hearing on the proposal to establish district boundaries, reviewed additional public input, formally selected the voting district map and the election sequence attached to, incorporated in, and set forth in this Ordinance, which returned for a second reading and adoption at the same regular meeting of the City Council; and

WHEREAS, it is the position of the City Council that map “Preferred Map ”, attached hereto as Exhibit A, will serve the best interests of the City of Rancho Cordova and be consistent with the California Voting Rights Act and applicable laws; and

WHEREAS, the map identified as “Preferred Map ”, attached hereto as Exhibit A, is selected and adopted by the City Council as the final district map in the creating of a “by district” election system in the City of Rancho Cordova, as that term is defined in California Government Code Section 34871.

NOW, THEREFORE, the City Council of the City of Rancho Cordova does hereby ordain as follows:

SECTION 1 PURPOSE

The purpose of this Ordinance is to enact, pursuant to California Government Code Section 34886, an ordinance providing for the by district election system to elect members of the Rancho Cordova City Council in five (5) single-member districts pursuant to California Elections Code Section 10010.

SECTION 2 DECLARATION

Pursuant to California Government Code Section 34886, the City Council declares that this change in the method of electing members of the City Council of the City of Rancho Cordova is being made in furtherance of the purposes of the California Voting Rights Act of 2001 (Elections Code Sections 14025 et. seq.)

SECTION 3 CITY COUNCIL DISTRICTS

The City of Rancho Cordova is hereby divided into five (5) City Council Districts with the boundaries of the districts as shown in Exhibit A attached hereto and incorporated herein by reference.

SECTION 4 AMENDMENT TO CODE

Section 2.42.010 subsections A. and B. are amended to read as follows:

“2.42.010 Election consolidation.

A. Pursuant to Elections Code § 1301, the general municipal election for the city shall be held on the same date as the date of the statewide general election.

B. The board of Supervisors of the County of Sacramento, State of California, is hereby requested to order consolidation of the City of Rancho Cordova’s general municipal election with the statewide general election held on the same date as the statewide general election.”

SECTION 5 ADDITIONS TO CODE

Sections 2.42.020, 2.42.030, and 2.42.040 are hereby added to the Rancho Cordova Municipal Code to read as follows:

“2.42.020 City council by-district electoral system.

Pursuant to California Government Code Section 34886 and the schedule established in Section 2.42.010 of this Chapter, commencing with the November 2024, General Municipal Election, each member of the Rancho Cordova City Council shall be elected by district in five (5) single-member districts. The term “by districts” as used in this article shall mean election of members of the legislative body by voters of the district alone. The City’s by district election system shall be conducted in accordance with California Government Code Section 34871(a).

2.42.030 Establishment of city council election districts.

A. Pursuant to Section 2.42.030 of this Chapter, members of the Rancho Cordova City Council from Council Districts ■■■, ■■■, and ■■■ shall be elected on a by district basis as that term is defined in California Government Code Section 34871(a), beginning with the General Municipal Election in November 2024 and every four years thereafter, as such Council Districts may be amended from time to time pursuant to applicable law.

B. Pursuant to Section 2.42.030 of this Chapter, members of the Rancho Cordova City Council from Council Districts ■■■ and ■■■ shall be elected on a by district basis as that term is defined in California Government Code Section 34871(a), beginning with the

General Municipal Election in November 2026 and every four years thereafter, as such Council Districts may be amended from time to time pursuant to applicable law.

C. Except as provided in subsection (E) below, all candidates for the City Council and all appointed and elected Councilmembers shall fully comply with applicable law including but not limited to California Government Code Section 34882 and California Elections Code Section 201. Termination of residency in a Council District by a Councilmember shall create an immediate vacancy for that Council District unless a substitute residence within that District is established within thirty (30) calendar days after the termination of residency.

D. Only the registered voters residing in the Council District may vote for candidates running for City Council in that District.

E. Notwithstanding any other provision of this Section, each of the Councilmembers in office at the time this Chapter takes effect shall continue in office until the expiration of the full term to which they were elected and until their successor is qualified. Vacancies in Councilmember offices elected at-large at the time this Chapter takes effect may be filled by the City Council from the City at-large pursuant to applicable law until the expiration of that at-large term. At the end of the term of each Councilmember, that member's successor shall be elected on a by district basis in the Council Districts established herein and as subsequently reapportioned as provided by law. A vacancy in a Councilmember office elected by district shall be filled by a person qualified to hold the office in that vacant Council District pursuant to applicable law.

2.42.040 Map of council districts.

The City Clerk shall maintain a map of the City showing the current boundaries and numbers of each Council District as they are established and may be amended from time to time by ordinance of the City Council. The map of the initial Council Districts is attached hereto as Exhibit A and incorporated herein by reference."

SECTION 5 SCOPE

Except as set forth in this Ordinance, all other provisions of the Rancho Cordova Municipal Code shall remain in full force and effect.

SECTION 6 SEVERABILITY

If any section, subsection, sentence, clause, or phrase in this Ordinance or any part thereof is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such decision shall not impact the validity or effectiveness of the remaining portions of this Ordinance or any part thereof. The City Council declares that it would have passed each section irrespective of the fact that any one or more section, subsection, sentence, clause, or phrase be declared unconstitutional, invalid, or ineffective.

SECTION 7 EFFECTIVE DATE

Within fifteen (15) days after adoption, this Ordinance shall be published once in the Grapevine Independent, or the Sacramento Bee, a newspaper of general circulation printed and published in Sacramento County and circulated in the City of Rancho Cordova, in accordance with

ITEM 11.1.

ATTACHMENT 5

California Government Code Section 36933. This Ordinance shall take effect and be enforced thirty (30) days after its adoption.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the ____ day of _____ 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Linda Budge, Mayor

Stacy Leitner, CMC
City Clerk

MEMORANDUM



ITEM 11.2.

DATE: September 18, 2023
TO: Honorable Mayor and Council Members
FROM: Elizabeth Sparkman, Community Development Director
Erin Naderi, Management Analyst
SUBJECT: **RESOLUTIONS RELATED TO THE ANNEXATION OF STONECREEK INDUSTRIAL PROJECT TO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2014-2 (STREET, LIGHTING AND LANDSCAPING MAINTENANCE)**

RECOMMENDATION

Adopt the Resolutions.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolutions would authorize a land owner vote which, if successfully passed, authorizes the annexation and levy of a special tax on the Stonecreek Industrial Project included in CFD No. 2014-2 (Street, Lighting, and Landscaping Maintenance). The special tax is for the purpose of paying for the public services to maintain public infrastructure necessary or incident to development in the CFD. Adoption of the Resolutions would also result in the cessation of the special tax for this project under CFD 2008-1 (Street Lighting and Road Maintenance) under which this project was previously annexed.

BACKGROUND

On April 21, 2014, the City adopted a Resolution of Intention to establish a Community Facilities District (CFD) and Future Annexation Area for Citywide street, lighting, and landscape maintenance services. On June 2, 2014, the City adopted the resolution forming CFD No. 2014-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the "Act"). The action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided unanimous consent. Defining the future annexation area provided the resolution of intention, noticing, and public hearing for the entire future annexation area so these steps do not need to be repeated for each annexation.

Current Annexation

In April 2023, the City caused to be updated the Rate and Method of Apportionment for Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance), to include a rate for Heavy Truck Traffic Parcels. Based on the operational requirements of the recently approved Stonecreek Industrial project and in order to apply the updated rates for this

type of use, it is appropriate to annex the parcel(s) to Community Facilities District No. 2014-2. The property owner of the Stonecreek Industrial project has requested the City annex the project property into the Community Facilities District No. 2014-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 53311 et seq.) to provide the method of financing for public streets, lighting and landscaping maintenance. Because this project was not included in the Future Annexation Area for CFD 2014-2, the streamlined annexation process cannot be used. On August 7, 2023, the City Council adopted a Resolution of Intention to Annex the Stonecreek Industrial Project to CFD 2014-2 (Street, Lighting and Landscaping Maintenance).

Prior Annexation

On August 19, 2019, the City Council previously approved Resolution 94-2019, approving an Annexation Boundary Map for Stonecreek Industrial for Community Facilities District No. 2008-1 (Street Lighting and Road Maintenance) with subsequent actions to record the Boundary Map and record a Notice of Special Tax Lien. Completion of the annexation of the project into CFD 2014-2 will also require the recording of a Notice of Cessation of Special Taxes for the parcels from CFD 2008-1 (Street Lighting and Road Maintenance).

DISCUSSION

The Resolution of Intention to Annex adopted by the City Council on August 7, 2023 set at 5:30 pm on September 18, 2023, or as soon thereafter as the matter may be heard, for the public hearing on the annexation of the Stonecreek Industrial Project into CFD 2014-2 and the levy of the special tax. The documents attached to this report will complete the annexation and levy the special tax in CFD 2014-2 and also cease the special tax under CFD 2008-1.

Included in this package as “Item” is a guide for the Mayor to use to facilitate the required public hearing and landowner vote process. Consult this document for an agenda to be followed to conduct the hearing and for the adoption of the items needed to complete the formation of the CFD and to hold the election

The attachments included with this report are as follows:

1. Resolution calling the special election.
2. Resolution declaring results of the special election and directing recording of the notice of special tax lien under Community Facilities District No. 2014-2.
3. Supporting Documentation
 1. Order of proceedings
 2. Certificate of the City Clerk – Regarding the Waiver
 3. Certificate of the City Clerk – Regarding the Election Results
4. Resolution directing the recording of the Notice Cessation of the Special Tax Under Community Facilities District No. 2008-1.

Note that calling the election and actually having the election on the same night is allowed under CFD law due to the fact that all the landowners in the CFD have waived certain time requirements for proceeding to the election.

The following descriptions correspond to the Item numbers in the “Attachments” listing below:

Attachment 1. Resolution – A Resolution of the City Council of the City of Rancho Cordova

Calling Special Election. This sets the election for the same (September 18, 2023) Council meeting (allowable due to waivers of time requirements received from the property owners) and provides the form of the special ballot to be used by the landowner-voter.

Attachment 2. Resolution – A Resolution of the City Council of the City of Rancho Cordova Declaring Results of Special Election and Directing Recording of Notice of Special Tax Lien. This is for adoption by the Council after the vote is announced by the City Clerk. It confirms the outcome of the property owner election for annexation to CFD 2014-2. Attached to it is a copy of the official Canvass and Statement of Result of Election to be completed by the Clerk after the vote is announced. This resolution also directs the filing of the Notice of Special Tax Lien against the annexed lands in CFD 2014-2 to allow collection of the special tax on each property.

Attachment 3. Order of Proceedings for Hearing, Vote and Actions. This is the agenda to be followed to conduct the hearing and for the adoption of the items needed to complete the annexation of the project to CFD No. 2014-2, to hold the election and to take the final actions for the special tax.

Attachment 4. Certificate of City Clerk Regarding Waiver (of Certain Election Requirements) and Consent. This is to be completed by the City Clerk for the City's record in connection with the ballot/election procedure and acknowledges receipt of waivers from the property owners.

Attachment 5. Certificate of City Clerk Regarding Election Results. This is to be completed by the City Clerk for the City's record in connection with the opening of ballots and announcement of results.

Attachment 6. Resolution. A Resolution of the City Council of the City of Rancho Cordova Approving the Cessation of the Special Tax under CFD No. 2008-1. This resolution directs the City Clerk to record the Notice of Cessation of the Special Tax under CFD No. 2008-1.

FISCAL IMPACT AND FUNDING SOURCE

There is no impact to existing residents or the general fund.

ATTACHMENT(S)

1. Resolution Calling Special Landowner Election
2. Resolution Declaring Results and Recording of NSTL
3. Order of Proceedings
4. Certificate of City Clerk Regarding Waiver
5. Certificate of City Clerk Regarding Election Results
6. Resolution Approving Cessation of Tax Under CFD 2008-1

RESOLUTION NO. XX-2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA
CALLING SPECIAL LANDOWNER ELECTIONCITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street, Lighting and Landscaping Maintenance)

RESOLVED, by the City Council (the "Council") of the City of Rancho Cordova (the "City"), County of Sacramento, State of California as follows:

WHEREAS, this Council has adopted a Resolution entitled "A Resolution of the City Council of the City of Rancho Cordova of Intention to Annex the Stonecreek Industrial Project to the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) (the "Resolution to Annex"); and

WHEREAS, pursuant to the provisions of the Resolution to Annex, the propositions of the levy of the special tax shall be submitted to the qualified electors of the CFD as required by the provisions of the Act.

NOW THEREFORE, IT IS HEREBY ORDERED as follows:

1. **Issues Submitted.** Pursuant to the Act, the issue of the levy of the special tax shall be submitted to the qualified electors (as defined below) of the CFD at an election called therefore as provided below.

2. **Qualified Electors.** This Council hereby finds that fewer than 12 persons have been registered to vote within the territory of the annexation to the CFD for each of the ninety (90) days preceding the close of the public hearings heretofore conducted and concluded by this Council for the purposes of these proceedings. Accordingly, and pursuant to Section 53326 of the Act, this Council finds that, for these proceedings, the qualified electors are the landowners within the CFD and that the vote shall be by such landowners or their authorized representatives, each having one vote for each acre or portion thereof such landowner owns in the CFD as of the close of the public hearing.

3. **Conduct of Election.** This Council hereby calls a special election to consider the issues described in section 2, above, which election shall be held on September 18, 2023, and the results thereof canvassed at the meeting of this Council on September 18, 2023. The City Clerk is hereby designated as the official to conduct the election and to receive all ballots until the close of business on the election date. It is hereby acknowledged that the Clerk has on file the Resolution of Intention to Annex, a map of the boundaries of the annexation area, and a sufficient description to allow the Clerk to determine the electors of the CFD. Pursuant to Section 53327 of the Act, the election shall be conducted by messenger or mail-delivered ballot pursuant to Section 4000 of the California Elections Code. This Council hereby finds that paragraphs (a), (b) and (c) (1) of Section 4000 are applicable to this special election.

4. **Ballot.** As authorized by Section 53353.5 of the Act, the issues described in Section 1 above shall be combined into a single ballot measure, the form of which as attached hereto as Exhibit "A" is hereby approved. The City Clerk is hereby authorized and directed to cause a ballot, in substantially the form of Exhibit "A", to be delivered to each of the qualified electors of the CFD. Each ballot shall indicate the number of votes to be voted by the respective landowner to which the ballot pertains. Each ballot shall be accompanied by all supplies and written instructions necessary for the use and return of the ballot. The envelope to be used to return the ballot shall be enclosed with the ballot, have the return postage prepaid, and contain the following: (a) the name and address of the landowner, (b) a declaration, under

penalty of perjury, stating that the voter is the owner of record or authorized representative of the landowner entitled to vote and is the person whose name appears on the envelope, (c) the printed name, signature and address of the voter, (d) the date of signing and place of execution of the declaration pursuant to clause (b) above, and (e) a notice that the envelope contains an official ballot.

5. **Waivers.** This Council hereby further finds that the provisions of Section 53326 of the Act requiring a minimum of 90 days following the adoption of the Resolution of Intention to Annex to elapse before the special election are for the protection of the qualified electors of the CFD. There is on file with the Clerk a written waiver executed by all of the qualified electors of the CFD allowing for a shortening of the time for the special election to expedite the process of annexation of the CFD and waiving any requirement for notice, analysis and arguments in connection with the election. Accordingly, this Council finds and determines that the qualified electors have been fully apprised of and have agreed to the shortened time for the election and waiver of analysis and arguments, and have thereby been fully protected in these proceedings. This Council also finds and determines that the City Clerk has concurred in the shortened time for the election. Analysis and arguments with respect to the ballot measures are hereby waived, as provided in Section 53327 of the Act.

6. **Accountability.** Under Section 50075.1 of the Government Code, the following accountability provisions shall apply to the special taxes: (a) the providing of services in addition to those presently provided within the CFD, all as defined in the Resolution of to Annex, shall constitute the specific single purpose; (b) the proceeds shall be applied only to the specific purposes identified in (a) above; (c) there shall be created special account(s) or funds(s) into which the proceeds shall be deposited; and (d) there shall be caused to be prepared an annual report if required by Section 50075.3 of the Government Code.

7. **Effective Date.** This Resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, CMC
City Clerk

**Form of
OFFICIAL BALLOT
SPECIAL TAX ELECTION**

**CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING AND LANDSCAPING MAINTENANCE)**

Number of Votes: 41

Property Owner: DPML STONECREEK, LLC

According to the provisions of the Mello-Roos Community Facilities Act of 1982, and the resolutions of the City Council of the City of Rancho Cordova, the above-named landowner is entitled to cast the number votes specified above on this ballot. In order to be counted, this ballot must be certified below and be returned, either by mail or in person, before the end of the public hearing on September 18th, 2023, to:

Stacy Leitner, City Clerk
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Mailing by that date will not be sufficient. The ballot must be physically received by the City Clerk prior to the deadline in order to be counted.

To vote, mark a cross (X) on the voting line after the word "YES" or after the word "NO". All marks otherwise made are forbidden. All distinguishing marks are forbidden and make the ballot void.

If you wrongly mark, tear, or deface this ballot, return it to the City Clerk of the City of Rancho Cordova and obtain another.

BALLOT MEASURE

BALLOT MEASURE: Shall the City Council of the City of Rancho Cordova be authorized to annex and levy a special tax on the Stonecreek Industrial project within the City's Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) (the "CFD") in accordance with the rate and method contained in the Resolution of Annexation of the CFD adopted by the Council of the City on August 7, 2023, annually, commencing in the City's fiscal year 2023-24, to finance certain public services for the CFD?

YES: _____

NO: _____

By execution in the space provided below, you also confirm your written waiver of the time limit pertaining to the conduct of the election and any requirement for analysis and arguments with respect to the ballot measure.

Certification

The undersigned is the authorized representative of the above-named landowner and is the person legally authorized and entitled to cast this ballot on behalf of the above-named landowner.

Property Owner:

By: _____
Signature

Print name

Print title

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-XXX

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA
DECLARING RESULTS OF SPECIAL LANDOWNER ELECTION
AND DIRECTING RECORDING OF NOTICE OF SPECIAL TAX LIEN**

**CITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street, Lighting and Landscaping Maintenance)**

RESOLVED, by the City Council (the "Council") of the City of Rancho Cordova (the "City"), County of Sacramento, State of California as follows:

WHEREAS, this Council has adopted a resolution entitled "A Resolution of the City Council of the City of Rancho Cordova of Intention to Annex the Stonecreek Industrial Project to the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) (the "CFD") and authorizing the levy of a special tax on property within the Annexation Area and, pursuant to the Mello-Roos Community Facilities Act, Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing with Section 53311, of the California Government Code (the "Act").

WHEREAS, under to the provisions of the Resolution of Intention to Annex and pursuant to a Resolution of the City Council of the City of Rancho Cordova Calling Special Landowner Election (the "Election Resolution") heretofore adopted by this Council, the propositions of the levy of the special tax was submitted to the qualified electors of the Annexation Area as required by the provisions of the Act.

WHEREAS, pursuant to the terms of the Election Resolution, which are by this reference incorporated herein, the special election has been held and the City Clerk has on file a Canvass and Statement of Results of Election, (the "Canvass") a copy of which is attached hereto as Exhibit A; and

WHEREAS, this Council has been informed of the Canvass, finds it appropriate and wishes to complete its proceedings for the annexation to the CFD.

NOW, THEREFORE, IT IS HEREBY ORDERED as follows:

1. **Recitals.** The foregoing recitals are all true and correct.
2. **Issues Presented.** The issues presented at the special election were the levy of a special tax within the CFD.
3. **Canvass and Issues Approved.** The Council hereby approves the Canvass and finds that it shall be a permanent part of the record of its proceedings for the annexation to the CFD. Pursuant to the Canvass, the issues presented at the special election were approved by the qualified electors of the annexation area to the CFD by more than two-thirds (2/3) of the votes cast at the special election.

4. **Proceedings Approved.** Pursuant to the voter approval, the annexation to the CFD is hereby declared to be completed with the authority to levy the special taxes, all as heretofore provided in these proceedings and in the Act. It is hereby found that all prior proceedings and actions taken by this Council with respect to the annexation to the CFD were valid and in conformity with the Act.

5. **Notice of Tax Lien.** The City Clerk is hereby directed to complete, execute and cause to be recorded in the office of the County Recorder of the County of Sacramento a notice of special tax lien in the form required by the Act, such recording to occur no later than fifteen (15) days following adoption of this resolution by the Council.

6. **Effective Date.** This Resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September, 2023, by the following vote of the City Council:

AYES:

NOES:

ABSENT:

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, CMC
City Clerk

EXHIBIT A

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
Attention: City Clerk

AMENDED NOTICE OF SPECIAL TAX LIEN

Pursuant to the requirements of Section 3114.5 of the Streets and Highways Code and Section 53328.3 of the Government Code, the undersigned clerk of the legislative body of the City of Rancho Cordova (the "City"), State of California, hereby gives notice that a lien to secure payment of special taxes is hereby imposed by the City Council of the City. The special taxes secured by this lien are authorized to be levied for the purpose of providing services as described in Exhibit A attached hereto and hereby made a part hereof.

The special taxes are authorized to be levied within Annexation Boundary Map No. 15 (the "Annexed Area") of the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting, and Landscaping Maintenance) (the "District"), which has now been officially annexed to the District, and the lien of the special taxes are a continuing lien which shall secure each annual levy of the special taxes and which shall continue in force and effect until the special taxes cease to be levied and a notice of cessation of special taxes is recorded in accordance with Section 53330.5 of the Government Code.

The rate, method of apportionment, and manner of collection of authorized special tax is as set forth in Exhibit B attached hereto and hereby made a part hereof. The obligation to pay the special tax may not be prepaid and permanently satisfied and the lien of the special taxes canceled.

Notice is further given that upon the recording of this notice in the office of the county recorder, the obligation to pay the special tax levies shall become a lien upon all nonexempt real property within the District in accordance with Section 3115.5 of the Streets and Highways Code.

The name of the owner and the assessor's tax parcel number(s) of the real property included within the District and not exempt from the special tax are as set forth in Exhibit C attached hereto.

Reference is hereby made to the Notice of Special Tax Lien with respect to the District recorded on June 17, 2014, as Document No. 20140617 page 353, in the office of the County Clerk & Recorder of the County of Sacramento, California, which contains

a list of the then existing owners and assessor tax parcel numbers of the original boundaries of the District.

Reference is made to the boundary map of the District recorded at Book 116, Pages 0023-0024, Document No. 20140430 Pg0873 of Maps and Assessment and Community Facilities Districts in the Office of the County Recorder for the County of Sacramento, State of California (the "Original Boundary Map"), and the map of the Annexed Territory recorded at Book 141, Page 31, Document No. 202308220415 in the Office of the County Recorder for the County of Sacramento, State of California, which map together with the Original Boundary Map and the boundary maps of record for all prior annexations, are now the final boundary maps of the Community Facilities District including the Annexed Territory.

For further information concerning the current and estimated future tax liability of owners or purchasers of real property subject to this special tax lien, interested persons should contact the Department of Public Works of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California 95670, (916) 851-8710.

Dated: _____

CITY CLERK OF THE CITY OF
RANCHO CORDOVA

EXHIBIT A

**CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(Streets, Lighting, and Landscaping Maintenance)**

DESCRIPTION OF DISTRICT MAINTENANCE SERVICES

Description of services:

Maintenance of public street, lighting, and landscaping improvements

- Maintenance means the furnishing of services and materials for the replacement of public street, lighting and landscaping improvements, and appurtenant facilities, including the administration and overhead related to the maintenance activities.

Reserve Fund

- The CFD special taxes may be collected and set-aside in designated funds, collected over several years, that may be used by the CFD to fund future replacement of public streets, lighting and landscaping improvements and other services as determined by the CFD.

EXHIBIT B**CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING AND LANDSCAPING MAINTENANCE)****RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX
FOR ANNEXATION NO. 15 (STONECREEK INDUSTRIAL)**

A Special Tax applicable to each Assessor's Parcel in Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) shall be levied and collected according to the tax liability determined by the City Council, acting in its capacity as the legislative body of CFD No. 2014-2, through the application of the appropriate Special Tax rate, as described below. All of the property in CFD No. 2014-2, unless exempted by law or by the provisions of Section E below, shall be taxed for the purposes, to the extent, and in the manner herein provided, including property subsequently annexed to CFD No. 2014-2 unless a separate Rate and Method of Apportionment of Special Tax is adopted for the annexation area.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Acre or Acreage" means the land area of an Assessor's Parcel as shown on an Assessor's Parcel Map, or if the land area is not shown on an Assessor's Parcel Map, the land area shown on the applicable final subdivision map, a final parcel map, a final approved condominium plan, or functionally equivalent final map or instrument recorded in the Office of the County Recorder. If the area shown on said map is in square footage, Acreage shall be calculated by dividing the square footage by 43,560.

"Additional Load and Decorative Lighting Parcel" means any Parcel that is determined by the City to be both an Additional Load Parcel and a Decorative Lighting Parcel.

"Additional Load Parcel" means any Parcel of Commercial Property or Industrial Property that is determined by the City to create excessive wear and tear on the roadways and/or a high volume of vehicular traffic.

"Administrative Expenses" means the costs incurred by the City to determine, levy and collect the Special Tax, including salaries of City employees and fees of consultants and the costs of collecting installments of the Special Taxes upon the general tax rolls, preparation of required reports, and any other costs required to administer the CFD.

"Administrator" means the person or firm designated by the City to administer the Special Taxes according to this Rate and Method of Apportionment of Special Tax.

“Annual Escalation Factor” means the annual percentage increase in the McGraw-Hill Engineering News Record Construction Cost Index (ENR CCI) for the San Francisco area from January of the previous year to January of the year that the Special Tax is levied. In the event that the ENR CCI defined above is no longer reported, the City Council shall select a similar index to replace it.

“Assessor’s Parcel” or **“Parcel”** means a lot or parcel shown in an Assessor’s Parcel Map with an assigned Assessor’s Parcel number.

“Assessor’s Parcel Map” means an official map of the County Assessor designating parcels by Assessor’s Parcel number.

“Authorized Services” means the public services authorized to be funded by CFD No. 2014-2 as set forth in the documents adopted by the City Council when the CFD was formed.

“CFD” or **“CFD No. 2014-2”** means the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance).

“City” means the City of Rancho Cordova.

“City Council” means the City Council of the City of Rancho Cordova, acting as the legislative body of CFD No. 2014-2.

“Commercial Property” means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a commercial establishment which includes, but is not limited to, retail stores, clothing stores, book stores, convenience stores, drug stores, professional services (i.e., barber shops, dry cleaners), restaurants, supermarkets, hospitals, movie theaters, appliance and electronics stores, home supply stores, auto parts stores, and other retail uses. The City shall make the determination if a Parcel is Commercial Property.

“County” means the County of Sacramento.

“Decorative Lighting Parcel” means any Parcel of Developed Property that is determined by the City to have or benefit from decorative lighting features.

“Developed Property” means, in any Fiscal Year, all Parcels of Taxable Property for which a use permit or building permit for new construction of a residential or non-residential structure (which shall not include a permit issued solely for construction of the foundation if another permit remains to be issued for vertical construction of the building) was issued prior to June 30 of the preceding Fiscal Year.

“Fiscal Year” means the period starting on July 1 and ending on the following June 30.

“Heavy Truck Traffic Parcel” means, any Parcel of Developed Property that is determined by the City to have heavy truck traffic impact on the public streets and include, but are not limited to, fulfillment centers, logistics centers, freight, truck terminals, and other facilities intended for the

movement of goods (manufactured or raw) prior to their distribution.

“Hotel Property” means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a structure that constitutes a place of lodging providing sleeping accommodations and related facilities for travelers.

“Industrial Property” means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for construction of an industrial, manufacturing, or warehousing structure, fulfillment centers, logistics centers, freight, truck terminals, and other facilities intended for the movement of goods (manufactured or raw) prior to their distribution. The City shall make the determination if a Parcel is Industrial Property.

“Maximum Special Tax” means the greatest amount of Special Tax that can be levied on an Assessor’s Parcel in any Fiscal Year determined in accordance with Section C below.

“Micro-Unit Property” means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for construction of a residential structure with five (5) or more Units of approximately 800 square feet of floor area or less for each such Unit that share a single Assessor’s Parcel number, all of which are offered for rent to the general public and cannot be purchased by individual homebuyers.

“Multi-Family Property” means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for construction of a residential structure with five (5) or more Units that share a single Assessor’s Parcel number, all of which are offered for rent to the general public and cannot be purchased by individual homebuyers.

“Non-Residential Property” means, collectively, Commercial Property, Hotel Property, Industrial Property, and Office Property.

“Office Property” means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for a building in which professional, banking, insurance, real estate, administrative or in-office medical or dental activities are conducted. The City shall make the determination if a Parcel is Office Property.

“Ordinary Use Parcel” means any Parcel of Taxable Property that is not an Additional Load Parcel, Decorative Lighting Parcel, Residential Alley Parcel, Additional Load and Decorative Lighting Parcel, Residential Alley and Decorative Lighting Parcel, Private Street Parcel, 50/50 Public & Private Residential Street Parcel, or Heavy Truck Traffic Parcel.

“Private Street Parcel” means, any Taxable Property where all or the majority of the residential streets are private within the development and the maintenance of the residential components are not funded by the CFD or by the federal government, State of California, County, City, or other public agency.

“50/50 Public & Private Residential Street Parcel” means, any Taxable Property where there is a fairly even split of public and private streets associated with a development.

“Proportionately” means that the ratio of the actual Special Tax levy to the Maximum Special Tax is equal for all Parcels of Developed Property.

“Public Property” means any property within the boundaries of CFD No. 2014-2 that is owned by the federal government, State of California, County, City, or other public agency.

“Residential Alley and Decorative Lighting Parcel” means any Parcel that is determined by the City to be both a Residential Alley Parcel and a Decorative Lighting Parcel.

“Residential Alley Parcel” means any Parcel of Residential Property that is determined by the City to have residential alleys that are part of the public roadways.

“Residential Property” means, collectively, Single Family Attached Property, Single Family Detached Property, Multi-Family Property, and Micro-Unit Property.

“Single Family Attached Property” means, in any Fiscal Year, all Parcels of Developed Property for which a building permit was issued for construction of a residential structure consisting of two (2) to four (4) Units that share common walls, have separate Assessor’s Parcel numbers assigned to them (except for a duplex unit, which may share an Assessor’s Parcel with another duplex unit), and are offered as for-sale Units (which shall still be the case even if the Units are purchased and subsequently offered for rent by the owner of the Unit(s)), including such residential structures that meet the statutory definition of a condominium contained in Civil Code Section 1351.

“Single Family Detached Property” means, in any Fiscal Year, all Parcels of Developed Property for which a building permit was issued for construction of a Unit that does not share a common wall with another Unit.

“Soundwall Parcel” means any Parcel of Developed Property whose tract boundary is encompassed by soundwalls maintained within the CFD.

“Special Tax Requirement” means the amount of revenue needed in any Fiscal Year to pay for the following: (i) Authorized Services, (ii) Administrative Expenses, and (iii) amounts needed to cure any delinquencies in the payment of Special Taxes which have occurred or (based on delinquency rates in prior years) may be expected to occur in the Fiscal Year in which the tax will be collected.

“Special Tax” means a special tax levied in any Fiscal Year on property within CFD No. 2014-2 to pay the Special Tax Requirement.

“Square Foot,” “Square Footage,” or “Square Feet” means the building square footage reflected on the original building permit issued for construction of a building.

“Taxable Property” means all Assessor’s Parcels within the boundaries of CFD No. 2014-2

which are not exempt from the Special Tax pursuant to law or Section E below.

“Taxable Public Property” means, in any Fiscal Year, all Assessor’s Parcels in CFD No. 2014-2 that had, in prior Fiscal Years, been taxed as Developed Property and subsequently came under the ownership of a public agency.

“Tax Zone” means a mutually exclusive tax zone identified in Attachment 1 of this Rate and Method of Apportionment of Special Tax, as may be updated to include new Parcels or new tax zones added to the CFD as a result of future annexations.

“Unit” means an individual single-family detached unit or an individual residential unit within a duplex, triplex, fourplex, townhome, condominium, or apartment structure. Unit shall also mean a rentable single hotel room or rentable unit on a Parcel of Hotel Property.

B. DATA COLLECTION FOR ANNUAL TAX LEVY

Each Fiscal Year, the Administrator shall identify the current Assessor’s Parcel number for all Parcels of Taxable Property within CFD No. 2014-2 and shall determine within which Tax Zone each Assessor’s Parcel is located. Upon each annexation of property into CFD No. 2014-2, the Administrator shall update Attachment 1 to include the new Assessor’s Parcel number(s). In addition, for all Parcels of Developed Property, if applicable to the Tax Zone in which the Parcels are located, the Administrator shall determine if each Parcel is an Ordinary Use Parcel, an Additional Load Parcel, a Residential Alley Parcel, a Decorative Lighting Parcel, an Additional Load and Decorative Lighting Parcel, a Residential Alley and Decorative Lighting Parcel, Private Street Parcel, 50/50 Public & Private Residential Street Parcel, or a Heavy Truck Traffic Parcel.

Based on review of building permit records for property within the CFD, the Administrator shall determine which Parcels in the CFD are Developed Property for purposes of levying the Special Tax pursuant to Section D below. For Single Family Attached Property, Multi-Family Property, Micro-Unit Property, and Hotel Property, the number of Units shall be determined by referencing the condominium plan, apartment plan, site plan or other development plan for the property. For Residential Property, the Administrator shall determine the Square Footage of each Unit. For Non-Residential Property, the Administrator shall determine the Acreage of, and Square Footage on, each Parcel.

If a Parcel in the CFD is rezoned prior to such Parcel becoming Developed Property, the City may in its sole discretion, move the Parcel to a different Tax Zone based on the rezone. If a Parcel rezones after the Parcel has been taxed as Developed Property in prior Fiscal Years, the City can either continue to apply the Maximum Special Tax to the Parcel that had applied prior to the rezone or, in the City’s sole discretion, allow for the Parcel to be moved to a different Tax Zone based on the rezone.

In any Fiscal Year, if it is determined that (i) a parcel map for a portion of property in CFD No. 2014-2 was recorded after January 1 of the prior Fiscal Year (or any other date after which the Assessor

will not incorporate the newly-created Parcels into the then current tax roll), (ii) because of the date the parcel map was recorded, the Assessor does not yet recognize the new Parcels created by the parcel map, and (iii) one or more of the newly-created Parcels meets the definition of Developed Property, the Administrator shall calculate the Special Tax for the property affected by recordation of the parcel map by determining the Special Tax that applies separately to each newly-created Parcel, then applying the sum of the individual Special Taxes to the Parcel that was subdivided by recordation of the parcel map.

C. MAXIMUM SPECIAL TAX

1. All Tax Zones

The following Maximum Special Taxes apply to all Parcels of Developed Property within each Tax Zone of CFD No. 2014-2, unless otherwise specified in Attachment 1.

a. Ordinary Use Parcel

**MAXIMUM SPECIAL TAXES
ORDINARY USE PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$491.78
Single Family Attached Property	per Unit	\$388.50
Multi-Family Property	per Unit	\$280.31
Micro-Unit Property	per Unit	\$186.97
Commercial Property	per 1,000 Sq. Ft.	\$733.73
Hotel Property	per Unit	\$290.15
Industrial Property	per 1,000 Sq. Ft.	\$221.30
Office Property	per 1,000 Sq. Ft.	\$732.75

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

b. Residential Alley Parcel

**MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$533.89
Single Family Attached Property	per Unit	\$421.77
Multi-Family Property	per Unit	\$304.32
Micro-Unit Property	per Unit	\$202.98
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

c. Decorative Lighting Parcel

**MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$499.30
Single Family Attached Property	per Unit	\$394.44
Multi-Family Property	per Unit	\$284.60
Micro-Unit Property	per Unit	\$189.83
Commercial Property	per 1,000 Sq. Ft.	\$744.95
Hotel Property	per Unit	\$294.58
Industrial Property	per 1,000 Sq. Ft.	\$224.68
Office Property	per 1,000 Sq. Ft.	\$743.95

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

d. Additional Load Parcel

**MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	N/A
Single Family Attached Property	per Unit	N/A
Multi-Family Property	per Unit	N/A
Micro-Unit Property	per Unit	N/A
Commercial Property	per 1,000 Sq. Ft.	\$761.58
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	\$229.70
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

e. Soundwall Parcel

**MAXIMUM SPECIAL TAXES
SOUNDWALL PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$512.68
Single Family Attached Property	per Unit	\$405.02
Multi-Family Property	per Unit	\$292.22
Micro-Unit Property	per Unit	\$194.91
Commercial Property	per 1,000 Sq. Ft.	\$764.92
Hotel Property	per Unit	\$302.48
Industrial Property	per 1,000 Sq. Ft.	\$230.71
Office Property	per 1,000 Sq. Ft.	\$763.90

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

f. Additional Load and Decorative Lighting Parcel

**MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD AND DECORATIVE LIGHTING PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	N/A
Single Family Attached Property	per Unit	N/A
Multi-Family Property	per Unit	N/A
Micro-Unit Property	per Unit	N/A
Commercial Property	per 1,000 Sq. Ft.	\$772.80
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	\$233.08
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

g. Residential Alley and Decorative Lighting Parcel

**MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND DECORATIVE LIGHTING PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$541.41
Single Family Attached Property	per Unit	\$427.72
Multi-Family Property	per Unit	\$308.60
Micro-Unit Property	per Unit	\$205.84
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

h. Residential Alley and Soundwall Parcel

**MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND SOUNDWALL PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$558.08
Single Family Attached Property	per Unit	\$440.89
Multi-Family Property	per Unit	\$318.11
Micro-Unit Property	per Unit	\$212.18
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

i. Decorative Lighting and Soundwall Parcel

**MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING AND SOUNDWALL PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$520.02
Single Family Attached Property	per Unit	\$410.80
Multi-Family Property	per Unit	\$296.41
Micro-Unit Property	per Unit	\$197.70
Commercial Property	per 1,000 Sq. Ft.	\$775.85
Hotel Property	per Unit	\$306.80
Industrial Property	per 1,000 Sq. Ft.	\$234.00
Office Property	per 1,000 Sq. Ft.	\$774.82

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

j. Residential Alley, Decorative Lighting, and Soundwall Parcel

**MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY, DECORATIVE LIGHTING AND SOUNDWALL PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$561.81
Single Family Attached Property	per Unit	\$443.82
Multi-Family Property	per Unit	\$320.22
Micro-Unit Property	per Unit	\$213.59
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

k. Private Street Parcel

**MAXIMUM SPECIAL TAXES
PRIVATE STREET PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$323.10
Single Family Attached Property	per Unit	\$255.24
Multi-Family Property	per Unit	\$184.16
Micro-Unit Property	per Unit	\$122.84
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

I. 50/50 Public & Private Residential Street Parcel

**MAXIMUM SPECIAL TAXES
50/50 PUBLIC & PRIVATE STREET PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$407.19
Single Family Attached Property	per Unit	\$321.68
Multi-Family Property	per Unit	\$232.10
Micro-Unit Property	per Unit	\$154.81
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	N/A
Office Property	per 1,000 Sq. Ft.	N/A

On July 1st following the Fiscal Year rate above, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

m. Heavy Truck Traffic Parcel

**MAXIMUM SPECIAL TAXES
HEAVY TRUCK TRAFFIC PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	N/A
Single Family Attached Property	per Unit	N/A
Multi-Family Property	per Unit	N/A
Micro-Unit Property	per Unit	N/A
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	\$317.99
Office Property	per 1,000 Sq. Ft.	N/A

D. METHOD OF LEVY AND COLLECTION OF SPECIAL TAX

Each Fiscal Year, the Special Tax shall be levied as follows until the amount of the levy equals the Special Tax Requirement for that Fiscal Year:

- First:** The Special Tax shall be levied proportionately on each Parcel of Developed Property up to 100% of the Maximum Special Tax determined for each category of Developed Property within the CFD and each Tax Zone until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.
- Second:** If additional revenue is needed after the first step has been completed, the Special Tax shall be levied proportionately on each Parcel of Taxable Public Property up to 100% of the Maximum Special Tax that would have applied to the Parcel had the Parcel not become Public Property until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.

The Special Tax for CFD No. 2014-2 shall be collected at the same time and in the same manner as ordinary ad valorem property taxes provided, however, that the City may (under the authority of Government Code Section 53340) collect Special Taxes at a different time or in a different manner if necessary to meet CFD No. 2014-2 financial obligations and the Special Tax shall be equally subject to foreclosure if delinquent.

E. LIMITATIONS Notwithstanding any other provision of this Rate and Method of Apportionment of Special Tax, no special Tax shall be levied on (i) any Parcel of Public Property that is not Taxable public Property, and (ii) any Parcel in CFD No. 2014-2 that is not Developed Property.

F. DURATION OF SPECIAL TAX

The Special Tax shall be levied in perpetuity to fund the Special Tax Requirement, unless no longer required as determined at the sole discretion of the City Council.

G. INTERPRETATION OF SPECIAL TAX FORMULA

The City reserves the right to make minor administrative and technical changes to this document that does not materially affect the Rate and Method of Apportionment of Special Taxes. In addition, the interpretation and application of any section of this document shall be left to the City's discretion. The City may make interpretations by ordinance or resolution for purposes of clarifying any vagueness or ambiguity in this Rate and Method of Apportionment of Special Taxes.

ATTACHMENT 1

**CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING AND LANDSCAPING MAINTENANCE)**

IDENTIFICATION OF TAX ZONES

TAX ZONE 1

Assessor's Parcels Included in Tax Zone 1 *	Fiscal Year In Which Property Was Added to CFD No. 2014-2
067-1210-001 through 067-1210-055 067-1220-001 through 067-1220-059 067-1230-001 through 067-1230-060	2013-14

Tax Zone 1 – Maximum Special Taxes

The Maximum Special Taxes for Zone 1 do not incorporate the long-term maintenance activities which are included as a part of CFD No. 2014-1. On July 1 of each Fiscal Year thereafter, the Maximum Special Taxes shall be increased by the Annual Escalation Factor.

**MAXIMUM SPECIAL TAXES
SOUNDWALL AND DECORATIVE LIGHTING PARCEL
(EXCLUDING LONG-TERM MAINTENANCE)
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$367.21
Single Family Attached Property	per Unit	\$290.10
Multi-Family Property	per Unit	\$209.32
Commercial Property	per 1,000 Sq. Ft.	\$275.56
Hotel Property	per Unit	\$216.65
Industrial Property	per 1,000 Sq. Ft.	\$165.24
Office Property	per 1,000 Sq. Ft.	\$275.56

TAX ZONE 2

Assessor's Parcels Included in Tax Zone 2*			Fiscal Year in Which Property was Added to CFD No. 2014-2
067-1050-001	Through	067-1050-009	2016-17
072-2870-001	Through	072-2870-072	2014-15
072-2880-001	Through	072-2880-082	
072-2890-001	Through	072-2890-088	
072-2900-001	Through	072-2900-080	
072-2910-001	Through	072-2910-083	
072-2920-001	Through	072-2920-069	
072-2940-001	Through	072-2940-066	
072-2950-001	Through	072-2950-063	
072-2960-001	Through	072-2960-065	

Tax Zone 2 – Maximum Special Taxes

These Maximum Special Taxes include the maintenance of street lighting only. On July 1 of each Fiscal Year thereafter, the Maximum Special Taxes shall be increased by the Annual Escalation Factor.

**MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING ONLY
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$49.86
Single Family Attached Property	per Unit	\$49.86
Multi-Family Property	per Unit	\$206.01
Commercial Property	per 1,000 Sq. Ft.	\$275.56
Hotel Property	per Unit	\$213.28
Industrial Property	per 1,000 Sq. Ft.	\$162.67
Office Property	per 1,000 Sq. Ft.	\$275.56

TAX ZONE 3

Assessor's Parcels Included in Tax Zone 3*			Fiscal Year in Which Property was Added to CFD No. 2014-2
067-1070-001	Through	067-1070-059	2016-17
067-1090-001	Through	067-1090-089	
067-1060-003	Through	067-1060-004	2017-18
067-1170-001	Through	067-1170-085	
067-1180-001	Through	067-1180-016	
067-1190-001	Through	067-1190-066	
067-1200-001	Through	067-1200-054	
067-1100-008			2018-19
067-1240-001	Through	067-1240-048	
067-1250-001	Through	067-1250-108	
067-1100-005	Through	067-1100-007	
067-1120-001	Through	067-1120-027	
067-1130-001	Through	067-1130-176	
067-1140-001	Through	067-1140-038	
067-1080-007	Through	067-1080-017	
067-1150-001	Through	067-1150-080	
067-1160-001	Through	067-1160-065	
067-1260-001	Through	067-1260-061	
067-1270-001	Through	067-1270-113	
067-1280-001	Through	067-1280-094	
067-1290-001	Through	067-1290-032	

Tax Zone 3 – Maximum Special Taxes

These Maximum Special Taxes include the maintenance of soundwalls. On July 1 of each Fiscal Year thereafter, commencing July 1, 2015, the Maximum Special Taxes shall be increased by the Annual Escalation Factor.

**MAXIMUM SPECIAL TAXES
SOUNDWALL PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	\$512.68
Single Family Attached Property	per Unit	\$405.02
Multi-Family Property	per Unit	\$292.22
Commercial Property	per 1,000 Sq. Ft.	\$764.92
Hotel Property	per Unit	\$302.48
Industrial Property	per 1,000 Sq. Ft.	\$230.71
Office Property	per 1,000 Sq. Ft.	\$763.90

TAX ZONE 4

Assessor's Parcels Included in Tax Zone 4*	Fiscal Year in Which Property was Added to CFD No. 2014-2
072-4050-017 Through 072-4050-029	2022-23

Tax Zone 4 – Maximum Special Taxes

These Maximum Special Taxes include the maintenance of streets determined by the City to have a heavy impact on the public streets. On July 1 of each Fiscal Year thereafter, commencing July 1, 2024, the Maximum Special Taxes shall be increased by the Annual Escalation Factor.

**MAXIMUM SPECIAL TAXES
HEAVY TRUCK TRAFFIC PARCEL
(FISCAL YEAR 2022-23)**

Land Use Class		Rate
Single Family Detached Property	per Unit	N/A
Single Family Attached Property	per Unit	N/A
Multi-Family Property	per Unit	N/A
Micro-Unit Property	per Unit	N/A
Commercial Property	per 1,000 Sq. Ft.	N/A
Hotel Property	per Unit	N/A
Industrial Property	per 1,000 Sq. Ft.	\$317.99
Office Property	per 1,000 Sq. Ft.	N/A

* The property identified by the Assessor's Parcel Numbers listed above shall remain part of the identified Tax Zone regardless of changes in the configuration of the Assessor's Parcels or changes to APNs in future Fiscal Years. As APNs change, the City may update Attachment 1 to reflect the most current APNs and Tax Zones consistent with the categories of Developed Property set forth in the Rate and Method of Apportionment of Special Tax for CFD No. 2014-2.

EXHIBIT C

OWNER AND THE ASSESSOR'S TAX PARCEL NUMBER(S)

<u>Parcel No.</u>	<u>Property Owner</u>
072-3800-001	DPML STONECREEK, LLC.
072-3800-002	DPML STONECREEK, LLC.
072-3800-003	DPML STONECREEK, LLC.
072-3800-004	DPML STONECREEK, LLC.
072-3800-005	DPML STONECREEK, LLC.
072-3800-006	DPML STONECREEK, LLC.
072-3800-007	DPML STONECREEK, LLC.
072-3800-008	DPML STONECREEK, LLC.
072-3800-009	DPML STONECREEK, LLC.
072-3800-010	DPML STONECREEK, LLC.
072-3800-011	DPML STONECREEK, LLC.
072-3800-012	DPML STONECREEK, LLC.
072-3800-013	DPML STONECREEK, LLC.
072-3800-014	DPML STONECREEK, LLC.
072-3800-015	DPML STONECREEK, LLC.
072-3800-016	DPML STONECREEK, LLC.
072-3800-017	DPML STONECREEK, LLC.
072-3800-018	DPML STONECREEK, LLC.

**City of Rancho Cordova
Community Facilities District No. 2014-2
(Street, Lighting and Landscaping Maintenance)**

ORDER OF PROCEEDINGS FOR HEARING, VOTE AND ACTIONS

The Mayor makes the following opening remarks:

“This is the time and place for the public hearing in this Council's proceedings for Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance). The hearing is to inquire into the annexation and the levy of special taxes on the Stonecreek Industrial project. Before I formally open the hearings, are there any property owners or registered voters in the District who wish to file written protests? If so, they must be filed with the City Clerk now.”

[Pause to see if there are any protests.]

“The hearing is now open., We will receive comments and questions and any oral protests from any interested persons. When all comments have been received the hearing will be closed.”

Mayor asks for comments, questions and protests from audience.

When no more comments, Mayor closes the hearing and says:

“There being no formal protests submitted by the property owners on the matter before us, we may now consider and conduct the actions related to the special property owner election for annexation of the Stonecreek Industrial Project to the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance)”

Council considers and ADOPTS:

A Resolution of the City Council of the City of Rancho Cordova Calling Special Property Owner Election.

Mayor then says:

“Will the Clerk please announce the result of the property owner vote.”

Clerk announces result and completes the Canvass (attached to Resolution Declaring Results of Special Election... as below).

Mayor then says:

“The record shows that at least 2/3rds of the property owner votes are in favor of the annexation of the project to the CFD No. 2014-2 and the levy of the special taxes. We may now proceed with the final actions to complete the Annexation”

Council considers and takes the following actions:

(a) ADOPT

ITEM 11.2.

ATTACHMENT 3

A Resolution of the City Council of the City of Rancho Cordova Declaring Results of Special Election and Directing Recording of Notice of Special Tax Lien

(b) *ADOPT*

A Resolution of the City Council of the City of Rancho Cordova Approving the Cessation the Special Tax under Community Facilities District No. 2008-1 for the Stonecreek Industrial Project”

END OF ITEM

**CITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street, Lighting and Landscaping Maintenance)**

**CERTIFICATE OF CITY CLERK
RE: WAIVER (OF CERTAIN ELECTION REQUIREMENTS) AND CONSENT**

I, Stacy Leitner, City Clerk for the City of Rancho Cordova, hereby certify:

I have received, and now have in my possession as a permanent part of the City's record of this election, an Election Waivers executed by the authorized representative of each landowner to be annexed into in the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance), (the "District"), as provided by the owners of all the property in the Annexation Area.

I make this Certification as of September 18, 2023.

Stacy Leitner, City Clerk
City of Rancho Cordova

CANVASS AND STATEMENT OF RESULT OF ELECTION

CITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street Lighting and Road Maintenance)

I hereby certify that on September 18, 2023, I canvassed the returns of the election held on in the Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) of the City of Rancho Cordova and the total number of ballots cast in said District and the total number of votes cast for and against the measure are as follows and the totals as shown for and against the measure are full, true and correct:

	Qualified Landowner Votes	Votes Cast	<u>YES</u>	<u>NO</u>
Community Facilities District No. 2014-2 (Street Lighting and Landscaping Maintenance) of the City of Rancho Cordova, Special Tax Election, September 18, 2023	_____	_____	_____	_____

BALLOT MEASURE: Shall the City Council of the City of Rancho Cordova be authorized to annex and levy a special tax on the Stonecreek Industrial project within the City's Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) (the "CFD") in accordance with the rate and method contained in the Resolution of Annexation of the CFD adopted by the Council of the City on August 7, 2023, annually, commencing in the City's fiscal year 2023-24, to finance certain public services for the CFD?

YES: _____

NO: _____

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND on September 18, 2023.

By: _____
 Stacy Leitner, City Clerk
 City of Rancho Cordova

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2023

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA
APPROVING THE CESSATION OF THE SPECIAL TAX UNDER COMMUNITY FACILITIES
DISTRICT 2008-1 FOR THE STONECREEK INDUSTRIAL PROJECT.**

**CITY OF RANCHO CORDOVA
Community Facilities District No. 2008-1
(Street Lighting and Road Maintenance)**

RESOLVED, by the City Council (the "Council") of the City of Rancho Cordova (the "City"), County of Sacramento, State of California as follows:

WHEREAS, on October 6, 2008, the City adopted Resolution No. 108-2008 declaring its intention to establish Community Facilities District No. 2008-1 (Street Lighting and Road Maintenance) (the "District") and Future Annexation Area for maintenance of street lighting and landscaping maintenance services. On November 17, 2008, the City adopted Resolution No. 129-2008 forming CFD No. 2008-1 pursuant to the Mello-Roos Community Facilities Act of 1982 per State of California Government Code Section 5311 et seq. (the "Act"); and

WHEREAS, the resolution of intention to form the District provided for a more efficient process for the annexation of property into the District when the property owners have provided for their unanimous consent of said annexation process by submitting a petition, consent and waiver from the property owner(s); and

WHEREAS, on July 9, 2019 the property owner of the subject property signed a Petition with Waivers form which irrevocably consents to and votes in favor of the annexation of the property to the District and the levy of the special tax on the property to finance the services of the CFD in accordance with the Rate and Method of the District; and

WHEREAS, on August 19, 2019, City Council approved Annexation Boundary Map No. 28 for the property known as Stonecreek Industrial Center project, the map was recorded with Sacramento County on August 29, 2019 in book 20190829 Page 0610; and

WHEREAS, the Notice of Special Tax Lien in regards to Annexation Map No. 28 for the property known as Stonecreek Industrial Center was recorded with Sacramento County on September 5, 2019 in Book 20190905 Page 0747; and

WHEREAS, in April 2023, the City updated the Rate and Method of Apportionment for Community Facilities District No. 2014-2, now including a rate for Heavy Truck Traffic Parcels; and

WHEREAS, on June 5, 2023, City Council approved an updated design review for the Stonecreek Industrial project and based on the intended operational use it is deemed appropriate to annex the Stonecreek Industrial project to CFD No. 2014-2 with the updated rates for heavy truck traffic parcels; and

WHEREAS, prior to the collection of the tax under Community Facilities District No. 2014-2 it is appropriate and necessary to cease the tax collection of the previous annexation of Boundary Map No. 28 to Community Facilities District 2008-1.

NOW, THEREFORE, IT IS HEREBY ORDERED as follows:

1. **Recitals.** The foregoing recitals are all true and correct.
2. **Cessation of Notice of Tax Lien.** The City Clerk is hereby directed to complete, execute and cause to be recorded in the office of the County Recorder of the County of Sacramento a cessation of taxes pursuant to of the notice of special tax lien recorded with Sacramento County on September 5, 2019 in Book 20190905 Page 0747 in the form required by the Act, such recording to occur no later than fifteen (15) days following adoption of this resolution by the Council.
3. **Effective Date.** This Resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 18th day of September, 2023, by the following vote of the City Council:

AYES:

NOES:

ABSENT:

ABSTAIN:

Linda Budge, Mayor

ATTEST:

Stacy Leitner, City Clerk

EXHIBIT A

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
Attention: City Clerk

NOTICE OF CESSATION OF SPECIAL TAX LIEN

Pursuant to the requirements of Section 3114.5 of the Streets and Highways Code and Section 53311 of the Government Code, the undersigned clerk of the legislative body of the City of Rancho Cordova (the "City"), State of California, hereby gives notice that a lien to secure payment of special taxes is hereby ceased by the City Council of the City.

The special taxes are authorized to be ceased within Annexation Map No. 28 (the "Annexed Area") of the City of Rancho Cordova Community Facilities District No. 2008-1 (Street Lighting and Road Maintenance) (the "CFD"), which was officially annexed to the District, which shall cease to continue when this notice of cessation of special taxes is recorded in accordance with Section 53330.5 of the Government Code.

Notice is further given that upon the recording of this notice in the office of the county recorder, the obligation to pay the special tax levies shall cease within the District in accordance with Section 3115.5 of the Streets and Highways Code.

Reference is made to the boundary map of the District recorded at Book 110 of Maps of Assessment and Community Facilities Districts at Page 10 (Document No. 20081014-0822), in the office of the County Recorder for the County of Sacramento, State of California (the "Original Boundary Map"), and the map of the Annexed Territory recorded at Book 129, Page 10, Document No. 201908290610 in the Office of the County Recorder for the County of Sacramento, State of California.

For further information concerning the cessation of this special tax lien, interested persons should contact the Department of Public Works of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California 95670.

Date: _____

By: _____

Stacy Leitner, CMC, City Clerk
City of Rancho Cordova