AGENDA

CITY OF RANCHO CORDOVA
CITY COUNCIL

Monday, May 16, 2005

5:30 p.m. – Regular and Special Meeting

Council Chambers
3121 Gold Canal Drive, Rancho Cordova, California

CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

Ken Cooley, Mayor

Robert J. McGarvey, Vice Mayor

Linda Budge, Council Member

David M. Sander, Council Member

Dan Skoglund, Council Member

MAKING YOUR POINT – MAKING IT COUNT

Government decision-making takes time—time for public input, time for analysis, and time for weighing both sides of the issue before making an informed decision.

People sometimes complain that the process takes too long, delay progress, costs extra money and is frustrating for discussion participants. Others say that the process doesn't give people enough time to comment and that decisions are made too quickly without enough consideration for all sides of the issue.

The foundation for democracy in America is our constitutional right to tell our elected leaders what we think about issues that affect us. This right is enjoyed by all citizens, regardless of education, background, or experience. Rancho Cordova leaders welcome you to public meetings and encourage you to participate in discussions that affect you.

The way you present your message at the podium can help or hurt your ability to persuade your audience. It can either facilitate or obstruct the public participation process. Whether you are an experienced public speaker or speaking at the podium for the first time, it may be helpful to remember these public meeting tips:

- Identify your main points. Writing them down will help you organize your thoughts and remember them when you're at the podium.
- Check your facts. Accuracy improves your credibility and helps you make a positive impression.
- Handouts summarizing your position may be distributed to policy makers and staff before or after your presentation. Busy leaders appreciate clear, concise information (one or two pages) that helps them identify your key points and remember your presentation.
- Don't be nervous. If you are, don't apologize for it. Public Officials see many citizens who are nervous when speaking in front of an audience. It may help to take a deep breath and exhale slowly just before you approach the podium.
- As you begin to speak, state your name and address clearly for the record. If you represent a group or organization, please state that information as well.
- Make your position known at the beginning, then present supporting information. You will sound organized, which helps people to understand your position.
- Keep your presentation short and simple. Attention spans are brief and people will remember a short presentation better than they will one that rambles and includes too much information.
- Don't repeat yourself. It uses valuable time and people tune out when they hear the same thing over and over. If a previous speaker has already made the point you planned to make, simply refer to that speaker and emphasize your support for that position.
- Be cautious about using humor which is very subjective. While some may laugh, others may be offended.
- Persuade, don't badger your audience. Compelling presentations can be very persuasive to both policy makers and public meeting audiences; however, insulting or degrading language can make you appear belligerent, reducing your credibility as well as the power of your message.
- Close your comments with an action statement such as, "Adopt this resolution" or "I urge you to vote 'no' on this ordinance."

Rancho Cordova City leaders appreciate your interest in issues that affect the community. We hope these tips will help you prepare and present your remarks so they will be clear, concise, accurate and credible. If you follow these guidelines, your audience is likely to listen, pay attention, and maybe even agree with you!

Rancho Cordova City government is not the City Council, City staff or Rancho Cordova citizens – it's all of us working together to understand each others' opinions so we can make the best decisions for our community.

THANK YOU FOR PARTICIPATING!

RANCHO CORDOVA
CITY COUNCIL & FINANCING CORPORATION BOARD OF DIRECTORS
AGENDA
City Council Chambers
3121 Gold Canal Drive, Rancho Cordova

Monday, May 16, 2005

4:00 P.M. – Closed Session
4:30 P.M. – Study Session
5:30 P.M. – Regular & Special Meeting

Call to Order

Roll Call: Council Member: Budge, McGarvey, Sander, Skoglund & Mayor Cooley

Oral Communications

1. Public Comment

Citizens wishing to address the Council for any matter on the Closed Session or Study Session agenda may do so at this time. **Please keep your comments to three minutes or less and provide a Speaker Card to the City Clerk.** Please state your name and community of residence.

Adjourn to Closed Session for the Following Purpose:

2. Conference with Legal Counsel – Anticipated Litigation. Significant exposure to litigation pursuant to Subdivision (b) of Government Code Section 54956.9 (two cases).

Reconvene to Study Session

Study Session

3. **Subject:** Rio del Oro Specific Plan Study Session – RC-03-14 City Council study session to review the current project status and to discuss land use and circulation design issues associated with the project
   Recommendation: Staff will provide an overview of the project, the currently projected schedule for project review, and issues currently under consideration within the project's review. The Council is requested to provide general comments and input, but no formal action is requested or proposed within this study session.

Regular Meeting

Call to Order

Roll Call: Council Member: Budge, McGarvey, Sander, Skoglund & Mayor Cooley

Reports from Closed Session

Metro Cable TV Telecast Announcement

Pledge of Allegiance

Invocation

1. Reverend Doctor Keith Posehn, Cordova Presbyterian Church, will give the invocation.

Presentations

2. Proclamation for National Public Works Week, May 15-21, 2005

3. Sacramento County Sheriff's Department of Communication

Consent Calendar – Roll Call Vote

4. **Subject:** Minutes of City Council Meetings:
   a. Special Meeting of April 26, 2005
   b. Regular Meeting of May 2, 2005
   Recommendation: Adopt Minutes.

5. **Subject:** Resolution Adopting the Sacramento County Multi-Hazard Mitigation Plan as Rancho Cordova's Official Plan to meet the Requirements for Funding under the Federal Emergency Management Agency (FEMA) Pre and Post Disaster Mitigation Grant Programs
   Recommendation: Adopt Resolution No. 63-2005.

6. **Subject:** Resolution Amending the Findings on which Resolution No. 28-2005, Adopting Park and Open Space Standards, was Adopted
   Recommendation: Adopt Resolution No. 61-2005 amending Resolution No. 28-2005 and adding additional findings to park and open space standards.

Consent Public Hearings

7. **Subject:** Adoption of Disadvantaged Business Enterprise (DBE) Program for the City of Rancho Cordova and DBE Goals for Federal Fiscal Year 2005/06
   Recommendation: Adopt Resolution No. 59-2005 the DBE Program and Resolution No. 60-2005 approving the annual DBE goal of five percent for U.S. Department of Transportation-Assisted Projects for Federal Fiscal Year 2005/06

8. **Subject:** Resolution Documenting Findings for Local Electrical Code Amendments and Ordinance Updating the Rancho Cordova Electrical Code
   Recommendation: Adopt Resolution No. 54-2005 and waive first reading and introduce Ordinance No. 11-2005. **(Roll Call Vote)**

Oral Communications

9. **Public Comment**

Citizens wishing to address the Council for any matter not on the agenda may do so at this time. If you wish to be heard on a listed agenda item other than a Consent Calendar item, please wait until that point on the agenda. Comments on Consent Calendar items will be heard prior to action on the Consent Calendar by providing a Speaker Card to the City Clerk before the Consent Calendar is discussed. **Please keep your comments to three minutes or less and provide a Speaker Card to the City Clerk.** Please state your 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 unagendized item 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.

Public Hearings

10. **Subject:** Northwest Exteriors – RC-04-137 – Sun Center Drive at Gold Pan Court - Design Review – Design Review for construction of two concrete tilt-up office/warehouse buildings in the MP zoning on a 1.65 acre site.
Recommendation: Adopt Resolution No. 56-2005 approving the Design Review for Northwest Exteriors, project No. RC-04-137, subject to the findings, evidence, Design Review Package and Conditions of Approval.

11. **Subject:** Rancho Cordova Interim General Plan - Adoption of the Draft Land Use Map Book and Draft Circulation Plan as part of the Interim General Plan: Provide direction to staff to proceed with the preparation of a Final Land Use Map and with the creation of a Draft General Plan that implements the Draft Land Use Map and Draft Circulation Plan and with the preparation of a Draft Environmental Impact Report based on the Draft Land Use Map.
Recommendation: Adopt Resolution No. 57-2005 and direct staff to proceed.

12. **Subject:** Urgency Resolution to Establish An Interim Traffic Impact Mitigation Fee to be Applied at the Same Rates as Those Adopted Previously as Part of Urgency Ordinance No. 30-2005 which Established an Interim Traffic Impact Mitigation Fee Applicable to New Commercial and Residential Developments in the City.
Recommendation: Adopt Urgency Resolution No. 58-2005.

***7:00 pm Break**

Adjourn to Financing Corporation Board Special Meeting

Call to Order

Roll Call: Directors Budge, McGarvey, Sander, Skoglund & President Cooley

13. **Subject:** Resolution Authorizing the Execution and Delivery of Not to Exceed $21 Million Certificates of Participation, Authorization and Directing Execution of Related Lease Financing Documents, Approving Official Statement and Authorizing Official Actions
Recommendation: Adopt Resolution No. 2005-04.

Reconvene to Rancho Cordova City Council Meeting

Regular Calendar Items

14. **Subject:** Resolution Authorizing the Execution and Delivery of Not to Exceed $21 Million Certificates of Participation, Authorizing and Directing Execution of Related Lease Financing Documents, Trust Agreement, and Certificate Purchase Agreement, Approving Official Statement and Authorizing Official Actions
Recommendation: Adopt Resolution No. 62-2005.

Correspondence

Council Reports

Council Requests for Future Agenda Items

City Manager's Report

Economic Development Report

Adjournment

***Upcoming Meeting Dates*:**

Tuesday, May 24, 2005	***Study Session – General Plan & Water Update***
Monday, June 6, 2005	***12 Noon Study Session – Budget & 5:30 p.m. - Regular City Council Meeting***
Wednesday, June 15, 2005	***Study Session (topic(s) to be determined)***
Monday, June 20, 2005	***Regular City Council Meeting (to include adoption of 2005-06 Final Budget)***

Tonight's meeting of the Rancho Cordova City Council is being telecast on Metro Cable TV, Channel 14, the Government Affairs Channel on the Comcast, SureWest and Strategic Technologies Cable Systems, and will be shown in its entirety. Tune to Metro Cable Channel 14, for playback times. It will be webcast at www.sacmetrocable.tv. The city does not control scheduling of this telecast and persons interested in watching the televised meeting should confirm this schedule with Metro Cable TV, Channel 14.

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) 942-0255 or lhare@cityofranchocordova.org at least 48 hours prior to the meeting.

City Clerk's Certificate of Posting of Agenda

I, Carolyn Butler, Deputy City Clerk for the City of Rancho Cordova, declare that the foregoing agenda for the May 16, 2005 Regular and Special Meeting of the Rancho Cordova City Council was posted on May 12, 2005 at the office of the City of Rancho Cordova, 3121 Gold Canal Drive, Rancho Cordova, California, 95670 and was available for public review at that location. The agenda is also available on the city web site at www.cityofranchocordova.org.

Signed this 12th day of May 2005 at Rancho Cordova, California.

Carolyn Butler, Deputy City Clerk

Memorandum

Date: May 16, 2005

To: Mayor and City Council

From: Paul Junker, Planning Director
Pam Johns, AICP, Special Projects Manager

Subject: Rio del Oro Study Session

RECOMMENDATION

Staff recommends that the City Council consider staff and applicants presentations by the regarding specific aspects of the proposed Rio del Oro project and provide relevant input prior to the scheduling of any public hearings on the project. No formal action is requested at this time.

BACKGROUND

The proposed Rio del Oro project includes a request for a General Plan Amendment, Rezone, Special Planning Area Amendment/Specific Plan, Tentative Subdivision Maps, Development Agreement, and corresponding environmental review for a 3,828-acre mixed use community east of Sunrise Boulevard between White Rock and Douglas Roads. The development application was originally submitted to the County prior to City incorporation. Upon incorporation, the City took over responsibility for the evaluation and action on the proposed project. For almost two years, staff has been working with the applicant team to evaluate the project against the City's vision for future development.

In December 2004, staff presented to the City Council a project overview and progress report on the Rio del Oro application. Since that time, staff has continued work with the applicant team, including coordinating agency and environmental review, and guiding modifications to the projects land and plans. The purpose of this meeting is to provide an update on these efforts and to provide the opportunity for City Council input on specific aspects of the project.

Study session item #3

ANALYSIS

Described below are several key aspects of the proposed Rio del Oro project that staff will discuss with the City Council. Additional details will be provided at the study session.

Land Use Mix/Distribution

The applicant team has amended the land use mix and distribution within the project area in an effort to reflect the City's Building Block concept outlined in the General Plan Vision Book and Draft Land Use Map Book. The map was also amended to reflect changes in the noise contours for the Mather overflight patterns, input from the Army Corp of Engineers, School District, Parks District, Fire Department, Utilities, and applicant market studies. Staff will provide a brief summary of these changes at the meeting, along with an evaluation of the land plan against the Draft General Plan and other City policies, including but not limited to residential land use mix, village and town centers, and parks and open space.

Commercial Sites

Staff and the applicant team have been working on conceptual site plans for the two proposed Village Centers, the Local Town Center, and the two Regional Town Center sites shown on the Rio del Oro Land Use Plan. We have been testing the City's General Plan Building Block concept and draft land use designations to ensure that this project at a District scale would provide adequate neighborhood services (Village Centers) and a vibrant community core (Local Town Center), as well as providing regional retail for the broader area. Conceptual site plans have been developed for the commercial/mixed use sites to demonstrate the concepts outlined in the City's Draft General Plan and Draft Design Guidelines. Staff and the applicant team believe that the goals can be achieved by utilizing "Form Based Zoning" in the Rio del Oro Specific Plan. Staff will present more information on Form Based Zoning and will discuss how this type of Zoning could be applied to the Rio del Oro project.

Drainage Facilities

The applicant proposes a unique drainage facility in the southwest portion of the site in an effort to maximize the commercial opportunities at the northeast corner of Sunrise Boulevard and Douglas Road. The facility includes a deep basin design that is drained using pumps. Staff will present information regarding the design to the City Council for consideration and input on the aesthetic and urban design issues of this proposal.

Circulation Plan

The circulation plan has been amended to a modified grid pattern intended to improved circulation consistent with the General Plan Vision. To ensure consistency with the Citywide Circulation Plan under consideration, staff is recommending the plan be amended to include better east-west connectivity in the form of extending International Road through the project site. The exact location and improvements for that extension have not been determined. Additionally, the planned roadway widths shown throughout the project may not be consistent with the City's General Plan traffic

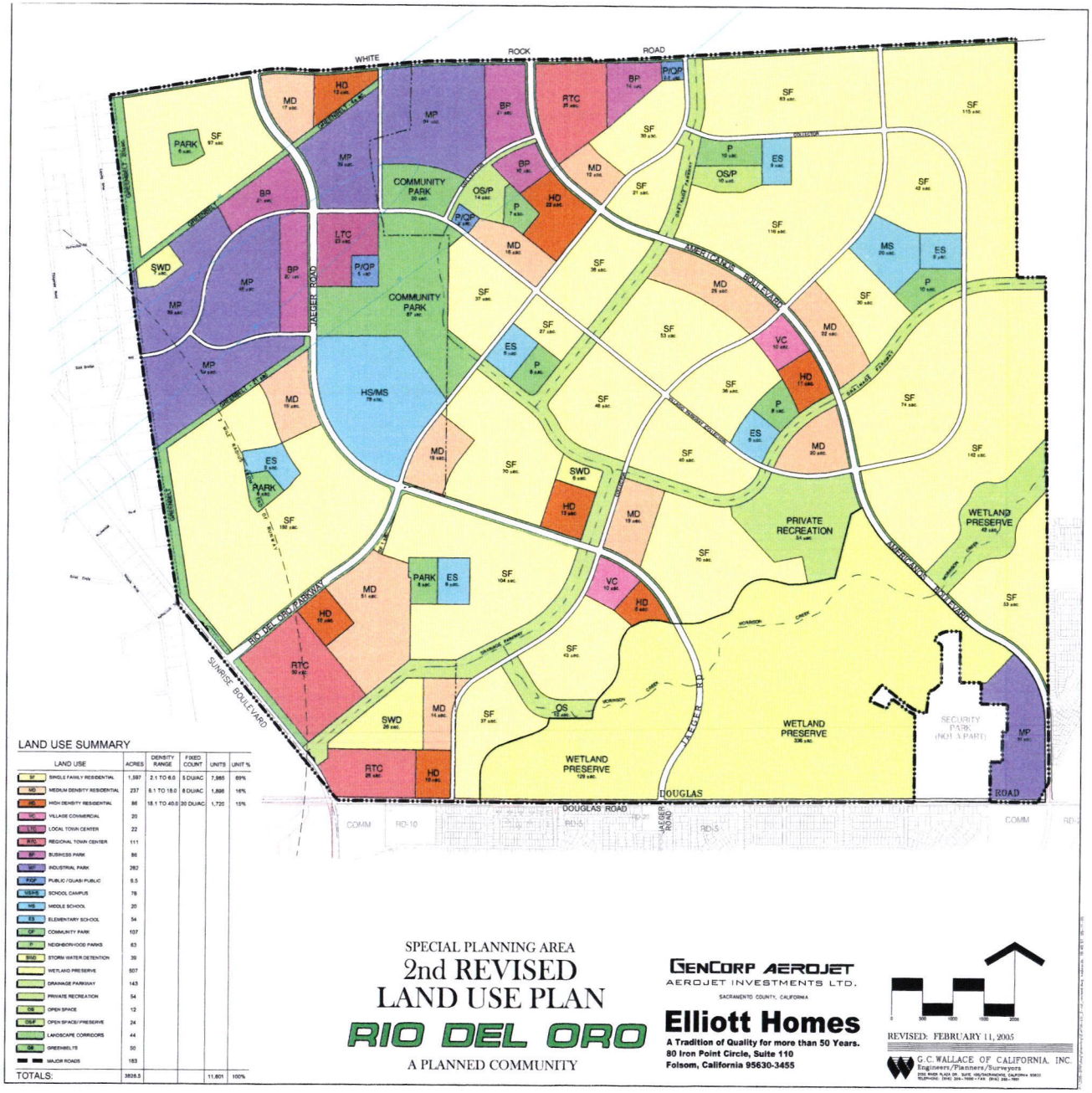
model. Staff and the applicant team will need to continue working with the traffic consultants to ensure appropriate sizing and phasing of roadways.

NEXT STEPS

The Rio del Oro Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is tentatively scheduled for public release in late August/early September. Staff will continue working with the applicant team on the Specific Plan, Tentative Subdivision Maps, and Development Agreements and may schedule subsequent study session(s) to discuss those aspects of the project. Public hearings for consideration of the environmental document and the merits of the overall project will be scheduled thereafter.

Attachments:

1. Rio del Oro Land Use Plan – 2nd Revised (February 11, 2005)
2. Drainage Facility Details



LAND USE SUMMARY

LAND USE	ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT %
SINGLE FAMILY RESIDENTIAL	1,597	2.1 TO 6.0	5 DU/AC	7,985	69%
MEDIUM DENSITY RESIDENTIAL	237	6.1 TO 18.0	8 DU/AC	1,896	16%
HIGH DENSITY RESIDENTIAL	86	18.1 TO 40.0	20 DU/AC	1,720	15%
VILLAGE COMMERCIAL	20				
LOCAL TOWN CENTER	22				
REGIONAL TOWN CENTER	111				
BUSINESS PARK	86				
INDUSTRIAL PARK	282				
PUBLIC / QUASI PUBLIC	8.5				
SCHOOL CAMPUS	78				
MIDDLE SCHOOL	20				
ELEMENTARY SCHOOL	54				
COMMUNITY PARK	107				
NEIGHBORHOOD PARKS	63				
STORM WATER DETENTION	39				
WETLAND PRESERVE	507				
DRAINAGE PARKWAY	143				
PRIVATE RECREATION	54				
OPEN SPACE	12				
OPEN SPACE/ PRESERVE	24				
LANDSCAPE CORRIDORS	44				
GREENBELTS	50				
MAJOR ROADS	183				
TOTALS:	3826.5			11,601	100%

SPECIAL PLANNING AREA

2nd REVISED LAND USE PLAN

RIO DEL ORO

A PLANNED COMMUNITY

GENCORP AEROJET
AEROJET INVESTMENTS LTD.
SACRAMENTO COUNTY, CALIFORNIA

Elliott Homes
A Tradition of Quality for more than 50 Years.
80 Iron Point Circle, Suite 110
Folsom, California 95630-3455

0 500 1000 1500 2000

REVISED: FEBRUARY 11, 2005

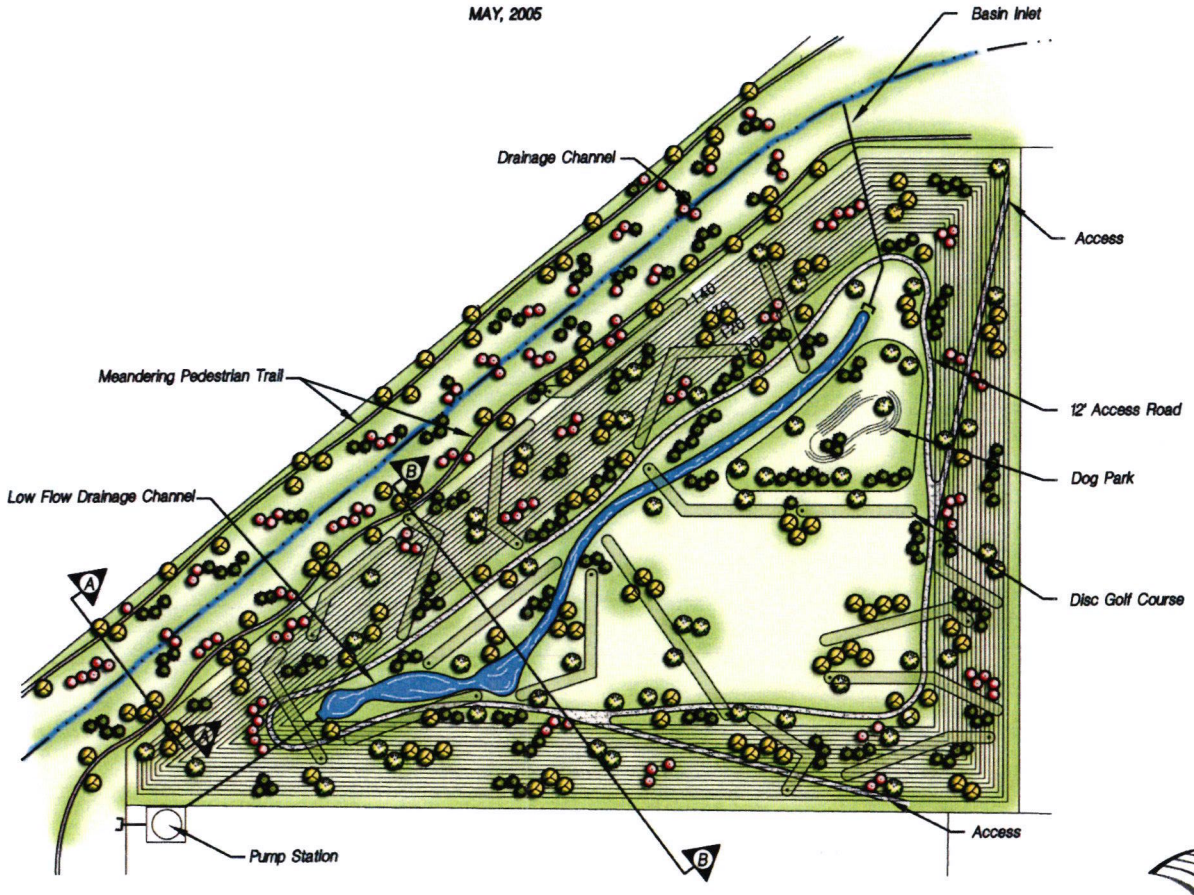
G.C. WALLACE OF CALIFORNIA, INC.
Engineers/Planners/Surveyors

CONCEPTUAL DETENTION BASIN

RIO DEL ORO

RANCHO CORDOVA, CALIFORNIA

MAY, 2005



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3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

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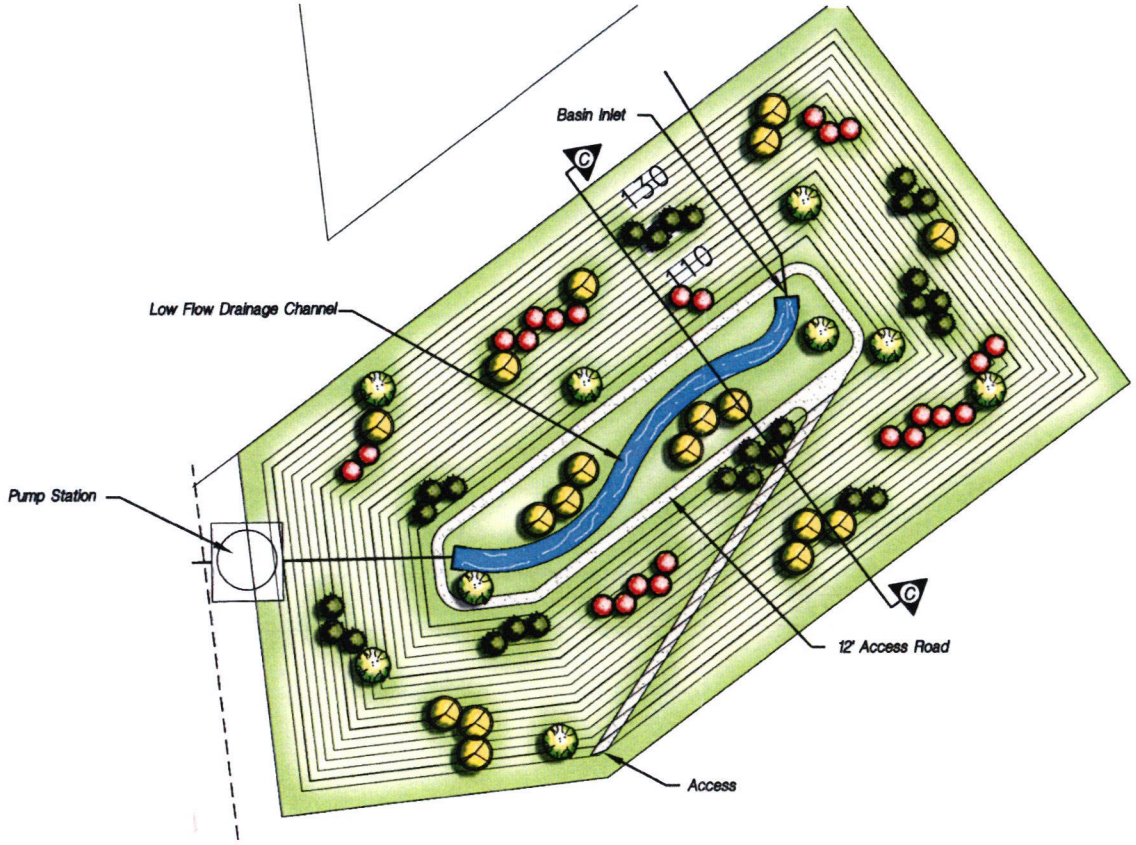
CONCEPTUAL DETENTION BASIN

RIO DEL ORO

RANCHO CORDOVA, CALIFORNIA

MAY, 2005



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NORTH

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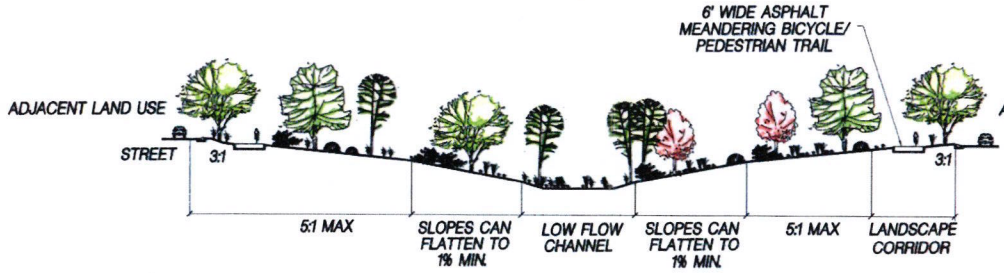
CONCEPTUAL DETENTION BASIN

RIO DEL ORO

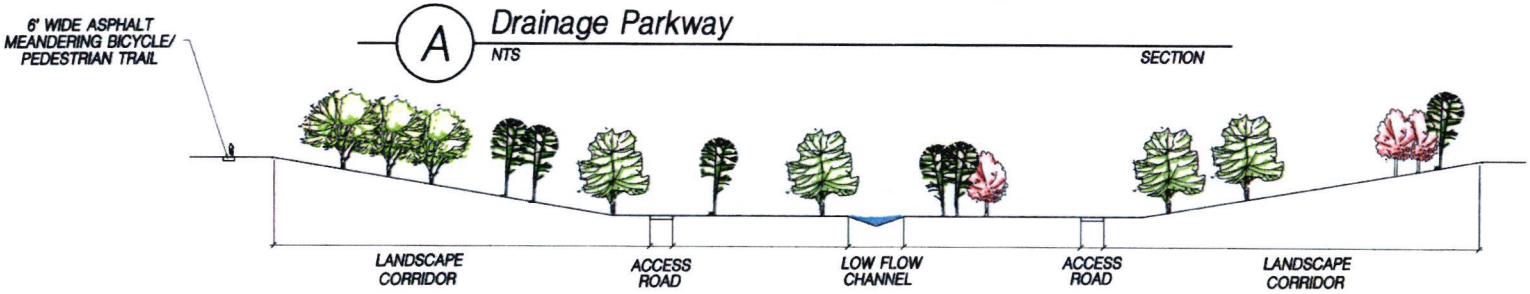
RANCHO CORDOVA, CALIFORNIA

MAY, 2005



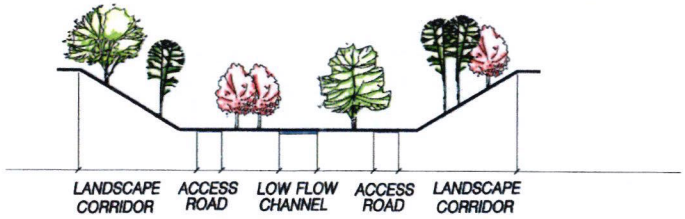
A Drainage Parkway

NTS SECTION



B Drainage Basin

NTS SECTION



C Drainage Basin

NTS SECTION

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Sacramento, CA 95816 Fax 916.341.7767

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City of Rancho Cordova
Special City Council Meeting

Monday, April 26, 2005

MINUTES

CALL TO ORDER

Mayor Cooley called the meeting to order at 5:43 p.m.

ROLL CALL

Present: Council Members Budge, McGarvey, Sander, Skoglund, and Mayor Cooley
Planning Commission: Burke, Moe, Savorn, Smith, Vance, Wentz

Staff Present: Gaebler, Hare, Howard, Chapman, Haven, Olea-Moger, Thomas, Junker, Trimberger, Abhar, Dehaan, McMahon

STUDY SESSION

1. **Subject:** 2005-07 Strategic Planning
   Recommendation: Conduct study session.

OUTCOME: Discussion occurred on the "Model for Actively Managing Our Future" and priorities were rated with a "forced ranking chart."

ORAL COMMUNICATIONS

2. Public Comment

   Ardie Zahedani of the Building Industry Association of Superior California, requested permission to address the City Council. Mr. Zahedani noted that the theme of the evening's strategic planning discussion was achieving and maintaining high standards of civic excellence in the City of Rancho Cordova. Mr. Zahedani noted that in his dealings with City Clerk Lillian Hare, he has always received service of the highest caliber. Reflecting upon that fact, Mr. Zahedani addressed his remarks specifically to Rancho Cordova City Clerk Lillian Hare and offered his commendation on her recent recognition as City Clerk of the Year for the State of California, an accomplishment that he said reflects well upon the entire City.

ADJOURNMENT

The meeting adjourned at 8:05 p.m.

Respectfully submitted,

_____
Lillian E. Hare, City Clerk

AGENDA ITEM # 4a

City of Rancho Cordova
Regular City Council Meeting

Monday, May 2, 2005

MINUTES

CALL TO ORDER

The meeting was called to order at 5:36 p.m. by Vice Mayor McGarvey and the cablecast playback schedule for the meeting was announced.

ROLL CALL

Present: Council Members: Budge, Sander, Skoglund & Vice Mayor McGarvey
Absent: Mayor Cooley
Staff Present: Gaebler, Meyers, Hare, Olea-Moger, Abhar, Junker, Haven, DeHaan, Trimberger

PLEDGE OF ALLEGIANCE

City Clerk Lillian Hare led the Pledge.

INVOCATION

1. Chaplain Phil LaZier, M.A., Counselor and Celebrant of the American Humanist Society, gave the invocation.

PRESENTATIONS

2. Proclamation for Lillian Hare – City Clerk of the Year

   Vice Mayor McGarvey and Council Member Linda Budge presented City Clerk Lillian Hare Council's Proclamation recognizing her selection as the City Clerks Association's Clerk of the Year as well as honoring her during Municipal Clerks Week.

3. Yolo County Annexation Request Presentation

   Sacramento Municipal Utility District (SMUD) Director Susan Patterson gave a presentation on the annexation study results for utility costs to Yolo County.

CONSENT CALENDAR – ROLL CALL VOTE

ACTION: Motion by Budge second by Sander and passed by 4:0 roll call vote (Cooley absent), Council adopted the Consent Calendar with the exception of Item #5 which was pulled for separate discussion.

4. **Subject:** Minutes of City Council Regular Meeting of April 18, 2005
   Recommendation: Adopt Minutes.

6. **Subject:** Second Reading of Ordinance No. 10-2005 Establishing a Special Tax Area Zone 26 for Police Protection Services for Capital Village Subdivision

AGENDA ITEM # 4b

Recommendation: Waive second reading and adopt Ordinance 10-2005. **(Roll Call Vote).**

7. **Subject:** Approval of Parcel Map "Subdivision No. 02-0064" being a Subdivision of Lot 57 of 60 P.M. 27; also known as 3230 & 3242 Luyung Drive
Recommendation: Approval of the parcel map of Subdivision No. 02-0064 being a subdivision of Lot 57 of 60 P.M. 27 located on the west side of Luyung Drive approximately 465 feet north of Hydraulic Drive.

At this point, Council re-ordered the agenda to take Public Comment

ORAL COMMUNICATIONS

10. **Public Comment**

Rex Albright, Executive Director of the Chamber of Commerce, addressed Council Members to advise them of the Mather Airport Ten-Year Anniversary Celebration event scheduled for Sunday, May 8th from 10 a.m. to 5 p.m. at Mather Airport.

Bruce Risley addressed Council Members to invite them to the Shriners Concourse d'Elegance event on June 12th at Mather Airport and welcome those in attendance.

The following item was pulled from the Consent Calendar for separate discussion.

5. **Subject:** Second Reading of Ordinance No. 09-2005 Amending the Zoning Code to Rezone Property from General Commercial to RD-30 Multi-Family Residential on Assessor Parcel Number 075-0033-017 for the Project Known as Terra Loma Subdivision
Recommendation: Waive second reading and adopt Ordinance 09-2005. **(Roll Call Vote)**.

The following individuals addressed the Council on this item:

(a) Robert Cashatt to oppose the project
(b) Gary Hatfield to oppose the project
(c) Therese Volk to oppose the project
(d) Art Torres to oppose the project
(e) Marjorie Boulton to oppose the project
(f) Gerald Boulton to oppose the project
(g) Tom Motter to oppose the project
(h) Frank Oswald to oppose the project

ACTION: Motion by Skoglund second by Budge and carried by 4:0 roll call vote (Cooley absent) Council adopted Ordinance No. 09-2005.

CONSENT PUBLIC HEARINGS

Vice Mayor McGarvey opened the consent public hearing. There being no response, the public hearing was closed.

8. **Subject:** Americans with Disabilities (ADA) Transition Plan and Pedestrian Master Plan
Recommendation: Adopt the Final ADA Transition Plan and the Final Pedestrian Master Plan.

ACTION: Motion by Budge second by Sander and carried by 4:0 vote (Cooley absent), Council adopted the Final ADA Transition Plan.

ACTION: Motion by Budge second by Skoglund and carried by 4:0 vote (Cooley absent), Council voted to continue the Final Pedestrian Master Plan and directed it be incorporated into the General Plan's Circulation Element discussion at a future meeting.

9. **Subject:** Amending the Rancho Cordova Electrical Code due to Changes in the California Electrical Code
   Recommendation: Adopt Resolution No. 54-2005 local conditions affecting the adoption of the electrical code and waive first reading and introduce Ordinance No. 11-2005 **(Roll Call Vote) – *Continued to May 16, 2005*.**

CONSENSUS: Council continued this item to May 16, 2005.

REGULAR CALENDAR ITEMS

11. **Subject:** Resolutions Initiating Proceedings, Preliminary Approval of the Engineers Report and Resolution of Intent Setting Public Hearing Date and Intent to Conduct a Property Owner Ballot for Assessment in Rancho Cordova Landscaping and Lighting District No. 2005-1
    Recommendation: That Council:
    a. Adopt Resolution No. 51-2005 initiating proceedings for the formation of Landscaping and Lighting District No. 2005-1 and the levy and collection of annual assessments related thereto commencing with Fiscal Year 2005/2006
    b. Adopt Resolution No. 52-2005 accepting and approving the Engineer's Report regarding the formation of Landscaping and Lighting District No. 2005-1
    c. Adopt Resolution No. 53-2005 declaring its intention to form Landscaping and Lighting District No. 2005-1; and to levy and collect annual assessments within such district commencing in Fiscal Year 2005/2006; and to conduct a property owner balloting on the matter of the proposed assessments connected therewith, and to appoint a time and place for the public hearing on these matters.

ACTION: Motion by Budge second by Skoglund and carried by 4:0 vote (Cooley absent), Council adopted Resolutions No. 51-2005, 52-2005, and 53-2005.

12. **Subject:** Mather Redevelopment Housing Funds Allocation to the Rancho Cordova Economic Community Development Corporation for the Scattered Sites Rental Housing Program
    Recommendation: Adopt Resolution No. 55-2005.

ACTION: Motion by Sander second by Budge and carried by 4:0 vote (Cooley absent), Council adopted Resolution No. 55-2005 with the stipulation that the correct map be used in the Resolution's attachments.

13. **Subject:** Discussion of Interim General Plan - Options for applying the Draft Circulation Plan and the Draft Land Use Map Book on an interim basis while the General Plan Update is being completed. This item is anticipated to return for City Council action on May 16, 2005.

Recommendation: Consider staff's presentation and provide general direction as appropriate. No action on this item is requested during this meeting.

CONSENSUS: Staff will return on May 16th to request Council action. At the meeting on May 16th, the application of new land use and circulation plans and policies to existing development within the city will be addressed.

CORRESPONDENCE

None

COUNCIL REPORTS

The Council reported on various meetings, invitations, and events since the last Council meeting.

COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

Sander – Wants to consider implementing once a month reporting at Council meeting on matters related to the older parts of Rancho Cordova and providing information on what each department is doing to serve existing residents.

Sander – Requested a staff development working group consisting of the City Engineer, Director of Planning, Economic Development Director to improve communication with our business community, development community, and building community relative to the issues of roads, transportation, affordable housing, parks and open space, education, community design, and economic development.

Budge and Skoglund – Support increased communication efforts as outlined by Council Member Sander.

McGarvey – Supports increased communications with public as well as increased venues to provide the public a comfortable forum, like meetings at the schools, for people to go and talk about things that are bugging them.

CITY MANAGER'S REPORT

Mr. Gaebler reported on information gathered and/or actions taken relative to Council requests made at the April 18th Regular Meeting on the following topics:

- Street racing ordinance possibility to also address spectator consequence, similar to what the cities of Oakland and Sacramento have adopted. City Manager Gaebler advised that the Police Chief responded in the April 22nd Friday Memo to Council.
- Ordinance prohibiting people from approaching shoppers and soliciting dollars in parking lots, etc. City Manager Gaebler advised this will be addressed at the Study Session scheduled for May 10th.
- Random monitoring of vehicular speeding similar to practice done in Beaverton, Oregon. City Manager Gaebler advised that Police Chief McMahon provided information that photo-radar can't be used unless the law changes. Currently, an officer must first visually estimate the violator's speed within five miles per hour before a speed-measuring device can be used.

ADJOURNMENT

The meeting adjourned at 9:12 p.m.

Respectfully submitted,

_____
Anna Olea-Moger, Assistant City Clerk

MEMORANDUM

DATE: May 16, 2005

TO: Mayor and Council Members

FROM: Cyrus Abhar, Public Works Director

SUBJECT: **RESOLUTION ADOPTING THE SACRAMENTO COUNTY MULTI-HAZARD MITIGATION PLAN**

RECOMMENDATION

It is recommended that the Council adopt the Sacramento County Multi-Hazard Mitigation Plan.

BACKGROUND

The Robert T. Stafford Act (Disaster Mitigation Act of 2000) requires communities to develop a Multi-Hazard Mitigation Plan (Plan) considering potential ways to mitigate the influence of natural hazards. Development of such a Plan is required for those communities that are in good standing with the National Flood Insurance Program (NFIP) to remain in the Community Rating System (CRS) program. Countywide, participation in CRS saves residents nearly $2 million in flood insurance premiums annually. Further, a Plan approved by the Federal Emergency Management Agency (FEMA) is required in order to be eligible for federal disaster mitigation monies.

The Plan was prepared by the Hazard Mitigation Planning Committee (HMPC), which included representatives from the City of Rancho Cordova, and other cities, the County of Sacramento, law enforcement, fire, flood control and other authorized governing bodies within the County. The plan identifies goals, objectives and measures for hazard mitigation and risk reduction to make communities less vulnerable to natural hazards. Natural hazards evaluated included floods, severe weather, earthquakes, natural health hazards such as West Nile Virus, etc.

The Plan has been submitted to the Governor's Office of Emergency Services and to FEMA and has been tentatively approved, pending formal adoption by participating agencies. This is a countywide plan which is recommended for adoption by the City of Rancho Cordova. Adoption of the attached resolution by the Council would facilitate final acceptance by FEMA.

AGENDA ITEM # 5

In addition to the Multi-Hazard Mitigation Plan which is the subject of this staff report, the City of Rancho Cordova Police Department is currently preparing an Emergency Response Plan to prevent terrorism, protect and restore infrastructure, mitigate impacts to individuals, facilitate recovery, etc. The Emergency Response Plan will be the subject of a subsequent staff report prepared by the Police Department.

FISCAL IMPACT:

This item will not result in any fiscal impact to the City of Rancho Cordova. Development of the Plan was previously funded by the City of Folsom ($10,835), the City of Sacramento ($23,500), the Sacramento County Water Agency ($35,606), and a Pre-Disaster Mitigation Grant from FEMA ($77,344).

Enclosure:

Attachment A - Resolution Adopting Sacramento County Multi-Hazard Mitigation Plan.
Attachment B – Letter from FEMA re: Plan Eligibility, Dated March 21, 2005.
Attachment C - Sacramento County, California, Multi-Hazard Mitigation Plan.

ATTACHMENT A

Resolution Adopting Sacramento County
Multi-Hazard Mitigation Plan

CITY OF RANCHO CORDOVA

RESOLUTION NO. 63-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ADOPTING THE SACRAMENTO COUNTY MULTI-HAZARD MITIGATION PLAN

Whereas, the City of Rancho Cordova recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, an adopted Multi-Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the City of Rancho Cordova fully participated in the FEMA-prescribed mitigation planning process to prepare this Multi-Hazard Mitigation Plan; and

Whereas, the California Office of Emergency Services and Federal Emergency Management Agency, Region IX officials have reviewed the "*Sacramento County, California Multi-Hazard Mitigation Plan*" (December, 2004) and approved it (March 21, 2005) contingent upon this official adoption of the participating governments and entities.

Now, therefore, be it resolved, that the City of Rancho Cordova adopts the *"Sacramento County, California Multi-Hazard Mitigation Plan"* as an official plan; and

Be it further resolved, that the City of Rancho Cordova will submit this Adoption Resolution to the California Office of Emergency Services and Federal Emergency Management Agency, Region IX officials to enable the Plan's final approval.

On a motion by Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted by the City Council of Rancho Cordova, State of California, this 16th day of May, 2005, with the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Ken Cooley, Mayor

ATTEST:

_____
Lillian E. Hare, City Clerk

ATTACHMENT B

Letter from FEMA re: Plan Eligibility
Dated March 21, 2005

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

2005 MAR 23 PM 3:05
MUNICIPAL SERVICES AGENCY
WATER RESOURCES

March 21, 2005

George H. Booth
Sacramento County Department of Water Resources
827 7th Street, Room 301
Sacramento, California 95814

Dear Mr. Booth:

We have completed the final review of the Sacramento County Multi-Hazard Mitigation Plan. Sacramento County is commended on the quality and scope of this plan. The use of a participatory process shows a commitment to the intent of the planning process under the Disaster Mitigation Act of 2000 (DMA 2000).

Our regional final review has determined that this plan is eligible for final approval pending its adoption by Sacramento County and the jurisdictions represented in the plan. We will approve the plan upon receipt of the documentation of the formal adoption. We are enclosing a copy of the final review crosswalk with some recommendations for future updates to the Plan.

If you have any questions regarding the planning process or DMA 2000 requirements, please contact Helen DuBois, Mitigation Planning Coordinator, (510) 627-7272, or by email at helen.dubois@dhs.gov. An alternate contact is Juliette Hayes, (510) 627-7211, or by email at juliette.hayes@dhs.gov.

Sincerely,

Sally Ziolkowski

Sally Ziolkowski, Director
Mitigation Division

Enclosure

cc: Clancy Phillipsborn
AMEC Earth and Environmental

ATTACHMENT C

Sacramento County, California
Multi-Hazard Mitigation Plan

Multi-Hazard Mitigation Plan

1.0 Introduction

Sacramento County, the City of Sacramento and the City of Folsom funded, coordinated and marshaled the effort necessary to develop this countywide Multi-Hazard Mitigation Plan pursuant to the requirements of the Disaster Mitigation Act of 2000 (PL 106-390), hereafter referred to as DMA (see Appendix A for a list of acronyms used in this document). This section of the Plan describes the purpose and need for the Plan, the scope of this effort, and the Plan organization.

Hazard Mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to human life and property from hazards. Planning is the process of setting goals, developing strategies, and outlining tasks and schedules to accomplish the goals.

Hazard Mitigation Planning is the process through which natural hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies that would lessen the impacts are determined, prioritized, and implemented.

Hazard Mitigation Planning is required for state and local governments to maintain their eligibility for certain federal disaster assistance and hazard mitigation funding programs. Communities at risk from natural disasters can ill afford to jeopardize this funding.

PURPOSE AND NEED

Each year, natural disasters in the United States take the lives of hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars each year to help communities, organizations, businesses and individuals recover from disasters. These monies only partially reflect the true cost of disasters, because additional expenses to insurance companies and non-government organizations are not reimbursed by tax dollars.

Additionally, many natural disasters are predictable. Many more are repetitive, often with the same results. Many of the damages caused by these events can be alleviated or even eliminated.

FEMA, the Federal Emergency Management Agency, now a part of the Department of Homeland Security, has made reducing losses from natural disasters one of its primary goals. Hazard Mitigation Planning and subsequent implementation of projects, measures, and policies developed through those plans, is the primary mechanism in achieving these goals. Success in reducing disaster damages has taken place as the result of mitigation projects implemented as a result of mitigation planning.

This plan was developed pursuant to the DMA regulations published in the *Federal Register* Volume 67, Number 38, Tuesday, February 26, 2002. Section 104 of DMA revises the Robert T. Stafford Disaster Relief and Emergency Assistance Act by adding Section 322, which provides new and revitalized emphasis on hazard mitigation, including adding a new requirement for local mitigation plans. These new local mitigation-planning regulations are implemented through 44 CFR Part 201.6.

DMA requires local governments to have a FEMA-approved Hazard Mitigation Plan in place. Compliance with these requirements will maintain continued eligibility for certain Hazard Mitigation – or disaster loss reduction – programs from FEMA for each organization that participated in this planning process.

More importantly, proactive mitigation planning at the local level can help reduce the cost of disaster response and recovery to property owners and government by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruption.

SCOPE

The Sacramento County Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that covers the following incorporated communities that participated in the planning process:

- City of Citrus Heights
- City of Elk Grove
- City of Folsom
- City of Galt
- City of Isleton
- City of Ranch Cordova
- City of Sacramento and
- Sacramento County.

This plan also covers 69 additional special districts and organizations within Sacramento County that meet the DMA definition of "local government" and participated in the planning process. The types of districts and organizations include:

- Community service districts (3)
- Conservation districts (2)
- Fire protection districts (6)
- Flood control agency (1)
- Recreation and park districts (9)
- Reclamation districts (11)
- School districts (13)
- Utility districts (2) and
- Water districts (22).

All organizations participating in this planning process are listed in Appendix B.

This plan identifies goals, objectives and measures for hazard mitigation and risk reduction to make communities less vulnerable and more disaster resistant and sustainable. Information in the plan can also be used to help guide and coordinate mitigation activities and local policy decisions for future land use decisions.

This Plan follows DMA planning requirements and associated guidance for developing Local Hazard Mitigation Plans. This guidance sets forth a generalized 4-task process:

1) Organize resources
2) Assess hazards and risks
3) Develop a mitigation plan and
4) Evaluate the work.

This Plan also utilizes the process set forth in FEMA Region IX's Crosswalk Reference Document for Review and Submission of Local Mitigation Plans, and the California Office of Emergency Services (CA-OES) guidance for Local Hazard Mitigation Plans (LHMP).

This plan addresses natural hazards only. Although the participants of the Sacramento Hazard Mitigation Planning Committee (HMPC) recognize that FEMA is both encouraging and promoting communities to integrate human-caused hazards into the mitigation planning process, the scope of this effort did not address these human-caused hazards for two reasons. First, many of the planning activities for the mitigation of human-caused hazards are either underway or complete, and have been developed by a different set of organizations. Secondly, DMA requires extensive public information and input, and this is in direct conflict with the secrecy necessary in planning for the fight against chemical, biological, and radiological terrorism. The HMPC determined it was not in the community's best interest to publicly share specific information about the area's vulnerability to human-caused hazards.

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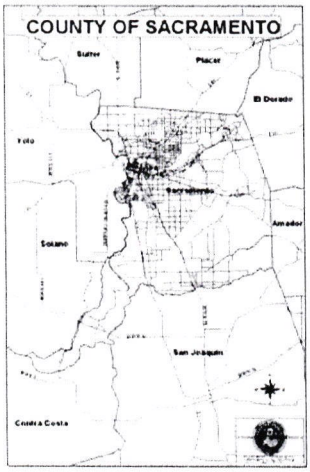
Multi-Hazard Mitigation Plan

2.0 Community Profile

GEOGRAPHY: LOCATION, POPULATION AND SIZE

Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California. The County's largest city, the City of Sacramento, is the seat of government for the State of California and also serves as the county seat. Sacramento was incorporated in 1849 and became the State Capital in 1854. The County is the major component of the Sacramento Metropolitan Statistical Area ('SMSA') which includes Sacramento, El Dorado, and Placer Counties.

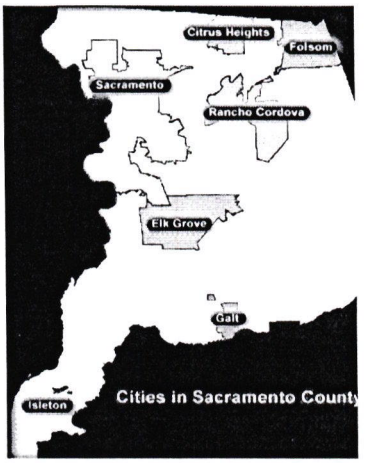


Sacramento County encompasses approximately 955 square miles in the middle of the 400-mile long Central Valley, which is California's prime agricultural region. The County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west. Sacramento County extends from the low delta lands between the Sacramento and San Joaquin rivers north to about ten miles beyond the State Capitol and east to the foothills of the Sierra Nevada Mountains. The southernmost portion of Sacramento County has direct access to the San Francisco Bay.

Sacramento County is the eighth most populous county in California. The following table estimates the population and size of the County and its incorporated communities:

	Population	Size
Sacramento County	1,379,440	955.01 Sq. miles
City of Sacramento	411,200	96.34 Sq. miles
City of Elk Grove	94,850	38.60 Sq. miles
City of Citrus Heights	85,400	14.24 Sq. miles
City of Rancho Cordova	54,000	35.00 Sq. miles
City of Folsom	51,300	24.17 Sq. miles
City of Galt	19,550	2.95 Sq. miles
City of Isleton	840	.46 Sq. miles
Unincorporated Area	662,300	813.25 Sq. miles

Source: SacCounty.net; Revised to include Rancho Cordova



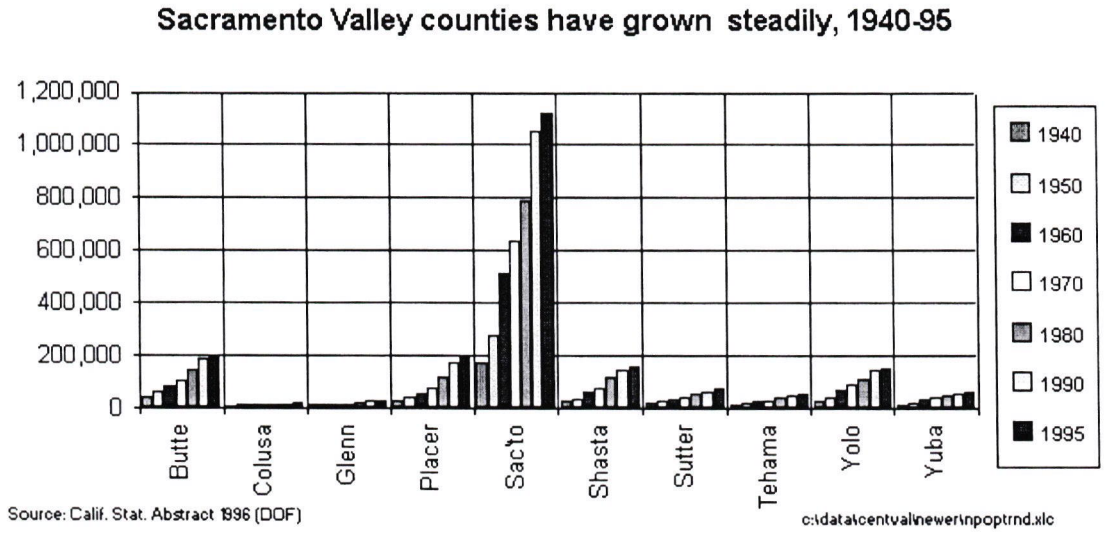
All maps on this page courtesy SacCounty.net

Over the last decade, the County population has increased rapidly, as the following table depicts for the period 1990 – 2000. Elk Grove and Rancho Cordova are not included as they were not incorporated until 2000 and 2003, respectively. No percent change is shown for Citrus Heights, as it was not incorporated until 1997. The incorporations of Citrus Heights, Elk Grove and Rancho Cordova have shifted a large percentage of the county's population out of the unincorporated county.

	1990 Population	2000 Population	Numeric Change	Percent Change
Sacramento County	1,041,219	1,223,499	182,280	17.5
City of Citrus Heights		85,071		
City of Folsom	29,802	51,884	22,082	74.1
City of Galt	8,889	19,472	10,583	119.1
City of Isleton	833	828	-5	-0.6
City of Sacramento	369,365	407,018	37,653	10.2

Source: California Department of Finance, Demographic Research Unit: http://www.dof.ca.gov/html/demograp/table1.xls

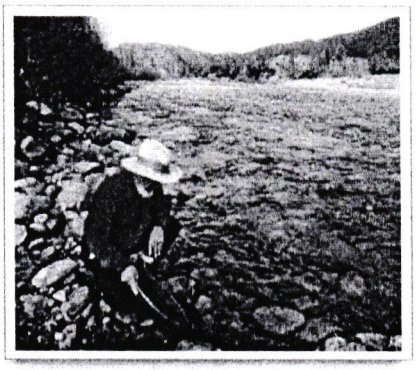
The next table further emphasizes the significant population growth within Sacramento County.



Sacramento County is responsible for providing 'municipal'-type services such as water supply, drainage, sewer and garbage collection to the unincorporated area making it a larger service provider than all the cities combined. (Note, however, that there are 22 water providers within the county). The County also provides some drainage services for Citrus Heights, Elk Grove and Rancho Cordova.

HISTORY

Source: History (edited) and picture are from www.discovergold.org



Sacramento's history began in 1839 when Johann Augustus Sutter settled at the confluence of the American and Sacramento Rivers. When the Mexican government and Governor Alvarado granted 48,000 acres of land to Sutter, they did not realize that they had given away a literal goldmine. Gold was discovered in 1848 just 30 miles east of Sacramento, in Coloma. The rest is history!

The news of the discovery spread like wildfire around the globe and fortune hunters came by the thousands from all corners of the world to California—Sacramento to be precise. In fact, it was recorded as the largest human migration in history. The city has been on the move ever since and is now one of the fastest growing regions in the United States. Sacramento has been called a snapshot of Wild West history in a modern, world-class city. The California Gold Rush era is preserved in Old Sacramento, a 28-acre town of historic buildings, museums and monuments. With strong preservation efforts, the wooden sidewalks, horse-drawn carriages, Pony Express monuments and Mississippi-style riverboats reflect the nostalgic appeal of early American history.

CLIMATE

The climate for Sacramento is Mediterranean with mild winters and dry summers. Annual average temperatures range from 53 to 93 degrees Fahrenheit. The humidity in the area is low, averaging 45 percent. Sacramento average annual rainfall is 17.3 inches per year, with the highest average amounts falling between December and February. It rarely snows. The table below displays the monthly and annual climate statistics for the City of Sacramento.

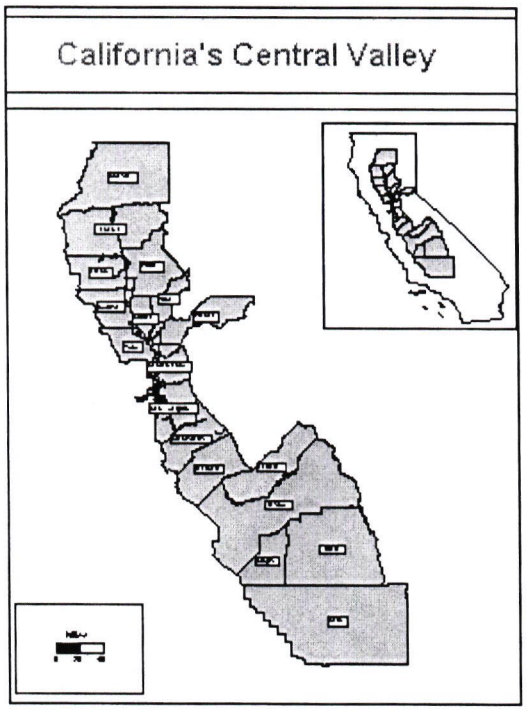
Sacramento (City)	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average High temperature in degrees F	73	53	60	64	71	80	87	93	91	87	78	63	53
Average Low temperature in degrees F	48	38	41	43	46	50	55	58	58	56	50	43	38
Number of days warmer than 90 degrees F	73	0	0	0	Tr	5	12	22	19	12	2	0	0
Number of days colder than 10 degrees F	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Precipitation in inches	17.3	3.6	2.8	2.4	1.3	0.4	0.1	Tr	0.1	0.3	1	2.4	2.8
Average Snow in inches	Tr	Tr	Tr	Tr	Tr	0	0	0	0	0	0	0	Tr
Number of days with some precipitation	58	10	8	9	5	3	1	Tr	Tr	2	3	7	9
Number of days with thunderstorms	2	Tr	Tr	1	1	Tr	Tr	Tr	Tr	Tr	Tr	Tr	Tr
Average percentage of Relative Humidity	45	70	59	51	43	36	31	28	29	31	39	57	70
Average Windspeed in knots	9	8	8	9	9	10	11	9	9	9	9	8	8

Source: www.bestplacesnet./climate/climateus4.asp?wmo=724830 (Sperling's Best Places)

PHYSICAL FEATURES AND LAND USE

Source: *A Statistical Tour of California's Great Central Valley*
By Kenneth W. Umbach, Ph.D. @ www.library.ca.gov/CRB/97/09

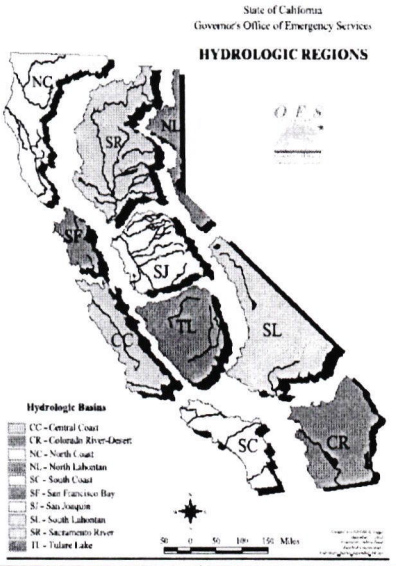
Sacramento County is part of California's great Central Valley, which stretches from Shasta County to Kern County – some 450 miles long and typically 40 to 60 miles wide. The Central Valley encompasses 18 counties with a total of over five million people and over 42,000 square miles – one-sixth of the population and more than two-fifths of the land area of the state. Geographically, the Central Valley may be subdivided into northern and southern portions. The northern part, the Sacramento Valley, encompasses 10 counties, and the southern, or San Joaquin Valley, encompasses eight.



The Central Valley is centered on agriculture and it is the most productive in California. This productivity has not come easily, as it has required the combined efforts of laborers, landowners, agricultural researchers, hydraulic engineers, and many others over generations.

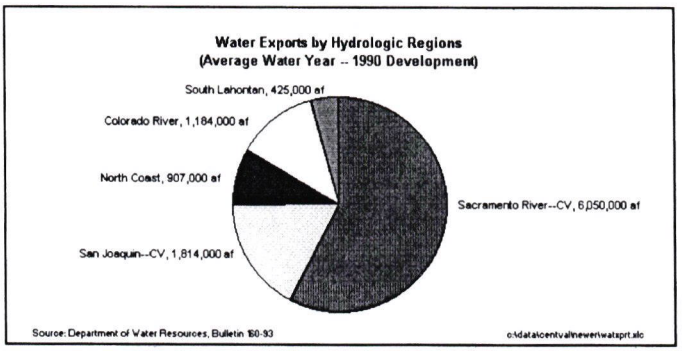
Sacramento County differs from the northern valley in that it is the State Capital, and therefore home to the Legislature, Governor's Office, and many government departments and agencies. The state and local governments employ nearly one-quarter of the county's employed residents (1994 data). The county is also distinctive among Central Valley counties by virtue of its population, which is the largest and most dense in the valley. Even with the county's population density, 61.3 percent of the land is in farms (1992 data), producing milk, wine grapes, pears, field corn, tomatoes, turkeys and other products.

In terms of watersheds, the Central Valley is encompassed by the Sacramento River watershed, the San Joaquin River watershed, and the Tulare Lake watershed. The Sacramento River watershed stretches from roughly the northeast corner of California to Sacramento County. The San Joaquin Valley watershed encompasses the area from the southeast corner of Sacramento County to Madera County.



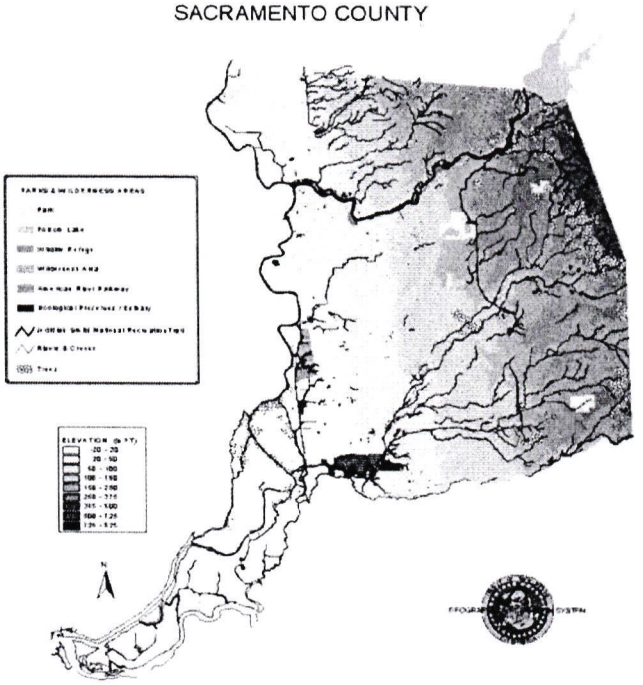
The Sacramento River hydrologic region contains the entire drainage area of the Sacramento River and its tributaries. It begins upstream of Shasta Lake near the Oregon boarder and extends south to the Sacramento-San Joaquin Delta. The San Joaquin River hydrologic region contains the entire drainage area of the San Joaquin and its tributaries. It extends from the Delta and the Cosumnes River in the north to the southern

reaches of the San Joaquin watershed. The northern part of the Central Valley provides much of the State's water. More water is exported from the Sacramento Region than all other regions combined.



The natural features of Sacramento County are displayed below. The colors shaded from peach to brown depict the steady rise in ground elevation from west to east. The City of Isleton, in the southwest tip of the County (the 'Delta,' colored the palest peach) is situated only five feet above sea level. The City of Folsom, just below Folsom Lake in the northeast corner of the county, is situated between 218 and 790 feet above sea level. The gross pool elevation of Folsom Lake is 466 feet above sea level. This eastward gain in elevation portrays how the County rises from the Delta through the Central Valley floor to the foothills of the Sierra Nevada mountains, and highlights how east flowing rain and snowstorms return to the valley as runoff through the rivers and streams of the watersheds.

NATURAL FEATURES
OF
SACRAMENTO COUNTY



The downtown urban core of the City of Sacramento is a combination of skyscrapers, neighborhoods and renovated historic buildings.

ECONOMY

Source: California Department of Finance, 2003 Statistical Abstract: www.dof.ca.gov

Sacramento County has a vibrant and diversified economy, including the following attributes:

- The seat of state government
- $300 million in agricultural operations based on milk, fruit, corn, turkey, rice and other products
- Close proximity to large markets
- A transportation system that include two interstate highways, three mainline railroad tracks and an international airport which services 7.4 million passengers annually
- An average unemployment rate of 4.6 percent
- A median income over $30,000 and a
- Superb quality of life supported by temperate climate, affordable housing, six million trees, 14 park districts, 19 major public & private colleges and universities, 16 public school districts, 15 major art and historical museums, 26 public libraries, and 10 hospitals.

In addition, each of the seven incorporated cities, has their own economic engine. These include:

- Citrus Heights
- Elk Grove
- Folsom
- Galt
- Isleton
- Rancho Cordova and
- Sacramento.

Multi-Hazard Mitigation Plan

3.0 Planning Process

44 CFR 201.6(b): "An open public involvement process is essential to the development of an effective plan".

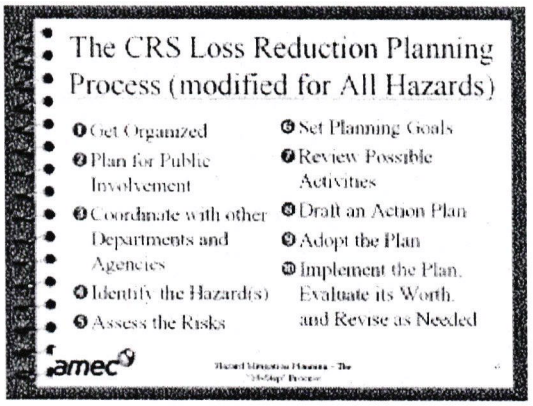
The Sacramento County Department of Water Resources, City of Sacramento Department of Utilities and City of Folsom Public Works Department contracted with AMEC Earth & Environmental (AMEC) to facilitate and develop this countywide, multi-jurisdictional multi-hazard Mitigation Plan through the provision of a professional mitigation planning team. The project was initiated, and project management was provided, by County Department of Water Resources, with administrative assistance by the County Sheriff's Department, Office of Emergency Services (OES). AMEC's role was to:

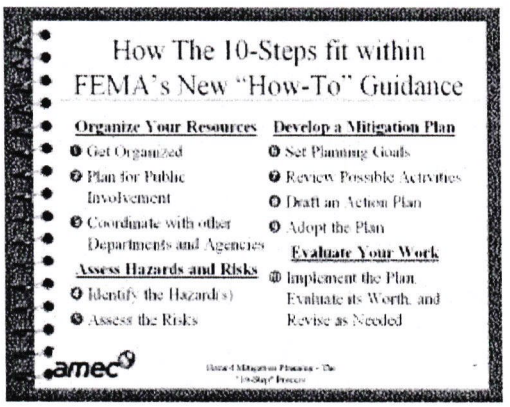
- Establish a HMPC for Sacramento County, all incorporated communities, and all other "local governments" as defined by the DMA regulations
- Meet all of the DMA requirements as established by federal regulations, following FEMA's planning guidance
- Meet the Community Rating System (CRS) of the National Flood Insurance Program's (NFIP) planning requirements for Repetitive Loss Communities (Sacramento County and Sacramento City only)
- Facilitate the entire planning process
- Identify the data requirements that the HMPC participants could provide, and conduct the research and documentation necessary to augment that data
- Develop and facilitate the public input process
- Produce the draft and final plan documents and
- Coordinate the State OES and FEMA Region IX reviews of this plan, and formal adoption of the plan by the governing board of each participating 'local government'.

Funding for the planning assistance contract was provided to Sacramento County by FEMA through the CA-OES. The required local match was provided with both cash and 'in-kind' matches, through cash disbursements for professional planning services, copying and public notices, and the many hours spent on this effort by each of the HMPC participants attending meetings, collecting data, managing administrative details, as well as through the use of their facilities for meetings.

AMEC established the process for this planning effort utilizing the DMA planning requirements and FEMA's associated guidance. This guidance is structured around a generalized four-phase process. AMEC also integrated an older, more detailed 10-step planning process that was still required at the time this effort was initiated for other FEMA mitigation plans, such as for the NFIP's CRS and Flood Mitigation Assistance (FMA) programs. Thus, AMEC formulated a single planning process that melds these two sets of planning requirements together and meets the requirements of six major programs: DMA, CRS, FMA, Hazard Mitigation Grant Program

(HMGP), FEMA's Pre-Disaster Mitigation Program (PDM), and new flood control projects authorized by the U.S. Army Corps of Engineers (USACE). The graphics below shows how the 10-step process fits within the four-phase process.





Integration of CRS Planning Steps into DMA Planning Process

The following table also serves as a means of cross-referencing the two sets of planning requirements.

DMA AND CRS PLANNING CROSS REFERENCE

Disaster Mitigation Act Planning Regulations (44 *CFR* 201.6)	CRS Planning Steps
Planning process	
201.6(c)(1)	1. Organize
201.6(b)(1)	2. Involve the public
201.6(b)(2) & (3)	3. Coordinate
Risk assessment	
201.6(c)(2)(i)	4. Assess the hazard
201.6(c)(2)(ii) & (iii)	5. Assess the problem
Mitigation strategy	
201.6(c)(3)(i)	6. Set goals
201.6(c)(3)(ii)	7. Review possible activities
201.6(c)(3)(iii)	8. Draft an action plan
Plan maintenance	
201.6(c)(5)	9. Adopt the plan
201.6(c)(4)	10. Implement, evaluate, revise

***Source**: CRS Coordinator's Manual, Floodplain Management Planning, Commentary*

LOCAL GOVERNMENT/COMMUNITY PARTICIPATION

The DMA planning regulations and guidance stress that each local government seeking the required FEMA approval of their mitigation plan must:

- Participate in the process
- Detail areas within the planning area where the risk differs from that facing the entire area
- Identify specific projects to be eligible for funding and
- Have the governing board formally adopt the plan.

For Sacramento County HMPC members, 'participation' means the local government representatives will:

- Attend the HMPC meetings
- Provide available data that is requested by the HMPC
- Review and provide/coordinate comments on the draft plans
- Advertise, coordinate and participate in the public input process and
- Coordinate the formal adoption of the plan by the governing boards.

THE PLANNING PROCESS

Step 1: Get Organized – Building the Planning Team

AMEC worked with Sacramento County's Department of Water Resources to establish the framework and organization for the development of this Plan. The Plan was developed by a planning team (the HMPC) led by AMEC, and was comprised of key county, city, and other local government and stakeholder representatives. Sacramento County and the Cities of Folsom and Sacramento formally adopted resolutions that:

1. Established the HMPC and appointed particular departments to participate
2. Identified plan contributions for the participating departments
3. Included representative members of the public and
4. Charged the HMPC with particular responsibilities covering the 10-step planning process.

These resolutions are on file with each community. For Sacramento County and City, these resolutions were adopted to support their CRS programs, and will be included as part of their annual CRS re-certification efforts. Folsom adopted their resolution to demonstrate their leadership and support for this overall planning effort.

The HMPC met 11 times over an 11-month period.

HMPC Meeting	Meeting Topic	2004 Meeting Date
1	Introduction to DMA	January 22
2	Hazard identification	February 27
3	Vulnerability data collection	April 15
4	Existing capability assessment	May 3
5	Formation of planning goals and objectives	May 6
6	Project & early public meetings review	July 22
7	Mitigation categories, alternatives and criteria	August 18
8	Develop mitigation strategy and action items	August 19
9	Review of rough first draft of plan	September 23
10	Review first draft of plan	October 26–November 8
11	Review of 2nd draft comments from public meetings	December 10

As stated in section 1.0, the HMPC included representatives from:

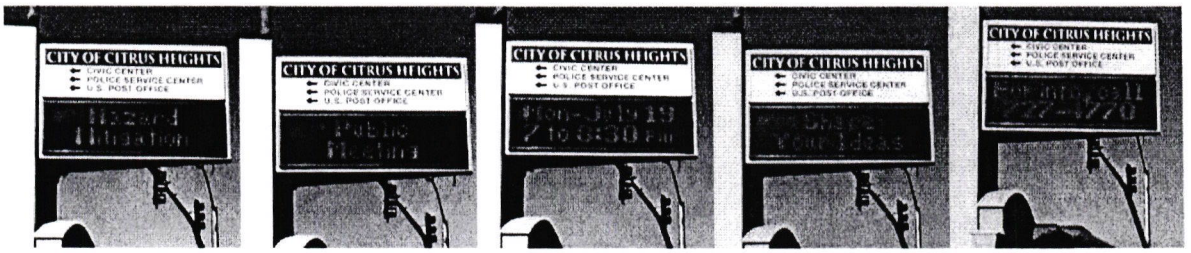
- City of Citrus Heights
- City of Elk Grove
- City of Folsom
- City of Galt
- City of Isleton
- City of Rancho Cordova
- City of Sacramento
- Sacramento County and
- 69 additional special districts and organizations within Sacramento County that meet the DMA definition of "local government"

The list of HMPC representatives is included in Appendix B. Attendees and agendas for each of the HMPC meetings are on file with the County Sheriff's Department OES. The HMPC will stay in existence for the purpose of implementing and updating this plan.

In addition to the HMPC meetings, separate meetings were also conducted with county and city staff to review and evaluate their current CRS program status and the potential impact this plan might have upon their respective class rating.

Step 2: Plan for Public Involvement – Engaging the Public

The HMPC undertook myriad strategies to engage the public in the planning process. Most significantly, 21 citizens participated directly on the HMPC. In addition, two series of formal public meetings were conducted. Three meetings were conducted in July 2004, during the early data collection stages of the planning process. 24 citizens and 21 HMPC members attended these meetings.



Three additional formal public meetings were conducted in December 2004 to hear comments on the second draft of the plan. The draft plan was posted to the websites www.saccounty.net, www.saccodwr.org and www.folsom.ca.us providing the general public 21 days to review the document prior to these public meetings.

City Government
Departments and Services
Employment
Visitor Information
Business Information
News, Announcements & Hearings
Board and Commission Openings
Maps
Sister Cities

City of Sacramento

Events Calendar

Maps

Sacramento Intermodal Transportation Facility Project

City Hall Expansion Project

Bridging I-5

Help reconnect downtown to the riverfront!

Please give us your ideas, suggestions and comments about Bridging over I-5 !

Parade and Park Use Regulations (updated)

the Beehive

View City Council Meetings

Railyards Visioning Exercise

SacSites - Business Development

Volunteer with the City

Multi-Hazard Plan (draft)

accounty.net/waterresources/files/Files.asp?pageID=239

Drainage
Drainage Fee & Credit Program
Groundwater
Groundwater Elevation Maps
Maps & Districts
Districts
Maps
Water Districts
Other
General Documents
Spanish Language
Stormwater
Flood Ready
Stormwater Management
Utility Customers
Updates
Water Supply
Brochures and Publications
Development
Other Documents
Zone 40
EIR
Groundwater Management Plan
Master Plan
Sunrise Corridor/Mather/Sunrise Douglas WSIP

Disaster Mitigation 2000

Cover
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Executive Summary & Table of Contents
Size: 31.3 KB Modified: 11/18/2004 2:25 PM

Sections 1 - 3
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Section 4.1 Hazard Identification
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Section 4.2 Vulnerability
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Section 4.3 Capablity Assessment
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Sections 5.1 - 5.4
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Section 6.0 - Introduction to Community Element
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Section 6.1 - Sacramento County Element
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Section 6.2 - Sacramento City Element
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Section 6.3 - Citrus Heights Element
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Section 6.4 - Elk Grove Element
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Section 6.5 - Folsom Element
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Section 6.6 - Galt Element
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Section 6.7 - Isleton Delta Element
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The City of Folsom

Multi-Hazard Mitigation Plan Public Meetings

The City of Folsom, Sacramento County and the City of Sacramento are sponsoring the development of a countywide Multi-Hazard Mitigation Plan to better mobilize resources to address potential natural hazards (such as flooding, fire and earthquakes) before they occur. This plan is also required in order to maintain eligibility for funding from the Federal Emergency Management Agency (FEMA).

Folsom residents may review a draft of the Multi-Hazard Mitigation Plan in the Public Works and City Clerk's Office at City Hall (50 Natoma St.), at the Folsom Public Library (300 Persifer St.) or by following this link
http://www.msa.saccounty.net/waterresources/Home.asp

Three public meetings will be held during December to review the draft plan and receive comments. The same meetings are being held at different locations as follows:

Public Meetings

7 p.m., Tuesday, Dec. 7
Police Services Center
6237 Fountain Square Drive
Citrus Heights

7 p.m., Wednesday, Dec. 8
Lisbon Elementary School Cafeteria
7555 South Land Park Drive
Sacramento

7 p.m., Thursday, Dec. 9
Arden-Dimmick Community Library
891 Watt Avenue
Sacramento

Note: Because this is a county-wide project, public meetings are scheduled in different locations. Folsom hosted a public meeting in July.

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Department of Water Resources

Message from the Director

New city incorporations and the formation of Sacramento County's Municipal Services Agency will forever change the way public works services are provided. Our staff is dedicated to meeting the public's needs in these times of change. Through innovation and excellence our commitment is to provide the best service possible.

The Sacramento County Department of Water Resources provides drainage, flood control and water supply services within our community. This Guide is intended to help our customers better understand our services and programs. We have provided descriptions of what we do, our various funding sources, service jurisdictions and who to contact if you have questions.

We welcome your comments and suggestions.

Sincerely,
Keith DeVore

Disaster Mitigation Plan 2000
View the Disaster Mitigation Plan 2000 by chapter and section or read the related press release for information on public meetings.

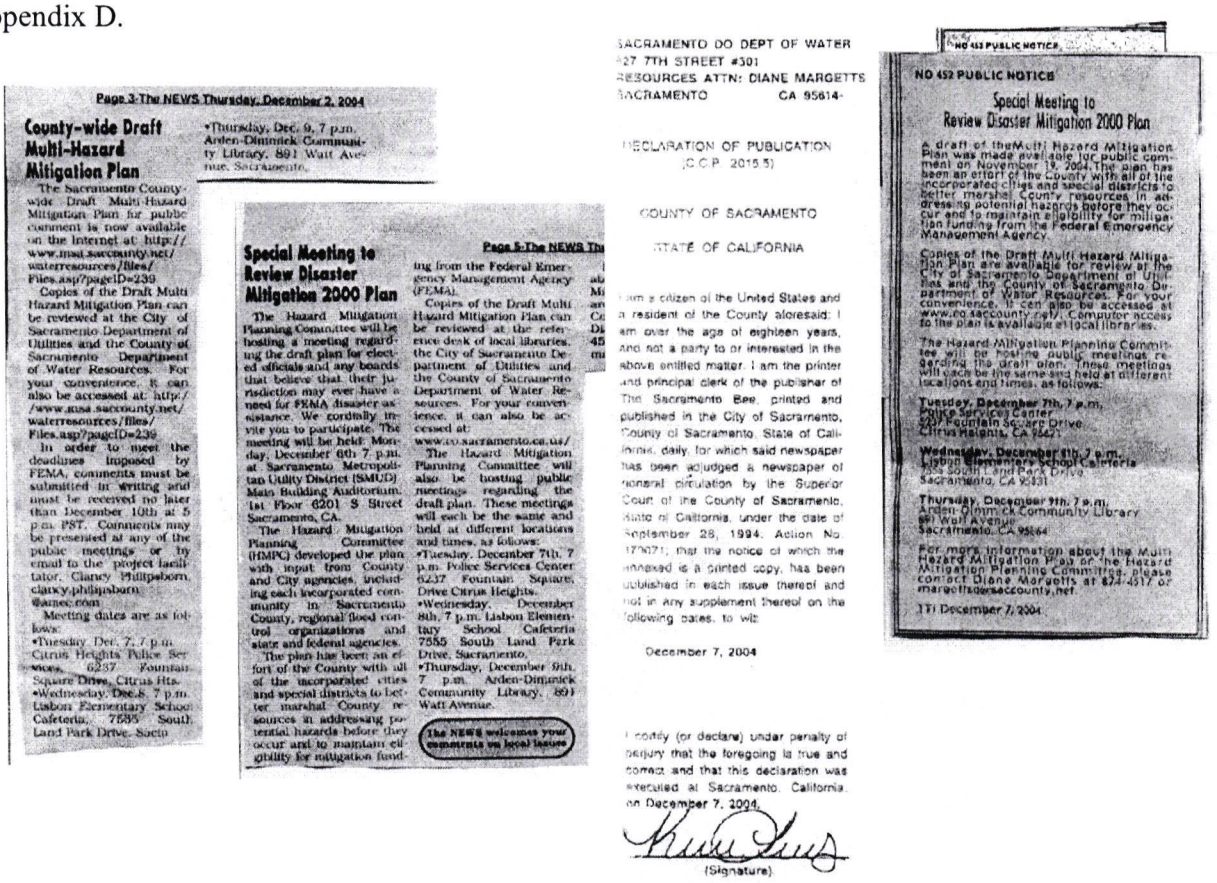
Legal Notices

Drainage Fee & Credit Program (Effective 9/16/04)

Water Supply Zone 40 Water Development Fees

Public Outreach Questionnaires

Additionally, press releases were developed and distributed by the Public Information Officers (PIO) for the County and City of Sacramento to all the local media outlets and posted to the community websites. Hard copies of the draft plan were also made available for review at libraries, County Municipal Services Agency public counters, and City Hall. Stakeholder and public comments were addressed by the HMPC in Meeting #10 and reflected in the preparation of the final plan. Public comments on the review are included as Appendix D.



Page 3-The NEWS Thursday, December 2, 2004

County-wide Draft Multi-Hazard Mitigation Plan

The Sacramento County-wide Draft Multi-Hazard Mitigation Plan for public comment is now available on the internet at http://www.msa.saccounty.net/waterresources/files/Files.asp?pageID=239

Copies of the Draft Multi Hazard Mitigation Plan can be reviewed at the City of Sacramento Department of Utilities and the County of Sacramento Department of Water Resources. For your convenience, it can also be accessed at: http://www.msa.saccounty.net/waterresources/files/Files.asp?pageID=239

In order to meet the deadlines imposed by FEMA, comments must be submitted in writing and must be received no later than December 10th at 5 p.m. PST. Comments may be presented at any of the public meetings or by email to the project facilitator, Clancy Philipsborn clancy.philipsborn@aznec.com.

Meeting dates are as follows:

•Tuesday, Dec. 7, 7 p.m. Citrus Heights Police Services, 6237 Fountain Square Drive, Citrus Hts.

•Wednesday, Dec. 8, 7 p.m. Lisbon Elementary School Cafeteria, 7555 South Land Park Drive, Sacto

•Thursday, Dec. 9, 7 p.m. Arden-Dimmick Community Library, 891 Watt Avenue, Sacramento.

Special Meeting to Review Disaster Mitigation 2000 Plan

Page 5-The NEWS Th

The Hazard Mitigation Planning Committee will be hosting a meeting regarding the draft plan for elected officials and any boards that believe that their jurisdiction may ever have a need for FEMA disaster assistance. We cordially invite you to participate. The meeting will be held: Monday, December 6th 7 p.m. at Sacramento Metropolitan Utility District (SMUD) Main Building Auditorium, 1st Floor 6201 S Street Sacramento, CA.

The Hazard Mitigation Planning Committee (HMPC) developed the plan with input from County and City agencies, including each incorporated community in Sacramento County, regional flood control organizations and state and federal agencies.

The plan has been an effort of the County with all of the incorporated cities and special districts to better marshal County resources in addressing potential hazards before they occur and to maintain eligibility for mitigation funding from the Federal Emergency Management Agency (FEMA).

Copies of the Draft Multi Hazard Mitigation Plan can be reviewed at the reference desk of local libraries, the City of Sacramento Department of Utilities and the County of Sacramento Department of Water Resources. For your convenience, it can also be accessed at: www.co.sacramento.ca.us/

The Hazard Mitigation Planning Committee will also be hosting public meetings regarding the draft plan. These meetings will each be the same and held at different locations and times, as follows:

•Tuesday, December 7th, 7 p.m. Police Services Center 6237 Fountain Square Drive Citrus Heights.

•Wednesday, December 8th, 7 p.m. Lisbon Elementary School Cafeteria 7555 South Land Park Drive, Sacramento.

•Thursday, December 9th, 7 p.m. Arden-Dimmick Community Library, 891 Watt Avenue.

The NEWS welcomes your comments on local issues

SACRAMENTO DO DEPT OF WATER
927 7TH STREET #301
RESOURCES ATTN: DIANE MARGETTS
SACRAMENTO CA 95814-

DECLARATION OF PUBLICATION
(C.C.P. 2015.5)

COUNTY OF SACRAMENTO

STATE OF CALIFORNIA

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the printer and principal clerk of the publisher of The Sacramento Bee, printed and published in the City of Sacramento, County of Sacramento, State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sacramento, State of California, under the date of September 28, 1994, Action No. 379071; that the notice of which the annexed is a printed copy, has been published in each issue thereof and not in any supplement thereof on the following dates, to wit:

December 7, 2004

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Sacramento, California, on December 7, 2004.

(Signature)

NO 452 PUBLIC NOTICE

NO 452 PUBLIC NOTICE

Special Meeting to Review Disaster Mitigation 2000 Plan

A draft of theMulti Hazard Mitigation Plan was made available for public comment on November 19, 2004.The plan has been an effort of the County with all of the incorporated cities and special districts to better marshal County resources in addressing potential hazards before they occur and to maintain eligibility for mitigation funding from the Federal Emergency Management Agency.

Copies of the Draft Multi Hazard Mitigation Plan are available for review at the City of Sacramento Department of Utilities and the County of Sacramento Department of Water Resources. For your convenience, it can also be accessed at www.co.saccounty.net/. Computer access to the plan is available at local libraries.

The Hazard Mitigation Planning Committee will be hosting public meetings regarding the draft plan. These meetings will each be the same and held at different locations and times, as follows:

Tuesday, December 7th, 7 p.m.
Police Services Center
6237 Fountain Square Drive
Citrus Heights, CA 95621

Wednesday, December 8th, 7 p.m.
Lisbon Elementary School Cafeteria
7555 South Land Park Drive
Sacramento, CA 95831

Thursday, December 9th, 7 p.m.
Arden-Dimmick Community Library
891 Watt Avenue
Sacramento, CA 95864

For more information about the Multi Hazard Mitigation Plan or the Hazard Mitigation Planning Committee, please contact Diane Margetts at 874-4317 or margettsd@saccounty.net.

TT/ December 7, 2004

Finally, the County and City of Sacramento formed a subcommittee to the HMPC specifically to develop a Public Information Strategy that would be creditable under the CRS program. The Public Information Strategy Subcommittee is comprised of the following county and city representatives:

- The CRS Coordinators
- The Public Information Officers
- The Webmasters and
- Representatives of the Public.

The subcommittee met twice during the planning process. The county found that the formal Public Information Strategy would not significantly benefit their existing flood hazard management program. However, the City of Sacramento subcommittee members did find

benefit to their existing flood hazard management program. Thus, the city's formal Public Information Strategy is incorporated and explained in detail within the City of Sacramento 'Community Element' portion of this plan.

Step 3: Coordinate with Other Departments and Agencies

Early on in the planning process, the HMPC determined that data collection, mitigation and action strategy development, and plan approval would be greatly enhanced by inviting other state and federal agencies to participate in the planning process. Based on their involvement in hazard mitigation planning, representatives from the following key agencies were offered the opportunity to provide comments to or participate in the process as members of the HMPC:

- Bureau of Reclamation
- California Office of Emergency Services, Hazard Mitigation Program
- California Department of Fish and Game
- California Department of Water Resources, State NFIP Coordinator
- FEMA Region IX
- National Marine Fisheries Service
- National Weather Service
- USACE, Sacramento District, and the
- US Fish and Wildlife Service.

Each of the above agencies were issued invitations both in writing and by e-mail notification. The HMPC provided each agency with an individual copy of the draft plan for their review and written comment. Those comments were incorporated into this document. Additionally, technical data, reports and studies were obtained from these agencies either through web-based resources or directly from the agencies.

The CRS program requires that the neighboring communities also be invited to participate in the planning process, and to review the draft documents. Therefore, on behalf of the County and City of Sacramento, the following neighboring counties were invited to participate, review and comment on our planning activities:

- Yolo County
- Placer County
- El Dorado County, and
- Sutter County.

Copies of the letters seeking coordination with state and federal agencies are on file with the Sacramento County Department of Water Resources. Copies of the letters inviting neighboring communities' review and comments are on file with the county and city CRS annual re-certification documentation.

Step 4: Hazard Identification and Step 5: Risk Assessment

AMEC led the HMPC in an exhaustive research effort to identify and document all the natural hazards that have, or could, impact Sacramento County. This process and the results are included

in this plan as Chapter 4 – Risk Assessment (Section 4-1 – Hazard Identification, Section 4-2 – Vulnerability Assessment, and Section 4-3 – the existing mitigation Capability Assessment).

Step 6: Identifying Goals and Step 7: Review Possible Measures

AMEC led facilitated HMPC brainstorming and discussion sessions that described the purpose and the process of developing planning goals and objectives, a comprehensive range of mitigation alternatives, and a method of selecting and defending recommended mitigation actions utilizing a series of selection criteria. This information is included in this plan as Chapter 5 – Mitigation Goals and Strategy.

Step 8: Draft the Mitigation Action Plan

AMEC developed three drafts of this plan for the HMPC. The first draft was reviewed in-house only by members of the HMPC. AMEC received these comments, made appropriate revisions at the direction of the HMPC, and developed a second draft of this plan, which was extensively advertised and distributed for the purpose of collecting public input and comments through a series of formal Public Meetings. This second draft was also submitted to CA-OES and French & Associates, an AMEC subconsultant, for additional review. The comments and issues from the Public Meetings and the additional reviews were then discussed with the HMPC, appropriate revisions were made, and a third draft of the plan was produced reflecting the public and technical input.

Step 9: Adopt the Plan

The third draft of the plan was submitted to FEMA Region IX for review and tentative approval, pending formal adoption of the plan by each of the participating jurisdictions. This plan is the final, FEMA approved, locally adopted multi-jurisdictional plan for Sacramento County. Each of the Adoption resolutions are included on the CD included with this plan. Of the 77 participating local government jurisdictions listed in Appendix B, _____# have adopted this plan at the time of Sacramento County's formal submission to FEMA Region IX. Additional adoptions will be forwarded to FEMA as they become available.

Planning Step 10: Implement the Plan

The true worth of this, and any mitigation plan, is its final step – implementation. To this point, all of the HMPC efforts have been directed at researching data, coordinating input from participating entities, and developing appropriate mitigation actions. Each recommended action includes key descriptors, such as a lead manager and possible funding sources, to help initiate implementation of the specific action. Beyond that, however, an overall strategy is described in Chapter 7 – Implementation and Plan Maintenance.

RELATING THIS PLAN TO OTHER COMMUNITY AND MITIGATION PLANNING EFFORTS AND ACTIVITIES

Finally, there are numerous organizations within Sacramento County whose goals and interests interface with hazard mitigation. Coordination with these other community planning efforts is paramount to the success of this plan.

Hazard mitigation planning involves identifying existing community policies, tools and actions that will reduce a community's risk and vulnerability from natural hazards. Sacramento County and the incorporated communities and other eligible 'local governments' utilize a variety of comprehensive planning mechanisms, such as land use and master plans, emergency response and mitigation plans, and municipal ordinances and building codes to manage community growth and development.

During the planning process the HMPC gathered and analyzed information from these organizations either directly through email, telephone, and/or meetings, or indirectly through newsletters, brochures, and websites. These organizations include:

- American River Task Force
- American River Parkway Foundation
- Arcade Watershed Group
- California Reclamation Board
- Dry Creek Watershed Council
- Lower American River Task Force
- Natomas Basin Conservancy
- North Area Round Table
- North Fork American River Watershed
- Sacramento Area Council of Governments (SACOG)
- Sacramento Area Flood Control Agency (SAFCA)
- Sacramento River Planning Forum
- Save the American River Association, Inc.
- Sacramento Urban Creeks Council
- Sacramento Water Forum (the successor effort) and
- Valley Vision.

Additionally, the development of this plan utilized information included in the following community plans, studies, reports, and initiatives:

- CALFED Bay-Delta Program, *Seismic Vulnerability of the Sacramento-San Joaquin Delta Levees*, April 2000
- *California Floodplain Management Task Force Final Recommendations Report*, December 2002
- California Reclamation Board's *Sacramento and San Joaquin River Basins S-1 Interim Report Comprehensive Study,* December 20, 2002
- City of Sacramento *Comprehensive Flood Management Plan*, February 1996
- *Safety Elements of the General Plans* for Sacramento County and each incorporated community
- Flood Emergency Operations Manual, DWR, February 2002
- *Governor's Flood Emergency Action Team Report*, May 10, 1977
- Interagency Hazard Mitigation Team Report, FEMA –DR-1044-CA, 1995
- Lower American River Task Force *River Corridor Management Plan*, January 2002
- Natomas Comprehensive Drainage Plan (SAFCA and City of Sacramento, 1995)
- Sacramento County *Local Floodplain Management Plan*, 2001
- Sacramento County *Multi-Hazard Disaster Plan*, July, 1997

- Strong and Chicken Ranch Sloughs Feasibility Study, USACE/SAFCA/SAC-CO, October 2003 and
- Water Forum Agreement, January 2000.

The Sacramento Area Flood Control Agency (SAFCA) provides a good example of how these organizations interface with hazard mitigation. SAFCA is a sponsor and participant in three collaborative planning forums that promote coordination, cooperation and mutual assistance among local, state, and federal agencies, neighborhood groups and environmental organizations with an interest in river and stream management issues. These three collaborations are the Lower American River Task Force (Task Force), the North Area Round Table (Round Table) and the Sacramento River Corridor Planning Forum (Planning Forum).

The Lower American River Task Force focuses on flood, environmental and recreational management issues affecting the lower reach of the American River from Folsom Dam to the Sacramento River. In 2002, Task Force participants cooperated in preparing the Lower American River Corridor Management Plan (RCMP) to provide a framework for integrated management of this reach of the river. The RCMP is intended to serve as a catalyst for updating the 1985 American River Parkway Plan.

The North Area Round Table addresses fiscal issues and stream management and recreation access issues associated with Steelhead Creek, Dry Creek, Arcade Creek and Magpie Creek. For the past five years, the Round Table has focused considerable attention on the City of Sacramento's emerging Ueda Parkway, particularly the levee top bike and pedestrian trail that constitutes the Parkway's major recreational feature.

The Sacramento River Corridor Planning Forum addresses riverfront development, public access and flood management issues affecting the reach of the Lower Sacramento River extending from the Fremont Weir to Courtland. The Planning Forum's principal focus has been developing guidelines for implementing the updated Sacramento Riverfront Master Plan along the Lower Sacramento River between the mouth of the American River and the mouth of the Sacramento River Deep Ship Channel.

The Planning Forum's Master Plan presents a vision of the riverfront as a distinctive feature of an emerging downtown core that spans both sides of the river and includes offices, retail, and restaurants attracting mid and high-density housing developments that help to deter sprawl in the surrounding metropolitan area. The Master Plan embraces the goal that riverfront improvements should be designed to avoid adverse impacts to the flood control system in the area and should collectively improve the functionality and reliability of the system. The Guidelines developed by the Forum are intended to provide a framework for achieving this goal, and are organized around the following general principles:

- Improve the stability of eroding or unstable banks and levee slopes
- Maintain the ability to inspect levees and floodwalls
- Improve access for levee and bank protection maintenance activities
- Maintain or improve flood conveyance capacity and reliability
- Reduce navigation and flood-related safety risks and

- Limit the damage vulnerability of riverfront improvements.

These general principles provide a foundation for developing the following more specific guidelines for the Sacramento River:

Bank and Levee Stabilization – These guidelines are designed to ensure that riverfront improvements incorporate features that will improve bank and levee stability in the project area. The guidelines call for removal of derelict or abandoned structures from the levee and floodway as part of the riverfront development process, limiting structures on the levee and within ten feet of the landside toe of the levee to infrastructure that is maintained and operated by public agencies improving deficient levees and protecting eroding banks as part of the riverfront development process, and avoiding structural designs that increase the risk of levee seepage or otherwise compromise levee stability. The guidelines also clarify the applicability of these design principles to irregular levees in the project area and underscore the importance of protecting the eroding banks in the project area that may provide the only remaining landscape in the project area for achieving the Master Plan's greenbelt and recreation access objectives.

Improved Access for Routine Maintenance and Emergency Response – These guidelines recognize that the continuity and condition of the levee roadway is the most essential component of a viable flood operations and maintenance program. Thus, the guidelines complement the Master Plan's call for a continuous system of multiple-use paved levee top promenades and trails throughout the project area. In order to ensure that these facilities are properly designed and maintained, the guidelines call for elimination of barriers and gaps in the levee roadway system; provision of adequate levee top widths to accommodate the safe passage of levee maintenance vehicles, incorporation of adequate levee access points and vehicle turnouts to permit effective levee maintenance, inspection and emergency response activity, and posting of informational signs to explain the rules for shared use of levee roads.

Assurance of Floodway Hydraulic Capacity – A key goal of the guidelines is to ensure that as the development envisioned in the Master Plan unfolds, the capacity of the floodway to safely convey floodwaters is maintained or improved. This goal extends to improving the predictability of hydraulic conditions during floods, evaluating the potential effects of debris and ensuring the security of floating and fixed structures. Toward this end, SAFCA has evaluated the cumulative effects of the Master Plan on the hydraulic capacity of the floodway using a one-dimensional model developed by the U.S. Army Corps of Engineers. This evaluation indicated that these cumulative effects would be minimal due to the relative magnitude of the planned developments in comparison to the size of the river channel. Nevertheless, the guidelines call for additional, detailed modeling of individual facilities as they are proposed, using two-dimensional model simulations as necessary, to ensure that these facilities will not adversely affect channel bed or bank stability in discreet locations of the floodway.

The guidelines also contain specific provisions regarding the design of Master Plan facilities that will encroach into the floodway, including marinas, new bridges, fishing piers, floating docks and bank vegetation. These guidelines anticipate that the two new marinas called for in the Master Plan will be sited exclusively in off-channel locations. The guidelines on fishing piers are intended to reduce the dependence on or use of submerged piles to support piers, or other

typical designs that will create new flow obstructions or trap floating debris. The guidelines on floating docks are intended to address the potential for these facilities to inappropriately reduce the conveyance area of the channel, increase the risk of debris accumulation, induce sediment deposition in areas of reduced channel velocities, and heighten the risk of breakaway boats or other structures that can be impinged on bridges or other facilities. The guidelines on bank vegetation are intended to allow for the fulfillment of the greenbelt objective of the Master Plan in a manner that does not impair the maintenance of flood project facilities, flood fight activities, or the inspection of the channel and levee banks. The guidelines do not address the appropriateness of developing riverfront restaurants in the project area. Rather, this issue has been deferred for further consideration in the next phase of the Forum process.

Another instance that provides a good example of how other organizations and plans could interface with this hazard mitigation plan is included in Chapter 7, Implementation and Plan maintenance.

Multi-Hazard Mitigation Plan

4.0 Risk Assessment

44 CFR 201.6(c)(2)(ii): "The risk assessment shall include...a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

Risk from natural hazards is a combination of hazard and exposure. The risk assessment process measures the potential loss to a community, including loss of life, personal injury, property damage, and economic injury resulting from a hazard event.

The risk assessment process allows a community to better understand their potential risk and associated vulnerability to natural hazards. This information provides the framework for a community to develop and prioritize mitigation strategies and plans to help reduce both the risk and vulnerability from future hazard events. The risk assessment for this Sacramento Countywide Multi-Hazard Mitigation Plan followed the methodology described in the FEMA publication 386-2 *"Understanding Your Risks – Identifying Hazards and Estimating Losses"* (FEMA, 2002) and was based on a four-step process:

(1) Identify hazards
(2) Profile hazard events
(3) Inventory assets and
(4) Estimate losses.

This risk assessment covers DMA Planning Step 4 – Assess the Hazard and DMA Planning Step 5 – Assess the Problem. It also includes a third component, Existing Mitigation Capabilities, where the risk and vulnerability are analyzed in light of what existing mitigation measures are in place, for example, the adoption and enforcement of building codes, warning systems and floodplain development regulations.

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Multi-Hazard Mitigation Plan

4.1 Hazard Identification

The HMPC conducted a Hazard Identification study to determine what hazards threaten the planning area. This section of the plan documents the previous occurrence of natural hazards, those that might occur in the future, and the likelihood of their recurrence.

Utilizing historical data from the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC), CA-OES, and FEMA Region IX, the HMPC developed and confirmed a list of those natural hazards of significance to the participating communities within the planning area. Significance was measured in general terms, focusing on key criteria such as frequency and resulting damage, including, deaths/injuries and property and economic damages to a community.

The natural hazards identified and investigated in Sacramento County include:

- Severe weather
  - Heavy rains/storms
  - Tornadoes
  - Fog
- Flood
- Dam failure
- Earthquakes
- Wildfires
- Drought
- Natural health hazards
  - West Nile Virus
- Landslides and
- Volcanoes

All of the above are identified in the California State Hazard Mitigation Plan with the exception of severe weather and West Nile Virus.

DISASTER DECLARATION HISTORY

One method to identify hazards based upon past occurrence is to look at what events triggered federal and/or state disaster declarations within the planning area. Disaster declarations are granted when the severity and magnitude of the event's impact surpass the ability of the local government to respond and recover. Disaster assistance is supplemental and sequential. When the local government's capacity has been surpassed, a state disaster declaration may be issued,

allowing for the provision of state assistance. Should the disaster be so severe that both the local and state government's capacity is exceeded, a federal disaster declaration may be issued allowing for the provision of federal disaster assistance.

Since the passage of the Stafford Act in 1988, FEMA Region IX has experienced 50 Presidential Disaster Declarations, obligating $10.4 billion to date. Within Sacramento County, there have been thirteen federal and five state declarations since 1950. Ten of the federal declarations and four of the state declarations were associated with flood events. Of the three remaining Federal declarations, one was related to drought and two to economic/agricultural losses due to severe weather and freezes. Together, these disasters resulted in over $2.26 billion in damages to the affected jurisdictions.

It is important to note that the federal government may issue a disaster declaration through the U.S. Department of Agriculture and/or the Small Business Administration, as well as through FEMA. The quantity and types of damage are the determining factors. In fact, recent SBA declarations included numerous declarations for Sacramento County, making small, non-farm businesses eligible for Economic Injury Disaster Loans as a result of damages associated with extreme weather events occurring between January 2001 and May 2003. These include the following declarations:

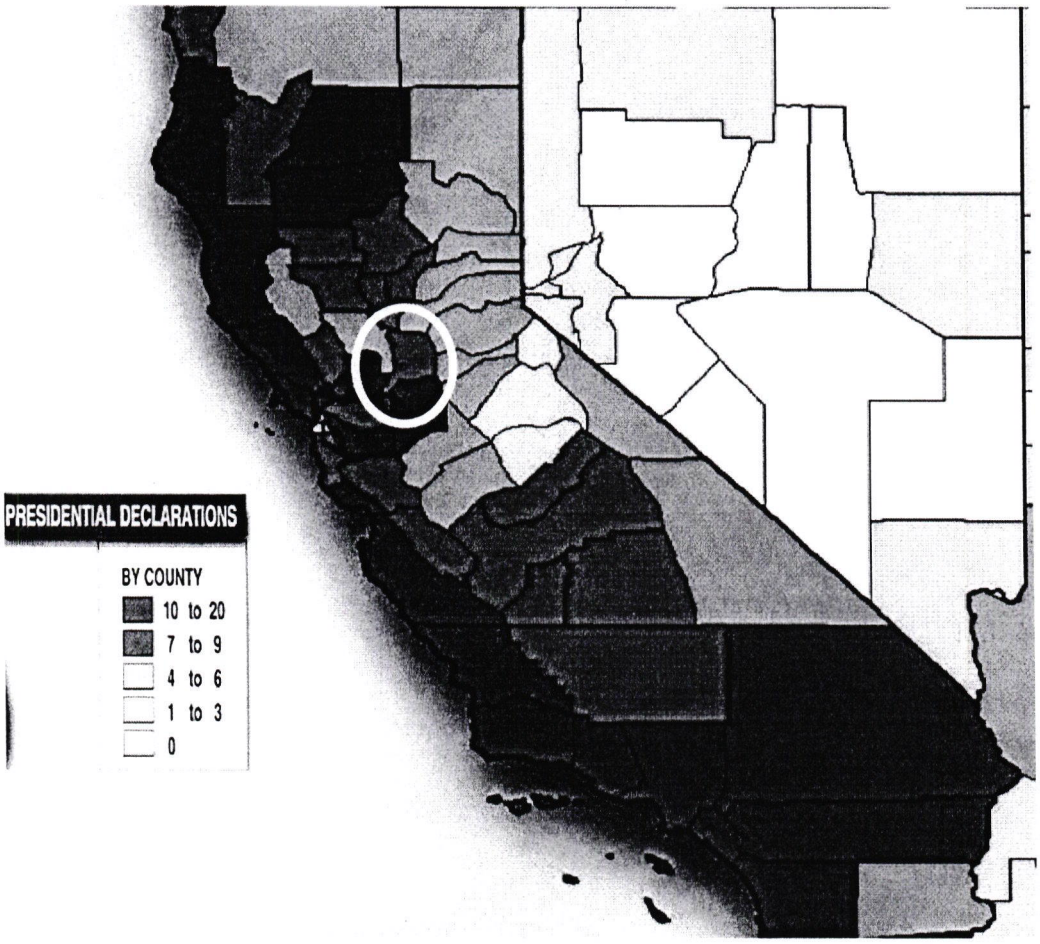
- SBA Declaration #9V57 – Rain & Wind
- SBA #9V54 – Drought
- SBA #9Z00 – Extreme Heat followed by Unseasonable Rainfall
- SBA #9X87 – Excessive Rain, Hail, Freezing Temperatures & Wheat Stripe Rust
- SBA #9X85 – Excessive Rain, Hail, Freezing Temperatures & Wheat Stripe Rust
- SBA #9X60 – Excessive Rain & Wheat Rust and
- SBA Declaration #9W77 – Hailstorm and Rain.

Recent Department of Agriculture disaster declarations include one for Sacramento County in October of 2003 due to damages and losses caused by excessive rain and wheat stripe rust. These designations make all qualified farm operators eligible for low-interest emergency loans as well as eligible for funding from other assistance programs available to farmers and ranchers.

The map on the following page displays the number of Presidential (FEMA) Disaster Declarations within the planning area between 1965 and 2002. Clearly, Sacramento County is susceptible to disaster.

PRESIDENTIAL DISASTER DECLARATIONS MAP

January 1, 1965 to November 1, 2002



Source: www.fema.gov

Other disaster data obtained by the HMPC is provided, in chronological order, in the table below. In general, this data is inconsistent from source to source.

Year	Event	Location	Declaration Type	Damages	Source of Data	Notes
11/21/50	Flood	Sac. County	State	9 deaths $32.2 Million	CAL OES	CA OCD 50-01
12/23/55	Flood	Sac. County	State	74 deaths $300 Million $213K in Sac.Co.	CA OES	CA 47-DR-CA
02/26/58	Flood: Storm and Flood Damage	Sac. County	State	unknown	CA OES	CDO 58-03
04/04/58	Flood	Sac. County	State	13 deaths $24 Million $204K in Sac.Co.	CA OES	CD 82-DR-CA
04/25/59	Hail	Sac. County		unknown	NCDC	.75 in.

Year	Event	Location	Declaration Type*	Damages	Source of Data	Notes
02/07/62	Severe Storm Thunderstorm Wind	Sac. County		Injuries: .26 Fatalities: .35 Property : $86,206.90	Sheldus: USC-Hazards Research Lab (SC HRL)	Fips: 06067
10/--/62	Flood	Sac. County		$65,000	Sac. City FIS	
12/29/64	Flood: 1964 Late Winter Storms	Sac. County	Federal	$213.1 Million	CA OES	OEP 183-DR-CA
09/16/65	Wind	Sac. County		Property : $104K Crop Damage: $1,470.59	Sheldus: USC HRL SacCity FIS	Fips: 06067
01/18/69	Severe Storm/T-Storm	Sac. County		Injuries: .17 Fatalities: .78 Property: $862,068.97 Crop Damage: $8,620.69	Sheldus: USC HRL	Fips: 06067
02/20/69	Severe Storm/Thunderstorm, Wind, Winter Weather	Sac. County (as part of statewide disaster)	Federal	47 deaths, 161 injuries, Property: $300 Million	Sheldus: USC HRL Sac .City FIS	$159K damage in City
06/27/72	Flood: Andrus Island Levee Break	Sac. County	Federal	$23,681,630	CA OES	OEP 342-DR-CA
01/16/73	Flooding, Severe Storm, Thunderstorm	Sac. County		Fatalities: .02 Property Damage: 86,206.90	Sheldus: USC HRL	Fips: 06067
11/17/73	T-storm Wind	Sac. County		unknown	NCDC	54 knots
01/12/77	Drought	Sac. County	Federal	unknown	CA OES	GP-1977
01/16/78	T-storm Wind	Sac. County		unknown	NCDC	51 knots
02/05/78	T-storm Wind	Sac. County		unknown	NCDC	57 knots
02/07/78	Tornado	Sac. County		Property Damage: 250K	NCDC	F2
02/07/78	Tornado	Sac. County		Property Damage: 500,000.00	Sheldus: USC HRL	Fips: 06067
12/23/79	Severe Storm/Thunderstorm, Wind, Winter Weather	Sac. County		Property Damage: 14,285.71	Sheldus: USC HRL	Fips: 06067
01/23/80	Flood: Delta Levee Breaks	Sac. County (+ 2 others)	Federal	$17,388,013	CA OES	FEMA 3078-EM (80-15)
11/13/81	T-storm Wind	Sac. County		unknown	NCDC	52 knots
04/28/82	Flood: Heavy Rains/Flooding 5/82	Sac. County	Federal	unknown	CA OES	DC-82-03 Thru 82-14

Year	Event	Location	Declaration Type*	Damages	Source of Data	Notes
10/26/82	Economic: Agricultural Losses due to Unseasonable Freeze	Sac. County	Federal		CA OES	GP-1982
12/21/82	Flooding	Sac. County		Property Damage: 5M	Sheldus: USC HRL	Fips: 06067
12/22/82	Wind	Sac. County		Injuries: .21 Fatalities: .06 Property Damage: 1,041,666.67 Crop Damage: 104.17	Sheldus: USC HRL	Fips: 06067
01/24/83	T-storm. Wind	Sac. County			NCDC	54 knots
02/09/83	Flood	Sac. County (statewide flooding)	Federal	$523.6 Million	CA OES	FEMA 677-DR-CA
03/22/83	Tornado	Sac. County		Property: $250-500K	NCDC & Sheldus: USC HRL	Fips: 06067 F1
12/03/83	Severe Storm, T-storm, Wind	Sac. County		Injuries: .94 Fatalities: .25 Damage:312,500 Crop Damage: 3,125.00	Sheldus: USC HRL	Fips: 06067
02/17/86	Flooding	Sac. County		Property Damage: 5M	Sheldus: USC HRL	Fips: 06067
02/18/86	Flood: 1986 Spring Storms	Sac. County (statewide)	Federal	13 deaths $407.5 Million	CA OES	FEMA 758-DR-CA
02/28/88	T-storm Wind	Sac. County			NCDC	55 knots
04/19/88	Tornado	Sac. County		Property: 250K	NCDC	F1
04/19/88	Tornado	Sac. County		Property Damage: 500,000.00	Sheldus: USC HRL	Fips: 06067
12/20/90	Winter Weather	Sac. County		Fatalities: .05 Property: $86,206.90 Crop Damage: $8,620,689.65	Sheldus: USC HRL	Fips: 06067
02/05/92	Winter Weather	Sac. County		Property Damage: 862,069.00	Sheldus: USC HRL	Fips: 06067
02/11/92	Flooding, Winter Weather	Sac. County	Federal #935	Property Damage: 11,628.00	Sheldus: USC HRL	FEMA 935-DR
03/26/93	Funnel Cloud	Elverta			NCDC	
05/18/94	Hail	Sac. County		Property: $500,000.00	Sheldus: USC HRL	Fips: 06067

Year	Event	Location	Declaration Type*	Damages	Source of Data	Notes
01/10/95	Flood: 1995 Severe Winter Storms	Sac. County (statewide)	Federal	11 deaths $741.4 Million	CA OES	FEMA 1044-DR
12/22/96	T-storm Wind	Lambert			NCDC	80 knots
01/04/97	Flood: 1996/97 Winter Storms	Sac. County	Federal	1 death Property: $2.4M $5.5 Agriculture	CA OES & NCDC Ag. Comm.	FEMA 1155 DR-CA
01/22/97	Flash Flood	Sacramento		Property: $1.5M	NCDC	
01/26/97	Flash Flood	Sacramento		Property: $500K	NCDC	
01/26/97	Flash Flood	Rio Linda			NCDC	
12/11/97	Fog	Sac. County		Injuries: 5 Deaths: 1 Property: $300K	Sheldus: USC HRL	Fips: 06067
01/12/98	Heavy Rain	Countywide			NCDC	
01/18/98	Heavy Rain	Countywide			NCDC	
02/06/98	Flood: El Nino '98	Sac. County (statewide)	Federal		CA OES	FEMA 1203 DR-CA
04/24/98	Tornado	Arcade		Property Damage: $10K	NCDC	F0
12/18/98	Fog	Sac. County		Property: $83,333.33	Sheldus: USC HRL	Fips: 06067
02/07/99	Urban/small Stream Flooding	Sacramento, Elk Grove			NCDC	
12/20/99	Fog	Sac. County		Injuries: .33 Property Damage: 20,000.00	Sheldus: USC HRL	Fips: 06067
01/22/00	Heavy Rain	Citrus Heights, Elk Grove, Folsom, Sacramento		Injuries: 1 Property Damage: $15K	NCDC	
02/11/00	Heavy Rain	Folsom		Property Damage: 100K	NCDC	
05/15/00	Heavy Rain	Countywide			NCDC	
09/01/00	Heavy Rain	Sacramento Airport			NCDC	
10/09/00	Lightning	Elk Grove		Property Damage: 150K	NCDC	
01/08/01	Heavy Rain	Sacramento			NCDC	
01/17/01	Other: 2001 Energy Emergency	Sac. County (Statewide)	State		CA OES	GP-2001
02/19/01	Funnel Cloud	Sacramento			NCDC	
03/02/01	Funnel Cloud	Sacramento			NCDC	

** A blank in this field indicates that the incident had either a local declaration or possibly no declaration at all.*

Every historical hazard event listed above, except for the Andrus Island Levee failure and the 2001 energy emergency, resulted directly from extreme weather conditions. While the correlation between extreme weather events and state or federal disaster declarations is weak, the data demonstrates that injuries to people and damages to property are a direct result of severe weather conditions. Since 1950, there have been 59 documented severe weather events (including flood and tornado events) resulting in damages to the planning area.

SEVERE WEATHER

Almost all of Sacramento County's disaster declarations are a direct result of extreme weather conditions. For this plan, severe weather is discussed in the following subsections:

- Heavy Rain/Thunderstorms
- Tornadoes
- Fog

HEAVY RAIN/THUNDERSTORMS

Severe storms/thunderstorms in the planning area include heavy rains often accompanied by strong winds, lightning, and hail. Tornadoes may also occur during these storms. Thunderstorms can produce a strong rush of wind known as a downburst, or straight-line winds which may exceed 120 miles per hour. These storms can overturn poorly secured mobile homes, tear roofs off houses and topple trees. Often, downed trees fall across power lines or winds topple the power poles, causing power outages.

Approximately 10 percent of the thunderstorms that occur each year in the United States are classified as severe. A thunderstorm is classified as severe when it contains one or more of the following phenomena: (1) hail, three-quarters inch or greater, (2) winds gusting in excess of 50 knots (57.5 miles per hour), or (3) a tornado.

Lightning is defined as any and all of the various forms of visible electrical discharge caused by thunderstorms. Cloud-to-ground lightning can kill or injure people by direct or indirect means. Objects can be directly struck and this impact may result in an explosion burn, or total destruction. Or, the damage may be indirect when the current passes through or near it.

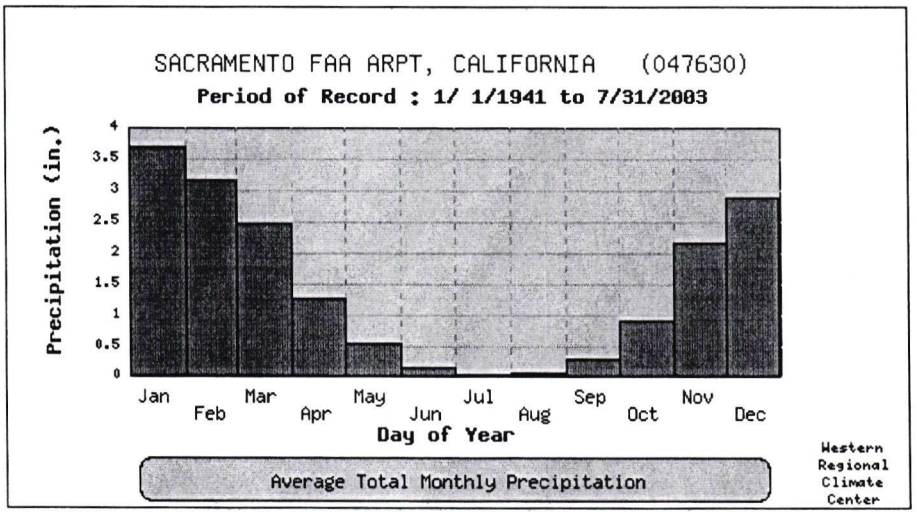
As discussed further in the following sections, heavy rains and severe storms occur in the planning area primarily during the late fall, winter and spring seasons.

Past Occurrences. In Sacramento County, precipitation occurred mostly as rain. Snow was a rare occurrence. The bulk of the rain occurred during the months of November through March. From 1941 through 2003, annual rainfall averaged 17.22 inches, but it can be quite variable. The highest recorded annual rainfall is 33.44 inches in 1983 and the highest recorded rainfall for a given month is 12.64 inches in December 1955. For a 24-hour period, the record high rainfall was 3.77 inches on October 13, 1962. The lowest annual rainfall total was 6.25 inches in 1976.

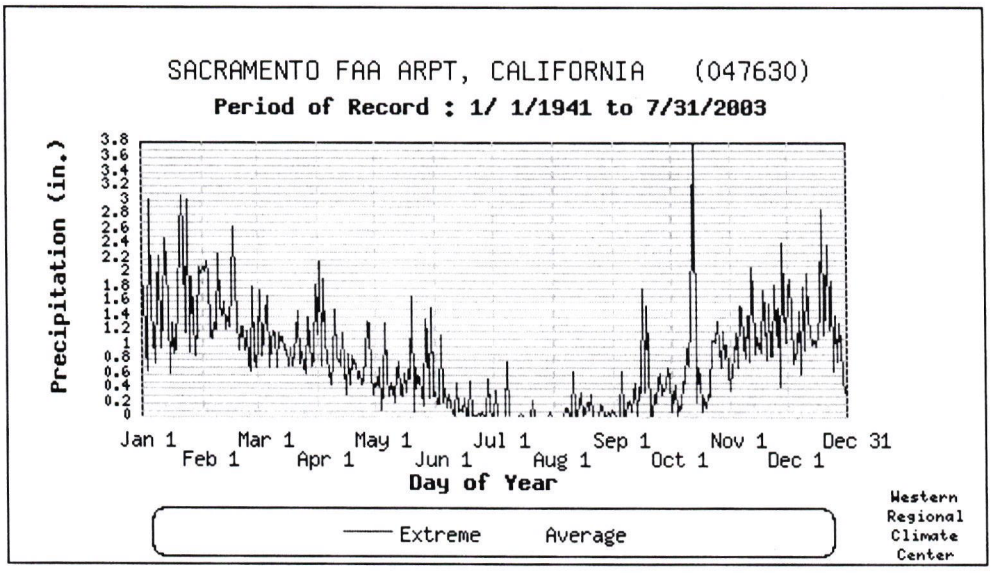
The temperature generally ranged from an average maximum temperature of low 50's to mid 90's and an average minimum temperature range of high 30's to high 50's. The highest daily extremes included a high of 115 on June 15, 1961 and a low of 18 on December 22, 1990.

The prevailing winds in Sacramento are Southerly at approximately 5-15 miles per hour. Winds from the North are generally dry. Pre-weather front winds generally come from the Southwest. The following graphs illustrate the weather conditions for Sacramento County.

AVERAGE TOTAL MONTHLY PRECIPITATION



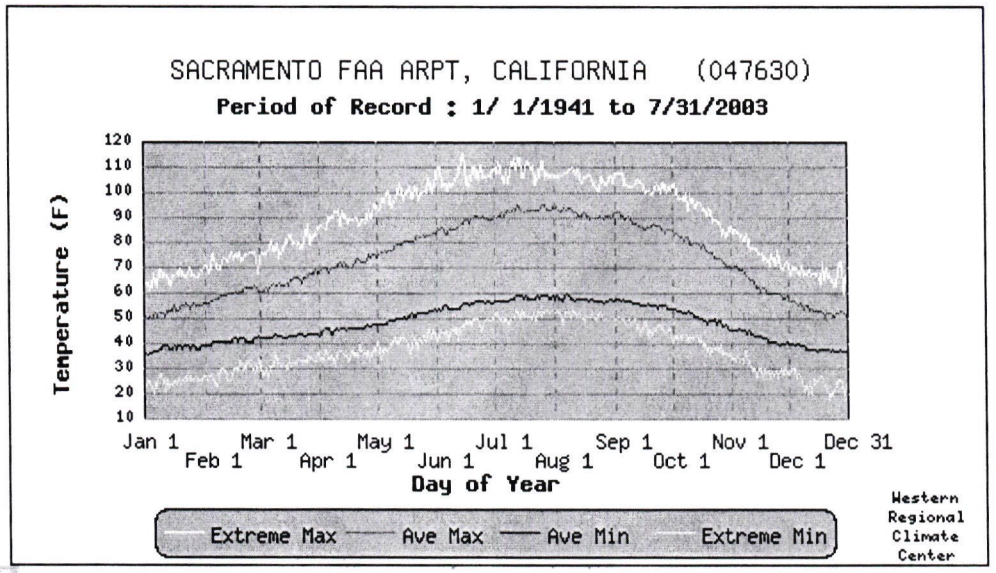
AVERAGE AND EXTREME DAILY PRECIPITATION



– Extreme is the greatest daily precipitation recorded for the day of the year.

– Average is the average of all daily precipitation recorded for the day of the year.

AVERAGE AND EXTREME DAILY TEMPERATURE



- Extreme Max is the maximum of all daily maximum temperatures recorded for the day of the year.
- Ave Max is the average of all daily maximum temperatures recorded for the day of the year.
- Ave Min is the average of all daily minimum temperatures recorded for the day of the year.
- Extreme Min is the minimum of all daily minimum temperatures recorded for the day of the year.

Likelihood of Future Occurrences. Severe weather and thunderstorms are likely to continue to occur annually in the Sacramento County planning area.

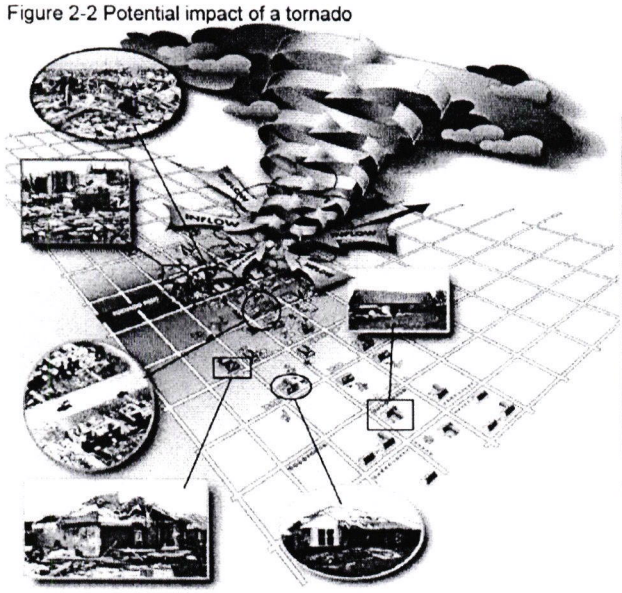
TORNADOES (AND OTHER SEVERE WIND EVENTS)

Tornadoes are another weather-related event that affects the planning area. Tornadoes are rotating columns of air marked by a funnel-shaped downward extension of a cumulonimbus cloud whirling at destructive speeds of up to 300 miles per hour. They usually accompany a thunderstorm. Tornadoes are the most powerful storms that exist. They can be comprised of the same pressure differential that fuels 300-mile wide hurricanes across a path only 300 yards wide or less. Tornado magnitude is ranked according to the Fujita scale listed below:

FUJITA TORNADO SCALE

F0: 40-72 mph (35-62 knots)
F1: 73-112 mph (63-97 knots)
F2: 113-157 mph (137-179 knots)
F3: 158-206 mph (137-179 knots)
F4: 207-260 mph (180-226 knots)
F5: 261-318 mph (227-276 knots)

Figure 2-2 Potential impact of a tornado



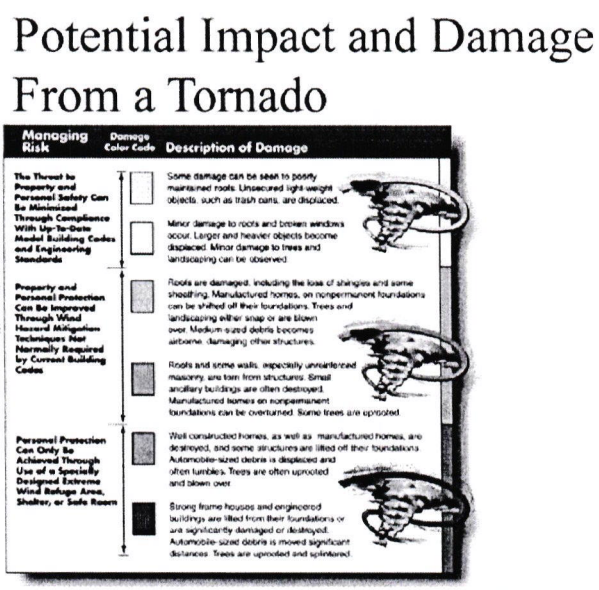


Figure 2-2 Potential damage table for impact of a tornado

Source: www.fema.gov

Past Occurrences. Sacramento County has experienced four tornadoes:

- ***02/07/1978*** Magnitude F2, Property Damage $250-500K
- ***03/22/1983*** Magnitude F1, Property Damage $250-500K
- ***04/19/1988*** Magnitude F1, Property Damage $250-500K and
- ***04/24/1998*** Magnitude F0, Property Damage $10K

In 1936, a terrific windstorm hit Sacramento, the 'City of Trees', littering the city with fallen trees and causing extensive damage. Another windstorm occurred on February 25, 2004 causing extensive damage to cars and homes. *(Source: Citizen input)* In 1998, a June wind caused $984,000 in losses to the hay, pear and rice crops. *(Source: Sacramento County Agricultural Commissioner memo)*

Likelihood of Future Tornado Occurrence. Based on data from 1950 – 1995, California ranks number 32 (compared to other states) for frequency of tornadoes, number 36 for injuries and number 31 for cost of damages. When compared to other states by the frequency per square mile, California ranks number 44 for the frequency of tornadoes, number 44 for injuries per area and number 40 for costs per area. *(Source: www.disastercenter.com)*

There have been four tornadoes during the 52-year period of record, or one tornado every 13 years on average. This equates to an annual probability of occurrence at 7.69 percent. There are no official recurrence intervals calculated for tornadoes. However, if one assumes a tornado affects only one square mile and there are 965 square miles in Sacramento County, the annual probability of a tornado hitting any particular square mile in the planning area is .07 in 965, or a 0.0001 percent (.000001) chance.

FOG

Fog results from air being cooled to the point where it can no longer hold all of the water vapor it contains. For example, rain can cool and moisten the air near the surface until fog forms. A cloud-free, humid air mass at night can lead to fog formation, where land and water surfaces that have warmed up during the summer are still evaporating a lot of water into the atmosphere – this is called 'radiation fog'. A warm moist air mass blowing over a cold surface can also cause fog to form-this is called 'advection fog'.

The NCDC data shows severe fog incidents in 1997, 1998, and 1999. In these three events there has been one death, 38 injuries, and $403,000 in property damage. Primarily, these incidents have been multi-vehicle pileups on the Interstate Highways. The HMPC has been unable to relate fog incidents with any other data, such as airport, interstate or school closures.

FLOODS

History clearly highlights floods as the most frequent natural hazard impacting Sacramento County. Floods are among the most costly natural disasters in terms of human hardship and economic loss nationwide. There are three different types of flood events in the Sacramento area: flash, riverine and urban stormwater. Regardless of the type of flood, the cause is often the result of severe weather and excessive rainfall, either in the flood area or upstream reach.

The term 'flash flood' describes localized floods of great volume and short duration, generally in less than four hours. In contrast to riverine flooding, this type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the spring and summer. Dam failures also often result in flash flooding. However, dam failures are addressed separately later on page 4-22.

Riverine flooding occurs when a watercourse exceeds its 'bank-full' capacity and is the most common type of flood event. Riverine flooding occurs as a result of prolonged rainfall that is combined with saturated soils from previous rain events, or combined with snowmelt, and is characterized by high peak flows of moderate duration and by a large volume of runoff. Riverine flooding occurs in river systems whose tributaries drain large geographic areas and can include many watersheds and sub-watersheds. The duration of riverine floods varies from a few hours to many days. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, soil moisture content, channel capacity, seasonal variation in vegetation, snow depth and water-resistance of the surface due to urbanization. In Sacramento County, riverine flooding can occur anytime during the period from November through April. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions.

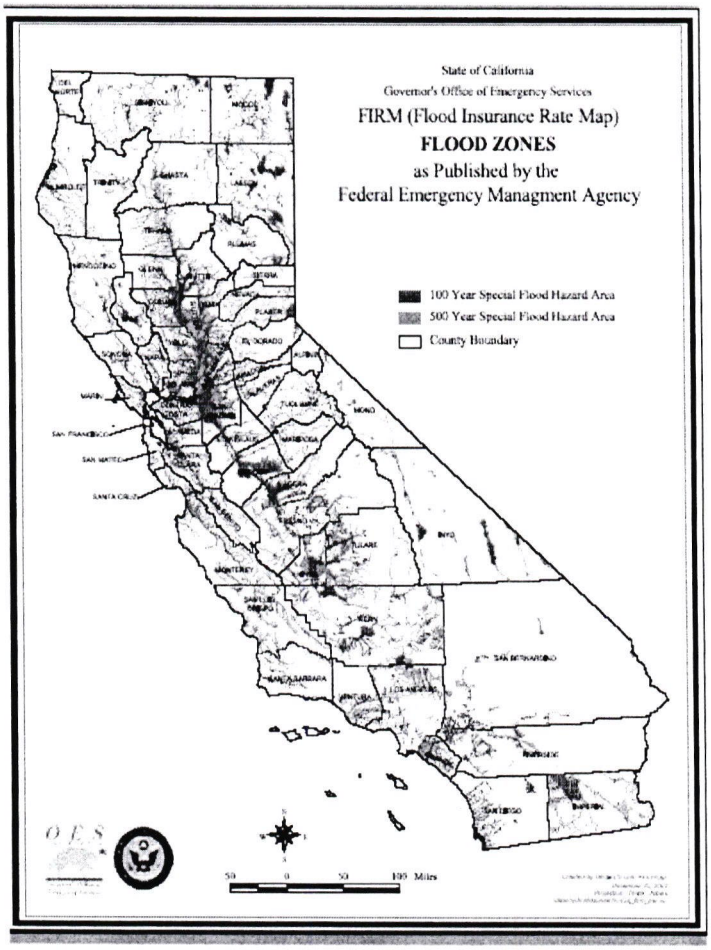
Urbanization may increase peak flow runoff as well as the total volume of stormwater runoff from a site. The increase is dependent upon the type of soil and its topography compared to the proposed development. The Soil Conservation Service (now known as the Natural Resources Conservation Service) has surveyed the soil types in the county. Much of the county is tight soil with low permeability. The City/County Hydrology Manual, Table 5-2, provides infiltration

rates for various land uses on various soil types. Comparison of the peak flow and volume impacts to the watershed should be analyzed whenever development is proposed to assure that any increases are accommodated.

The area adjacent to a channel is the floodplain. A floodplain is the area that is inundated during a flood event. It is often physically discernible as a broad, flat area created by prior floods. The larger the floodplain, the greater the area that is at risk for flooding. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths. In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a one percent chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP).

Major Sources of Flooding. In Sacramento County, there are three main rivers, the Sacramento, American and Cosumnes Rivers. The Sacramento and American Rivers and several tributaries to the east, north, and west all flow toward the City of Sacramento. The watersheds of these two main rivers drain most of northern California and part of southern Oregon for a total of some 26,000 square miles. The third, the Cosumnes River, flows southwesterly through the southern portion of the County and into the delta region.

The map to the right, a statewide view of the floodplains in California, highlights the quantity of water in northern California that drains through Sacramento County.



All surface water originating in or passing through Sacramento County discharges to the ocean via the Sacramento and San Joaquin Rivers, which join at the head of Suisun Bay, the easternmost arm of San Francisco Bay. With a combined tributary drainage area of approximately 60,000 square miles, these rivers provide most of the freshwater inflow to San Francisco Bay.

High water levels along the Sacramento and American Rivers are a common occurrence in the winter and early spring months due to increased flow from storm runoff and snowmelt. An extensive system of dams, levees, overflow weirs, drainage pumping plants, and flood control bypass channels strategically located on the Sacramento and American Rivers has been established to protect the area from flooding. These facilities control floodwaters by regulating the amount of water passing through a particular reach of the river. The amount of water flowing through the levee system can be controlled by Folsom Dam on the American River and the reserve overflow area of the Yolo Bypass on the Sacramento River. However, flood zones in Sacramento County are still extensive. Several areas of the county are still subject to flooding by the overtopping of rivers and creeks, levee failures, and the failure of urban drainage systems that cannot accommodate large volumes of water during severe rainstorms.

High flows on the Cosumnes River are less frequent, as the river is essentially dam free and has little in the way of flow regulation. Flooding along the river, such as in 1997, has been due to high water coupled with the failure of non-standard, poorly constructed private levees.

PAST OCCURRENCES: SACRAMENTO COUNTY FLOOD HISTORY

Nineteenth Century: Indian legends and historical records indicated that at least nine major floods have occurred in the Sacramento River Basin during the nineteenth century. A great flood (described in Indian legend as having swamped the entire Sacramento River Basin) occurred in 1805. Indians also described floods that occurred in 1825-26 as widespread in the basin. Extensive flooding in northern California took place in 1839-40, 1847, 1849-50, 1852, 1861-62 (the flood of record), 1881, and 1890. One of the earliest records of flooding in Sacramento was a graphic account which described the floods of January to March 1862 as follows: "The new Capitol is far out in the water – the Governor's house stands as in a lake – churches, public buildings, private building, everything is wet or in water. Not a road leading from the city is passable, business is at a dead standstill,…". *(Source: City of Sacramento FIS, 1998)*

1850 – 1910: Sacramento county raised the streets east of the Sacramento River to about 12th Street by 10 – 12 feet as a result of numerous floods occurring between 1850 and 1910. *(Source: SAFCA. Note: The streets were 'raised' by 'burying' the first floors of the buildings)*

1904 – 1905: In the winter of 1904 the Edwards levee break occurred 1.5 miles south of Y Street, flooding farmlands 35 miles south of Sacramento. As a result, in October 1905, Sacramento approved $165,000 for levee improvements. *(Source: A Sacramento Saga, Myrtle Shaw Lord, 1946)*

1907: "Great floods swept the valley in March, 1907. The highest water ever known in the island district prevailed on the 21st. Fair Oaks Bridge was swept away. With destruction as a

teacher, Sacramento learned an expensive lesson and determined there should be no repetition". *(Source: A Sacramento Saga, Myrtle Shaw Lord, 1946)*

1928: Newspaper account, rainfall and stream gage records indicated that Sacramento experienced significant flooding. In the City of Sacramento, the American River overflowed in 1928, causing extensive flooding in the River Park and Industrial Park areas on the south bank. (*Source:* Sac City FIS, 1998). North Sacramento was flooded for three days in late March. (*Source:* A Sacramento Saga, Myrtle Shaw Lord, 1946)

1950: State Disaster Declaration, CA OCD 50-01, 11/21/50. Newspaper accounts, rainfall and stream gage records indicated that Sacramento experienced significant flooding. In the City of Sacramento, the American River inundated extensive areas on the north bank, including the area in the vicinity of Fulton Avenue and Fair Oaks Boulevard. (Source: Sac City FIS, 1998).

1951 – Record Flood: Just after ground is broken on Folsom Dam, the American River watershed experienced the first of five record storms (*Source:* SAFCA).

1955 – 1956 Record Flood: Federal Disaster Declaration, CD 47-Dr-CA, 12/23/55 (***Source***: CA OES). In the City of Sacramento, Arcade Creek overflowed its banks, inundating portions of Del Paso Park as well as areas upstream along Winding Way and portions of the Hagginwood District downstream. Flooding also occurred on Dry and Robla Creeks near the Natomas East Main Drainage Canal. Large portions of the Morrison Creek Stream Group Basin were flooded during this time. High backwater conditions on the lower reaches of basin streams were caused by overflow from the Cosumnes and Mokelumne Rivers into the Beach-Stone Lakes area. Morrison Creek overflows flooded portions of the Sacramento Army Depot property, areas downstream from the Southern Pacific Railroad tracks and other areas east of Stockton Boulevard between 65th Street and Elder Creek Road, and caused the temporary closure of Meadowview Road west of Franklin Boulevard. Also, widespread flooding occurred along Elder, Florin, Unionhouse, and Laguna Creeks. The 1955 floodwaters covered about 8,300 acres, and flood damages were estimated at approximately $213,000. (*Source*: Sac City FIS, 1998). This record storm filled Folsom Lake in a week just as Folsom Dam was being completed. The Dam and Lake design engineers had predicted it would take a year to fill. As a result, Sacramento is saved from flooding (*Source:* SAFCA).

1958 – Flood: State Disaster Declaration, CD 82-DR-CA, Storm and Flood Damage, 02/26/1958 (*Source*: CA OES). The flooding of 1958 (approximately 10,600) acres covered a larger area than the floods of 1955, however, the flood damage estimate of $204,000 in 1958 was slightly lower. (*Source:* Sac City FIS, 1998)

1958 – Flood: Federal Disaster Declaration, CD 82-Dr-CA, 04/04/1958 (*Source:* CA OES).

1962 – Newspaper accounts, rainfall and stream gage records indicated that Sacramento experienced significant flooding. In the City of Sacramento, floods occurred twice in 1962. The February floods caused inundation along Arcade Creek I, the vicinity of Del Paso Park. The park and the Haggin Golf Course were flooded, and the floodwaters forced the closing of Roseville Road. Dry Creek and Robla Creeks caused flooding in the vicinity of the Natomas East Main Drainage Canal where Rio Linda Boulevard was threatened. In the Morrison Creek

Stream Group, floodwaters escaped from Morrison Creek near the Sacramento Army Depot. This overflow, along with other overflows from Morrison Creek upstream of Stockton Boulevard, caused widespread inundation of a primarily residential area east of Stockton Boulevard from the corporate limits north to Fruitridge Road. The Glen Elder section east of Stockton Boulevard and south of Elder Creek Road was the most severely flooded portion in the Morrison Creek Stream Group area. Laguna, Elder, Florin, and Unionhouse Creeks also overflowed their banks during this flood, adding to the flood problems in the area. A total of $161,000 in flood-related damages was estimated to have occurred in the entire Morrison Creek Stream Group area during this flood. (*Source:* Sac City FIS, 1998).

A severe, early season rainstorm occurred in October 1962, resulting in widespread flooding in Sacramento. Arcade Creek overflowed from Marysville Road to past Del Paso Park. Six families on Verno Street had to evacuate because the flood threat was particularly severe in this area. Damages were estimated at $10,000 along Arcade Creek.

During the October 1962 floods, excess floodwaters from Dry Creek flowed southerly along the eastern side of the Western Pacific Railroad to Robla Creek and the Magpie Creek Diversion. The resultant high water was within two feet of the top of the southern levee of the diversion.

During this event, portions of floodwaters from Magpie Creek bypassed the upper portion of the diversion's levee and flowed into Lower Magpie Creek, causing flooding in the area between Dry Creek Road and Raley Boulevard. Dry Creek and Robla Creek again spread out over their common floodplain near the Natomas East Main Drainage Canal. An estimated $50,000 in flood-related damages were caused by the October 1962 flood on Dry Creek. Many of these damages were caused in areas along Dry Creek upstream of the Sacramento incorporated limits. (*Source:* Sac City FIS, 1998).

1964 – <u>Record Flood</u>: The third record flood occurred in less than 15 years and caused engineers to re-evaluate storm frequency. They concluded that Folsom Dam is designed to handle a 120-year storm, not a 500-year storm (Source: SAFCA). During this flood, Morrison Creek flooded a large region west of the Western Pacific Railroad tracks and south of Meadowview Road. Laguna Creek flooded an area adjacent to the stream that extended for about six miles from near the town of Elk Grove westerly to the Union Pacific Railroad tracks. The 1964 flooding in the basin inundated about 7,700 acres and caused an estimated $156,000 in damages. (*Source:* Sac City FIS, 1998).

1964 – Flood: Federal Disaster Declaration, OEP 183-DR-CA, Late Winter Storms, 12/29/1964. (*Source:* CA OES).

1967 – Newspaper accounts, rainfall and stream gage records indicated that Sacramento experienced significant flooding. Flooding in January 1967 was less severe than flooding in 1962. Arcade Creek overflowed its banks upstream of the Sacramento corporate limits, and flooding in the city was restricted to minor inundation in Del Paso Park. Moderate agricultural damages estimated were estimated at $104,000; an estimated 8,070 acres were flooded. Significant flooding occurred on Laguna Creek, which overflowed into its floodplain. Flooding that occurred in February 1973 on Arcade Creek had a recurrence interval of approximately 10 years. Dry Creek and Robla Creeks, however, overflowed inside the city. A similar extent of

flooding in this area occurred in 1955 and in both the February and October 1962 floods. (*Source:* Sac City FIS, 1998).

1969 – Flooding occurred primarily on agricultural lands, predominantly on lands that lay west of the Union Pacific Railroad tracks in the Beach-Stone Lakes area. Minor flood losses (principally to farmland, crops, and improvements) were incurred east of the UPRR tracks. Floodwaters covered about 10,500 acres, and damages were estimated at $159,000. (*Source:* Sac City FIS, 1998).

1972 – Flood: Federal Disaster Declaration, OEP 342-Dr-Ca, Andrus Island Levee Break, 06/27/72 (*Source*: CA OES). Isleton and the Delta flooded.

1980 – Flood: Federal Disaster Declaration, FEMA 3078-EM (80-15), Delta Levee Breaks, 01/23/80 (*Source:* CA OES).

1983 – Flood: Federal Disaster Declaration, FEMA 677-DR-CA, 02/09/83 (*Source:* CA OES).

1986 – **Record Flood:** A February 1986 storm dumped 10 inches of rain on Sacramento in 11 days. The American River dumped more water into Folsom Dam than it is designed to handle. After 2 days of releases at the design level, (115,000 cubic feet per second), officials boosted releases to 134,000 cubic feet per second. Folsom performance was downgraded to about a 60-year storm. Releases from Folsom exceeded the design capacity of the lower American River levee system for over two days, causing extensive erosion along the toe of the north and south levees of the American River near California State University, Sacramento. Had the rains continued much longer, even higher releases from Folsom would have been required, and a major levee failure could have occurred in one of the heavily urbanized portions of Sacramento, potentially resulting in catastrophic property damage and loss of life. (*Source:* Sac City FIS, 1998). Although this storm caused some flooding in certain areas, the major levee systems that protect the City from disaster withstood record water flows. Some damage did occur in certain sections to the two main levees. These failures were the result of instability, seepage, and boils. This flood resulted in the largest peak flow record on Morrison creek. One of the most significant flooding problems in Sacramento City was the result of overflow along Arcade Creek. During the 1986 flood, successive storms damaged 1,730 private homes and businesses. The storms caused close to $50 million in public and private property damage, excluding damage to roads and other infrastructure. In the northern Delta, 1,600 people were evacuated and $20 million in property damage occurred. Interstate 5, Interstate 80, State Highway 99, and numerous local roads were flooded (*Source:* SAFCA, Sac. County). Only a determined flood fight prevented a collapse of the east levee of the Sacramento River located five miles north of downtown, which protected the residents of the Natoma area. Federal Disaster Declaration, FEMA 758-DR-CA, 1986 Spring Storms, 02/18/1986 (*Source*: CA OES).

1995 – Flood: Federal Disaster Declaration, FEMA 1044-DR-CA, 1995 Severe Winter Storms, 01/10/1995, (***Source:*** CA OES). This storm was a record in terms of localized rainfall intensity and water levels. Record high water was recorded on Arcade Creek, Cripple Creek, Dry Creek, Elk Grove Creek, Linda Creek, Morrison Creek, Natomas East Main Drain and their tributaries. Piped storm drain systems were overwhelmed and there was widespread street flooding. Water ponded in low areas filling to levels that flooded homes. Deep flooding occurred east of the

Natomas East Main Drain Canal (prior to the construction of the D-15 Pump Station). Hundreds of homes reported flooding. (***Source:*** www.sacflood.org/sensdata/strmgrp.htm, by Erwin Hayer, citizen, and Sacramento DWR)

1997 – <u>Record Flood: The fifth record flood in 46 years</u> occurred over the New Year holiday. Federal Disaster Declaration, FEMA 1155-DR-CA, 96/97 Winter Storms, 01/04/97 (Source: CA OES). Sacramento is spared when the fury of the storm hits 40 miles north in the Feather River basin. Unprecedented flows from rain and melted snow surged into the Feather and the San Joaquin Rivers (north and south of Sacramento County, a result of the storm splitting). Levee failures flooded Olivehurst, Arboga, Wilton, Manteca, and Modesto. (*Source:* SAFCA, Sac. County). Reportedly, this relatively short-duration, high intensity storm showed the 24-hour rainfall across northern California with several regions exceeding 8 inches for the period. Several more comparable days, with the addition of significant snowmelt in the Sierras led to widespread flooding in the Sacramento and San Joaquin Valleys. (*Source:* http://ggweather.com)

It was fortunate that Folsom Reservoir, on the American River, was low at the time of the flood warning as the flood storage capacity was much needed. Releases from the dam were at the design capacity of the Lower American River (115,000 cubic feet per second). Record flows in the Cosumnes River were recorded causing widespread failure of the levee system and flooding to dozens of homes. Through traffic was discontinued on Highway 99 as floodwater passed over. There was much loss of dairy and other livestock. The subsequent major levee repair project was funded by Natural Resources Conservation Service and managed by Sacramento County Department of Water Resources.

The 1997 flood was considered to be the perfect storm as 100-year peak flows from multiple major rivers collided and flowed into the Yolo By-Pass and down to the Sacramento River Delta. There was a major, successful, flood fight at Andrus Island, potentially affecting the City of Isleton. Flooding from the Bear and Feather Rivers stressed the levees of the Cross Canal, in Sutter County. This system held back the floodwaters saving the North Natomas Area of Sacramento. The new pump station on the Natomas East Main Drain was also instrumental in protecting properties in Elverta and Rio Linda to the east of the NEMDC levee. Sacramento City and County were saved from major catastrophe by functional flood control features on the Sacramento and American Rivers and storm centering that stressed but did not fail those systems.

1998 – Flood: Federal Disaster Declaration, FEMA 1203-DR-CA, 02/06/1998. (*Source:* CA OES). Later, on April 1, 1998, flooding occurred in Citrus Heights. (*Source*: Citizen input)

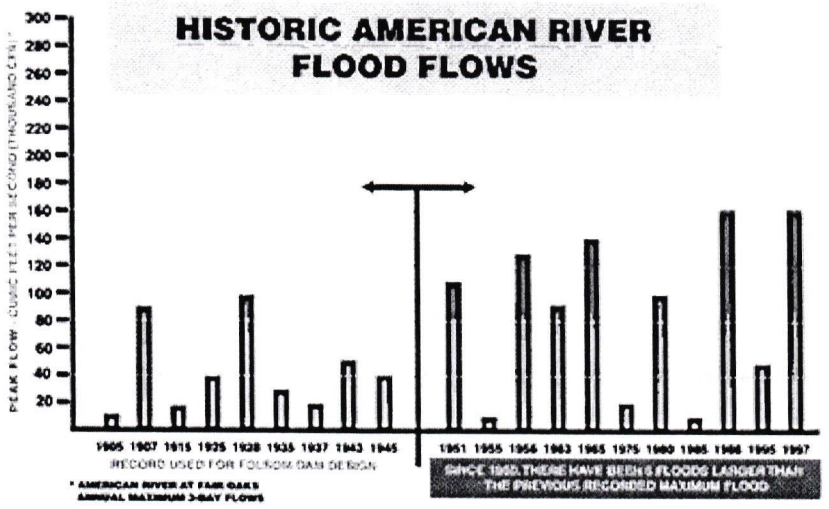
Likelihood of Future Flood Occurrences: According to SAFCA, Sacramento's risk of flooding is the greatest of any major city in the country. Sacramento's flood risk is exceptionally high for two reasons:

1. The cores of today's levees are often the levees built by farmers and settlers as much as 150 years ago. Early levees were not constructed to current engineering standards, and little care was given to the suitability of foundation soils. It was believed prior to 1986 that the levees containing the Sacramento River and the American River were of sufficient height and

stability to protect the county from 100-year or greater storms. The storms that occurred in February 1986 demonstrated that those levees are not sufficient.

2. The quantity of water flowing out of the Sierra Nevada Mountains during large floods appears to be increasing. Folsom Dam was designed, based on historical data, to reduce flood flows in the American River to a flow rate that could be safely contained by the downstream levees. The first storm that occurred after beginning the construction of Folsom Dam was larger than any occurring in the prior 45 years. Since that 1951 storm, Sacramento has experienced four more 'record floods' each somewhat larger than the previous. A comparative analysis run on the two periods (1905 to 1950 and 1950 to 2000) shows that a storm with one chance in 500 of occurring in any year based on the earlier period is approximately the same size as a storm with one chance in 50 of occurring using the entire 95-year period.

The following graph shows the historic flood flows of the American River:



Source: www.safca.org

In order to reduce the risk from floods within the Planning Area, numerous flood protection measures are either in place or planned. Flood Protection Measures include a comprehensive system of dams, levees, overflow weirs, pumping plants, channel improvements, floodway bypasses, and other improvements. Prior to 1986, Folsom Dam and the lower American River levee system were thought to provide a 120-year level of flood protection to the American River floodplain. After the 1986 flood, using data gathered from the storm and hydrologic information, the USACE downgraded the system's flood control capacity to a 63-year level of flood protection (which means that the area is protected against a 63-year flood event). Thus, Sacramento's level of protection against floods has a 1.6 percent chance of being equaled or exceeded every year. (*Source*: Sac City FIS, 1996).

The USACE also concluded that the levees along the Natomas East Main Drainage Canal which protect Natomas and the Dry Creek area to the east, were too low to safely contain the flows produced by the coincidence of peak discharges in Dry and Arcade Creeks and maximum flood releases from Folsom.

As a result of these findings, FEMA reassessed the 100-year floodplain in the Sacramento area and issued new Flood Insurance Rate Maps. These maps, which became effective in November 1989, mandated the purchase of flood insurance by all residents and businesses within the 100-year floodplain and caused the City of Sacramento to impose severe restrictions on new residential development in the Natomas area. (*Source:* City of Sacramento Comprehensive Flood Management Plan, 1996).

As the Planning Area continues to increase their level of flood protection, the risk from floods should continue to decrease.

DAM FAILURES

Dams are man-made structures built for a variety of uses including flood control, power, agriculture, water supply and recreation. When dams are constructed for flood control, they usually are engineered to contain a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any one year. If a larger flood occurs, then that structure will either release water through its spillway or be overtopped. Overtopping is the primary cause of earthen dam failure. Failed dams can create flash floods that are catastrophic to life and property.

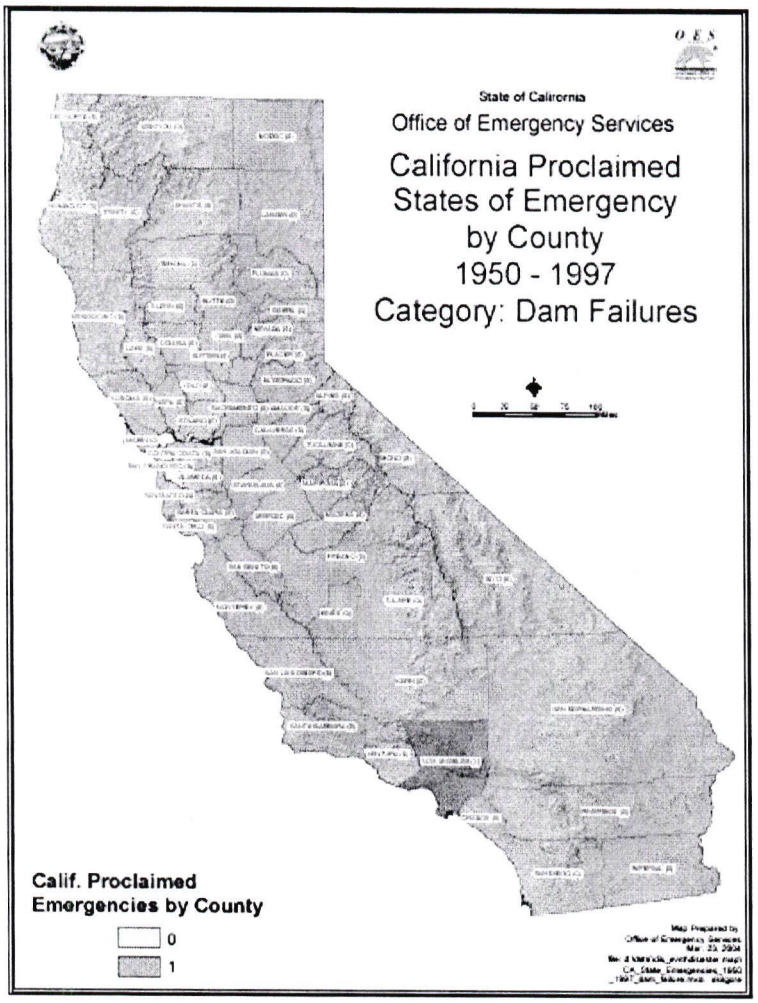
Dams typically are constructed of earth, rock, concrete, or mine tailings. Two factors which influence the potential severity of a full or partial dam failure include:

- The amount of water impounded and
- The density, type, and value of development and infrastructure located downstream.

Dam failures can result from any one or a combination of the following causes:

- Prolonged periods of rainfall and flooding
- Earthquake
- Inadequate spillway capacity, resulting in excess overtopping flows
- Internal erosion caused by embankment or foundation leakage or piping
- Improper design
- Improper maintenance
- Negligent operation and/or
- Failure of upstream dams on the same waterway.

Dams and reservoirs have been built throughout California for water supply, flood control, hydroelectric power and recreational facilities. The storage capacities of these reservoirs range from a few thousand acre-feet to five million acre-feet. The water from these reservoirs eventually makes its way to the Pacific Ocean by way of several river systems. There are five major and numerous minor dams that may impact the people and resources of Sacramento County, if they fail. The major dams include Shasta on the Sacramento River, Oroville on the Feather River, Pardee and Comanche on the Mokelumne River, and Folsom on the American River. The minor dams include Nimbus and Rancho Seco.



Past Occurrences. California has had about 45 failures of non-federal dams. The failures occurred for a variety of reasons, the most common being overtopping. Other reasons include specific shortcomings in the dams themselves or an inadequate assessment of surrounding geomorphologic characteristics. There are 1483 dams in California, 18 of which are in Sacramento County (*Source:* www.ceres.ca.gov). Since 1950 there have been only nine dam failures in California, with none occurring in Sacramento County (*Source:* cee.engr.ucdavis.edu). Overtopping caused two of the failures, and the others were caused by seepage or leaks.

Likelihood of Future Occurrence. *Awaiting official response from California Department of Water Resources, Division of Safety of Dams.*

EARTHQUAKES

Past Occurrences. There has never been a recorded earthquake that occurred in Sacramento County. Faults have been identified that traverse the Sacramento County area however, and historic earthquakes both to the west and the east have been felt in the county and generated damage-producing ground motions. There have been no earthquake disasters declared in Sacramento County though (see map below).

In 1892, an earthquake centered between Vacaville and Winters caused minor structural damage in nearby communities, including Sacramento (and the State Capitol) and Lincoln (in neighboring Placer County.

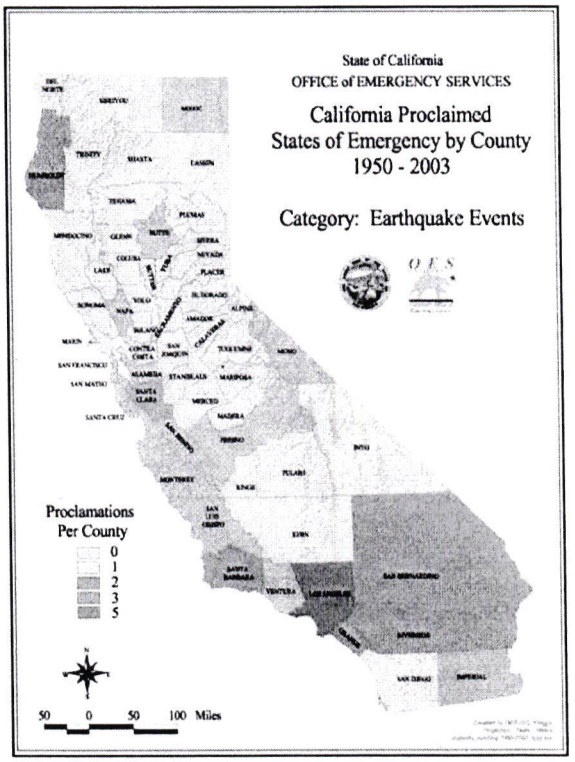
In 1906, the estimated 8.0 plus Richter magnitude San Francisco earthquake, on the northern segment of the San Andreas Fault, damaged the State Capitol, the full extent of which was not discovered until the mid-1970s.

December 16, 1954, a series of earthquakes, particularly the major 7.1 Richter magnitude earthquake at Fairview Peak, Nevada (about 100 miles east of Carson City) caused some damage in Sacramento while virtually no damage occurred in Reno.

August 1, 1975, a moderate magnitude earthquake (5.7) occurred near Oroville on the Cleveland Hills fault and was felt in Sacramento.

Earthquakes have been felt and ground motions recorded in Sacramento from more recent events including:

- **1980,** the Livermore/Green Valley
- **1980,** Mammoth Lakes
- **1983,** Coalinga
- **1989,** Loma Prieta
- **1992,** Petrolia and
- **2004,** San Simeon.



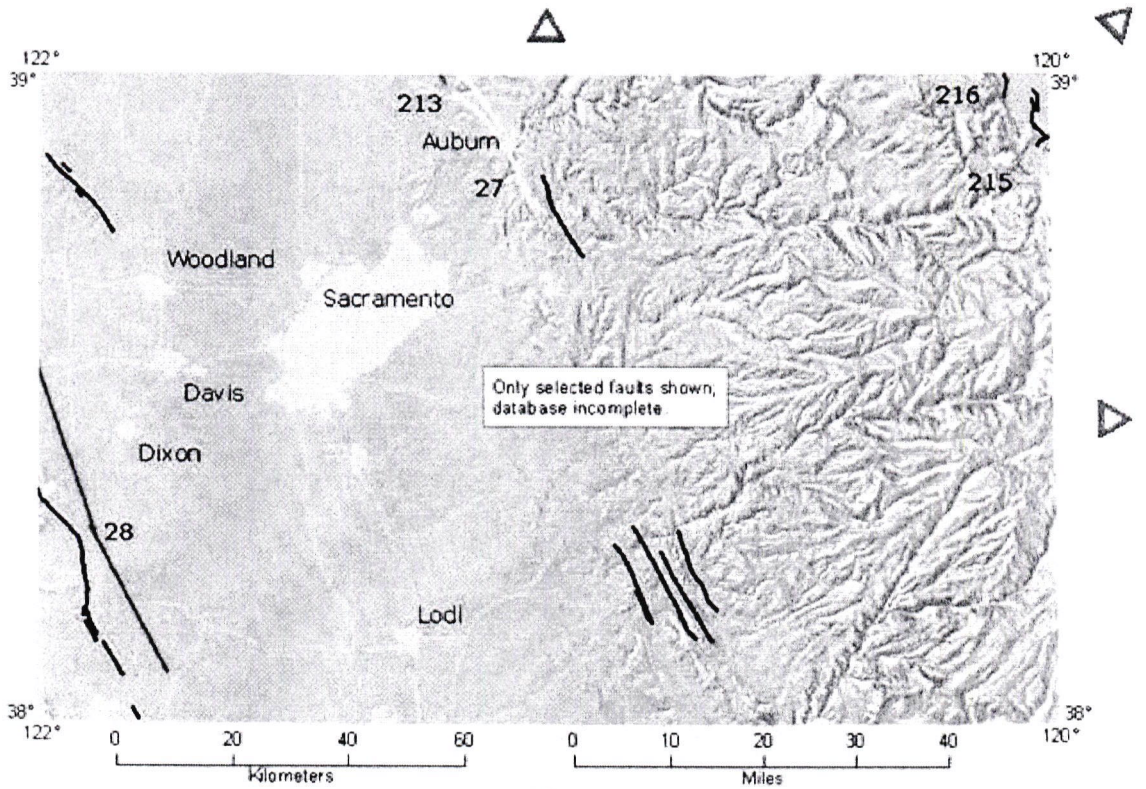
Likelihood of Future Earthquake Occurrences. Both the San Andreas Fault and the closer Hayward Fault have the potential for experiencing major to great events. The US Geological Survey recently (February 2004) estimated that there is a 62 percent probability of at least one 6.7 or greater magnitude earthquake occurring that could cause widespread damage in the greater San Francisco Bay area before 2032.

Another potential earthquake source are the faults associated with western edge of the Central Valley, recently defined as the Coast Range Central Valley (CRCV) boundary thrust fault system. Various documents define portions of this little known system as the Midland Fault Zone or the Dunnigan Hills fault where the 1892 Vacaville-Winters earthquake occurred. A southern part of the CRCV system may have been the source of the 1983 very damaging Coalinga earthquake.

The Foothill Fault Zone, a complex series of northwest trending-faults that are related to the Sierra Nevada uplift, and whose activity also is little understood, runs from about Oroville in the north to east of Fresno in the south. Earthquakes on nearby faults in the zone can be the source of ground shaking in the Sacramento area.

The safety element of the neighboring city of Auburn (Placer County) notes, "there is a high potential that the area will be subject to at least moderate earthquake shaking one or more times over the next century." It states further, "The closest identified 'potentially active' fault are the

Bear Mountain and the Melones Faults," which are situated approximately thirty and forty miles respectively east of downtown Sacramento.



Number	Name
27	Bear Mountain fault zone
28	Great Valley fault zone
213	Spenceville fault
215	Tahoe-Sierra frontal fault zone

Sacramento Area Quaternary Faults
Source: USGS Quaternary Fault and Fold database *http://earthquakes.usgs.gov/qfaults/usmap.html*
Faults displayed are believed to be sources of M>6 earthquakes during the Quaternary (the past 1,600,000 years)

The Petrolia (coastal Humboldt County) earthquake increased concern about how amplified long period motions from much closer major events, such as on the San Andreas Fault or the Hayward Fault, might reach damaging levels and affect Sacramento.

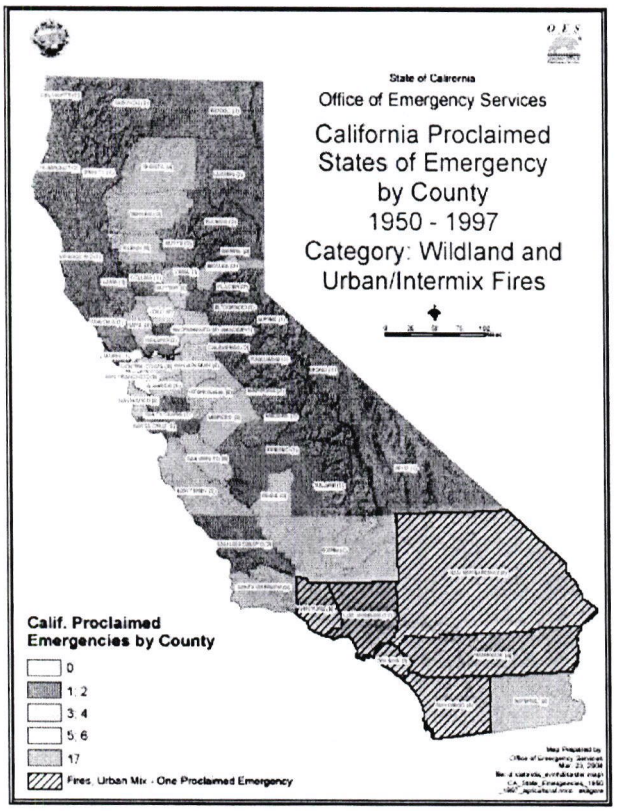
WILDFIRES

Wildfire and Urban Wildfire are an ongoing concern for Sacramento County. Generally, the fire season extends from early spring to late fall. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air. These conditions when combined with high winds and years of drought increase the potential for a wildfire to occur. Urban Wildfires often occur in those areas where development has expanded into the rural areas. A fire along this urban/rural interface can result in major losses of property and structures. Generally, there are three major factors that sustain wildfires and allow for predictions of a given area's potential to burn. These factors include fuel, topography, and weather.

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 include everything from dead tree needles and leaves, twigs, and branches to dead standing trees, live trees, brush, and cured grasses. Also to be considered as a fuel source, are man-made structures and other associated combustibles. The type of prevalent fuel directly influences the behavior of wildfire. Light fuels such as grasses burn quickly and serve as a catalyst for fire spread. The volume of available fuel is described in terms of Fuel Loading. Certain areas in and surrounding Sacramento County are extremely vulnerable to fires as a result of dense grassy vegetation combined with a growing number of structures being built near and within rural lands. However, Sacramento County is less susceptible to fire hazards than surrounding counties with hillside development.

Topography. An area's terrain and land slopes affect its susceptibility to wildfire spread. Fire intensities and rates of spread increase as slope increases due to the tendency of heat from a fire to rise via convection. The natural arrangement of vegetation throughout a hillside can also contribute to increased fire activity on slopes.

Weather. Weather components such as temperature, relative humidity, wind, and lightning also affect the potential for wildfire. High temperatures and low relative humidity dry out the fuels that feed the wildfire creating a situation where fuel will more readily ignite and burn more intensely. Wind is the most treacherous weather factor. The greater a wind, the faster a fire will spread, and the more intense it will be. Winds can be significant at times in Sacramento County. However, it should be noted that the winds generally occur during the winter storm season, not during the summer, fire season. In addition to high winds, wind shifts can occur suddenly due to temperature changes or the interaction of wind with topographical features such as slopes or steep hillsides. Related to weather is the issue of recent drought conditions contributing to concerns about wildfire vulnerability. During periods of drought, the threat of wildfire increases.



Past Occurrences. Within the past years alone, there have been numerous urban and wildland fires within Sacramento County and vicinity. The wildland fires are the focus for this plan. In Sacramento County, grass fires and peat fires are the two main types of wildland fires of concern. Grass fires are an annual threat in the unincorporated area of the county, especially within recreational areas such as the American River Parkway. Peat fires are unique to the delta where peat is subject to spontaneous combustion. Once started, these fires become very difficult to control. Peat can still burn some distance underground even when the upper layers of peat are saturated with water over an extended period of time. Once the ground has dried out, a peat fire may return to the surface. However, there have been no disaster declarations for wildfire within Sacramento County between 1955-1997.

Late 1850s: The worst fire in Sacramento history leveled nine-tenths of the city. *(Source: The Sacramento Business Directory)*

1985: Watt Avenue West to Highway 80. This area has been the scene of a number of fires. In 1985, several spot fires burned into one large fire, in the Bushy Lake area behind Cal Expo. The University Avenue section of Sacramento, just to the east of the 1985 fire area, is heavily populated and could be affected by a similar fire along this stretch of the American River Parkway.

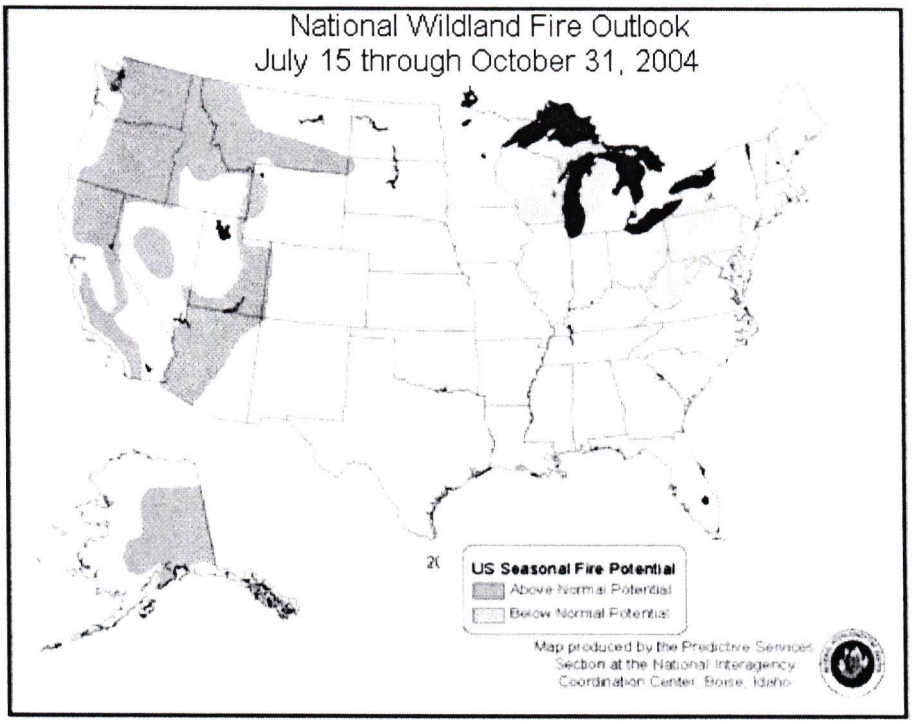
1988: Nearly 35 percent of the total fires in Sacramento County, excluding Sacramento City, were grassland fires (Source: Sacramento County General Plan, 1997).

1992: A Wildland fire occurred by Northgate Boulevard along the American River Parkway and extended into a commercial building.

2002: Sierra Fire - Loomis and Granite Bay. The Sierra fire occurring in September 2002, affected 500 acres in the eastern suburbs of Sacramento. Within the communities of Loomis and Granite Bay (Placer County) the fire destroyed six structures and threatened two schools. One hundred homes were evacuated, and more than 1,000 homes in both communities threatened. FEMA provided federal funds to assist in fighting this wildfire.

Likelihood of Future Fire Occurrences. The current US Forest Service forecasts a low fire danger potential for Sacramento County.

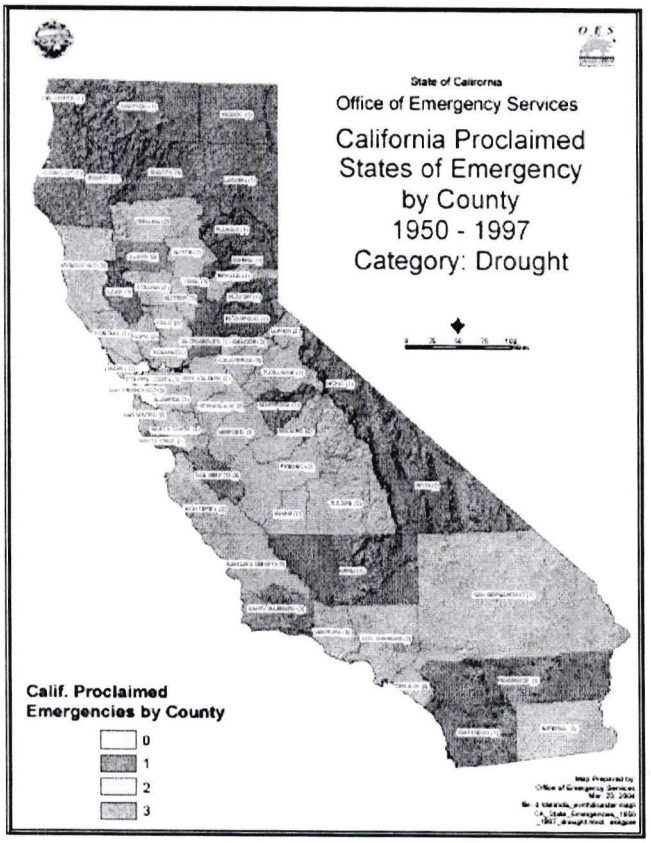
According to the National Wildland Fire Outlook for the Central Valley, large fire potential is expected to be normal (which is minimal) through October 2004.



DROUGHT

Drought is a complex issue involving many factors, with differing conditions and drivers throughout the state making this more of a regional focus. Drought can be defined regionally based on its effects:

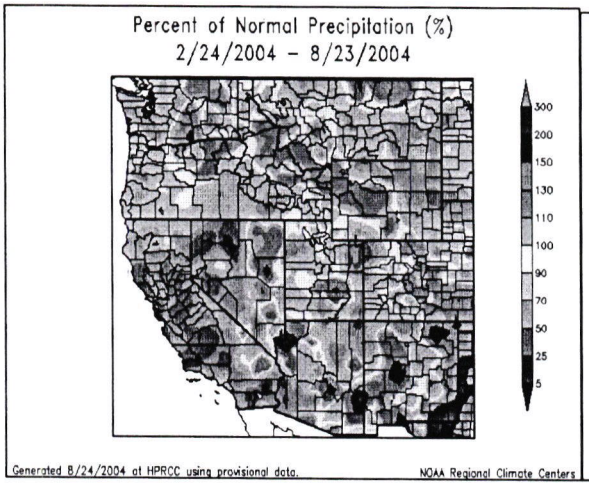
- **Meteorological** – this type of drought is usually defined by a period of below average water supply
- **Agricultural** – this type of drought occurs when there is an inadequate water supply to meet the needs of the state's crops and other agricultural operations such as livestock
- **Hydrological** – a hydrological drought is defined as deficiencies in surface and subsurface water supplies. It is generally measured as stream flow, snowpack, and as lake, reservoir and groundwater levels
- **Socioeconomic** – occurs when the results of drought impacts the health, well being, and quality of life, or when a drought starts to have an adverse economic impact on a region. *(Source: National Drought Mitigation Center, University of Nebraska, Lincoln)*
- **Regulatory** – occurs when mandatory compliance with environmental protection laws (especially those pertaining to protection of endangered species) combined with low precipitation and runoff, produce deficiencies in agricultural and/or urban water supplies.

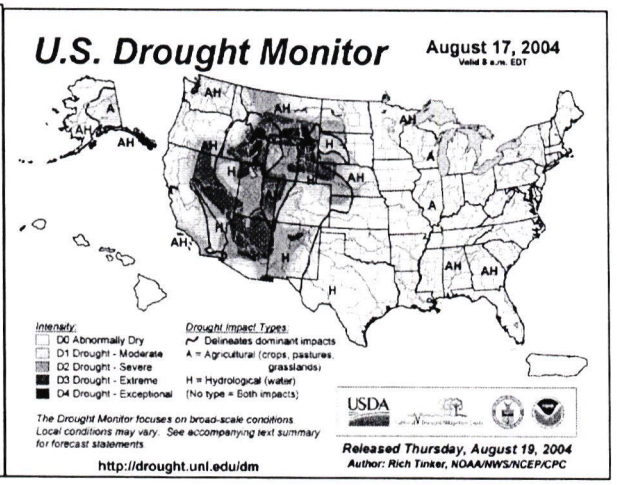


The drought issue is further compounded by water-rights specific to any state or region. Water is a commodity possessed under a variety of legal doctrines. In addition, the prioritization of water rights between farming and federally protected fish habitats in the state is also at issue.

Past Occurrences. Historically, California has experienced severe drought conditions, but Sacramento County has only severely affected once between 1950-1997. In 1977, a Federal Disaster was declared for a drought and Sacramento County was included.

Likelihood of Future Occurrences. Currently, Sacramento County is experiencing a period of abnormally dry conditions, but it is not in a drought, as determined by the U.S. Drought Monitor, NOAA and the USDA. Human caused drought conditions occasionally occur due to the need for flood volume storage in Folsom Reservoir. The operators of Folsom Dam must release water to allow for Spring runoff; however, when precipitation is less than expected (not categorized as drought) the reservoir levels are not fully replaced. Need for continuous flow in the Lower American River depletes the storage volume such that on many occasions the reservoir is too low for recreational boating by late summertime. When this condition is followed by a dry year, a human-caused drought condition may occur, leaving water supply needs unmet.



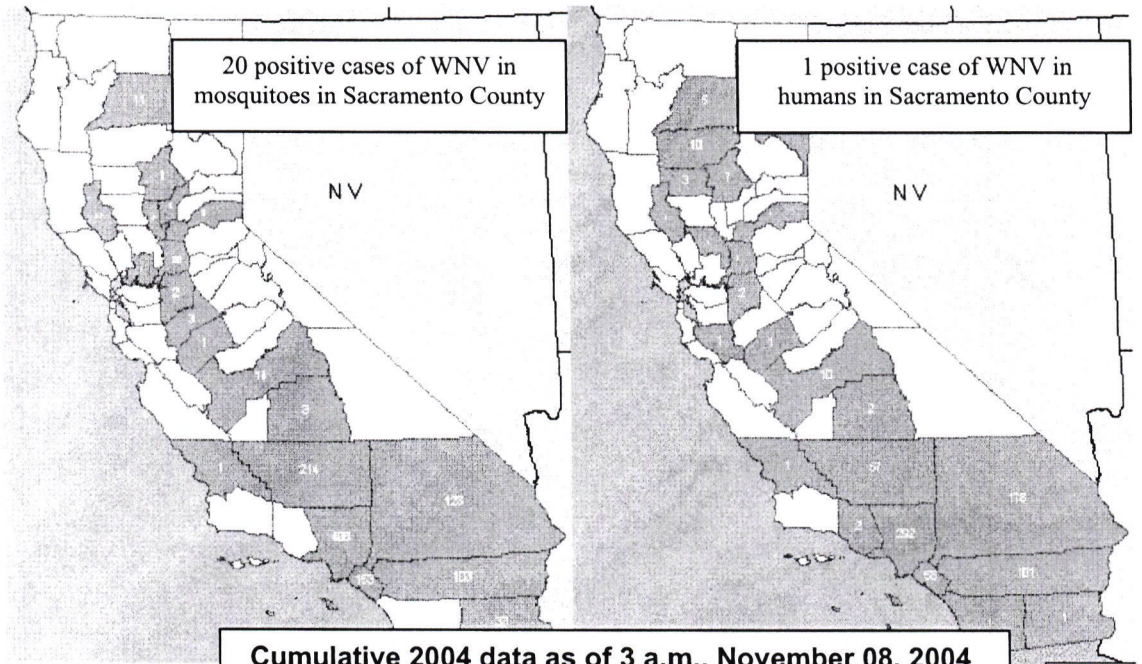


West Nile Virus. A recent natural hazard to affect California is the West Nile Virus (WNV). Mosquitoes transmit this potentially deadly disease to livestock and humans alike. WNV first struck the northern hemisphere in Queens, NY, in 1999 and killed four people. In 2003, all 50 states warned of an outbreak from any of the 30 mosquito species known to carry it. From 62 severe cases in 1999, confirmed human cases of the virus spread to 39 states in 2002, and it killed 284 people. Less than one percent of those infected develop severe illness. People over 50 years of age are at higher risk for the severe aspects of the disease.

Past Occurrences. WNV was detected on a very limited basis in horses and humans in California in 2003. San Diego County reported one veterinary case; Imperial County and Riverside County each reported one human case. As of November 9, 2004, a total of 801 human West Nile Virus infections have been reported from 23 counties, including one case reported in Sacramento County. Thus far California has had 24 West Nile Virus-related fatalities, in Los Angeles, Kern, Orange, Riverside, San Bernardino, and Tehama counties.
(Source: California Department of Health Services, as reported by AP and www.westnile.ca.gov)

Likelihood of Future Occurrences. To date, across the United States, the incidence rate for WNV has been the worst in its second year with impacts tapering off after that. In California, 2004 was the second year of exposure, and California was hard hit, as described above. If the national pattern holds true, the likelihood of future occurrences will continue to decrease, beginning in 2005.

The WNV maps for California showing number of mosquito and human cases by county are below:



LANDSLIDES

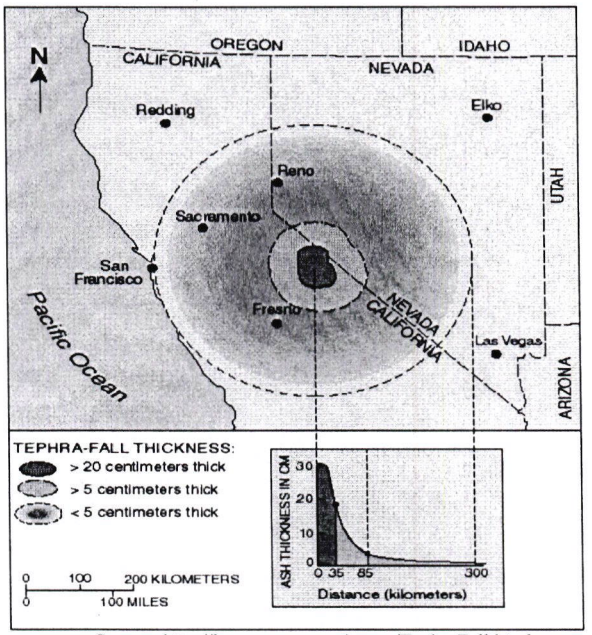
Landslides. The California State Hazard Mitigation Plan identifies landslides as one of the hazards adversely impacting the state. In general, they refer to land with greater than a 15 percent slope as being susceptible to landslides. The HMPC refers to the California Geological Survey (CGS) for the documentation that landslides do not affect Sacramento County, as CGS has not produced any landslide hazard maps for the County.

Past Occurrences. The HMPC was unable to find any evidence of major landslides within Sacramento County. However, there were reports of the potential for slope failure along the American River Bluffs, an area along the river between Sacramento and Folsom.

VOLCANOES

Volcanoes. The California State Hazard Mitigation Plan identifies volcanoes as one of the hazards adversely impacting the state. In general, they refer to population centers within 30-60 kilometers as being susceptible to significant volcanic impacts. The HMPC refers to the U.S. Geological Survey (USGS) for the documentation that there are no volcanoes within 85 kilometers of Sacramento County (see map on left, below).

Past Occurrences. The HMPC was unable to find any evidence of volcanic activity within Sacramento County.



Source: http://lvo.wr.usgs.gov/zones/TephraFall.html

The map on the right, above, shows the potential thickness of tephra on the ground from future eruptions in the Long Valley area that eject less than one kilometer^3 magma. Downwind deposits of ash produced by an explosive eruption could reach thicknesses of at least 20 centimeters at a distance of 35 kilometers (eight inches at 22 miles), five centimeters at a distance of 85 kilometers (two inches at 53 miles), and about one centimeter at a distance of 300 kilometers (0.5 inches at 185 miles).

These estimates of potential ash thickness are based on deposits of ash from past eruptions at other volcanoes that involved volumes of as much as one kilometer^3. Only a part of an ash-fall hazard zone would probably be affected by any single ash fall, the part affected would be determined by the wind speed and direction or directions during an eruption. *(Source: http://lvo.wr.usgs.gov/zones/TephraFall.html)* An eruption from Long Valley would not likely adversely impact Sacramento County with ash, even if it were downwind.

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Multi-Hazard Mitigation Plan

4.2 Vulnerability Assessment

VULNERABILITY OF THE COUNTY TO CATASTROPHIC DISASTER

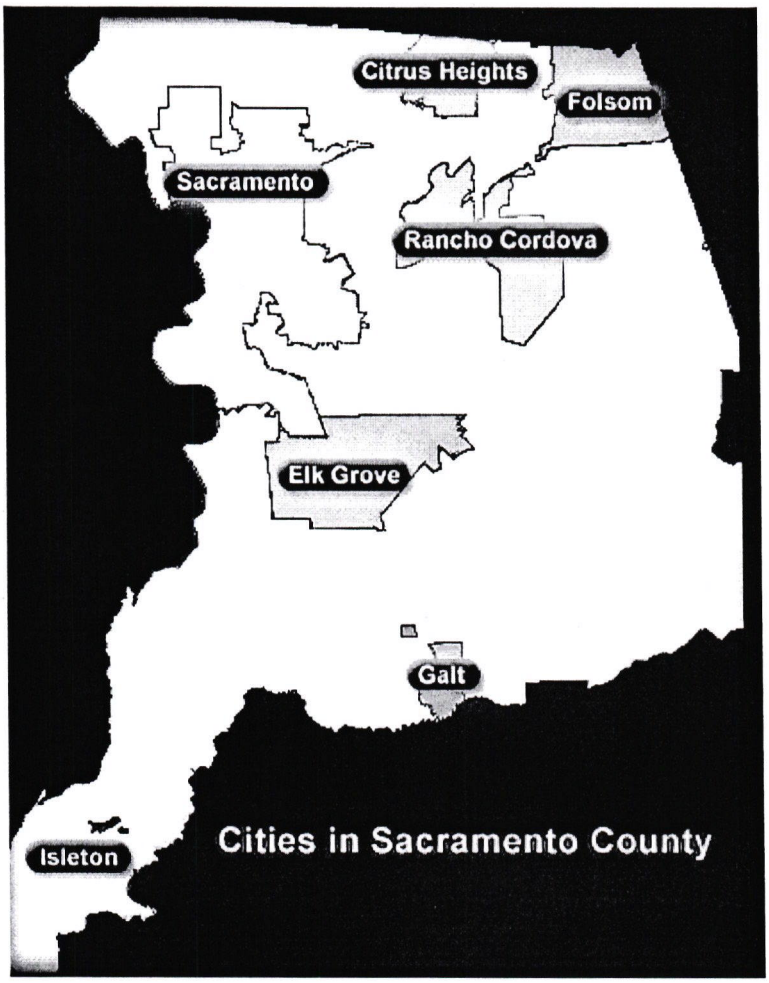
Once the hazard identification step was complete, the HMPC conducted a vulnerability assessment to describe the impact that each hazard identified in the preceding section would have upon Sacramento County. As a starting point, the HMPC utilized County Assessor data to define a baseline against which all other disaster impacts could be compared. The baseline is the catastrophic, worst-case scenario, the assessed value of the entire county as a whole, $89.5 Billion.

The value is deceptively low in that state, federal and other exempt facilities are not included in the county's assessment, it only reflects commercial and residential property, and Proposition 13 limits property taxes by freezing a property's assessed value to the value on the date of the most recent sale. The value also does not reflect any infrastructure or other community elements vulnerable to disaster, such as the economic impact to agriculture or business and industry. The figures below represent the value of buildings only. Land values have been purposely excluded because most often land remains following disasters, and subsequent market devaluations are frequently short-term and difficult to quantify. Additionally, state and federal disaster assistance programs generally do not address loss of land or its associated value.

TOTAL VALUE, LESS VACANT LAND, AND LAND VALUES FOR IMPROVED PROPERTY

CITRUS HEIGHTS	4,647,030,160
ELK GROVE	10,410,394,230
FOLSOM	6,895,628,807
GALT	1,138,391,277
ISLETON	30,232,419
RANCHO CORDOVA	3,828,797,291
SACRAMENTO CITY	28,117,810,904
UNINCORPORATED	34,397,919,841
COUNTYWIDE	**89,466,204,929**

(Source: Sacramento County Assessor's Office, 10-SEP-04, modified by the HMPC)



In terms of the impact upon the numbers of people, area affected and individual communities, the following table provides a summary of the county exposure to disaster.

Sacramento County Land Ownership

	Population	Area (Sq. Mi.)
City of Citrus Heights	85,400	14.24
City of Elk Grove	94,850	38.60
City of Folsom	51,300	24.17
City of Galt	19,550	2.95
City of Isleton	840	.46
Rancho Cordova	53,613	33.59
City of Sacramento	411,200	96.34
Unincorporated County	608,687	779.66
County Totals	**1,325,440**	**990.01**

Source: County of Sacramento Website, revised by the HMPC

HOW RISK VARIES BY LOCATION WITHIN THE COUNTY

The DMA regulations require that the HMPC evaluate the risks associated with each of the hazards identified through the planning process. For multi-jurisdictional plans, the regulations also require that the risks be further evaluated where a jurisdiction's risks vary from the risks facing the entire planning area.

The hazards identified in Section 4.1 are:

- Severe weather
- Flood
- Dam failure
- Earthquakes
- Wildfires
- Drought
- Natural health hazards
- Landslides and
- Volcanoes

The HMPC has determined that the risk for the following hazards differs in some jurisdictions within the county:

- Flood (different in every participating community)
- Earthquakes (different in Isleton and the other Delta communities) and
- Wildfires [different along the American River Parkway (including areas of Fair Oaks Bluff, Carmichael and Folsom].

The HMPC has determined that the risk of the following hazards occurring within the county is minimal or non-existent, as described in Section 4.1, and they are no longer addressed in this plan until such time that information becomes available that changes that assessment:

- Landslides and
- Volcanoes.

VULNERABILITY TO HAZARDS AFFECTING THE COUNTY

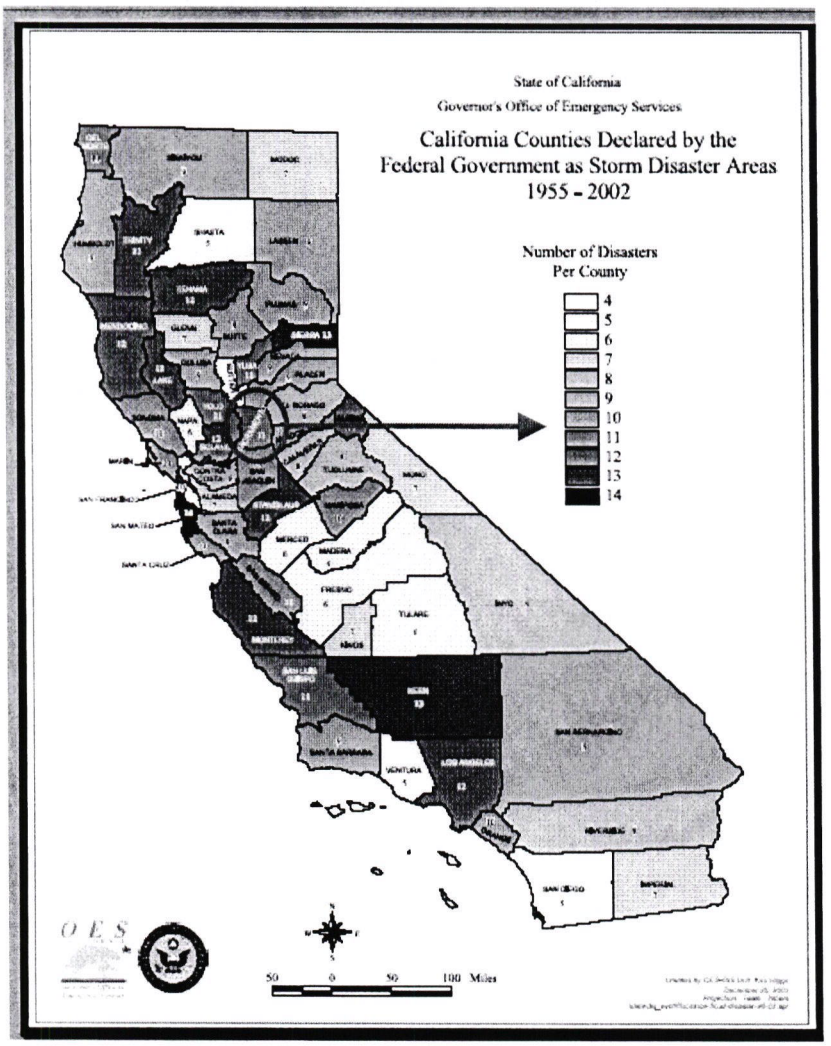
This section of the plan presents an evaluation of the vulnerability to all hazards that are identified in Section 4.1 as presenting a risk to Sacramento County. Where specific hazard risks vary across the county, a detailed evaluation will be presented in Section 6, The Community Elements.

SEVERE WEATHER (HEAVY RAINS/STORMS, TORNADOES, FOG)

The HMPC addressed severe weather hazards for two reasons:

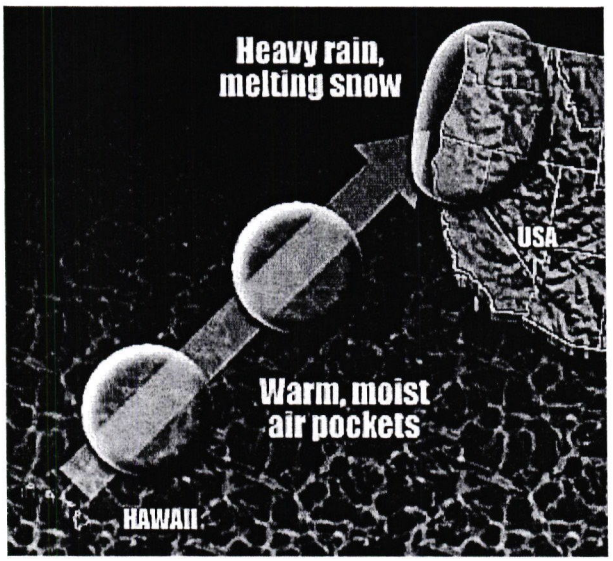
1. Floods, clearly the hazard posing the greatest and most frequent threat throughout Sacramento County, are almost always a direct result of severe weather. The majority of flooding incidents in the county have occurred between October and March, and are often a result of severe weather associated with storms known locally as the 'Pineapple Express'.

2. The HMPC research identified frequent occurrences of 'severe weather'. The HMPC grouped all incidents of hailstorms, thunderstorm winds, tornadoes and fog as severe weather.



The State Hazard Mitigation Plan does not identify severe weather as a hazard to be addressed, but it does include the map to the left displaying the number of federal disaster declarations resulting from 'storms'. The Sacramento County HMPC, having examined the topic, did develop some general recommendations addressing how to reduce the impacts of severe weather.

General Statement of Impact upon Sacramento County. Impacts of severe weather, such as ice, snow and windstorms, are usually upon the availability of electric power, as the distribution systems are disrupted through the breaking of power lines. Hailstorms often damage roofs and motor vehicles. Fog results in serious multi-vehicle crashes on Interstates and other major highways.



'Pineapple express' brings warm air, rain to West. A relatively common weather pattern brings southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often refer to this warm, moist air as the 'Pineapple express' because it comes from around Hawaii where pineapples are grown. Source: USA TODAY research by Chad Palmer http://www.usatoday.com/weather/wpinappl.htm

FLOODS

River Floods. River flooding is the most significant natural hazard that Sacramento County faces. The Sacramento area has a good working knowledge of the 100-year flood, however, the statistical outlier flood is not as well quantified. Sacramento is not at high risk of flooding but is at low risk of catastrophic flooding. The potential for a flood event is generally between the months of December and March and is exacerbated by heavy snowfall in the mountains and foothills followed by warm rainfall. The Sacramento River extends north to Mount Shasta and the Shasta Reservoir. Many other rivers are tributary to the Sacramento, including (immediately north of Sacramento) the Bear and Feather Rivers. The American River extends to the Sierra Nevada foothills in three branches (South, North and Middle). Folsom Reservoir is at the eastern boundary of Sacramento County and serves to control the American River.

The Cosumnes River is a wild and natural river originating in the Sierra Nevada foothills, flowing into southern Sacramento County. This area is mostly rural farmland. Levees were constructed by agricultural interests, and they are inadequate for containing record storm flows such as those experienced in February 1986 and again in January 1997. These two storms left the levee system sorely damaged. Each time, the levee breaks were repaired, but the overall system sits in wait of another flood event.

The Mokelumne River is the southernmost river in the County and is controlled by a dam in the neighboring county and levees.

All of the watersheds converge at the Sacramento River Delta. The flood issues in the delta are of concern as the agricultural interests continue to farm the land which is subsiding annually, making the levee systems more vulnerable to breaching. More discussion on the Delta is found in the Sacramento County Section of this Plan.

The American and Sacramento River levees were found to be eroded and there were concerns of substrata seepage. Much of the levee system was decertified and large areas were remapped as flood zone AR in July 1998. Subsequently, there has been much work by SAFCA and the US Army Corps of Engineers to improve the levee system on the American and Sacramento Rivers through the County. It is anticipated that many sections of the levee will be recertified to a 100-year level of protection, in 2005.

When the 100-year event is exceeded, the consequences could be catastrophic as flood depths behind levees can range up to many feet deep in some urban areas. It is important that people know that they are protected by these structural flood control systems and purchase flood insurance to protect their financial assets in their homes and businesses. Furthermore, it is important that they are aware of flood warning systems, weather conditions, and river levels and that they have a well rehearsed evacuation plan. There may not be adequate notice to evacuate to higher ground by vehicular travel. Instead, it may be more prudent to find a commercial rooftop or other stable structure to wait out the flood incase the statistically unlikely catastrophic flood event should occur.

Stream Flooding. There are many urban streams, channels, canals, and creeks that serve the drainage needs of the County. There is significant threat of flooding in large areas of the county from several of these streams. These watersheds do not know political boundaries. It is important that each community work together to create watershed master plans. There is more discussion about these stream groups in the section for each city and the unincorporated county. Many of these streams are prone to rapid flooding with little notice.

Flood Mapping. FEMA is working with the County, who in turn has a cooperating technical partner agreement with each city, to create a countywide digital flood insurance rate map. This map will convert the existing paper maps (100-year floodplain maps) to a digital format posted on a Geographic Information Systems platform. There has also been a concerted effort to develop two-foot contours for much of the County, in GIS format. This will help manage the watersheds and floodplains on a regional basis and to improve the accuracy of the floodplain map.

Local Flood Hazards. Urban storm drainpipes and pump stations have a finite capacity. When rainfall exceeds this capacity, or the system is clogged, water accumulates in the street until it reaches a level of overland release. This type of flooding may occur when intense storms occur over a development.

Severe Flooding. Sacramento faces a risk of severe flooding for two primary reasons:

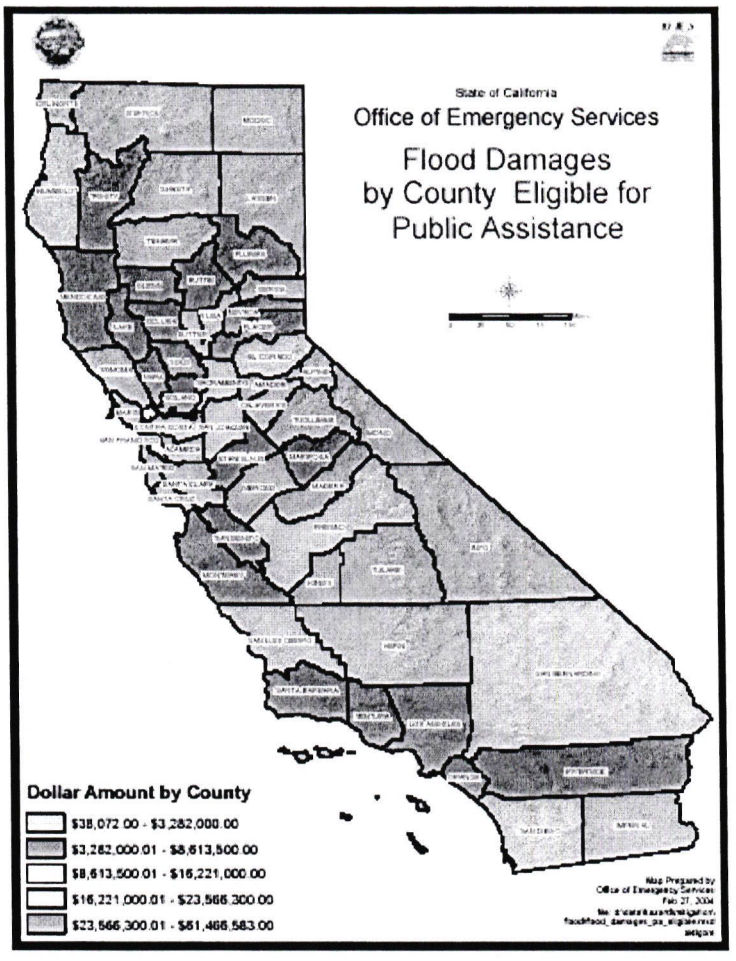
1. The cores of today's levees are often the levees built by farmers and settlers as much as 150 years ago. Early levees were not constructed to current engineering standards, and little care was given to the suitability of foundation soils. These remnants of the past make today's levee reliability uncertain.

2. The quantity of water flowing out of the Sierra Nevada Mountains during large floods appears to be increasing. Folsom Dam was designed to reduce flood flows in the

American River to a flow rate that could be safely carried by the downstream levees. Construction on Folsom Dam began in 1950. In designing the Dam, engineers used historic flow records and statistical analysis to predict the size and frequency of occurrence of large floods. From those predictions they determined how much space must be available in Folsom Dam to store excess flow from a flood with one chance in five hundred of occurring in any given year. Combined with the decreasing flood storage capacity created by increased flood flows, Folsom Dam does not currently have the capacity to release water fast enough to be able to create the storage needed to attenuate the low probability high impact floods flowing from the Sierras.

To address the first issue, levee improvements to strengthen levees and to make them less susceptible to seepage induced failures are a major portion of SAFCA's efforts to reduce the risk of flooding in Sacramento. When the levee improvements are completed, they will remain subject to overtopping by floods larger than their design capacity.

To address the second issue, work is planned to enlarge the Dam's outlets, creating larger and faster releases that will increase storage in Folsom Lake. Additional plans to add seven more feet in height to the Dam will also increase storage even further. The larger releases will still be contained within the downstream levee system, up to the 100-year flood level.



Flooding has been frequent in Sacramento County, and the vulnerability to flood damages is high. While the map at the right shows that the potential flood damages for Sacramento County are the lowest compared to other California counties, the table that follows details that nearly 30 percent of the County population lives within the 100-year floodplain, over 5,000 residences have received damage previously, and that the federal share of past damage to public facilities exposed to the flood hazard has cost $15 million.

This large population in Zone A will be significantly reduced when the A-99 floodplain is remapped in early 2005 and will be further reduced as the Army Corps of Engineers completes

the balance of the work, including the Pocket Area of Sacramento and the area near the Mayhew Drain on the southern side of the American River.

VULNERABILITY TO FLOOD DAMAGES IN SACRAMENTO COUNTY

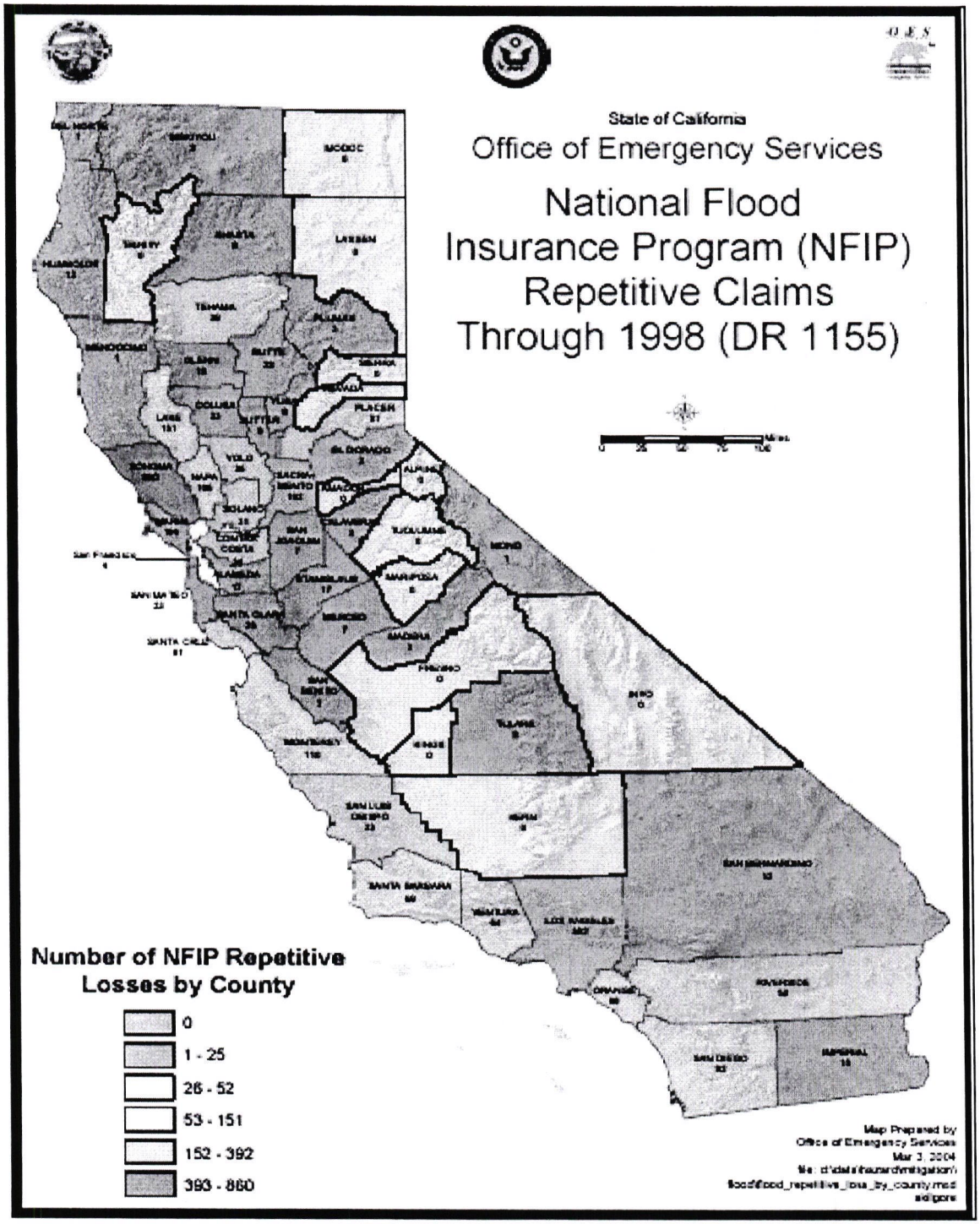
Population of Sacramento County	Total Pop in FIRM Zone	Pop in Zone A – 100YR	Pct County Pop Zone A	IA Damage Locations	# IA Locations In Zone A	Repetitive Losses in Unincorporated County	Total Repetitive Losses in County	Potential # PA Applicants	PA Amt Eligible
1,223,499	490,014	359,792	29.4%	5,279	2,029	114	182	990	$14,989,505

Source: CA-OES State Hazard Mitigation Plan

In the above table, IA refers to FEMA's 'Individual Assistance' disaster program, their program designed to assist people. The numbers above refer to the numbers of eligible 'IA' applicants from past federally declared flood disasters. The actual numbers of individuals affected could be higher due to people who did not apply for assistance, or those that were determined to be ineligible. The 'PA' refers to FEMA's 'Public Assistance' disaster program, their program designed to assist local governments, certain private non-profit institutions, and eligible districts.

In addition, Sacramento County's vulnerability to flooding is highlighted by it's number of Repetitive Losses, defined under the NFIP as insured structures that have generated claims payments greater than $1,000 twice in any 10-year period. Sacramento County ranks third among all California communities participating in the NFIP in terms of the number of repetitive losses. The City of Sacramento ranks number 16 and the City of Citrus Heights ranks number 22. The County has been addressing these repetitive losses through a variety of mitigation techniques over the past few years, and continues to do so.

In response to historic flooding, the communities within Sacramento County continue to undertake major reconstructive efforts to reduce the potential for flood damage. These efforts are described more fully in Section 4.3 – Existing Capabilities.


State of California
Office of Emergency Services
National Flood Insurance Program (NFIP) Repetitive Claims Through 1998 (DR 1155)
Number of NFIP Repetitive Losses by County
0
1 - 25
26 - 52
53 - 151
152 - 392
393 - 860
Map Prepared by
Office of Emergency Services

TOP 36 REPETITIVE LOSS COMMUNITIES BY NUMBER OF CLAIMS AS OF 6/30/02

Rank	Losses	Properties	Community	Building Payment	Contents Payment	Total Payments
1	2,280	801	Sonoma County	37,377,757.82	10,302,156.07	47,679,913.89
2	464	169	City of Malibu	7,228,124.92	1,190,328.89	8,418,453.81
3	**305**	**114**	**Sacramento County**	**4,638,815.17**	**1,264,770.48**	**5,903,585.65**
4	284	120	City of Los Angeles	2,779,104.58	494,007.21	3,273,111.79
5	238	92	Lake County	4,140,236.06	413,606.48	4,553,842.54
6	231	108	Monterey County	6,202,530.40	758,595.09	6,961,125.49
7	188	72	Santa Cruz County	2,394,553.47	476,769.33	2,871,322.80
8	178	68	Marin County	1,891,163.24	641,438.55	2,532,601.79
9	147	60	City of Napa	2,434,498.85	1,269,014.77	3,703,513.62
10	142	45	Los Angeles County	1,461,070.07	543,404.07	2,004,474.14
11	122	48	Ventura County	1,448,265.70	633,856.75	2,082,122.45
12	115	45	City of Lakeport	1,614,244.22	106,007.55	1,720,251.77
13	99	38	Napa County	1,630,402.40	344,283.04	1,974,685.44
14	92	32	City of Peteluma	1,272,076.37	548,351.96	1,820,428.33
15	91	31	City of San Rafael	786,240.42	649,654.42	1,435,894.84
16	**90**	**40**	**City of Sacramento**	**779,495.01**	**158,248.31**	**937,743.32**
17	76	33	Santa Barbara County	1,485,919.02	292,659.06	1,778,578.08
18	73	32	Yolo County	844,916.23	171,854.21	1,016,770.44
19	73	30	City of Novato	709,576.29	164,572.55	874,148.84
20	68	32	City of Santa Barbara	1,422,043.07	45,972.59	1,468,015.66
21	67	24	City of Roseville	1,597,023.96	454,953.91	2,051,977.87
22	**65**	**25**	**City of Citrus Heights**	**1,052,548.53**	**248,774.15**	**1,301,322.68**

The Impact of Flood Control Upon Flood Vulnerability. Continued reliance upon flood control structures in Sacramento County and the Central Valley will be without reprieve. The history of the area, beginning with hydraulic mining techniques of the gold miners, through the ongoing conversion of agricultural lands to commercial and residential developments, makes it impossible to reverse the dependence upon structural flood control protection. Levee maintenance is a continuous effort, due to erosion and scour brought on by the channelization itself.

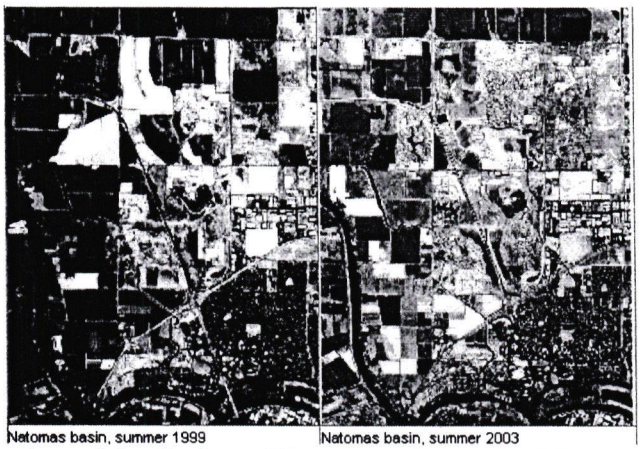
The Impact of Development Trends on Flood Vulnerability. The development trend in Sacramento County is steady, significant growth. The Sacramento Area Council of Governments (SACOG), which includes Sacramento and five neighboring counties, expects an additional one million people to live in the area by 2030, and 1.7 million by 2050. Such growth will consume thousands of acres of farm and woodlands lands and the impacts may overwhelm existing transportation and flood control facilities. (*Source:* Sacramento Bee, April 25, 2004).

Indeed the trend, for the past sixty plus years, has been noteworthy immigration to the area. These people need homes, businesses, industry, government, schools and etceteras. Increased development causes both an increase in peak flow and volume of storm water runoff. The four major rivers flowing through the county are not noticeably influenced by land development trends within the county. However, increased development in areas protected from deep

flooding by levees and the Folsom Dam simply increases the potential damage assessment should a statistically unlikely, yet catastrophic flood occur.

Tributary Streams. Master planning will be necessary to assure that open channel flood flow conveyances serving the smaller internal watersheds are adequately prepared to accommodate the flows. These developments can bring the revenue needed to solve existing flooding problems by constructing ecologically sensitive water conveyance areas with peak flow detention.

The potential for flooding may increase as storm water is channelized due to land development. Such changes can create localized flooding problems in and outside of natural floodplains by altering or confining natural drainage channels. Floodplain modeling and master planning should be based on the ultimate built-out land use in order to assure that all new development remains safe from future hydrologic conditions. While local floodplain management, stormwater management, and water quality regulations and policies address these changes on a site-by-site basis, their cumulative affects can result in floodplain impacts regardless.



Conversion of Agricultural Lands to Urbanized Development

(Source: California Department of Conservation and The Sacramento Bee)

This amount of growth will strain the limits of the entire water management system – which includes water supply in addition to water control. The Central Valley provides 2/3 of the water supply for southern California – so when flood control structures are overwhelmed, the result is not only severe flooding, but a significant loss to the state's water supply may occur.

Much of the community favors preservation of open space, smart growth, and protection of endangered species.

"Two-thirds of Sacramento County voters would support a $40-per-parcel annual tax to maintain and improve regional parks and river parkways, according to a new poll conducted for the county... A coalition of American River Parkway supporters paid for the poll, which will help local officials decide on a ballot measure for regional parks... Forty-nine percent of respondents said they visit county parks at least a few times per month, and 70 percent said the county's regional parks are very important or extremely important to their quality of life... Voters ranked

maintaining water quality and preserving natural resources in county parks and preserving land threatened by development as the highest priorities for the additional funds." (*Source:* Sacramento Bee 9/16/04)

The Impact of Liability upon Flood Vulnerability. As a final statement describing the vulnerability of Sacramento County to future flood losses, it would be remiss to ignore a recent court decision that places the financial liability for flood losses resulting from levee failures on the State of California.

A 2004 State Supreme Court decision found California responsible for a 1986 flood caused by a break on a state controlled portion of the Feather River Levee, flooding the Town of Linda. The Supreme Court decided not to hear an appeal of a lower court decision that found the state should have fixed the levee before it broke. A similar case concerning a levee failure in 1997 is expected to be heard by the Yuba County Superior Court in October of 2004. (*Source:* Sacramento Bee, April, 2004)

At the root of the problem is the lack of a consistent, sufficient source of funding for flood control maintenance. Under the current system, the majority of flood control works are designed, constructed and funded by the USACE, with local input and cost-shares. After construction, in the case of a levee, the State Reclamation Board takes ownership, and maintenance responsibility is transferred to a local agency, generally a reclamation district.

Yet, in the past five years, state General Fund spending for maintenance of flood control structures has decreased from $101.6 million to $13.6 million, one-eighth of what it was. While the court has determined that the state is responsible, the state's legislative analyst currently argues that the state should not participate in funding a portion of projects that the state endorses through the Reclamation Board. An outcome of these conflicting positions is that the functioning of the Fremont Weir, an open weir that allows floodwaters to flow from the Sacramento River into the Yolo Bypass, is in question because the river has deposited a million cubic feet of sediment at its entrance. (*Source:* Sacramento Bee, March 30, 2004)

Regardless of where liability for levee failures finally rests, the concern should be that there will be future levee failures. A wise man once said, "There are only two types of levees, those that have failed and those that will fail." By increasing the density of development, in areas that are protected from deep flooding by levees, the potential damage losses due to exceptional flood events are proportionately increased.

General Statement of Planning Area Impact. Floods present a threat to life and property, including buildings, their contents, and their use. Floods can affect crops and livestock. Floods can also affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, and the local and regional economies.

- An exceptional flood on the American or Sacramento Rivers could breach levees, leaving tens of thousands of homes and businesses damaged;
- An exceptional flood event would have a significant impact on the overall economic health of the community; and

- A failure of the levee system in an exceptional flood event could have significant damage potential including loss of critical facilities, such as, hospitals, fire/law enforcement facilities, jails, bridges, roadways, pump stations, electricity distribution and water and sewage treatment plants.

Vulnerability of Critical Facilities to Flood Hazards. Critical facilities are those community components that are most needed to withstand the impacts of disaster. Included in this classification are police and fire stations, hospitals, schools that serve as emergency shelters, and lifeline utilities; power, water and sewer system components. Within the county, and particularly the City of Sacramento, many critical facilities are protected by the extensive flood control system. To additionally protect them individually from the potential failure of the structural flood control systems would be very difficult to justify on a benefit/cost ratio analysis. Still, the impact to the community, should the statistically unlikely catastrophic flood event occur, would be astonishing if also these critical facilities are damaged or destroyed.

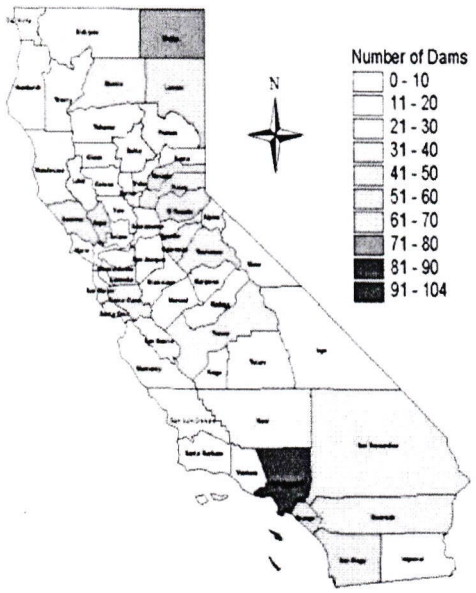
In past flood events, major motor vehicle routes have been closed, even Interstate Freeways and California Highways. Railroad lines have been damaged and closed. Boating on the rovers is curtailed. Even access to the airports has been limited. The Sacramento International Airport lies within a levee protected area, and s subject to flooding in a statistically low probability high impact flood event.

DAM FAILURES

Vulnerability to dam failures is confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility, and associated revenues that accompany those functions. According to the Sacramento General Plan, Folsom Dam would have the greatest impact on the population of Sacramento County should it fail. The floodwaters from this system would affect the cities of Folsom and Sacramento and the surrounding unincorporated area. The failure of the earthen dikes to the north of Folsom Dam would impact those people in the relatively low areas of Sacramento County leading to Roseville. The water would then flow into the Natomas Area of the City of Sacramento and then, depending on if the levees held, this water could fill the old Lake Natomas bed and possibly flood the North Highlands and Rio Linda areas. Failure of the earthen dikes to the south of Folsom Dam would impact the City of Folsom immediately. It would then flow into the American River basin, possibly breaching lower American River levees. Failure of the Mormon Island dike would send a significant flow through parts of Folsom and southwestwardly toward Elk Grove. The superstructures of Folsom and Nimbus Dams are designed to release very large flows without catastrophic failure. However, these flows may cause damage to the downstream levees and erosion to the bluffs.

Nimbus Dam, below Folsom dam, has a capacity of 8,760 acre-feet. The Flood Operations Branch, Department of Water Resources, State of California, believes that the American River Channel will not flood unless the levees fail or there is a catastrophic release. The Sacramento Municipal Utility District (SMUD) inundation map indicates that a failure of the Rancho Seco Dam would flow down to and stop approximately at Highway 99, north of Twin Cities. Failure of Shasta Dam would affect populations south along the Sacramento River basin to about

Knights Landing where it would lose momentum. An Oroville Dam failure would impact populations southwest along the Feather River basis to about the Yolo Bypass. Sacramento County may experience flood consequences greater than those mapped on the FIRM should any of these dams catastrophically fail. A failure at Camanche Dam would affect the Delta and possibly slow the flow of other rivers through the Delta. The Bureau of Reclamation indicated the water would stop short of the Sacramento-San Joaquin County line at Interstate 5 (Source: Sacramento County General Plan). Inundation maps prepared by Dam Owners are on file with the county and, for national security purposes, can only be accessed by those that can demonstrate a need-to-know to the Office of Emergency Management within the County Sheriff's Department.



As discussed in Section 4-1, there are 29 dams whose failure would impact Sacramento, including 11 of which are located outside the county. Since 1950 there have been only nine dam failures, none in Sacramento County. Only one dam failure warranted disaster assistance. *(Source: CA-OES State Hazard Mitigation Plan)*

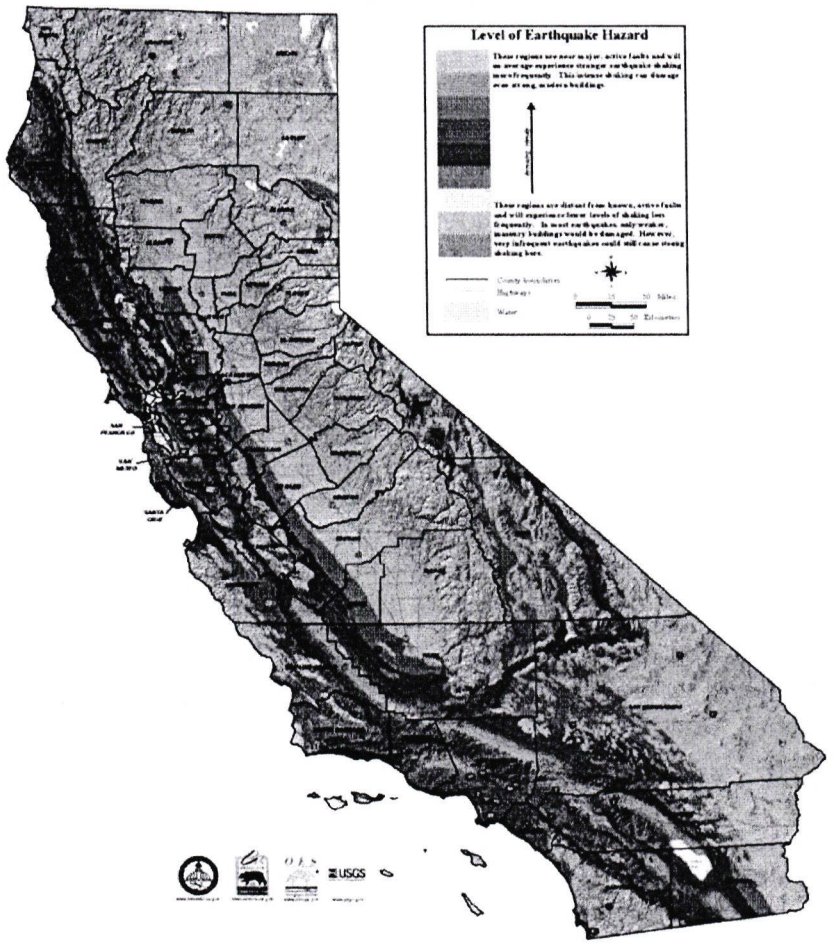
EARTHQUAKES

Based on historic and scientific information, both the risk and vulnerability to Sacramento County from earthquakes is moderate. Several nearby potentially active faults have been identified that could generate locally strong ground motions in Sacramento County and vicinity. Ground shaking, the principal cause of damage, is the major earthquake hazard because most of the County is located on alluvial materials that tend to amplify ground motions. Soil surveys for Sacramento County detail a mixture of sands, silts and clays; materials which are sediment eroded from the Sierra Nevada Mountains and transported by the Sacramento and American Rivers. (***Source***: www.soildatamart.nrcs.usda.gov).

The Delta Plain, between the lower courses of the Sacramento and San Joaquin Rivers, is at a higher risk to ground shaking due to its higher water table and proximity to the Hayward Fault. A key factor in the susceptibility to shaking is the water content of the soils; wet soils with shallow water tables are more likely to amplify the ground motion than dry soils with deep water tables. Thus, the Delta Plain is also at a higher risk due to its very nature of being an area of channels and sloughs, protected by natural and manmade levees. The soils of the delta, once a freshwater marsh, are largely organic deposits from the previous plants. Since that time, floods have deposited silt and the streams have built up alluvial banks. The adjacent land has been reclaimed by additional levees, and cultivated extensively, lowering the water table, drying up the land, and leading to subsidence. Now, the rivers are situated as much as 20 plus feet above the surrounding landscape, contained by saturated earthen embankments.
(Source: http://www.ccta.net/GM/GMdata/DEIRdocs/04deir22.pdf)

The CALFED Bay Delta Program's Levee System Integrity Program is aimed at "reducing the risk to land-use and associated economic activities, water supply, infrastructure and the ecosystem from catastrophic damage associated with the breaching of Delta levees. Levee failures in the Delta could flood farmland and wildlife habitat and also interrupt water supply deliveries to urban and agricultural users and disrupt highway and rail use. Although there has never been a documented levee failure from a seismic event, the Delta has not experienced a significant seismic event since the levees have been at their current size. One goal of the CALFED's Levee Program is to identify the risk of failure to Delta levees due to seismic events..." "The final overall estimate of potential levee failures during a single seismic event is ... that an earthquake with a 100-year return period is predicted to cause three to 20 levee failures in the Delta, on one or more islands." (***Source:*** CALFED Bay-Delta Program, "Seismic Vulnerability of the Sacramento-San Joaquin Delta Levees," April 2000).

Most of the non-Delta portion of Sacramento County is located on firmer materials that tend to dampen ground motions, resulting in less damage, with the exception of the floodplains, where the risk is slightly higher. The recently published (Spring 2003) California Geological Survey map that follows describes the ground shaking risk to most of Sacramento County (excluding the Delta) as "distant from active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here."

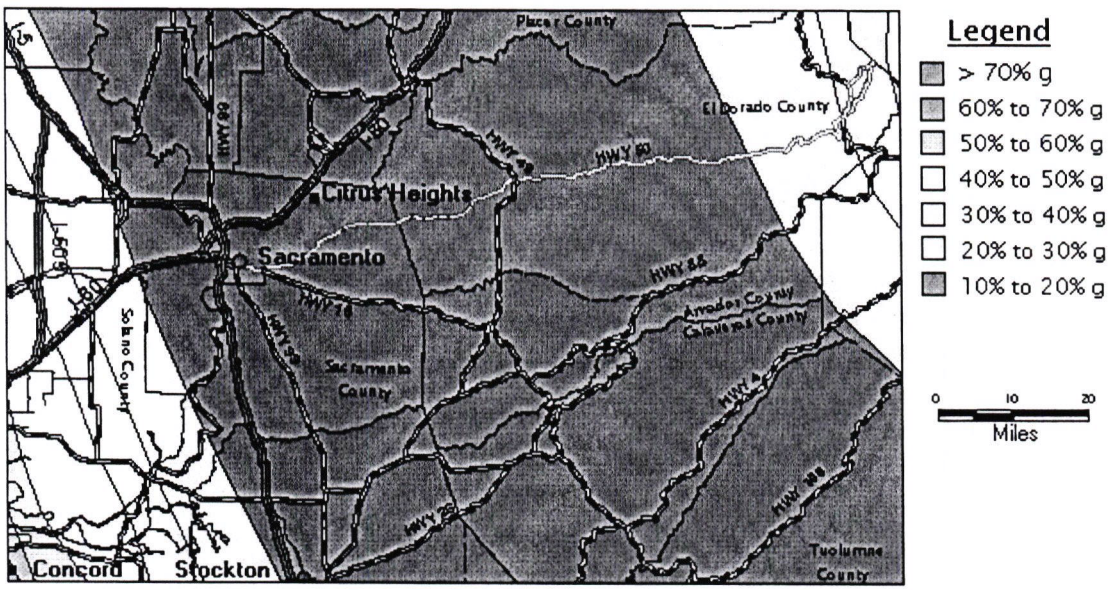


Earthquakes can trigger secondary effects, such as dam failures, explosions, and fires that become disasters themselves. In addition to the potential levee failures along the rivers and sloughs in the Delta area, there is an extremely low probability of a seismic generated failure of Folsom Dam. The resulting flood is described in the preceding Dam Failure section of this plan.

Many factors affect the potential damageability of structures and systems from earthquake-caused ground motions. Some of these factors include proximity to the fault and the direction of rupture, epicenter location and depth, magnitude, local geologic and soils conditions, types and quality of construction, building configurations and heights, and comparable factors that relate to utility, transportation, and other network systems. However, ground motions become structurally damaging when average peak accelerations reach 10% to 15% of gravity, average peak velocities reach 8 to 12 centimeters per second, and when the Modified Mercalli Intensity (MMI) Scale is about VII. The MMI Scale is based on expected human behavior and damage. MMI VII is described as:

> *Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.*

The California Geological Survey, in the Sacramento portion of the Survey's Probabilistic Seismic Hazard maps, estimates that ground motion could be within the damaging range of 10 percent to 20 percent of gravity. That map segment is shown below.



Fault rupture itself contributes very little to damage unless the structure or system element crosses the active fault. In general, newer construction is more earthquake resistant than older construction because of improved building codes and their enforcement. Manufactured housing is very susceptible to damage because rarely are their foundation systems braced for earthquake

motions. Locally generated earthquake motions, even from very moderate events, tend to be more damaging to smaller buildings, especially those constructed of unreinforced masonry, such as was seen in Oroville, Coalinga, Santa Cruz, and Paso Robles.

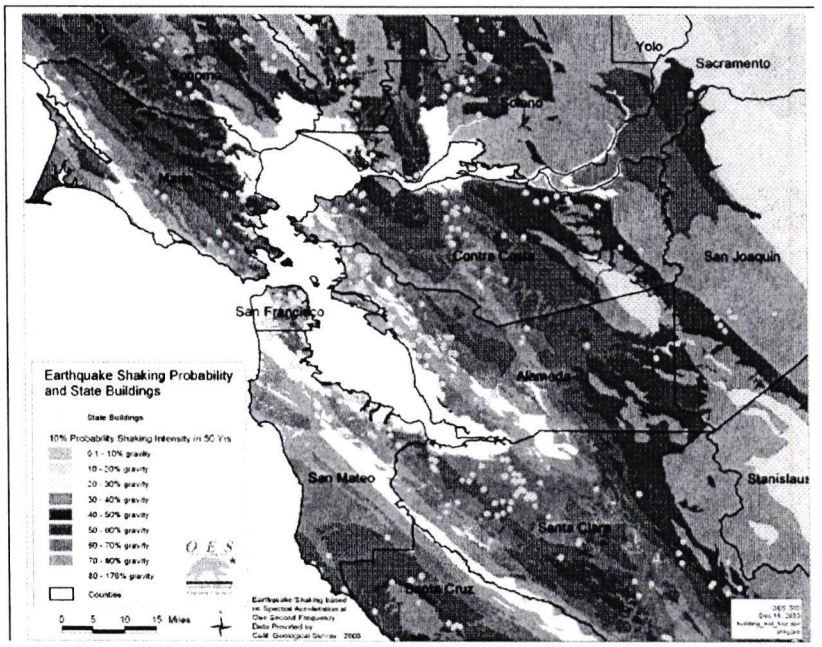
Earthquake motions generated from distant earthquakes tend to more seriously effect taller buildings because the oscillations that are generated can exceed tolerable interstory drift. Naturally or artificially filled areas, such as the Marina District in San Francisco, tend to experience amplified motions and associated ground failures that can cause extensive damage.

Lifeline systems, such as water and natural gas pipelines, highways, overpasses and bridges, rail lines, electrical and other utility services, can experience substantial damage from shaking, ground deformations, and high velocities generated below ground by earthquakes.

Common impacts from earthquakes include damages to infrastructure and buildings (e.g. unreinforced masonry [brick] crumbling; architectural facades falling; underground utilities breaking, gas-fed fires; landslides and rock falls; and road closures). Less common, but possible damages would include dam failures and subsequent flash floods.

In earthquakes, certain soils are more susceptible to shaking than others, and certain types of building construction are more likely to sustain damage than others. Thus, in areas with higher concentrations of these types of soils or these types of buildings, greater damages can be expected. Any area that included *both* risky soils and vulnerable construction would be most likely to incur the greatest level of damage and disruption. The HMPC, however, does not have digital soils data available that would allow us to "overlay" a map of building construction type.

As part of CA-OES's effort to identify state owned buildings at risk from earthquakes, the map below was produced. As indicated in the CGS/USGS shake map, it indicates that the Delta is the area within Sacramento County most vulnerable to earthquake impacts.



California has an Unreinforced Masonry (URM) program where seismic retrofits, or building removal, are required in Zone 4, a designation used in the Uniform Building Code (UBC) to denote the areas of highest risk to earthquake ground motion. Sacramento County is not in Zone 4.

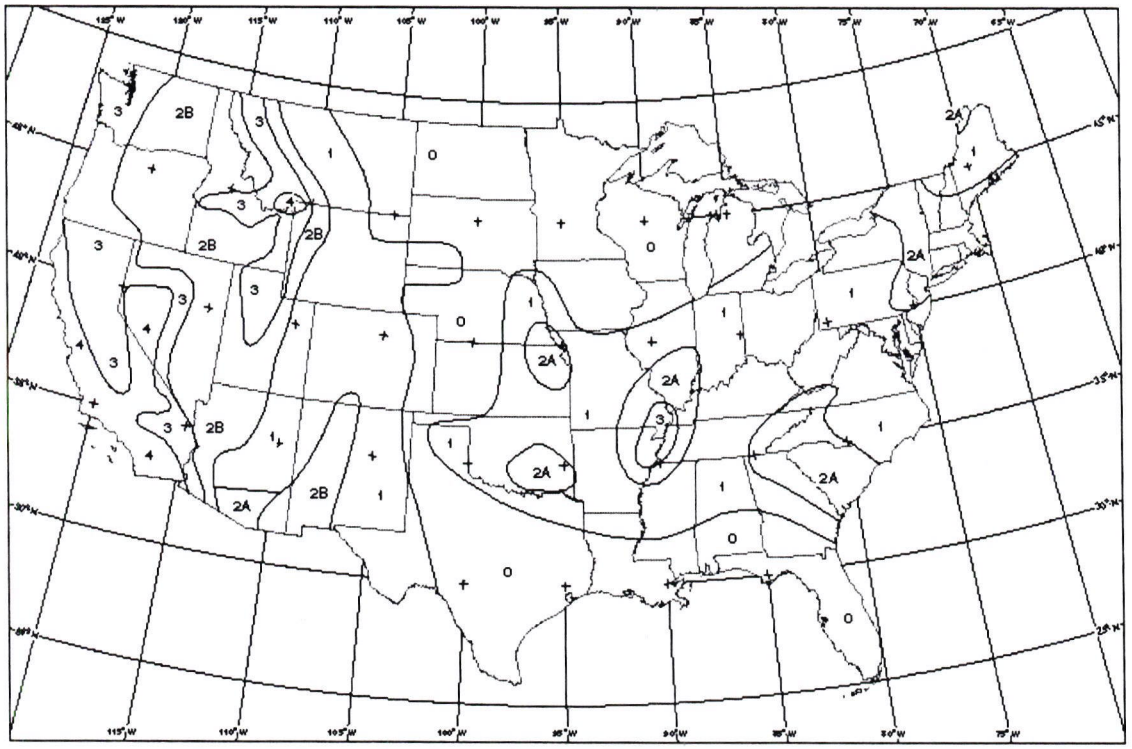
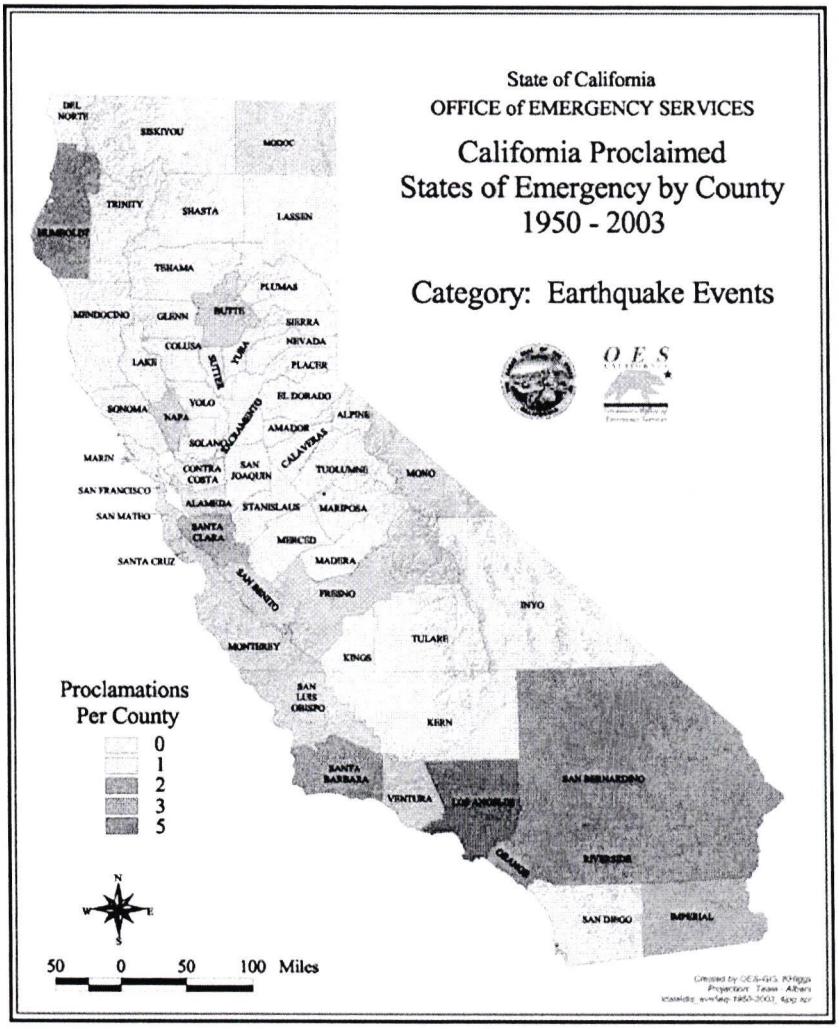


Figure A7. 1994 Uniform Building Code zone map. Zones are identified by the numbers from 0 to 4. Seismic zone factors are assigned to each zone; Zone 0 = 0, Zone1 = 0.075, Zone 2A = 0.15, Zone 2B = 0.20, Zone 3 = 0.3, and Zone 4 = 0.4. Each zone also has specific structural detailing requirements. After ICBO, 1994 (This map was redrawn from the original source, if differences occur, the original source should be used).



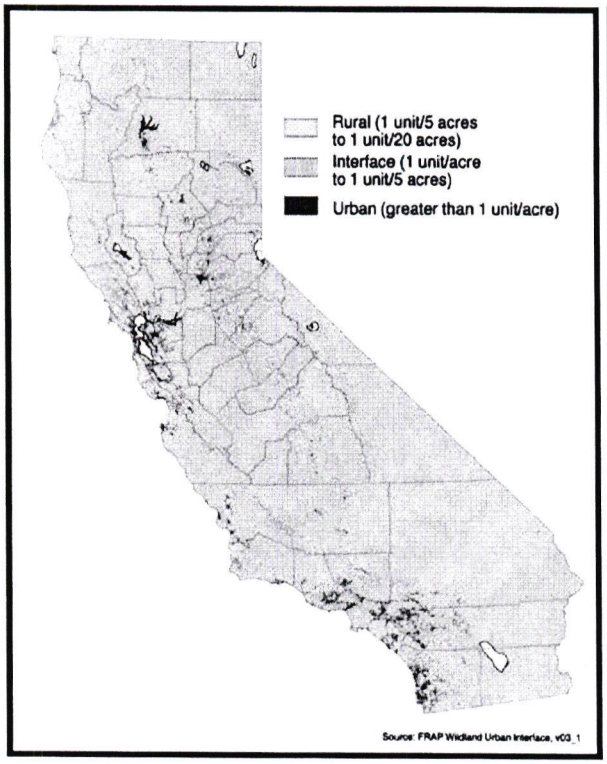
To date, Sacramento County has not been included in any disaster declarations resulting from earthquakes. CA-OES, using FEMA's HAZUS-MH loss estimation modeling tool, determined that approximately 22 million people live in the 40 percent gravity or higher seismic hazard zone statewide. Their analysis found only one one-hundredth of one percent of Sacramento County's population within the high seismic hazard zone. Based on the previous seismic zone maps this population resides in the Delta region of the County.

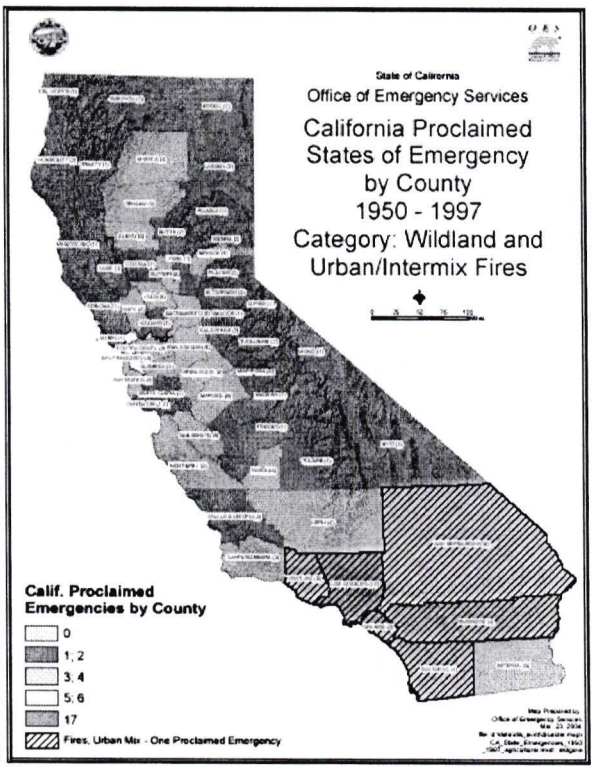
County	Total Population	Pop in EQ Prob > 40%	EQ Rank Total POP	EQ Rank % of POP
SACRAMENTO CO Total	1,338,543	170		0.01%

Source: The State of California Multi-Hazard Mitigation Plan 2004

WILDFIRES

Sacramento County's vulnerability to wildfire is low, though there exists limited exposure in the grassy and forested areas adjacent to the county's eastern boundaries. As with most wildfire vulnerability, it is the result of increased development encroaching into forested and dry grassland areas. This area is referred to as the Wildland Urban Interface (WUI). Lives, infrastructure and property within the WUI 5are vulnerable to wildfire. In Sacramento County, grass and peat fires are the two main types of wildland fires; grass in the eastern foothills of the county and peat in the Delta.





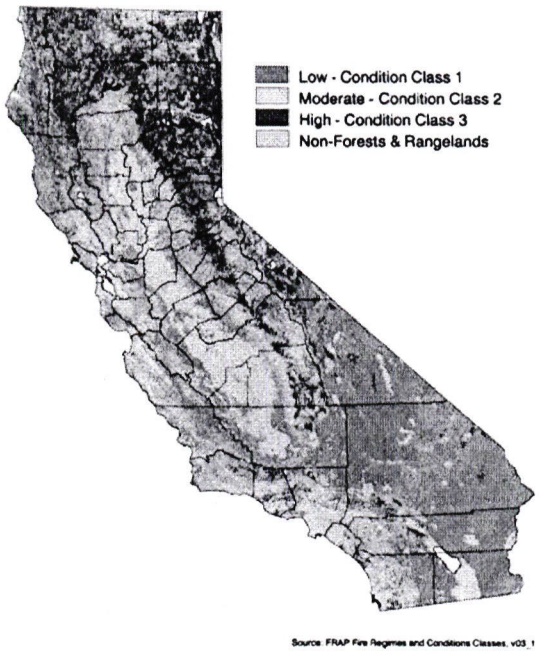
The map, above left, shows the Folsom area as that with the greatest density of housing subject to wildfire in Sacramento County. The map, above right, displays that Sacramento County has not been included in any wildfire disaster declarations.

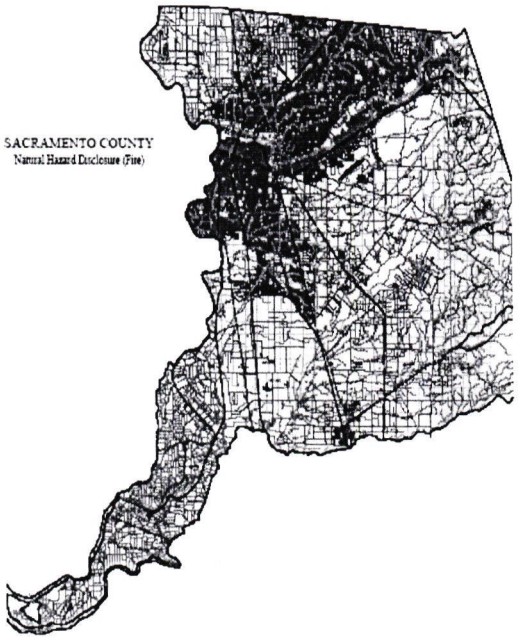
The CA-OES State Hazard Mitigation Plan also presents data that indicates the threat of erosion and the loss of agricultural income due to fire is very low in Sacramento County.

The maps below illustrate the low vulnerability of Sacramento County to wildfires.

FIRE-RELATED RISKS TO ECOSYSTEM HEALTH AS MEASURED BY CONDITION CLASS

(Source: CDF Fire and Resource Assessment Program – 2003 Assessment)





The map, above left, shows there is little risk to ecosystem heath in Sacramento County from wildfires, primarily because there is no forest or rangeland to burn. The map, above right, shows that the portion of Sacramento County that is subject to maintenance and hazards disclosure requirements border the eastern boundary of the County. More detail on wildfire vulnerability is provided in the appropriate "Community Element" in Section 6 of this plan.

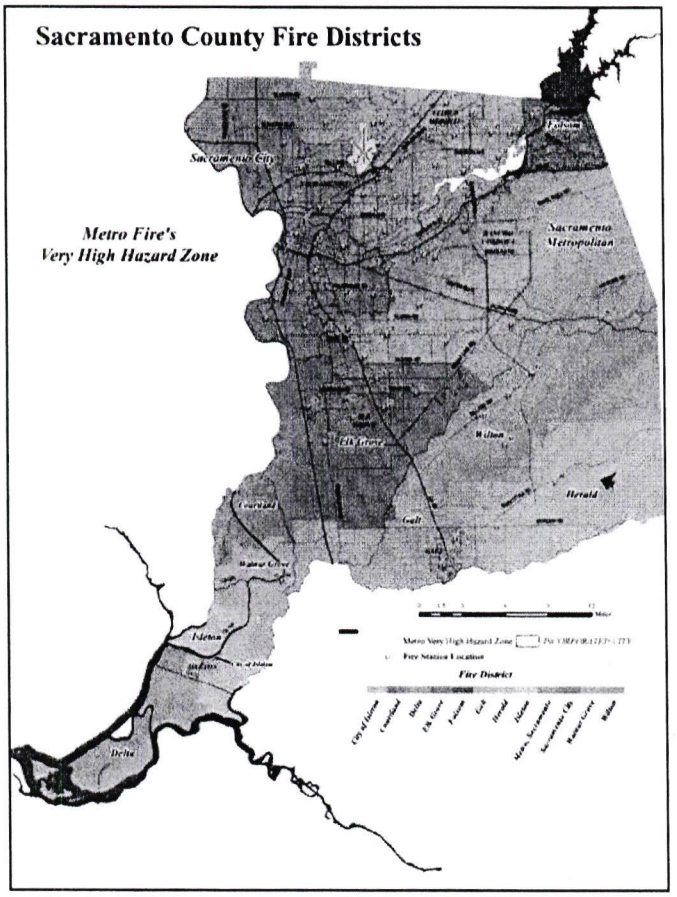
LEGEND

WILDLAND AREA THAT MAY CONTAIN SUBSTANTIAL FOREST FIRE RISKS AND HAZARDS

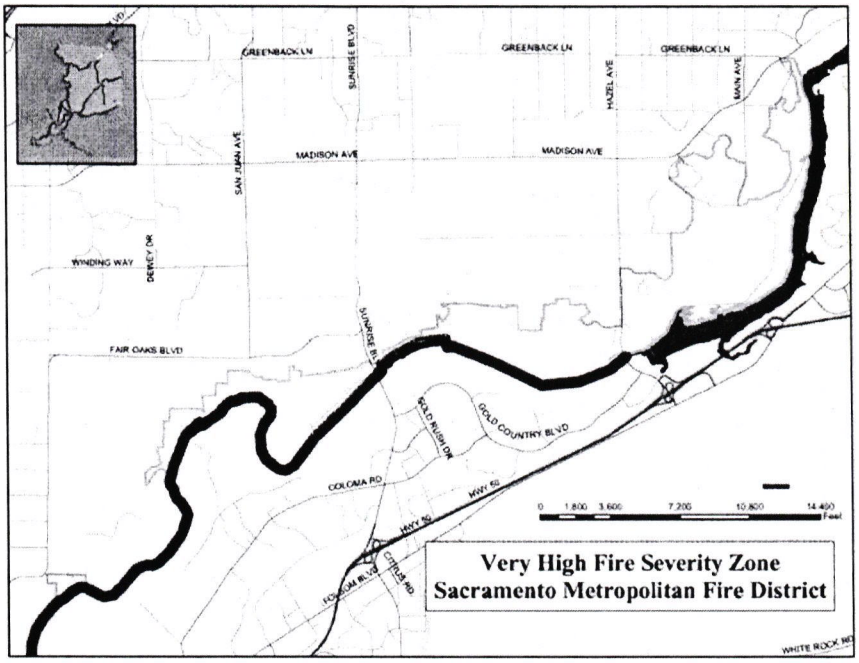
Pursuant to Section 4125 of the Public Resources Code. The owner of this property is subject to the maintenance requirements of Section 4291 of the Public Resources Code. Additionally, it is not the state's responsibility to provide fire protection services to any building or structure located within the wildlands unless the Department of Forestry and Fire Protection has entered into a cooperative agreement with a local agency for those purposes pursuant to Section 4142 of the Public Resources Code.

VERY HIGH FIRE HAZARD SEVERITY ZONE - AB 337

Pursuant to Section 51179 of the Government Code. The owner of this property is subject to the maintenance requirements of Section 51182 of the Government Code.

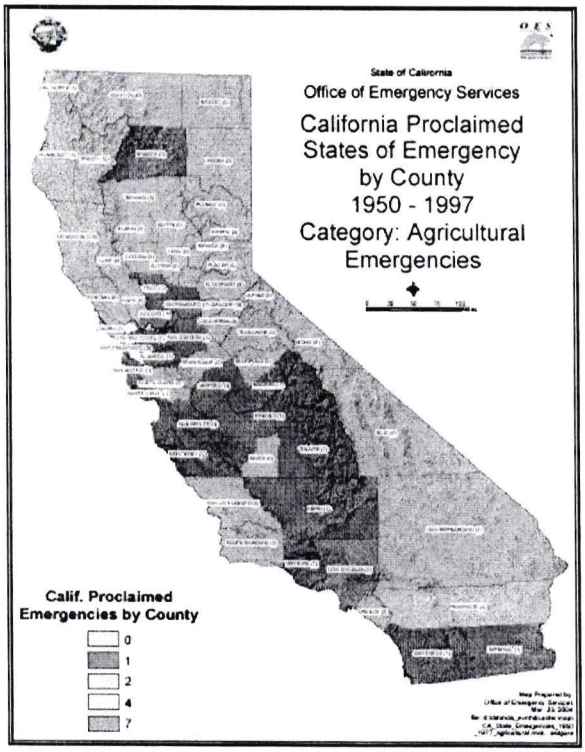


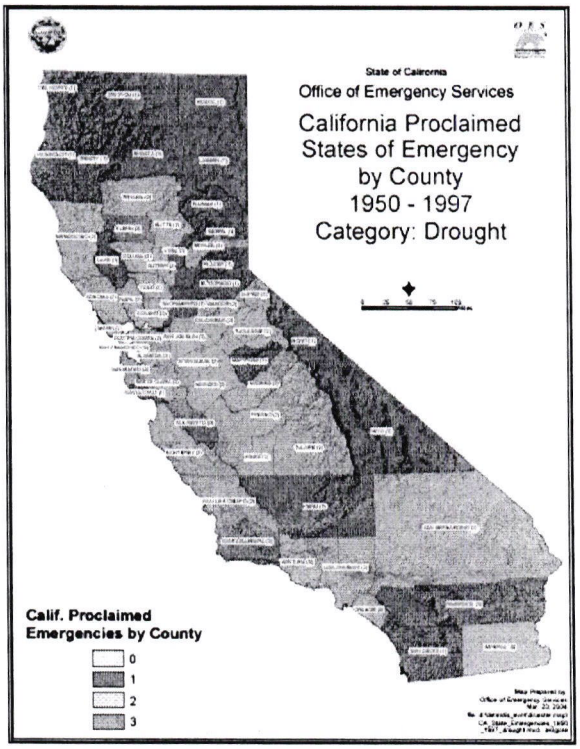
The Sacramento Metropolitan Fire District map above highlights in yellow an area along the American River Parkway which they have designated as a 'Very High Hazard Zone'. The map below shows the same area in much greater detail. This area has significant vegetative growth along the river and up the localized bluffs, upon which homes are situated. As depicted, the hazard area varies in 'width' along different portions of the Parkway, and is a function of the localized vegetation. While this is a high-risk area, the overall countywide vulnerability still remains low.



DROUGHT AND AGRICULTURAL EMERGENCIES

Drought is different than many of the other natural hazards in that it is not a distinct event, and has an unusually slow onset. Drought can severely impact a region both physically and economically. Adequate water is the most critical issue: agricultural, manufacturing, tourism and commercial and domestic use all require a constant, reliable supply of water. As the population in the area continues to grow, so will the demand for water. Water supply is affected both by decreased storage in reservoirs and dry wells resulting from a lowering of the water table. Reservoir storage and ground-water supply are related, in that when reservoirs run dry users rely more on wells to pump groundwater, which in turn lowers the water table and also increases pumping charges due to increased use of electricity.





Sacramento County has only been affected by drought and agricultural emergencies (pests, hail, freeze) once each. The county's vulnerability to such hazards is low.

The potential for drought condition is exacerbated by the need for Folsom Dam to serve as a primary flood control feature while balancing the needs for water supply and aquatic habitat downstream. Miscues in spring precipitation predictions may necessitate excessive releases from Folsom leaving lower than desired volumes in the reservoir in the summer months.

WEST NILE VIRUS - HEALTH HAZARDS

West Nile Virus is spread through mosquito bites. Thus, people and livestock frequenting areas with the greatest concentration of mosquitoes, and during the times of greatest concentration, are most likely to become infected. Areas with standing water are where mosquitoes breed, and therefore are an area of higher risk. Standing water can be found along the river and creek areas of the County as well as in swimming pools, ponds, birdbaths, ditches, and old spare tires – so the risk areas could be in many locations and in differing concentrations

West Nile Virus. Both the risk and vulnerability to California from West Nile Virus (WNV) is increasing, though low overall, based on the percentage of total population that actually comes down with the disease. The first appearance of WNV in North America occurred in 1999. As of August 2003, WNV has been documented in 46 states and the District of Columbia. In California, WNV was detected on a very limited basis in both horses and humans in 2003.

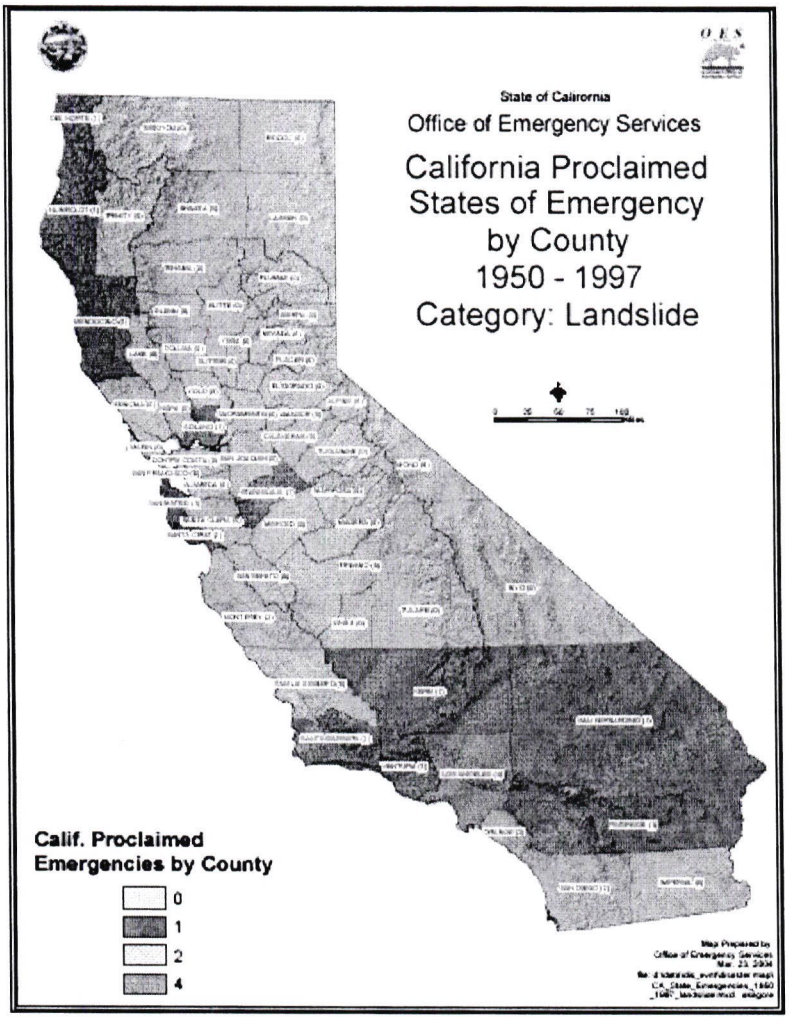
According to the CDC, even though last years outbreak was the largest in the country, fewer people died or had serious brain damage from it compared to 2002. The 9006 cases of the virus last year were more than double the 4,156 cases in 2002, however, there were only 220 deaths and 2,695 cases of severe brain damage in 2003, compared to 228 deaths and 2,944 cases of severe neurological disease in 2003. Researchers think that the larger number of confirmed cases in 2003, could be due to an increase in testing and reporting compared to 2002.

There is very real potential for West Nile Virus to become a health issue in Sacramento County in coming years. One human case in Sacramento County has already been reported as of October 2004. The County already has an active vector control program for mosquitoes due to the past concern with equine encephalitis. Also, protective measures to prevent exposure, such as wearing long sleeved clothing and using insect repelling spray, are relatively simple and cost effective. Thus, the responsibility for protection is considered an individual responsibility. The County Health Department has undertaken a public education program that provides the community with the knowledge to effectively counter the risk and impact from WNV.

LANDSLIDES

As discussed in Section 4.1, there is little or no known risk to landslides in Sacramento County. There have been no declared emergencies due to landsides in the county.

Erosion on the American River Bluffs should continue to be a concern as people desire to develop along the edge.



VOLCANOES

Also, as discussed in Section 4.1, there is little or no known risk due to volcanoes in Sacramento County. There have been no declared emergencies due to volcanoes in the county. There is some minor risk of ash dispersing upon the county from volcanic eruptions, though the amount is anticipated to be minimal, no more than a few centimeters.

DEVELOPMENT TRENDS

While there is significant growth within the Sacramento County, the County is managing growth so as not to increase vulnerability to hazards. The County's floodplain management program is one example of how the County is regulating floodplain development. More details on the County's mitigation capabilities are discussed in the following section and within the County's 'Community Element' in Section 6.1.

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Multi-Hazard Mitigation Plan

4.3 Mitigation Capability Assessment

Thus far, the planning process has identified the natural hazards posing a threat to Sacramento County and described, in general, the vulnerability of the county and communities to these risks. The next step, prior to forming goals and objectives for improving each jurisdiction's ability to reduce the impacts of these risks, is to assess what loss prevention mechanisms are already in place. Doing so provides the county's 'net vulnerability' to natural disasters and more accurately focuses the goals, objectives and proposed actions of this plan. This part of the planning process is referred to as 'The Mitigation Capability Assessment'.

The HMPC took two approaches in conducting this assessment for the County and each of the incorporated communities. First, an inventory of common mitigation activities was made through the use of a matrix. The purpose for this effort was to identify activities and actions that were either in place, needed improvement, or could be undertaken, if deemed appropriate. Second, the HMPC conducted an inventory of existing policies, regulations and plans. These documents were collected and reviewed to determine if they contributed to reducing hazard related losses, or if they inadvertently contributed to increasing such losses.

The 'mitigation capabilities' of each community are individually identified and included as part of each 'community element'. This section presents those mitigation capabilities that are common to all communities within Sacramento County.

SAFCA

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding. This vulnerability was exposed during the record flood of 1986 when Folsom Dam exceeded its normal flood control storage capacity and several area levees nearly collapsed under the strain of the storm. In response, the City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District and Reclamation District 1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento Rivers.

SAFCA's mission is to provide the region with at least a 100-year level of flood protection as quickly as possible while seeking a 200-year or greater level of protection over time. Under the Sacramento Area Flood Control Agency Act of 1990, the California Legislature has given SAFCA broad authority to finance flood control projects

and has directed the Agency to carry out its flood control responsibilities in ways that provide optimum protection to the natural environment.

SAFCA's program has three elements:

- Ensure the structural integrity of the existing levee system
- Provide at least a 100-year level of flood protection as quickly as possible to the areas within the FEMA 100-year floodplain by, among other actions, increasing the space available for flood control at Folsom Dam and Reservoir (Folsom) and
- Achieve the SAFCA adopted standard of providing a minimum of 200-year level of flood protection for the Sacramento area.

SAFCA's activities are funded from development fees and annual assessments imposed on benefiting properties in three separate districts in Sacramento and Sutter Counties. District 1 provides funding for annual operation and maintenance expenses and covers all of the properties in the Natomas Basin, including those lying within Sutter County, and all the properties in Sacramento County lying within the drainage basin of the American River. District 2 provides funding for capital improvements to the levees protecting Natomas and North Sacramento and covers all of the properties directly benefiting from these improvements. District 3 provides funding for capital improvements to Folsom Dam, the levees along the American River, and the levees and related flood control facilities along Morrison Creek and its tributaries in South Sacramento County and covers all the properties benefiting from these improvements.

The magnitude of the flood problem in Sacramento has helped SAFCA obtain federal funding as well. Pending further improvements to the existing flood control system, over 80,000 flood zone parcels remain at a relatively high risk of flooding and 20,000 more are in a moderate-risk status. The 1997 flood underscored the urgency of pursuing additional measures to protect these properties. Congress responded in August 1999 by authorizing the most significant package of improvements to Sacramento's flood control system since the construction of Folsom Dam in 1956. This package is contained in the Water Resources Development Act (WRDA) of 1999.

SAFCA provides a tremendous flood protection capacity throughout Sacramento County. The Agency has succeeded in moving flood zone properties in Natomas and North Sacramento (North Area) from a high-risk status (less than 100-year protection) to a moderate-risk status (greater than 100-year but less than 200-year protection) by raising and strengthening levees around the Natomas basin and along lower Dry and Arcade Creeks. When this work is completed, these properties will have greater than a 200-year level of protection and a relatively low risk of flooding. Outside the North Area, steps have been taken to ensure the integrity of the levee system along the Sacramento and American Rivers and to secure additional flood storage space at Folsom on an interim basis. The fruits of this effort were highlighted during the flood of 1997, when these measures helped prevent catastrophic flooding in Sacramento.

The following highlights other SAFCA accomplishments, work in progress, and future plans.

Completed Flood Protection Projects

- North Area Local Project
  - Garden Highway through levee seepage
  - East/West Levee improvements along Steelhead Creek (also known as NEMDC, Natomas East Main Drainage Canal)
  - Cross Canal Levee Improvements Phase 1
  - Dry Creek North Levee
  - Robla Creek - Phase 1, 2, 3
  - Arcade Creek Phase 1
  - NEMDC Pump Station
- American River Common Features - Slurry Wall Construction
- Installation of American River Basin Telemetry Gages
- Bank Protection along the American River Sites 1 through 5
- American River Revegetation Sites
- Sacramento Regional Water Treatment Plant Perimeter Levees
- Folsom Reservoir Reoperation
- Pocket Area through levee seepage
- American River Common Features Jet Grout Contract 1
- American River Erosion Protection RM 1.8
- American River Erosions Sites 7.0R, 10.2L, 6.4L and 6.9L CEQA Documents - Draft Mitigated Negative Declaration - NOC Draft Environmental Assessment/Initial Study - FINAL Environmental Assessment/Initial Study
- American River 10.0 Bank Stabilization
- Sacramento River East Bank-Pocket/Little Pocket Underseepage
- Sacramento River RM 60.0 - Jibbom Street Park Levee Widening

Flood Protection Projects Under Construction

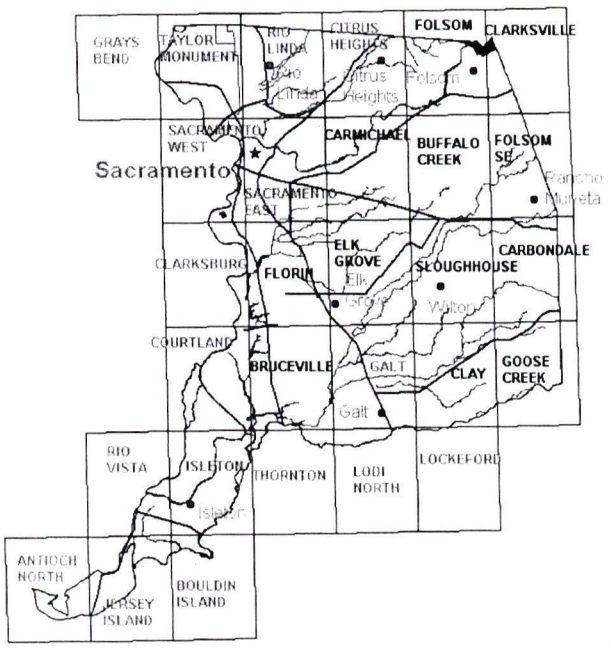
- Dry Creek Floodway acquisitions south of Elkhorn Boulevard
- Robla Creek Floodproofing
- American River Erosion Control
- Sacramento River RM 56.7 - Erosion Protection
- Hayer Dam Renovation and Dry Creek Debris Removal Project - Initial Study and Mitigated Negative Declaration - Notice of Intent to Adopt a Mitigated Negative Declaration

Flood Protection Projects In Planning

- North Area Local Project
- Natomas Levee underseepage
- Natomas Cross Canal Phase 2
- Sankey Gap
- Arcade Creek Phase 2
- Magpie Creek Improvements - http://www.spk.usace.army.mil/civ/magpiecreek/
- South Sacramento Streams Group Levee Project

- Pocket Levee Erosion
- Pocket Area Levee Underseepage
- Folsom Dam Outlet Modifications
- Folsom Dam Mini-Raise
- Folsom Dam Road Bridge
- Folsom Dam Temperature Shutters
- American River Common Features
- Mayhew Drain Closure Structure - Negative Declaration/Initial Study
- Mayhew Drain Levee
- American River Levee Parity
- Cal Expo Woodlake Habitat Restoration efforts
- North Delta Flood Control Studies
- Lower Sacramento Regional Project
- Consumnes/Mokelumne River
- Natomas Setback Levee Land Acquisition Project - Letter - Request for Qualifications - Natomas Setback Levee Alignment (Sacramento River Bank Protection Project)
- East Bank Levee Widening Project at RM 78.1 - Proposed Mitigated Negative Declaration (*Source:* www.safca.org).

CALIFORNIA STATE FLOODPLAIN MAPPING AWARENESS PROGRAM



The California Floodplain Mapping Awareness Program is currently limited to available floodplain mapping data; but by 2012, all areas expected to develop over the next 25 years will have their floodplains mapped. Initial Floodplain Mapping will be for "Awareness Floodplains" identifying flood hazard areas using approximate assessment procedures. These floodplains will be shown simply as flood prone areas without specific depth and other flood hazard data.

The community maps labeled in **black** on the map to the left are those with completed Awareness Floodplain Maps. The existing maps include FEMA/NFIP Q3 data, plus the additional approximate assessments. *(Source:* www.fpm.water.ca.gov/mapping/awareness_mapping)

The maps available for Sacramento County have been included in the appropriate Community Element section.

CALIFORNIA STATE RECLAMATION BOARD

The State Reclamation Board acts as a liaison between the State of California and the United States and residents, property owners, and agencies in the Central Valley and provides an open public forum where all interests may express their views to help resolve issues regarding flood management. The Reclamation Board was born from the history of the Central Valley, when early settlers recognized that lack of a reliable water supply made it difficult for farmers to grow crops. By the turn of the 20th century, it was evident California not only needed a special system for water storage and delivery, but also for protection from periodic floods.

California created the State Reclamation Board in 1911, and authorized it to spend $33 million on a flood control project in the Central Valley. In a 1919 letter to California Governor William Stephens, Colonel Robert Bradford Marshall, Chief Geographer for the U.S. Geological Survey (USGS), proposed a plan to build storage reservoirs along the Sacramento River system, and transfer water from the Sacramento Valley to the San Joaquin Valley via two large canals lying on both sides of the Sacramento River. The plan earned Marshall the nickname, 'The Father of the Central Valley Project'.

California's government became interested in a comprehensive water plan for the state in 1921. The state legislature directed the State Engineer to come up with such a plan. They wanted it to accomplish conservation, flood control, storage, distribution, and uses for all California water. Between 1920 and 1932, approximately fourteen reports detailed water flow, drought conditions, flood control, and irrigation issues in California. State Engineer Edward Hyatt used the reports to create the California State Water Plan.

Salinity control, especially in the Sacramento-San Joaquin River Delta, became a major concern for northern California water users, and a major component of the California State Water Project. The Delta frequently experienced salinity intrusion, which caused problems for Antioch and Pittsburg. Unless water flowed past Antioch at a minimum of 3,300 second-feet, salt water from San Francisco Bay moved into Suisun Bay and the Delta during high tide, making the water unusable for crops and industry. In 1930, the state water plan called for construction of a 420-foot dam at Kennett to maintain a regular flow to Antioch, keeping salt water out of Suisun Bay. The California Legislature authorized the future Central Valley Project (CVP) as a state project in 1933.

The Central Valley Project. In 1935, the federal Emergency Relief Appropriations Act authorized expenditures of funds for various types of public works projects, including water conservation and irrigation. The CVP was first established under this authority. The federal Flood Control Act of 1936 formally authorized funds for the CVP by name.

Over the years, the CVP has been reauthorized numerous times and its purpose expanded through various federal statutes. A 1940 law broadened the project's purpose to include navigation improvements, flood control, and energy development purposes. In 1949, Folsom Dam and Folsom Reservoir were added to the CVP. A 1950 law declared that the purpose of the project is to improve navigation, regulate the flow of the San Joaquin and Sacramento Rivers,

flood control, irrigation, and electric power. A 1954 law declared the use of water for fish and wildlife as an additional purpose of the project. It also provided authority and conditions for delivery of water to the grasslands areas of the San Joaquin Valley for waterfowl conservation purposes.

A 1978 statute amended the 1954 law to guarantee the delivery of 3000 acre-feet of water each fall and 4000 acre-feet of water each summer, when available, and authorized construction of a water delivery system to deliver water to federal waterfowl refuges in the San Joaquin Valley. Finally, a 1992 law included provisions to protect, restore, and enhance fish and wildlife and their habitats in the Central Valley and the Trinity River Basin. Objectives include addressing the effects of the CVP on fish and wildlife resources and achieving a "reasonable balance among competing" water uses.

Today, the Mission Statement of the State Reclamation Board is to:

- Control flooding along the Sacramento and San Joaquin Rivers and their tributaries in cooperation with the United States Army Corps of Engineers
- To cooperate with various agencies of the federal, State and local governments in establishing, planning, constructing, operating, and maintaining flood control works and
- To maintain the integrity of the existing flood control system and designated floodways through the Board's regulatory authority by issuing permits for encroachments.

State and Federal legislation authorized the development of comprehensive plans for flood damage reduction and ecosystem restoration along the Sacramento and San Joaquin rivers following the disastrous floods that occurred in January 1997. The authorizing legislation for this study recognized that a durable flood management system that can be effectively maintained on a long-term basis requires a design to accommodate and respect natural processes and the current benefits and uses offered by the river systems.

The Reclamation Board then developed a Strategic Plan, and its Mission Statement is:

- To reduce the devastating impacts of flooding along the Sacramento and San Joaquin Rivers and tributaries through a comprehensive system-wide approach.

It was recognized that this comprehensive system-wide approach requires evaluating how the complete system functions, how its performance could be improved, and how changes to parts of the system affect its overall performance, and that it would have to apply to both flood damage reduction and ecosystem restoration objectives. This led to the Sacramento and San Joaquin River Basins S-1 Interim Report Comprehensive Study, California December 20, 2002. The study identifies the need to:

- Provide for sediment continuity
- Use an ecosystem approach to restore and sustain the health, productivity, and diversity of the floodplain corridors
- Optimize use of existing facilities
- Promote multi-purpose projects to improve flood management and ecosystem restoration

- Integrate with the CALFED Bay-Delta Program and other programs and
- Protect infrastructure. (*Source:* www.recbd.ca.gov and www.usbr.gov/history/cvpintro.htm)

In September 2004, Governor Schwarzenegger signed legislation that gives flood-control districts more power to stop homeowners from building gardens, fences and other 'encroachments' on levees that protect Sacramento and other Central Valley cities. Some homeowners in Sacramento have been extending their back yards by building staircases, terraced gardens and fences on levees. Flood officials say these structures make it harder to maintain the levees and check them for dangerous leaks, and say state standards are inadequate to deal with the problem. The bill was expanded it so it now applies to all flood districts under the jurisdiction of the Reclamation Board. (*Source:* Sacramento Bee 9/16/04)

CALFED

CALFED refers to the state and federal government program agreement to preserve and protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta). The Bay-Delta region is of critical importance to California, as the hub of the State's water supply system, and an area of ecological importance for salmon, migratory waterfowl, and a host of other plants and animals. The State-Federal cooperation was formalized in June 1994 with the signing of a Framework Agreement by the state and federal agencies with management and regulatory responsibility in the Bay-Delta Estuary. The third element of the Framework Agreement called for a joint state-federal process to develop long-term solutions to problems in the Bay-Delta Estuary related to fish and wildlife, water supply reliability, natural disasters, and water quality.

The CALFED agencies undertook a comprehensive analysis of potential solutions to the ecosystem restoration, water quality, water supply reliability, and levee system integrity problems of the Bay-Delta and in August 2000, issued a Programmatic Record of Decision for the CALFED Program, reflecting the final selection of the long-term Plan for the Bay-Delta.

The California Bay-Delta Act of 2003 established the Authority as the new governance structure and charged it with providing accountability, ensuring balanced implementation, tracking and assessing Program progress, using sound science, assuring public involvement and outreach, and coordinating and integrating related government programs. The California Bay-Delta Authority oversees 23 state and federal agencies working cooperatively through the CALFED Bay-Delta Program to improve the quality and reliability of California's water supplies while restoring the Bay-Delta ecosystem. The California Bay-Delta Authority is focused upon improving Bay-Delta levees, by acting to protect water supplies needed for the environment, agriculture and urban uses by reducing the threat of levee failure and seawater intrusion. Delta levees also protect major interstates, roadways, cities, towns, agricultural lands, and environmental and aquatic habitat. This effort calls for:

- Improve levees to a higher standard for greater flood protection
- Improve emergency response capabilities
- Ensure levee maintenance and habitat needs are met
- Improve coordination of permit processes and

- Develop adequate and reliable funding for levee maintenance. *(Source: www.calfed.ca.gov)*

In September 2004, the Sacramento Bee reported "Congressional leaders are close to authorizing $90 million to fix some of the worst levees in the Sacramento-San Joaquin Delta - one of the few times the federal government has delved into a flooding problem that threatens farms, roads, railroads and the state's water supply. The Senate included the funds in a reauthorization bill for the Cal-Fed water program on Wednesday [Sept 15, 2004]. The House included that same levee work in its version of the $395-million bill, meaning that Delta flood protection stands to receive a funding jolt if the two arms of Congress can reconcile other Cal-Fed issues." *(Source:* Sacramento Bee 9/18/04).

CALIFORNIA STATE DAM SAFETY PROGRAM

The California Water Code entrusts the regulatory Dam Safety Program to the Department of Water Resources through the Division of Safety of Dams. The principal goal of this program is to avoid dam failure and thus prevent loss of life and destruction of property. Dams under State jurisdiction are an essential element of the California infrastructure that provides constant water supply integrity.

On March 12, 1928, the sudden failure of St. Francis Dam in Southern California resulted in a major disaster. Because of this failure and because of the exposure to potential risk to the general populace from a number of water storage dams in California, the Legislature in 1929 enacted legislation providing for supervision over non-federal dams in the State. Before the enactment of this legislation, State supervision over dams was exercised by either the State Engineer or the State Railroad Commission. This supervision was limited in scope and extended to less than half of the dams in the State. The statute enacted in 1929 provided for:

1. Examination and approval or repair of dams completed prior to the effective date of the statute, August 14, 1929
2. Approval of plans and specifications, and supervision of construction of new dams, and of the enlargement, alteration, repair, or removal of existing dams and
3. Supervision over maintenance and operation of all dams of jurisdictional size.

In 1963, the failure of the Baldwin Hills Dam, in Southern California, caused the Legislature to amend the Water Code to include within State jurisdiction, both new and existing off-stream storage facilities.

In 1972, the Legislature mandated that all state-regulated dams develop inundation maps and provide copies of them to the state and local jurisdictions. Federal agencies complied with this requirement. (Federal Dam Safety regulations require inundation maps for all High-Hazard federal dams).

Dams under State jurisdiction are artificial barriers, together with appurtenant works, which are 25 feet or more in height or have an impounding capacity of 50 acre-feet or more. Any artificial barrier not in excess of six feet in height, regardless of storage capacity, or that has a storage capacity not in excess of 15 acre-feet, regardless of height, is not considered jurisdictional.

The statutes governing dam safety in California (Division 3 of the Water Code), place the supervision of the safety of non-federal dams and reservoirs under the jurisdiction of the Department of Water Resources' Division of Safety of Dams. The Division reviews plans and specifications for the construction of new dams or for the enlargement, alteration, repair, or removal of existing dams, under application, and must grant written approval before the owner can proceed with construction. Professional engineers and geologists from the Division evaluate each project, investigate proposed sites, and check available construction materials. During construction, they identify conditions disclosed during site development that may require design changes; they check for compliance with approved plans and specifications; and they approve foundations before material is placed.

The Department of Water Resources must have issued a certificate of approval before water can be impounded behind a new dam or behind an existing dam that has been enlarged, altered, or repaired. These certificates may contain restrictive conditions and may be amended or revoked by the Department of Water Resources. Operating dams are periodically inspected to assure that they are adequately maintained and to direct the owner to correct any deficiencies found.

Inasmuch as the approval of an application to construct a dam does not grant the right to appropriate water, the applicant must apply for a water right permit through the State Water Resources Control Board prior to filing an application to construct a dam. An application filed with the Division will initiate action for conformance with the requirements of the California Environmental Quality Act of 1970. (*Source:* damsafety.water.ca.gov)

CALIFORNIA STATE BUILDING CODE

The California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, is the UBC 1997 Building Code, as amended. The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions and
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by state agencies and local governing bodies. Included in the code are provisions for:

- Flood Resistant Construction
- Life-Safety Requirements for Existing Buildings Other than High-rise Buildings
- Life-Safety Requirements for Existing High-rise Buildings and

- Repair to Building and Structures Damaged by the Occurrence of a Natural Disaster.

Standard building codes provide new construction with protection against known or expected forces and include wind, seismic, fire and snow-load/ice considerations. As a practice, standard building codes include a factor of safety of up to 1.3, meaning that structures constructed in a professional manner should be able to withstand forces up to 30 percent greater than what is suggested.
(Source: www.bsc.ca.gov)

CALIFORNIA UNREINFORCED MASONRY PROGRAM

Unreinforced masonry buildings (URMs), are generally brick buildings constructed prior to 1933, predating modern earthquake-resistant design. The brick is not strengthened with embedded steel bars and is therefore called unreinforced.

The State Building Code includes a map that identifies areas subject to seismic risk through Zones of increasing risk, from Zone I to Zone IV, with IV having the highest risk. This URM Program results from a law requiring that URM buildings in UBC Seismic Zone 4 be inventoried and retrofitted in every jurisdiction in Seismic Zone 4. The communities are to adopt a loss reduction program, and to report progress to the Seismic Safety Commission (SSC). The 2003 SSC report discusses the relative effectiveness of mandatory, voluntary, and 'notification only' programs. (*Source:* www.quake06.org/quake06/best_practices). No area within Sacramento County is identified as being within Zone 4.

CALIFORNIA FIRE ALLIANCE

The California Fire Alliance is a cooperative membership dedicated to the support of pre-fire principles and activities ensuring that pre-fire management provides for public and community safety, minimizes costs and loses, and maintains and improves the quality of the environment. The Alliance constitutes an interagency forum for coordinating member agencies' efforts in an integrated fashion.

Fire Alliance members are involved in a number of fuel reduction projects, throughout California. These projects are designed to reduce the likelihood of large and damaging wildfires, while maintaining a healthy ecological system. Suppression forces are regularly used to accomplish such projects during non-emergency response time.

During the 2000 fire season, wildfires burned millions of acres throughout the United States. These fires dramatically illustrated the threat to human lives and development. Under Executive Order, the National Fire Plan was created as a cooperative, long-term effort of the US Department of Agriculture's Forest Service, the Department of the Interior, and the National Association of State Foresters to protect communities and restore ecological health on Federal lands.

A major component of the National Fire Plan was funding for projects designed to reduce fire risks to people and their property. A fundamental step in realizing this goal was the identification

of areas that are at high risk of damage from wildfire. Federal fire managers authorized State Foresters to determine which communities were under significant risk from wildland fire on Federal lands.

The California Department of Forestry and Fire Protection undertook the task of generating the state's list of communities at risk. With California's extensive urban Wildland-Urban Interface situation, the list of communities extends beyond just those on Federal lands.

Three main factors were used to determine wildland fire threat to Wildland-Urban Interface areas of California.

1. **Ranking Fuel Hazards:** ranking vegetation types by their potential fire behavior during a wildfire
2. **Assessing the Probability of Fire:** the annual likelihood that a large damaging wildfire would occur in a particular vegetation type and
3. **Defining Areas of Suitable Housing Density that Would Create Wildland-Urban Interface Fire Protection Strategy Situations:** areas of intermingled wildland fuels and urban environments that are in the vicinity of fire threats.

The fire-threatened communities in California list include a total of 1,283. Of those, three are within Sacramento County: Galt (2), Isleton (2) and Rancho Cordova (3). Where threat level 3 is the highest risk. (*Source:* www.cafirealliance.org)

In addition, the California State Hazard Mitigation Plan identifies two dozen pieces of state legislation that have been adopted over the past quarter century establishing requirements ranging from roofing materials to disclosure legislation. (Appendix 5.1.A in state Hazard Mitigation Plan).

SACRAMENTO COUNTY MULTI-HAZARD DISASTER PLAN

The County's planned response to both natural disasters and technological incidents focuses on operational concepts relative to large-scale disasters. The plan also institutionalizes Sacramento County as part of the California Standardized Emergency Management System (SEMS), which serves as a subset of the National Incident Management System (NIMS).

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Multi-Hazard Mitigation Plan
5.0 Mitigation Goals and Strategy

Up to this point in the planning process, the HMPC had been involved in talking to agencies and organizations, and collecting and recording hazard-related data. From these discussions and efforts, the HMPC produced three documents. The first two: the Hazard Identification (Section 4.1) and the Vulnerability Assessment (Section 4.2), 'painted a picture' of the vulnerability of Sacramento County to natural hazards. From these documents, the HMPC established that:

1. Floods, and particularly floods that exceed the 100-year flood or existing level of structural protection, will continue to be a threat to the County;

2. When the identified levee improvements and re-certification of the levee system are completed, the County will remain susceptible to floods exceeding the 100-year flood, floods due to levee failures, and "internal" floods occurring within protected areas;

3. Vulnerability to flooding from the 100-year (or less) event will decrease significantly when the levees are recertified to withstand the 100-year event. However, vulnerability to uninsured economic loss during flooding from events greater than the 100-year event will increase significantly since property owners with federally backed mortgages will no longer be required to purchase and maintain flood insurance policies;

4. Most critical public facilities within the City of Sacramento are subject to flooding in an event where the levee system is overtopped or fails, but site-by-site floodproofing is considered redundant and generally not cost-effective;

5. Severe weather, such as thunderstorms, rain and hail occur annually, but only constitute a significant on-going threat to the extent they cause a secondary hazard event such as flooding. The piped and pumped storm drainage systems have a finite capacity. When thunderstorms occur, the capacity of the system may be overwhelmed, filling the street and flooding low floors;

6. There has never been an earthquake epicenter in Sacramento County, though ground shaking from nearby events poses a moderate risk in most of the County. The risk in the Delta Plains is significantly higher due to a combination of alluvial sediments, subsidence and aging levees.

7. Sacramento County's vulnerability to wildfire is low, but increasing as development towards the eastern foothill boundaries increases. Grass and peat fires are currently the two main types of wildland fires that threaten the County. There is a high fire risk along portions of the American River Parkway.

The third document, the Mitigation Capability Assessment (Section 4.3), describes the current ability of Sacramento County to counter these threats through existing policies, regulations, programs and procedures. Sacramento County is comprised of hundreds of formal Districts providing like government services, creating myriad coordination issues in creating an effective comprehensive coordinated mitigation program. The HMPC learned that:

1. The County's structural flood protection system of levees, dams, weirs and by-passes is a subset of a larger, more complex water management system that combines flood protection with urban water supply, agricultural uses and natural and beneficial functions;

2. Sacramento County is at the convergence of multiple watersheds that funnel approximately 2/3 of northern California's water through the County. The mere size of the ultimate drainage area makes coordinated watershed and land-use planning extremely difficult;

3. Progress is being made towards recertifying the levee system as providing 100-year level of flood protection; increasing the Folsom Dam outlets in order to create additional short-term flood storage available in Folsom Lake; and raising the height of Folsom Dam by seven feet to increase storage capacity;

4. Sacramento County and the City of Sacramento both participate in the NFIP's Community Rating System, and are among the top five percent of participating communities nationwide in terms of the effectiveness of their individual programs. Their efforts, including this plan, result in significant discounts to the standard cost of flood insurance for anyone in those two communities that wish to purchase it;

5. Sacramento County maintains several websites that include emergency information and links to organizations to contact if power goes out, flood occurs, etc. (SMUD, PG&E, fire and police department links, sand bag locations, etc.). Among the websites, is the real-time flood warning and information site, www.floodready.org;

6. A variety of flood mitigation techniques have been and continue to be implemented to address repetitive losses in the County and the City (e.g., home elevation, flood proofing, drainage system improvements and floodwalls;

7. There are existing, but dated, Floodplain Management Plans for both Sacramento County and the City of Sacramento. This plan updates and replaces those plans.

8. The SAFCA Board adopted a standard of "a minimum of 200-year level of protection" for areas where development is protected by levees. In other areas, the 100-year standard, with proper freeboard, is applied;

9. The County and Cities have an extensive drainage master planning program to manage and improve storm water conveyance and to mitigate for peak flow and volume impacts;

10. Many progressive State, County and other local programs, policies, ordinances and codes are in place that reduce the vulnerability of the communities to natural hazard impacts;

11. Dam failure inundation maps and Emergency Action Plans are on file with the County Office of Emergency Services in the event of a dam failure;

12. Public information is available that notifies residents and businesses about the risks from hazards and appropriate risk reduction actions that they can undertake. Additional opportunities are continuously being explored with an emphasis on flood insurance, flood protection, storm drain maintenance and protecting stormwater quality;

13. Sacramento County is in Seismic Risk Zone 3, as defined by the Uniform Building Code. This is a lower risk than UBC Seismic Zone 4, which, in California, requires that URM buildings be retrofitted for seismic safety considerations; and

14. Sacramento County only has a few areas currently subject to wildland fire hazard, but population growth will also translate into growth of this hazard. Currently, the wildland fire hazard is adequately addressed through numerous policies that have been adopted by the State over the past 25 years.

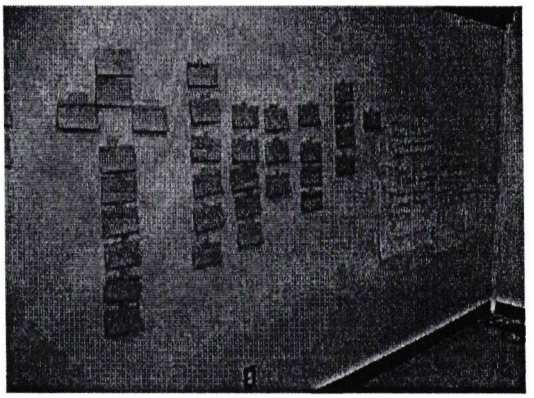
5.1 Mitigation Goal Setting

Sections 4-1 and 4-2 document the risks from and vulnerabilities to the natural hazards that threaten Sacramento County. With the additional information provided through the assessment of existing mitigation capabilities (Section 4-3), the HMPC could now begin to formulate mitigation planning goals. The intent of the Goal Setting process is to identify areas where improvements to existing capabilities can be made so that community vulnerability is reduced.

Before formulating the goals for this plan, the HMPC first reviewed planning goals in general. Each HMPC member was provided with a written and graphic explanation of Goals and Objectives, the purpose they serve and how they are developed and written. Following this activity, each HMPC member was provided with an alphabetized list of 14 sample goal statements. Some of these goals were from existing plans within the County and/or the communities themselves, some were developed as a result of analyzing the Risk Assessment, and some were generic community planning goals, such as "Improve Public Safety Services."

The HMPC participated in a discussion of the sample goal statements, and developed an understanding of the relationship of plan goals and objectives to the recommended actions that they would later be tasked to formulate. Following this discussion, each HMPC member received three index cards and was asked to write what they felt would be the most appropriate goals for this plan --- one on each card --- using the possible goal statements as a guide.

HMPC members were instructed that they could use, combine or revise the sample statements or develop entirely new goals. Team members then posted their cards to the meeting room wall, and the goal statements were placed into similar groups, combined, rewritten and agreed upon. Upon group review, some of the proposed goal statements were determined to be better suited as objectives or actual mitigation projects – and were set aside for later use.



Based upon the planning data review and the process described above, the HMPC developed the final goal statements listed below. None of the final goal statements are the same as those provided on the alphabetized list. These goals and objectives (and occasional action item) provide direction for reducing future hazard-related losses within Sacramento County.

PLAN GOALS

GOAL #1: Reduce exposure to hazard related losses.

Objective 1.1: Strengthen the existing flood hazard mitigation program.

- Achieve the SAFCA adopted standard of providing a minimum of 200-year level of flood protection for developing urban areas that are protected from deep flooding by levees

- Develop, sponsor and undertake programs to protect developed property
  - Repair/maintain/improve the levee/pump/drainage system

- Ensure environmental conservation is incorporated into protection plans
  - Provide protection for fish passage
  - Employ renewable technologies (wind, solar) where feasible
  - Develop wetland and vernal pool preservation policies
  - Create habitat friendly greenbelts in urbanizing areas

- Improve coordination between agencies, environmental groups, developers, etc., to improve working together toward common goals

- Seek additional structural protection on the major river systems

- Develop/Impose User/Impact Fees for new development to continue to allow for improvements to drainage, flood control and stormwater quality

- Develop multi-county growth management ordinance(s) that minimize/mitigate development impacts in a meaningful, long-term manner

Objective 1.2: Protect critical facilities, utilities, and infrastructure

- Determine need for protecting those already behind levees
  - Identify site-specific critical infrastructure that need redundant protection and cause that protection to occur (e.g., water supply and sewage pump stations, telephone, electric power substations)
- Critical Services
  - Identify site-specific critical facilities that need redundant protection and cause that protection to occur (e.g., law enforcement and fire stations, hospitals, critical and elderly care facilities)

*Objective 1.3: **Reduce losses caused by fog***

- Hi-tech warning systems
    - Lane-marker lighting
    - Fog-sensitive changing speed limits

GOAL #2: Promote awareness of hazards and vulnerability among citizens, business, industry and government.

*Objective 2.1: **Develop a seasonal multi-hazard public education campaign to be implemented** annually.*

- Floods
    - Flood insurance-Preferred Risk policies
    - Warning system
    - Evacuation plans/possibilities (response to warning)
    - Natural & Beneficial value of floodplains
    - Place Flood-Depth signs county-wide
    - Investigate the "Living with Levees" program
- Severe Weather
    - Tree-limb trimming
    - Fog – driving tips
    - Warning (NOAA Weather [All-Hazards] Radio)
- Earthquakes
- Wildfire
- Health Hazards
- Develop/enhance Business Continuity Planning
- Conduct disaster exercises
- Train consumers/volunteers to be read to help when disasters strike

GOAL #3: Maximize use of available funding.

Objective 3.1: Identify multiple objective opportunities that can be used to support mitigation activities. – including coordination of plans

Objective 3.2: Identify and analyze project cost share options.

Objective 3.3: Submit mitigation project applications periodically, recognizing that unused funds may come available to those who are in queue

5.2 Review of Mitigation Alternatives

In a separate HMPC meeting, the Planning Team undertook a brainstorming session to generate a set of viable mitigation alternatives that would support the above goals. To begin his process, each HMPC member was provided with the following list of categories of mitigation measures:

- Prevention
- Property Protection
- Structural Projects
- Natural Resource Protection
- Emergency Services, and
- Public Information.

The HMPC members were also provided with lists of alternative multi-hazard mitigation actions for each of the above categories. Below is an example of the list the HMPC examined category of Property Protection. A facilitated discussion then took place to examine, understand and analyze the alternatives. The complete listing of alternatives reviewed and discussed is included in Appendix E.

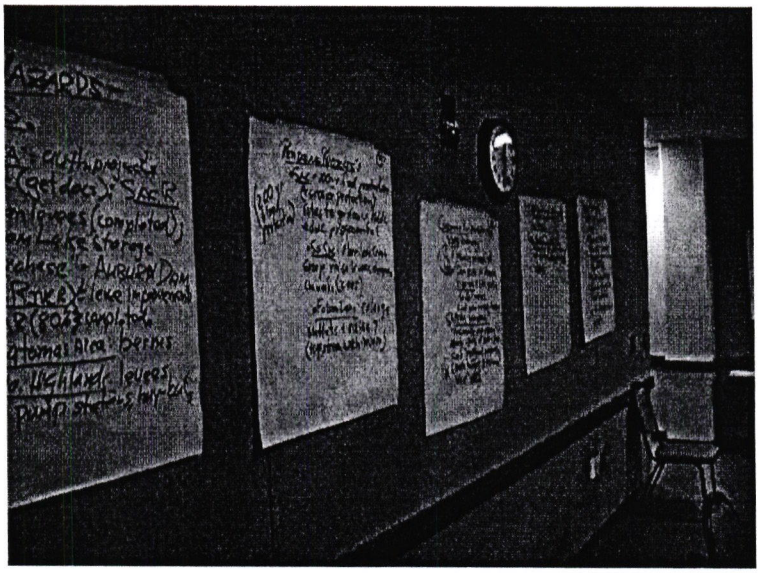
PROPERTY PROTECTION: Property protection measures are used to modify buildings subject to damage rather than to keep the hazard away. A community may find these to be inexpensive measures because often they are implemented by or cost-shared with property owners. Many of the measures do not affect the appearance or use of a building, which makes them particularly appropriate for historical sites and landmarks.

- o ***Retrofitting/disaster proofing***
  - ***Floods***
    - Wet/Dry floodproofing (barriers, shields, backflow valves)
    - Relocation/Elevation
    - Acquisition
    - Retrofitting
  - ***High Winds/Tornadoes***
    - Safe Rooms
    - Securing roofs and foundations with fasteners and tie-downs
    - Strengthening garage doors and other large openings
  - ***Winter Storms***
    - Immediate snow/ice removal from roofs, tree limbs
    - "Living" snow fences
  - ***Geologic Hazards (landslides and earthquakes)***
    - Anchoring, bracing, shear walls
    - Dewatering sites, agricultural practices
  - ***Drought***
    - Improve water supply (transport/storage/conservation)
    - Remove moisture competitive plants (Tamarisk/Salt Cedar)
    - Water Restrictions/Water Saver Sprinklers/Appliances
    - Grazing on CRP lands (no overgrazing-see Noxious Weeds)
    - Create incentives to consolidate/connect water services
    - Recycled wastewater on golf courses
  - ***Wildfire, Grassfires***
    - Replacing building components with fireproof materials
      - Roofing, screening
    - Create "Defensible Space"
    - Installing spark arrestors
    - Fuels Modification
  - ***Noxious Weeds/Insects***
    - Mowing
    - Spraying
    - Replacement planting
    - Stop overgrazing
    - Introduce natural predators
- o *Insurance*

USING CRITERIA TO ANALYZE AND SELECT MITIGATION MEASURES

A second facilitated discussion took place to examine and analyze the alternatives, using FEMA's recommended STAPLE/E decision-making criteria, in addition to others. This was done to determine why one recommended action might be more important, more effective, or more likely to be implemented than another (a complete list of criteria examine is included in Appendix E).

STAPLE/E Criteria Set	
Social:	Does the measure treat people fairly? (different groups, different generations)
Technical:	Will it work? (Does it solve the problem? Is it feasible?)
Administrative:	Do you have the capacity to implement & manage project?
Political:	Who are the stakeholders? Did they get to participate? Is there public support? Is political leadership willing to support?
Legal:	Does your organization have the authority to implement? Is it legal? Are there liability implications?
Economic:	Is it cost-beneficial? Is there funding? Does it contribute to the local economy or economic development?
Environmental:	Does it comply with Environmental regulations?



The HMPC listed all of the hazards posing a threat to the community and then generated their preferred set of mitigation measures per hazard, using the criteria to determine the most suitable proposals. The proposed actions were recorded on easel pads and then posted to the wall for review, comment, and fuller development of the recommendation.

After some discussion, the HMPC decided not to address the issue of prioritizing the recommended actions. The HMPC felt that the actions were too diverse in nature, cost, and feasibility to assign an implementation priority that would only be divisive. Rather, recognizing the DMA regulatory requirement to prioritize by Benefit-Cost and the need for any publicly funded project to be cost-effective, the HMPC decided to pursue implementation according to when and where damages occur, available funding, individual community priority, and priorities identified in the State Mitigation Plan.

5.3 The Mitigation Strategy

Within the Sacramento County Planning Area, there are eight communities and 69 districts that participated on the HMPC and provided valuable data and insight into this plan. While different in their boundaries, form and function, each recognizes their role to prepare for disaster, respond to natural hazards and undertake mitigation initiatives. Each, however, is part of the larger community fabric that is Sacramento County. There is a "mosaic" of partners and these relationships define the overall hazard mitigation planning strategy.

Any effective mitigation strategy must encompass the participation of the communities forming the partnership. A prime example of the critical nature of this partnership and patchwork quilt is the roles of each community and district in Flood Protection. While either the County or SAFCA, with an even larger border, can achieve great flood mitigation on their own, the Cities and Districts could compromise the total effectiveness of the work without similar, coordinated efforts within their respective jurisdictions. Only together, through coordinated efforts, will the vulnerability of the Sacramento community to future floods be effectively reduced.

Similar to collaboration among local communities and agencies for hazard mitigation, the Local Hazard Mitigation Plan Program (LHMP) is a priority program of California OES to meet one of their primary goals: ***Promote Hazard Mitigation as an Integrated Policy***. The LHMP provides a mechanism for the state to provide technical assistance, and to track the progress and effectiveness of local government mitigation planning programs. As part of this program, the state established the following criteria for prioritizing local mitigation activities for funding:

- Percent of population at risk
- Frequency and likelihood of hazard
- Repetitive loss areas
- Small/impoverished communities
- Planning resources available
- Types/percent of land areas at risk
- Development pressure rating
- Project urgency and C/B analysis
- Cost effectiveness of measure

Taking all into consideration, the HMPC has developed the following four mitigation strategies:

- **ENFORCE** existing rules, regulations, policies and procedures already in existence. Communities can reduce future losses not only by pursuing new programs and projects, but also by more stringent attention to what's already "on the books;"

- **EDUCATE** the hazard information that the HMPC has collected and analyzed through this planning process so that the community better understands what can happen where, and what they can do themselves to be better prepared. Also, publicize the "success stories" that are achieved through the HMPC's ongoing efforts;

- **IMPLEMENT** the Action Plan below; and

- **MOM** - monitor Multi-Objective Management opportunities, so that funding opportunities may be shared and "packaged" and broad constituent support is gained.

5.4 Countywide Mitigation Recommendations

In this section, the HMPC offers proposed mitigation actions in the form of recommendations. The recommendations that follow are those that would have a beneficial impact upon the entire county, communities and districts included. These recommendations are made with the knowledge and consent of the entire County community by virtue of the formal adoptions of this plan (Appendix F). Thus, each participating community has identifiable "projects" in this plan. Most communities have additional "projects" identified through their site-specific recommendations included in their respective Community Elements sections of this plan.

Recommended Action Item #1: *Seek improved site-specific, short-term (48 – 72 hours) weather forecasts through NOAA by lending support and sponsorship as appropriate for the American River Watershed.*

Mitigation Alternative Category: Emergency Services, Warning

Issue/Background Statement: New storms can develop in the Pacific Ocean and arrive at Sacramento County without much warning. NOAA has developed radar technology that can determine the moisture content of incoming storms. This data combined with Doppler Radar can help forecasters to better warn the flood control facility operators, such as Folsom Dam. Much potential damage can be averted by increasing out-flow from the dam, while much water can be conserved by holding the volume in the dam if the storm will not cause significant precipitation.

Rain on snow events are the most potentially catastrophic. When heavy snowfall in the Sierra Nevadas occurs followed by significant volumes of warm rainfall (known as the Pineapple Express), huge volumes of water pour from the mountains and foothills into the rivers. Conversely, fear of these potentially catastrophic storm events has prompted dam operators to release volume from the reservoirs only to later find that there is a water shortage during subsequent months. If excessive releases are followed by draught years, the impact to northern California can lead to a lack of water supply and electricity generating capacity.

Other Alternatives Considered: The status quo is the no action alternative. In exceptional storms, there may not be adequate forecast warnings to allow for discharge of the necessary volume from the Folsom Reservoir for control of the forthcoming flood flows. Weather forecasts are reasonably accurate for one or two days, but the low level discharge capacity only allows for 65,000 acre feet per day. This volume may be quickly exceeded by a low probability, high impact, rain on snow event. Conversely, it is critically important to the other functions of Folsom Dam (water supply, electricity generation, aquatic habitat and recreation) to retain volumes through the dry months.

Responsible Office/Person: CA-DWR, SAFCA, NOAA/NWS, USACE, and BOR. SAFCA should lead the coordination and solicit/include participation by the affected communities.

Cost: To be Determined. It is expected, however, that there would be a local match requirement.

Benefits: Early warning of these episodes will allow dam operators to make educated decisions.

Recommended Action Item #2: *Achieve "Storm-Ready" Certification*

Mitigation Alternative Category: Emergency Services, Warning

Issue/Background Statement: Storm-Ready certification is a program of the National Weather Service (NWS). A community must apply, and meet the program criteria. The major components are redundant methods of communicating warnings (Emergency Alert System, Flood Alert, www.floodready.org, outdoor siren, cable television-override, etc.), NOAA "Weather Radio" reception in all portions of the County, NOAA Weather Radios in all government buildings (e.g., schools); and an understanding of NWS capabilities and procedures. This could include NWS training, formation of "Weather Spotter" groups, and coordination between the County Office of Emergency Services and the NWS. The certification is relatively "easy" and inexpensive to achieve when compared to other mitigation measures, such as structural flood control. In addition, NOAA Weather Radio is becoming a standard in the nation's all-hazard warning infrastructure, and is planned for use in conjunction with Homeland Security as well as Amber Alerts.

Other Alternatives Considered: Do nothing.

Responsible Office/Person: Sacramento County Sheriff's Department, Office of Emergency Services in conjunction with the local National Weather Service office.

Cost: Staff time only to begin. Additional costs will depending upon a countywide assessment of the existing warning capability. For example, funding would be required for additional NOAA Weather Radios or a NOAA Weather Radio repeater antenna, if needed.

Benefits: Improved warning and Life Safety.

Recommended Action Item #3: *Implement the Water Forum Agreement.*

Mitigation Alternative Category: Natural Resource Protection

Issue/Background Statement: The Water Forum Agreement is a regional solution to water shortages, environmental degradation, groundwater contamination, groundwater reliability, and economic prosperity. The Agreement was developed by a diverse group of water managers and users, plus representatives of business and environmental interests from Sacramento, Placer and El Dorado Counties who negotiated this Agreement which is a comprehensive package of linked actions that will achieve two co-equal objectives; provide a reliable and safe water supply for the region's economic health and planed development to the year 2030, and preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River. The Water Forum Agreement contains seven elements, each of which is necessary for a solution to work. The seven elements are interwoven with water diversions, and urban and agricultural water uses, and

are thus equally intertwined with the County flood control system. In many, many ways, the flood control system of Sacramento County is a critical element of the state's water supply system. Implementation of the Water Forum Agreement preserves both water supply and water related habitat, and by its very nature, the flood control system. Additionally, the Agreement represents thousands of hours of work between hundreds of parties and organizations, and cannot be ignored.

Other Alternatives Considered: No action.

Responsible Office/Person: Executive Director, Water Forum Successor Effort, and all signatories to the Agreement (e.g., the Regional Water Authority and each of their 22 members).

Cost: Incremental, with some elements having little cost, and others with extensive costs. Funding can be sought through existing budgets, grant programs, and self-financing strategies where appropriate (bonds, tax incentives, taxes, fees, etc.)

Benefit: Continued and better managed water supply, water quality, flood protection, natural and ecological habitat

Recommended Action Item #4: *Develop a seasonal multi-hazard public education campaign to be implemented annually.*

Mitigation Alternative Category: Public Information

Issue/Background Statement: The HMPC gathered important and interesting information regarding the hazards that pose a threat to the health and safety of Sacramento County, the likely impacts of such hazards, and reasonable measures that can be undertaken by individuals and organizations to reduce the impact of such inevitable events. This information needs to be made public in a multifaceted approach that addresses the hazards when they occur and where they occur. Public Education is one of the primary mechanisms in reducing future hazard related losses, and one that is inexpensive in comparison to other mitigation projects. This effort should be coordinated between the many organizations that already have extensive and/or limited programs in place.

The following topics need to be addressed through this effort.

- Floods
    - Flood insurance availability and Preferred Risk policies behind levees
    - Currently planned City/County/SAFCA Program
    - Warning system components
    - Regional Evacuation plans/procedures (response to warning)
    - The dangers associated with manhole covers during floods, e.g., popping off from pressure. Include information explaining what they are, what they are for, and why people should not remove the covers
    - Natural & Beneficial value of floodplains
    - Placing Flood-Depth signs county-wide

    - Investigate the "Living with Levees" program

- Severe Weather
    - Tree-limb trimming
    - Fog – driving tips
    - Warning (NOAA Weather [All-Hazards] Radio)
- Earthquakes
- Wildfire (defensible space, subdivision regulations, ingress/egress, severe fire hazard mapping)
- Health Hazards (West Nile Virus)
- Water Conservation (In conjunction with existing San Juan WD program effort)
- Business Continuity Planning

In addition, the following activities should be incorporated into the countywide program:

- Conduct disaster exercises
- Train consumers/volunteers to be ready to help when disasters strike (CERT teams)
- Provide all-hazard curriculum for teachers
- Coordinate with the existing outreach and hazard awareness program of the American Red Cross (ARC).

Other Alternatives Considered: Continue with the minimum requirements for the Community Rating System program, or proceed with the additional items a few at a time. Utilize other innovative outreach methods to get the public's attention.

Responsible Offices/Persons: City & County Emergency Management offices, City & County Floodplain Management Offices, SAFCA, the America Red Cross, Sacramento County Health Department, San Juan Water District, the California Fire Alliance, the Institute of Building and Home Safety, CA-OES, CA-DWR, CA-Reclamation Board and FEMA Region IX.

Cost: Incremental, yet expensive. A single countywide mailing to 500,000 residential units (1.3 million population divided by 2.6 people per residential unit at $.37 per mailing) would cost $185,000 without including design and printing costs. This program should build on existing programs and agencies that are already incurring these costs, and explore other avenues of public outreach.

Benefit: Life Safety, reduced losses, increased insurance coverage

Recommended Action Item #5: *Promote GIS-based information sharing between agencies*

Mitigation Alternative Category: Public Information

Issue/Background Statement: There exists several GIS "centers" and Users Groups within Sacramento County. This recommendation is aimed at broadening the coordination between these groups, including the development of compatible systems and the sharing of baseline data.

Other Alternatives Considered: Do nothing

Responsible Offices/Persons: SACOG already has an existing regional cooperative GIS sharing network between some counties and cities, with plans to expand this effort across the entire six-county membership. This should be a regionally supported network that could take advantage of the work already initiated by SACOG. The County Assessor's office should develop a countywide platform for each community, utility and district to post pertinent data on the World Wide Web.

Cost: To be Determined. Primarily staff time to start.

Benefit: Improved coordination and efficiency, less duplication of effort, reduced costs in acquiring data.

Recommended Action Item #6: *Continue to work to reconcile environmental concerns between flood protection, water supply, natural resource and recreational needs.*

Mitigation Alternative Category: Natural Resource Protection

Issue/Background Statement: SAFCA estimates costs for the mitigation of erosion sites on the Sacramento River system within SAFCA's boundaries alone to exceed $750 Million when acceptable environmental standards are met. Re-establishment of original carrying capacity and rehabilitation of the structural integrity of Delta levees is stymied by similar costs and concerns over impacts upon natural habitats. Middle ground needs to be identified, funding identified, and actions taken. An example under consideration is the establishment of setback levees, established through agreements with willing sellers, and without the use of eminent domain or condemnation. The feasibility of additional techniques to support setbacks need to be identified and examined, including leasebacks and flood easements. Conflicting issues and priorities often result in administrative gridlock and financial paralysis, to the benefit of no one interest group while a detriment to many.

Other Alternatives Considered: Do nothing (which allows problem to become greater over time).

Responsible Offices/Persons: SAFCA, CAL-FED, the Water Forum Successor effort, USACE, BOR, FWS, State Reclamation Board, CA-DWR, CA-DF&G, National Marine Fishery Service and local/regional environmental interest groups.

Cost: To be Determined

Benefit: Common ground between flood control, water supply, water users, and natural resources, where work can progress to the mutual benefit of each constituency

Recommended Action Item #7: *Pursue the installation of new warning systems and devices that are available to minimize fog impacts upon transportation flows and accidents.*

- Lane-marker lighting
- Fog-sensitive changing speed limits

Mitigation Alternative Category: Preparedness

Issue/Background Statement: Fog is common in the Sacramento area. Fog can severely reduce visibility, and leads to numerous, multi-vehicle collisions, often on the Interstate highways where speeds often "over-drive" one's visibility.

Other Alternatives Considered: Do nothing, close the interstate during fog conditions, and lower the speed limits during fog conditions (which this recommendation accomplishes)

Responsible Offices/Persons: Federal Highway Administration, Highway Patrol, and Caltrans

Recommended Action Item #8: *Maximize use of available funding (Goal #3)*

Objective 3.1: Identify multiple objective opportunities that can be used to support mitigation activities. – including coordination of plans

Objective 3.2: Identify and analyze project cost share options.

Objective 3.3: Submit mitigation project applications periodically in order to wait in queue for future funding

Issue/Background Statement: Mitigation often costs money, and most communities, nationwide, strive to use someone else's money to pay for mitigation activities. First, this creates competition for limited dollars. Second, most programs that fund mitigation activities have a required match to be provided by the recipient. The first objective recognizes that there are always more mitigation needs than there are mitigation funds, and so communities must examine their mitigation project from multiple perspectives. For example, a flood protection project can also be construed as a housing improvement, transportation, or economic development project. This, in turn, would make the project eligible under a variety of funding programs rather than just flood programs. An additional benefit is a broader constituent base, because people who might not support a flood protection project (because they are not being impacted by flooding) might support a flood project that improved their neighborhood, relieved a local transportation problem, or improved their business.

The second objective recognizes that communities must identify their own funding sources as their match for most grant programs. The intent here is to identify available cost-share options now, rather than waiting to resolve this issue on a project-by-project basis. Options can include in-kind or "soft" matches, such as employee labor and/or use of community facilities and equipment; cash from bonds, taxes, loans, special assessments, utility fees, reprioritizing existing budgets, eliminating community services, or targeted and discretionary funding (e.g., lottery funds). In some cases, other program funds, such as HUD-CDBG funds can be utilized as a community's match.

The third objective recognizes that funding will not be provided unless it is asked for. Therefore, a constant monitoring of funding sources, application timelines, year-end funding sources and success stories from other communities will better position communities to seek funding as it becomes available.

Other Alternatives Considered: Do nothing (which would be to pass up opportunities to fund important community projects).

Responsible Offices/Persons: The 'Responsible Office or Person' for each individual Recommended Action Items in this plan.

Cost: Staff time only

Benefit: Attracting the funding necessary to implement Recommended Action Items in this plan

Multi-Hazard Mitigation Plan
6.0 The Community Specific Elements

INTRODUCTION

Sacramento County and the City of Sacramento both participate in the Community Rating System (CRS) of the National Flood Insurance Program (NFIP). Both communities have earned substantial discounts to the standard cost of flood insurance as a result of the more stringent standards, flood mitigation activities, and public outreach activities they have undertaken as part of their overall floodplain management programs. Both communities however, still have more than 10 'Repetitive Losses' - those structures that have received flood insurance claims payments greater than $1,000 twice in any given 10-year period since the community joined the National Flood Insurance Program (NFIP) - and thus are categorized within CRS as "Category C Repetitive Loss Communities." A Category C repetitive loss community must prepare a floodplain management plan that covers at least all of its repetitive loss areas. The floodplain management plan must follow the same ten steps that this DMA planning process followed. However, a Category C repetitive loss community must also receive some points for each of the ten planning steps, including some required actions not otherwise required by DMA, or they receive zero points for the entire plan - and any Category C repetitive loss community that does not receive credit for a floodplain management plan loses all their previously earned CRS discounts! These discounts are worth several million dollars each year in this community.

Thus, the primary purpose of the Community Specific Elements in this plan is to be able to separate the particular flood and repetitive loss problems and solutions for both the City and the County for CRS purposes.

A secondary purpose of the Community Specific Elements is to address the DMA regulatory requirement that hazards that present different degrees of risk across the entire planning area be evaluated separately. Since flood vulnerability is different in each community, due to the variations in each floodplain, the number of structures at risk, the amount of insurance coverage, and the values of the structures, the Community Specific Elements allow the vulnerability to floods in each community to also be examined separately.

This also affords the opportunity to examine certain common parameters for each community, such as development trends, while creating a planning document that can be customized, or even separated, by each community in the future. The Community Specific Elements also allows each community to have their own specific recommended mitigation actions listed along with their community attributes. Finally, where possible, the HMPC used the Community Specific Elements to address and other hazard related issues that were distinct to a particular community.

Each Community Specific Element is structured in a similar form and format, with the exception that the County's and City's Elements are much more detailed for CRS purposes. Thereafter, the similarities are more common and more noticeable. The following is an explanation of the template and what each data set represents.

Each Community Element begins with a general location map, and where available, a USGS aerial photograph.

FLOODPLAIN INVENTORY

To address this issue of varying risk to floods, each incorporated community within the County that participates in the NFIP was asked to conduct a flood hazard area inventory. The HMPC inventoried the following, to the extent feasible, as a means of quantifying the vulnerability within the floodplains:

- Total values at risk
- Structure types, numbers and values
- NFIP Insurance coverage, claims paid, and Repetitive Losses
- Identification of Critical Facilities at risk
- Identification of designated historical sites and natural resources
- Overall Community Impact and
- Development trends.

As is required for participation in the NFIP, each participating community has an official map designating the Special Flood Hazard Areas. The County and the City Elements have maps that display their floodplains, in the aggregate, included in this plan. Where other flood maps are readily available, and displayed in the aggregate on one page, such as the CA-DWR Flood Awareness Maps, they have been included in the appropriate Community Specific Element. However, the general approach of the HMPC within the Community Specific Elements was simply to list the official flood hazard map panel #'s due to their total number and volume. These maps, however, are available through each community's Public Works, Building or Planning Department, posted at public libraries and on the WorldWide Web at www.fema.gov. Since these maps change over time, the most current floodplain information is always found at each community's floodplain management office.

Historic and Natural Resources are important to identify pre-disaster for four reasons:

- First, the community may decide that these sites are worthy of a greater degree of protection than currently exists, due to their unique and irreplaceable nature.

- Second, should these resources be impacted by a disaster, knowing so ahead of time allows for more prudent care in the immediate aftermath, when the potential for additional impacts are higher.

- Third, the rules for repair, reconstruction, restoration, rehabilitation, and or replacement usually differ from the norm, and

- Fourth, Natural Resources, such as wetlands and riparian habitat, can have beneficial functions that contribute to the reduction of flood levels and damage.

CAPABILITY ASSESSMENT

The purpose of the Capability Assessment is to determine what policies, programs, regulations, and other mechanisms each Community already has in place that either contributes to, or hinders the ability to mitigate the effects of natural hazards. Additionally, the analysis of the existing capabilities allows the identification of those practices which may actually increase the impacts of hazards upon the communities.

The true value of a Mitigation Capability Assessment is in its analysis. For this plan, each community presents a good first effort, as exemplified by the inventory they have completed. This is an ongoing process that will continue with the implementation and maintenance of this plan. On the following page is the "key" to the Capability Assessment Matrix utilized and presented by each county.

EXPLANATION OF CAPABILITY ASSESSMENT MATRIX: *Does the Community have:*

Comp Plan: A Comprehensive Long-Term Community Growth Plan?
Land Use Plan: A plan that designates type of Land Use desired/required; uses Zoning
Subdivision Ordinance: A regulation that dictates lot sizes, density, setbacks and construction type
Zoning Ordinance: An ordinance that dictates type of Use and Occupancy, Implements Land Use Plan
NFIP/FPM Ord: A Floodplain Management Ordinance: Directs development in identified Flood Hazard Areas. Required for Participation in NFIP and Availability of Flood Insurance
Sub. Damage: Does your FPM Ordinance contain language on Substantial Damage/Improvements?
Administrator: Do you have a Floodplain Management Administrator (someone with the responsibility of enforcing the ordinance and providing ancillary services (e.g., map reading, public education)
# of FP Bldgs: How many buildings are in the mapped Floodplain?
# of policies? How many buildings are insured against flood through the NFIP?
# of RL's: # of Repetitive Losses: (Paid more than $1,000, twice in 10 years)
CRS Rating: A Community Rating System rating from the NFIP, and if so, what is it?
BCEGS: A Building Code Effectiveness Grading System Rating
LEOP: A Local Emergency Operations Plan – a disaster RESPONSE plan
HM Plan: A Hazard Mitigation Plan
Warning: Any type of system, such as "Storm Ready" Certification from NWS, NOAA Weather Radio reception, outdoor sirens, Cable (TV) Override, or an Emergency Warning Notification System?
GIS: A Geographic Information System
Structural Protection Projects: (levees, drainage facilities, detention/retention basins)
Property Protection Projects: (buy-outs, elevation of structures, floodproofing, small "residential" levees or berms/floodwalls)
Critical Facility Protection: (for example, protection of power substations, sewage lift stations, water-supply sources, the EOC, police/fire stations or medical facilities that are at risk)
Natural And Cultural Inventory: Do you have an inventory of resources, maps, or special regulations within the community? (wetlands and historic structures/districts, etc.)
Erosion Or Sediment Control: Do you have any projects or regulations in place?
Public Information And/Or Environmental Education Program: Do you have an ongoing program even if its primary focus is not hazards? Examples would be "regular" flyers included in city utility billings, a website, or an environmental education program for kids in conjunction with Parks & Recreation?)

Note: In the Capability Assessment matrix, a "C" means the County provides the service, and an "IP" means In Progress. Blank boxes or N/A means the information was either unknown or unavailable.

DEVELOPMENT TRENDS

Mitigation is most effective in protecting development that doesn't yet exist. Knowing a community's development trends, when juxtaposed with the hazard analysis, is a valuable information tool that can provide direction, incentive and alternatives to placing new development at risk from natural hazards. This section describes the development trends within each community, where discernable.

COMMUNITY-SPECIFIC RECOMMENDATIONS

The final section of each County Planning Element puts forth the Recommended Actions of the County Planning Team. Each recommendation is presented in a similar format:

Action Item: A brief statement of what is needed

Issue Statement: An explanation of why the Recommended Action is important

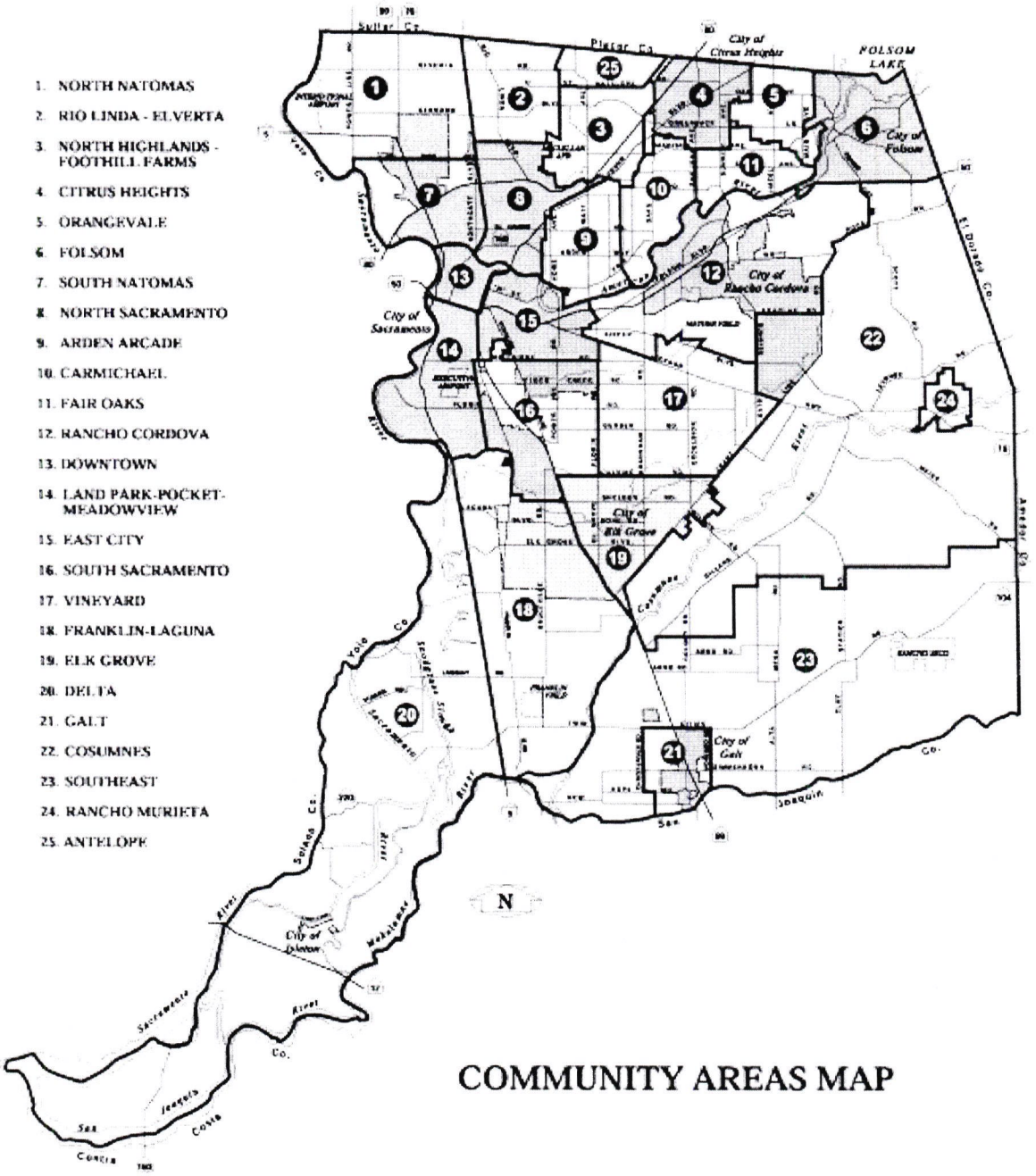
Implementation Manager and Strategy: Identifies what person, position, department or agency has the initial lead responsibility for implementation. This could include a range of activities from identifying and applying for appropriate grants, to gathering the technical data needed for project development, or simply extending an invitation for Technical Assistance.

Cost Estimate: Where costs are known, they are presented. Potential sources of funding and/or local matches are also identified when known or considered.

Cost-Effectiveness Explanation: A statement of why the Planning Team believes these Recommended Actions would be cost-effective to pursue. In most cases, this is a generic description, as it is fully expected that any project being seriously considered for implementation will need to detail project costs and benefits, and due to the scope of this plan, and the constant fluctuation in project costs and values that help determine benefits, a detailed analysis is not worthwhile at this point in the planning process.

Multi-Hazard Mitigation Plan

6.1 Sacramento County Community Element



SACRAMENTO COUNTY COMMUNITY PROFILE

The purpose of this section is to discuss in more detail the hazards that affect the whole of Sacramento County. Based on the Hazard Identification and Vulnerability Assessment in sections 4-1 and 4-2 of this plan, flooding is the main concern for the County. This section focuses on the County's floodplain management concerns and supercedes and in all ways replaces the 2001 County of Sacramento Floodplain Management Plan, originally adopted by the Board of Supervisors on September 16, 1997 (resolution 97-1112).

Sacramento County's location within the northern portion of the alluvial trough of California's Central Valley lends itself to serious flood problems from the American and Sacramento rivers and their tributaries. This section follows on to the historic flood problems listed in the Sacramento County Flood History section of this plan and provides a more detailed perspective of the watersheds, flood hazards and risks within the unincorporated areas of the County.

The total population of Sacramento County is 1,379,440, with 662,300 people in the incorporated portions. The County encompasses 955.01 square miles total, of which 813.25 square miles are unincorporated. The population density of the county 1,444 persons/square mile total and 804persons/sq mile in the unincorporated portions.

TOTAL VALUES AT RISK FROM HAZARDS

The total exposure of the building stock in unincorporated Sacramento County is represented in the table below. This gives a baseline as to what is exposed to large-scale events such as an earthquake. The assessor's data does not include the values of infrastructure, government and church facilities, or the local economy, so it does not give a complete representation of county assets. Additionally, Assessed Values in California are lower than actual because they are frozen to only reflect the value at the time of the last sale.

SACRAMENTO COUNTY ASSESSED VALUATIONS (UNINCORPORATED AREAS ONLY)

Type	Total Value	Land Value
2/3/4PLEX	$1,043,804,983	$ 311,074,014
COMMERCIAL/INDUSTRIAL	$6,314,076,111	$ 1,889,731,402
MULTI-FAMILY	$2,190,395,227	$ 391,349,321
SINGLE FAMILY	$24,849,643,520	$6,862,602,682
VACANT LAND/AG	$1,443,304,668	$1,263,908,429
TOTAL	**$35,841,224,509**	**$10,718,665,848**

Source: Sacramento County Assessor's Office, 9/10/2004

There are very few events that would destroy an entire community, so in any given disaster event, one could expect the damages to be less than the $35.8 Billion displayed. The Risk Assessment portion of this plan also supports the statement that the County does not face a catastrophic natural disaster. However, the risk varies within the County watersheds. Therefore, the following section takes a closer look at the County's vulnerability to flooding.

FLOOD PROBLEM IDENTIFICATION

Sacramento County is vulnerable to four types of floods: localized street flooding, river flooding, levee overtopping/failure, and dam failure. Certain health hazards are common to all of these events. Standing water and wet materials in structures can become a breeding ground for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infectious disease is of concern. Direct impacts such as drowning can be limited with adequate warning and public education about what to do during floods. Due to the large amount of population at risk, warning and evacuation will be paramount to reduce life and safety impacts with any of these types of flood events.

River Flooding. River flooding can result from either flash or slow rise flooding in any of the four stream groups that affect the City. Many areas in Sacramento are subject to sheetflow, which is broad shallow, overland flooding generally less than 2 feet deep and characterized by unpredictable flow paths. The warning time associated with slow rise floods will enable life and property protection. Flash floods, however, usually require immediate evacuation within the hour. Once flooding begins, personnel will be needed to assist in rescuing persons trapped by floodwaters, securing utilities, cordoning off flooded areas, and controlling traffic. This could overtax local response capabilities and require outside mutual aid.

The County of Sacramento Department of Water Resources has identified six "hot spot" areas along local creeks where out of bank flooding has caused damage to adjacent structures. These areas are: Lower Dry Creek, Lower Chicken and Strong Ranch Sloughs, Arcade Creek, the Cosumnes River, Morrison Creek near Highway 99, and the Beach-Stone Lakes area. To identify the likelihood of flooding in these areas detailed GIS and AUTOCAD mapping showing historical flooding, finished floor elevations, and depth of flooding during a '100-year' storm have been created. Potential flood fight and sandbag locations are also shown on the maps. These maps are on file with the County Department of Water Resources.

Localized Street Flooding. This problem results from an increase in runoff from impervious surfaces associated with development and urbanization and inadequate storm drainage systems.

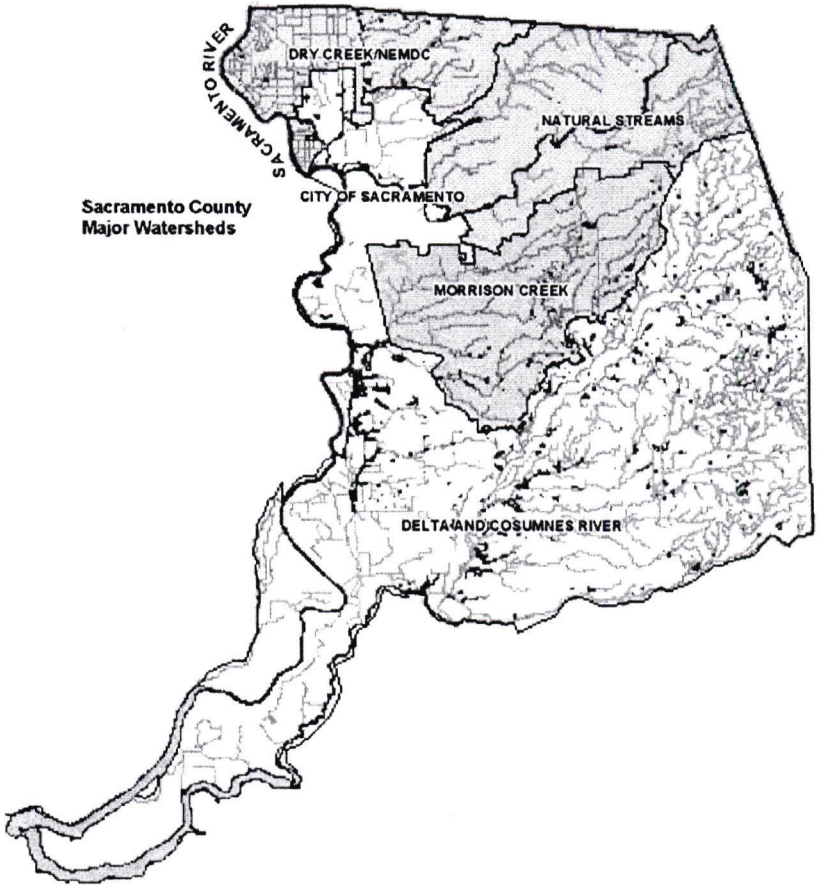
Levee Failure/Overtopping. Generally, levees fail due to overtopping or collapse due to seepage, subsidence, erosion, or any combination thereof. A catastrophic failure resulting from collapse can occur very quickly with relatively little warning. Levee failure usually occurs when the levee is saturated from high flows or there is an inherent defect in the levee. Floodwater will flow in a relatively shallow path and collect in low-lying areas.

Dam Failure. The remote possibility of dam failure flooding also exists from Folsom and Nimbus Dams. A catastrophic dam failure could easily overwhelm local response capabilities and require mass evacuations to save lives. Impacts to life safety will depend on the warning time available and the resources to notify and evacuate the public. Major loss of life could result and there would be associated health concerns as well as problems with the identification and burial of the deceased.

The Watershed System

There are five major watersheds within Sacramento County, each with their individual watercourses and respective flood zone areas (*Source: County Floodplain Management Plan 2001*). These include the following watersheds as further described in the following paragraphs:

- Sacramento River
- Dry Creek/Natomas East Main Drain
- Natural Stream Group & Tributaries
- Morrison Creek Stream Group
- Southern Portion of the County (Cosumnes River)



Sacramento River. The majority of Sacramento County drains ultimately to the Sacramento River, which defines the west border of the County and flows to the southwest. There are hundreds of structures that are located along the banks of the river; records indicate that many of these structures have experienced flooding during record storm events. There are 23 unmitigated repetitive loss structures that are located adjacent to the Sacramento River.

Dry Creek/NEMDC & Tributaries. Dry Creek and the Natomas East Main Drainage Canal (NEMDC, also known as Steelhead Creek) along with their tributaries are located within the northwestern portion of the County. Dry Creek drains to NEMDC, which drains to the American River, which drains to the Sacramento River. The major out of bank flooding problems within this drainage basin occur where the north and south branches of Dry Creek converge starts at the Placer/Sacramento County line and continues downstream to the NEMDC or Steelhead Creek. Dry Creek splits into two branches just downstream of Elverta Road and the area between the two branches does flood during almost any major storm. The island formed by the two branches is called Cherry Island and is about 4.5 miles long and averages from 0.25 to 0.5 miles wide. Many of the structures on Cherry Island have been removed or raised recently.

There are 22 unmitigated repetitive loss structures located within this drainage area.

Watercourses within this drainage area include:

- Dry Creek
- Basin "A"
- Magpie Creek
- Robla Creek
- Sierra Creek
- NEMDC (Steelhead Creek)
- NEMDC Tributary F
- NEMDC Tributary G
- NEMDC Tributary I
- Linda Creek & Tributaries

In 1911 the Reclamation District No. 1000 was created and approximately 43 miles of levees were constructed around approximately 55,000 acres. This area came to be known as the Natomas Basin. It is bounded on the west by the Sacramento River, on the north by the Natomas Cross Canal, on the east by the Pleasant Grove Creek and Natomas East Main Drainage Canals and on the south by the American and Sacramento Rivers

Natural Stream Group and Tributaries. There is a group of 23 streams (not including tributaries) within the northeasterly portion of the County that are commonly referred to as the natural stream group. The major collectors are Arcade Creek and the American River. Many of these creeks will not contain the 100-year flood event. There are limitations to the types of improvements allowed to these creeks due to their natural stream status with the County and other regulatory agencies. There are 42 unmitigated repetitive loss structures that are located within this drainage area .

Watercourses within this drainage area include:

- American River
- Arcade Creek
- Arcade Creek South Branch
- Brooktree Creek
- Mariposa Creek
- Carmichael Creek
- Chicken Ranch Slough
- Cripple Creek
- Diablo Creek
- Fair Oaks Stream Group
- Alder Creek
- Manlove Creek
- Kohler Creek
- Linda Creek
- Buffalo Creek
- Mayhew Slough
- Minnesota Creek
- Strong Ranch Slough
- Sunrise Creek
- Verde Cruz Creek
- Boyd Station Channel
- Cordova/Coloma Stream Group

The American River drains a mountain watershed before it is dammed at Folsom Reservoir at the northeast corner of the county. Below Folsom Reservoir it flows through roughly 25 miles of mostly flat terrain until it joins the Sacramento River near downtown Sacramento. A worst-case scenario would be a large rain event on top of a heavy snowpack and saturated soils. The result would be the Probable Maximum Flood (PMF), which is considered to be a very large flood discharge that is highly unlikely to be exceeded. A USBR study calculated a three-day runoff PMF of 29.07 inches and a maximum three-day average flow of 485,000 cfs. This flow is assuming saturated soil for unfrozen ground and snow cover for frozen ground. Most experts agree that this would inundate most of the City of Sacramento and large portions of the County, approximately the size of the 400-year floodplain developed by the USACE. *(Source: 'Improving American River Flood Frequency Analyses' Water Science and Technology Board, 1999)*

Morrison Creek Stream Group. Morrison Creek is located within the mid-southern portion of the County. There are approximately eleven creeks that drain into Morrison Creek, where summer flows drain to the Sacramento River and flood flows can spill to the Mokelumne River. Because development in this area of the County has been fairly recent, many of the creeks are being constructed/improved as part of overall development projects. This has lead to many of the creeks providing adequate freeboard and 100-year flood protection. There are six unmitigated repetitive loss structures within this drainage area.

Watercourses within this drainage area include:

- Elder Creek
- Elk Grove Creek
- Florin Creek
- Gerber Creek
- Laguna Creek (& Tributary)
- Morrison Creek
- Strawberry Creek (all branches)
- Unionhouse Creek
- Whitehouse Creek

Delta and Cosumnes River. There are 10 unmitigated repetitive loss structures within this drainage area, which approximately comprises the entire southern region of the county and is bounded by the City of Sacramento and Grant Line Road to the north. The area is predominantly zoned AG-80, meaning agricultural use and 80-acre minimum parcels.

The Sacramento River Delta area is that portion of Sacramento County bounded on the east by the Western Pacific Railroad tracks, on the north by the southern city limits of the City of Sacramento, and on the south and west by the Sacramento County Boundary. Reclamation levees were constructed in the early 1860's and the Army Corps of Engineers, the State Department of Water Resources and the Reclamation Districts have fortified these levees over the years.

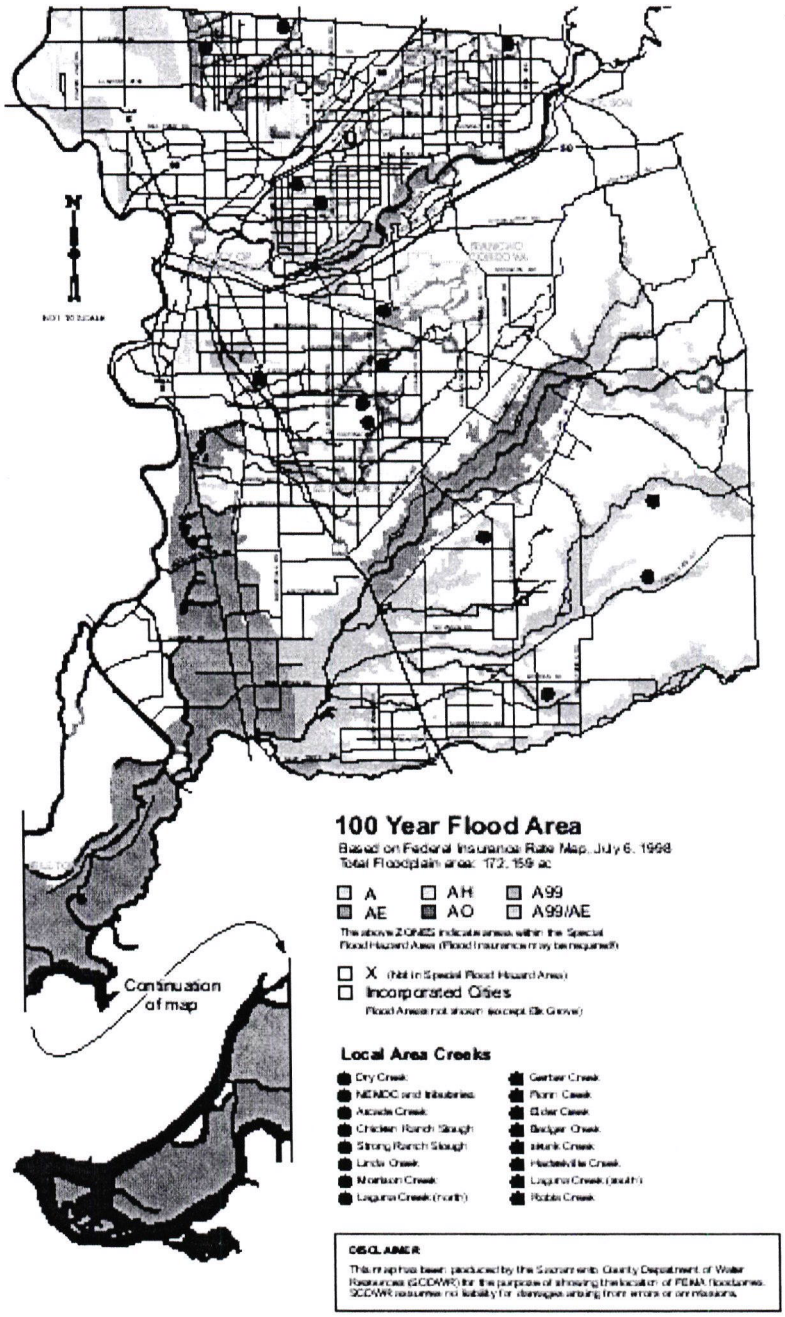
The Cosumnes River originates in the Sierra Nevada foothills and flows through the southern part of Sacramento County. Major flooding has occurred due to levee breaches on the Cosumnes River with the latest occurring in January1997. Although predominantly zoned AG-80, this area also comprises many smaller residential parcels as well.

Beach-Stone Lakes/Point Pleasant. This region of Sacramento County is a low-lying area that receives flows from the Morrison Creek Stream Group. The area is bounded to the north and

south by the city limits of the City of Sacramento and Twin Cities Road respectively and to the west and east by the Sacramento River and Franklin Road.

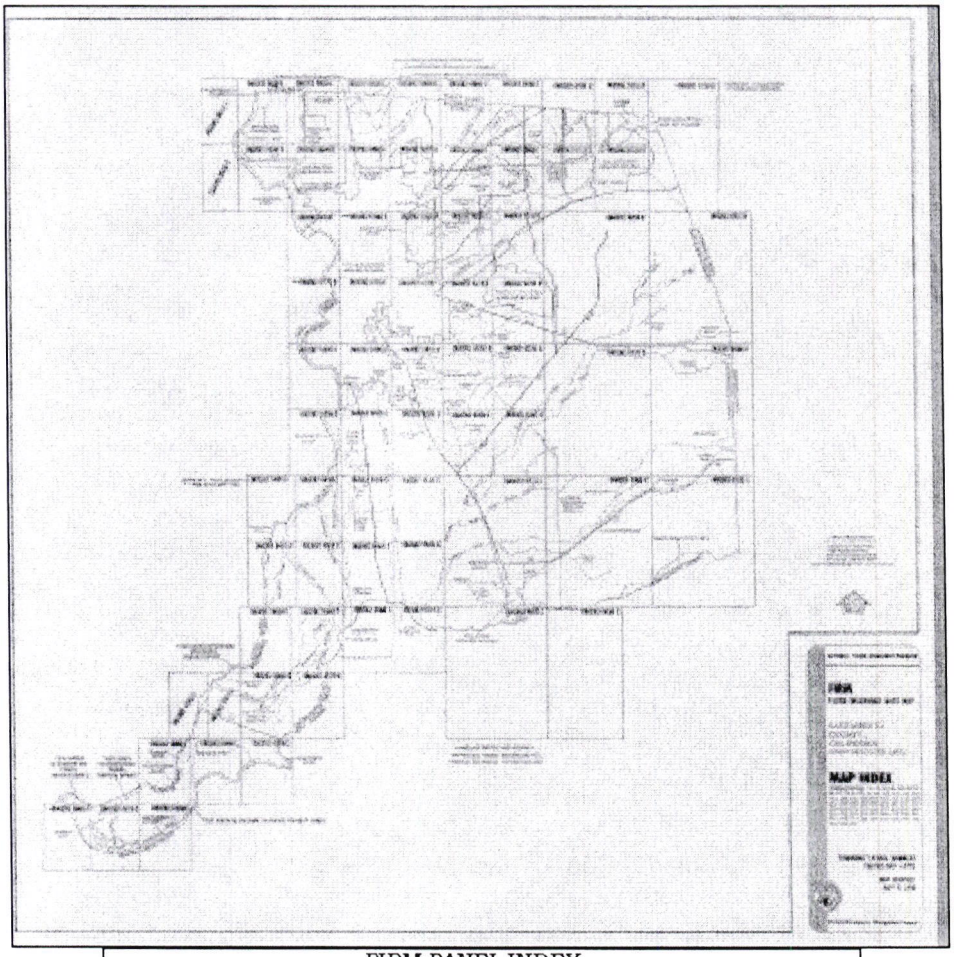
FLOODPLAIN INVENTORY

MAP OF FLOODPLAINS OF UNINCORPORATED SACRAMENTO COUNTY



The following map and table identify the existing FIRM maps and effective dates for Sacramento County.

SACRAMENTO COUNTY: NFIP COMMUNITY # 060262



FIRM PANEL INDEX

Effective Date								
7/6/98			9/30/88			2/4/98		
10E	20E	30E	35E	40E	45E	55E	60D	65F
70D	80C	85E	90E	95E	105C	110D	115E	120D
160F	185F	190E	195F	205E	210E	215E	220C	250C
275D	285E	295D	305F	310F	315D	320E	330D	335D
340D	345C	375C	400D	405C	410D	415C	420D	430D
435D	440D	445D	475E	500C	525C	540C	545C	555C
560C	565C	570C	580D	585C	625D	650C	670C	680C
685C	690C	705C				665C all zone AE		

NFIP Policies

NFIP Insurance data indicates that as of 2/29/04, there are 17,228 flood insurance policies in Sacramento County. There have been 1,442 claims and a total of $18,043,554 paid since the inception of the program. *Source: FEMA Region IX*

Structure Types and Values exposed to flood hazards

Community vulnerability can be quantified in those instances where there is a known, identified hazard area, such as a mapped floodplain. In these instances the numbers and types of buildings subject to the identified hazard can be counted and their values tabulated. Further, other information can be collected, such as the location of critical community facilities (e.g., a fire station), historic structures, and valued natural resources (e.g., an identified wetland or endangered species habitat) that are within the specific hazard area. Together, these values portray the impact, or *vulnerability*, of that area to that hazard.

The following methodology was used to model the exposure of values at risk to floods in Sacramento County. The best available data was used to quantify the exposure of people and the building stock located in flood zones. The County used GIS to overlay the 100-year floodplain boundary on the unincorporated parcels layer. The following table is a summary of all parcels that touched the 100 year floodplain.

DESCRIPTION	PARCEL COUNT	STRUCTURES	DWELLING UNITS
Single family	14,265	14,265	14,265
Double family	830	830	1,660
Triple family	23	23	69
Quad family	133	133	532
5+ Residential	222		15,209
Mobile home parks	45	2941	2,941
Mobile homes	251	251	251
Misc. Residential	111		
Ag-Residence	757	947	947
Ag-non-residence	618		
Commercial	438	unknown	
Industrial	392	"	
Office	218	"	
Personal Care and Health	31	"	
Church and Welfare	60	"	
Recreational	107	"	
Vacant	1,108	"	
Misc.	292	"	
Public/Utilities	1,316	"	
Public Schools	50	"	
Unknown	295	"	
TOTALS	**21,462**	"	**35,874**

Source: Sacramento County

Floodplain Population Estimate. An estimated 93,990 people out of 627,000 in unincorporated Sacramento County live in the 100-year flood plain. This is based on multiplying the total dwelling unit's value of 35,874 by an average population per residential unit of 2.62 persons recognized by the Chamber of Commerce.

Vulnerability Analysis Using HAZUS-MH Data

The following methodology was used to model the exposure of values at risk to floods in Sacramento County. The best available data was used to quantify the exposure of people and the building stock located in flood zones. Parcel level data was also available for the County, but due to the limitations with California's Proposition 13, the assessed valuations would not accurately reflect housing values. Census block level data supplied with FEMA's HAZUS-MH loss estimation tool was used instead. This data provides a detailed breakout of valuation of residential, commercial, industrial, agricultural, and public buildings and their contents by Census Block, as well as demographic information. The information had numerous categories that were too detailed for this scale of analysis. More general categories were created and summarized using the classification below:

HAZUS-MH Occupancy Class Reclassification

Residential	**Commercial**	**Industrial**	**Public**
Single-Family Dwelling	Retail Trade	Heavy	Non-Profit Religious
Multi-Family Dwelling	Wholesale Trade	Light	Institute
Mobile Home	Personal and Repair	Food/Drugs/Chemicals	General Service
Temporary Lodging	Service	Metals/Minerals	(Government)
Institutional Dormitory	Professional/Technical	Processing	Emergency Response
Nursing Home	Service	High Technology	(Government)
	Bank	Construction	School/University
	Hospital	Agriculture	
	Medical Office/Clinic		
	Entertainment &		
	Recreation		
	Theater		
	Parking		

Floodplain Data Analysis. Flood exposure for the City of Sacramento was analyzed by the Morrison and Magpie Creek Floodplains and American/Sacramento River Floodplain. The county has developed a composite digital version of the FIRM from individual scanned FIRM maps. This was the best available data and was used as the flood overlay for the purposes of this analysis. Sacramento County has several different flood zones including some that attempt to account for the existence of levees, such as the A99 zone. These zones and descriptions are listed in below. Exposure was aggregated by these zones as well as Stream Groups to refine the analysis.

FEMA Flood Zones within Sacramento County

ZONE	DESCRIPTION
A	No base flood elevations determined.
AE	Base flood elevations determined.
AH	Flood depths of 1 to 3 feet. (usually areas of ponding); base flood elevations determined.
AO	Flood depths of 1 to 3 feet. (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding; velocities also determined.
A99	Area of special flood hazard where enough progress has been made on a protective system, such as dikes, dams, and levees, to consider it complete for insurance purposes.
A99/AE	This area subject to flooding from two sources.

Tables that summarized the number, structure and content values for each occupancy class (Residential, Commercial, Industrial, Public) categories were and linked to the Census Blocks layer in the GIS. Data discrepancies across HAZUS-MH data tables were found during the analysis. These include structure counts of zero in some blocks where there are building and content values for commercial and industrial buildings. No attempt was made to adjust what was the best available data. The floodplains were overlaid on the Census Blocks using a GIS analysis function called "union". This merges the two layers into one layer and retains the fields from both layers.

A proportional division methodology was used to account for values in blocks that were either partially covered by the flood zone polygon or was spit between two different flood zones. This method assumes an equal distribution of a particular value across the block. For example let's assume a hypothetical Census Block was split by the floodplain and 50% of the block is in the floodplain. The structure and population values associated with that block would be multiplied by the portion of the block in and out of the floodplain. Assuming the block contained 20 people then the model would calculate 10 persons in the floodplain, and 10 outside the floodplain. The size and shape of the Census Block affects the accuracy of this model. The larger and more irregular the Census Block, typically found in rural areas, the less accurate this method becomes. Since Sacramento is largely urbanized with small Census Block areas, we feel this method to be reasonable accurate. Other limitations of this model are the inaccuracies inherent to the HAZUS-MH data. The results of this analysis are general and inaccuracies may exist.

FLOODPLAIN AREA AND POPULATION TABLE
(Unincorporated Area Summary)

Flood Plain	Residential Count	Population	Area Sq Mi	Area Acres
A	1,141	2,950	114.5	73,281
AE	4,505	14,052	109.2	69,878
AH	1	6	0.0	1
AO	839	2,700	1.7	1,066
A99	10,252	42,198	8.00	5,097
A99/AE	357	3,000	0.2	135
TOTALS	**17,095**	**64,905**	**233.5**	**149,458**

Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento

Estimating Potential Losses

The result of the exposure analysis summarizes the values at risk in the floodplain. When a flood occurs seldom does the event cause total destruction of an area. Potential losses from flooding are related to a variety of factors including flood depth, flood velocity, building type and construction. Based on FIA flood damage data the percent of damage is directly related to the flood depth. FEMA's flood benefit/cost module uses this simplified approach to model flood damage based on building type and flood depth. While there are several limitations to this model, it does present a methodology to estimate potential damages.

One of the limitations to using this approach for Sacramento is the lack of Base Flood Elevations (BFE's) in a digital format. A damage estimation of 20 percent of the total value was used based on FEMA FIA Depth-Damage Data based assumption of damage of at least 22 percent of the value of the structure and 20 percent of the contents value to a one-story structure with no basement flooded to two feet.

The results of the floodplain population modeling for the unincorporated County is depicted the following table.

FLOODPLAIN VALUES AND DAMAGE ESTIMATION – UNINCORPORATED AREA

Structure Type by Flood Zone	Number of Structures	Structure and Contents Total Value	20% of Total Value
Residential			
A (various)	6,487	$1,464,610,000	$292,922,000
A99	10,609	$3,424,160,000	$684,832,000
Residential Total	**17,095**	**$4,888,771,000**	**$977,754,200**
Commercial			
A (various)	60	$234,402,000	$46,880,400
A99	211	$845,353,000	$169,070,600
Commercial Total	**271**	**$1,079,756,000**	**$215,951,200**
Industrial			
A (various)	10	$94,358,000	$18,871,600
A99	8	$72,612,000	$14,522,400
Industrial Total	**18**	**$166,970,000**	**$33,394,000**
Public			
A (various)	5	$31,990,000	$6,398,000
A99	16	$86,848,000	$17,369,600
Public Total	**21**	**$118,837,000**	**$23,767,400**
Total of each Total	**17,369**	**$6,254,334,000**	**$1,250,866,800**

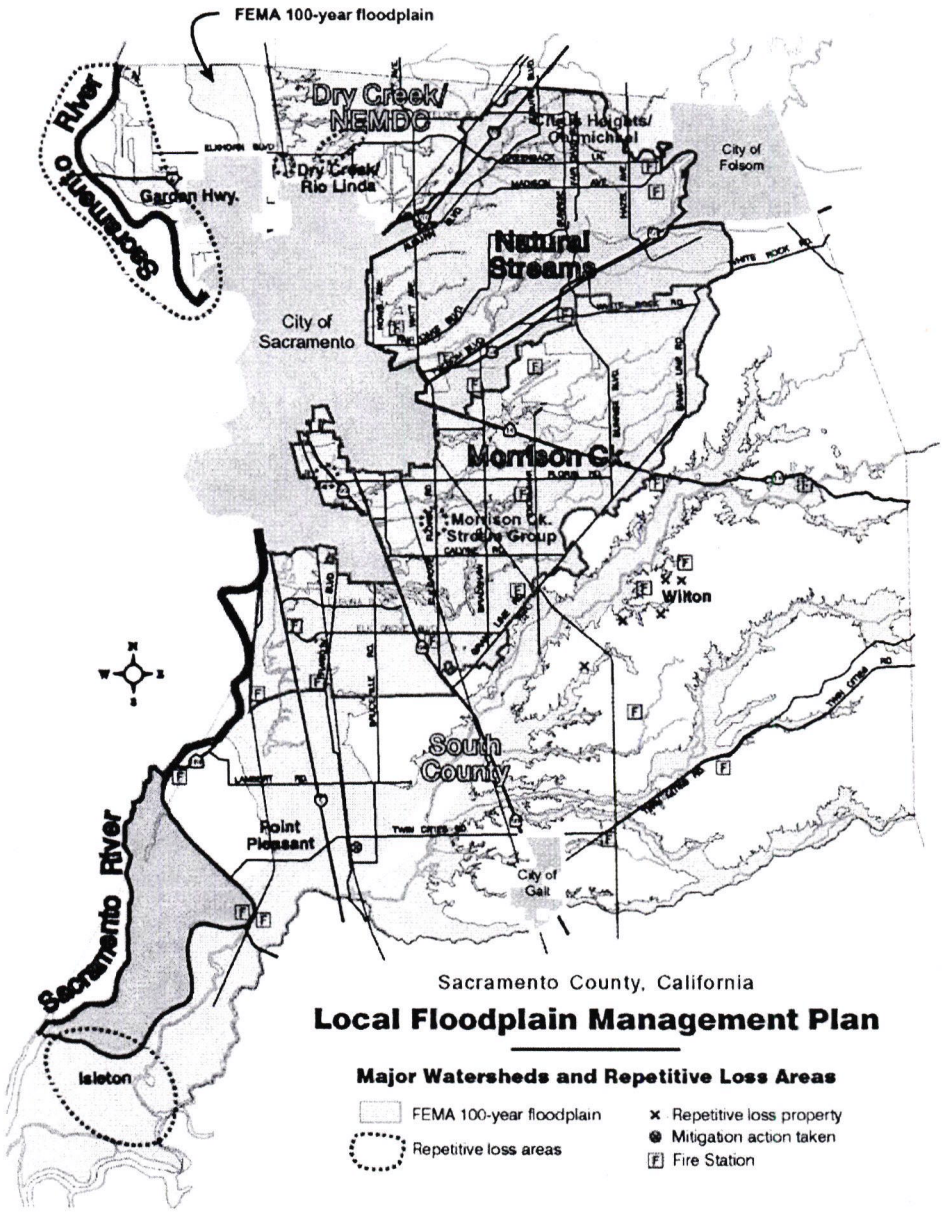
Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento

Vulnerabilities and Repetitive Losses by Stream Group

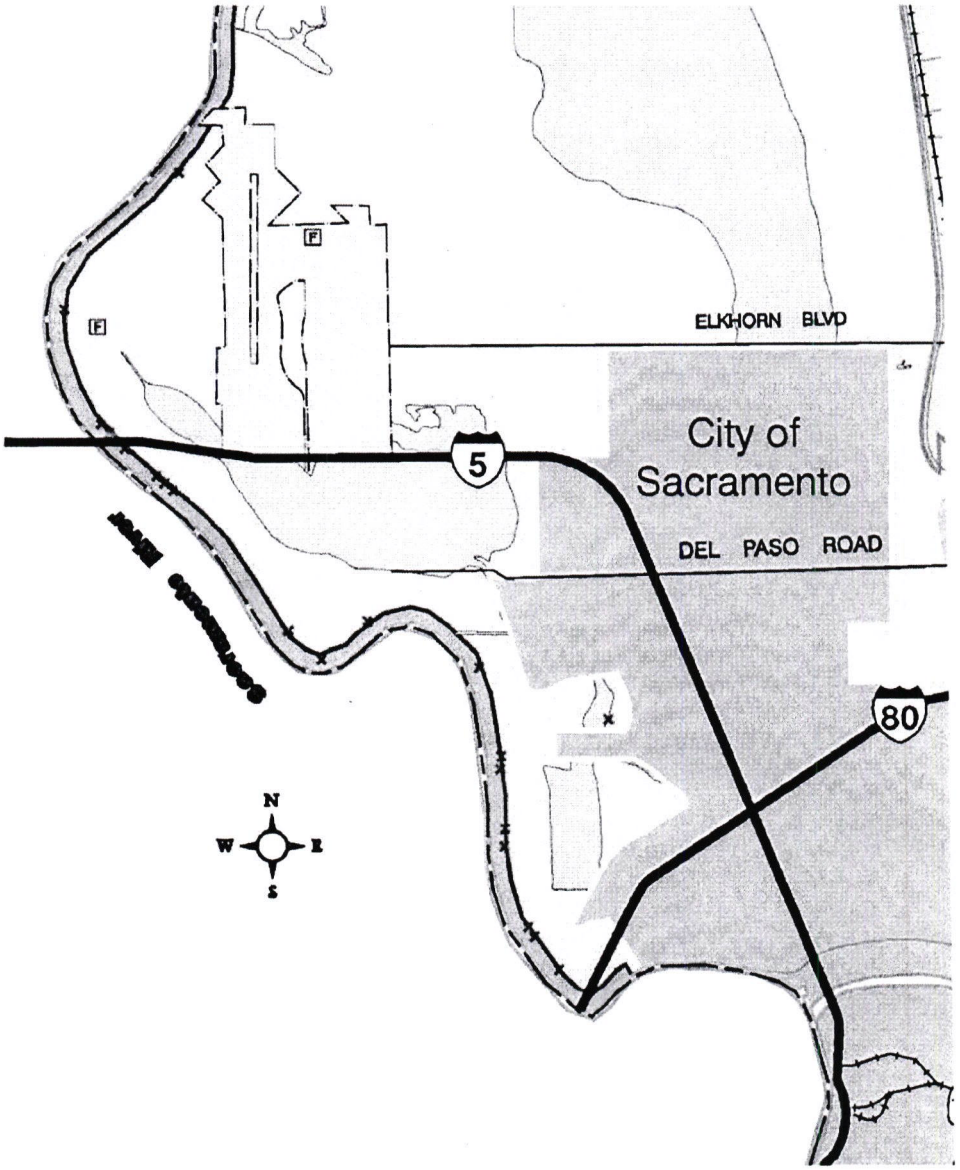
The following table shows the number of repetitive losses by the five major watersheds located within Sacramento County. Sacramento County maintains a database of these repetitive loss locations.

Watershed	# of Repetitive Losses
Sacramento River	23 Structures
Dry Creek/NEMDC & Tributaries	22 Structures
Natural Stream Group & Tributaries	42 Structures
Morrison Creek Stream Group	6 Structures
Southern Portion of the County (Cosumnes River)	10 Structures

Source: County Floodplain Management Plan 2001



Sacramento River. For the purposes of this report, Sacramento River includes properties on the river or levee bank and on the Delta Islands. The repetitive loss properties are located adjacent to either the Sacramento River, or a watercourse (slough) that drains directly to the river. Many of the repetitive loss properties are along the Garden Highway, which is a levee road that runs along the Sacramento River north of Sacramento. Typically, these repetitive loss structures were built many years ago and are situated on the "wet side" of the levee road. Some of these properties have finished floors above the base flood elevation and had claims based on damage other than into the main living areas. There are also repetitive loss properties located on two islands in the Sacramento River Delta near the City of Isleton.



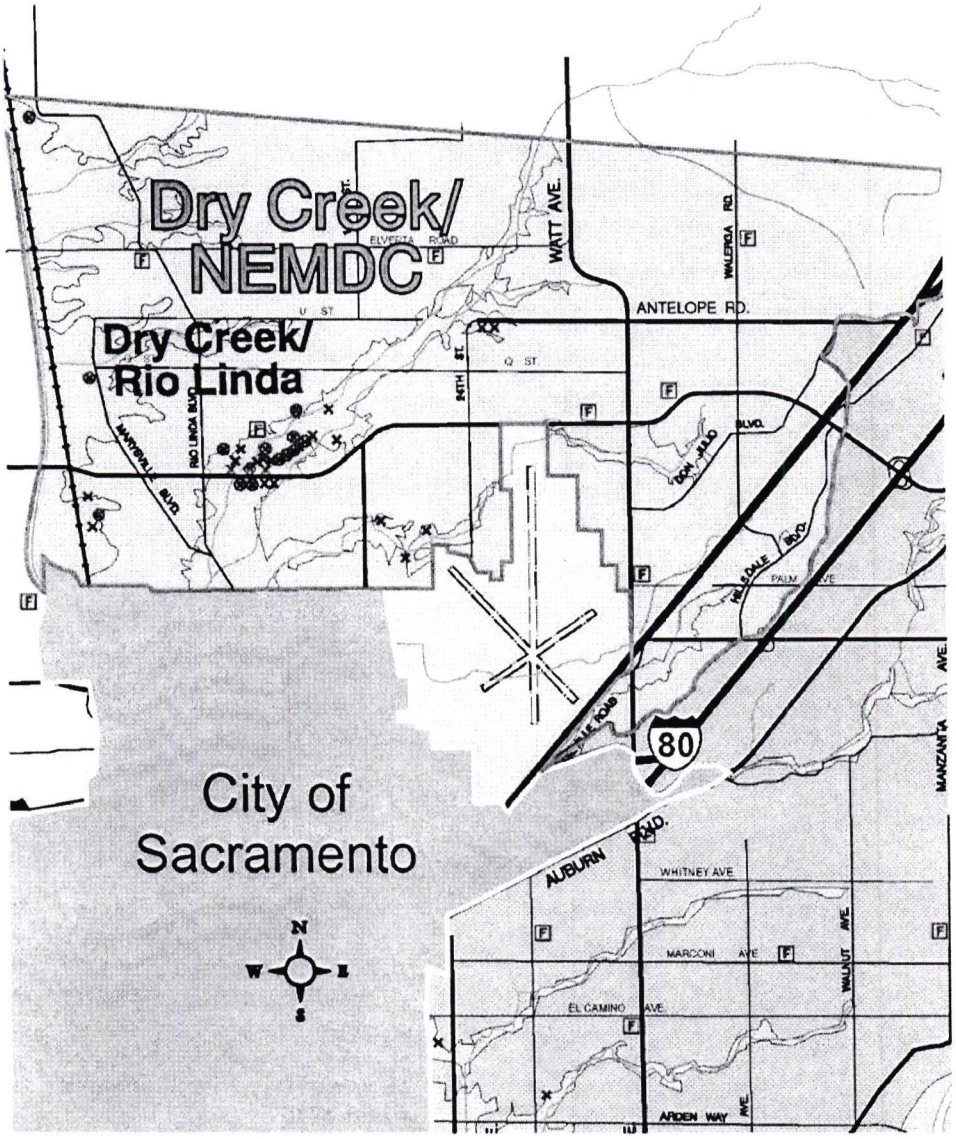
Sacramento County, California

Local Floodplain Management Plan - Sacramento River

FEMA 100-year floodplain
Fire Station
Repetitive loss property
Mitigation action taken

Dry Creek/NEMDC & Tributaries. Dry Creek, fed by several tributaries from a total shed area of 116 square miles, experiences flooding problems in even moderate rainfall events. Dry Creek Tributaries include Basin "A" and "B" as identified in the Antelope Drainage Study, Magpie

Creek, Sierra Creek and Robla Creek. These areas are either currently urbanized or planned for development in the future.



Sacramento County, California

Local Floodplain Management Plan — Dry Creek Watershed

FEMA 100-year floodplain
Fire Station
Repetitive loss property
Mitigation action taken

There are two branches of Dry Creek with a designated federal floodway located in-between. The County of Sacramento Department of Water Resources is in the process of acquiring and removing structures located within the floodway due to recurrent flooding. To date, 20 of the structures have

been removed. More mitigation measures will be required in the surrounding area as well since a large volume of overbank storage occurs outside the floodway.

The Natomas East Main Drain Canal (NEMDC) is a drainage channel conveying flows from neighboring Sutter County down to the upper Sacramento River. Within Sacramento County, tributaries for the NEMDC are a collection of narrow ditches located north and west of Rio Linda in a largely agricultural area. Although the tributaries are narrow ditches under normal conditions, they are effected by backwater from the NEMDC in peak flow events and have quite broad floodplains associated with them. The NEMDC pump station was installed to lower water surface elevations by reducing this backwater effect. In 1998, the flood insurance rate maps were revised to reflect the lowered water surface elevations due to the installation of the pump station.

An estimated 5,810 people live in the various A Zones based on HAZUS-MH block level data. The following table details the number, types and values of structures located in the floodplain of the Dry Creek/NEMDC Stream Group.

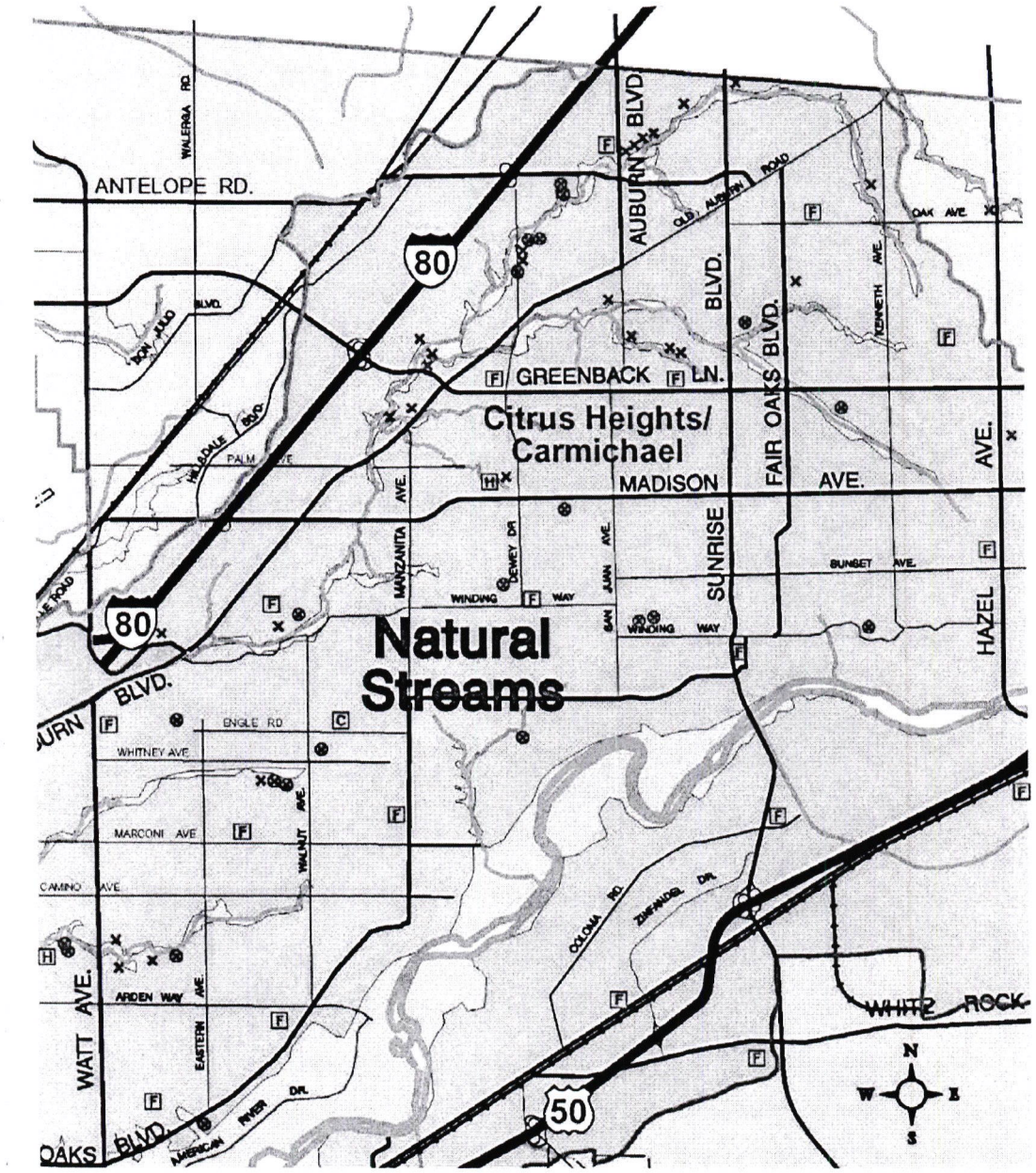
FLOODPLAIN VALUES AND DAMAGE ESTIMATION – DRY CREEK/NEMDC GROUP

Structure Type by Various A Flood Zones (A, AE, AO)*	Number of Structures	Structure and Contents Total Value	20% of Total Value
Residential Total	**1,764**	**$378,099,000**	**$75,619,800**
Commercial Total	**23**	**$86,824,000**	**$17,364,800**
Industrial Total	**4**	**$25,669,000**	**$5,133,800**
Public Total	**1**	**$6,129,000**	**$1,225,800**
Grand Total	**1,792**	**$496,721,000**	**$99,344,200**

Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento
**No A-99 in this stream group*

Natural Stream Group and Tributaries. This includes most of north Sacramento County. Most of this area is completely developed, with houses built many years ago before current FEMA and County regulations. During large storm events, some of these watercourses experience out of bank flows. Flooding can occur, in peak storm events, due to over-bank flows, overland surface water flows, or overwhelmed piped storm drain systems.

An estimated 36,993 people live in the various A Zones based on HAZUS-MH block level data. Out of that total an estimated 31,799 live in the A99 zone. The following table details the number, types and values of structures located in the floodplain of the Natural Stream Group and Tributaries.



Sacramento County, California

Local Floodplain Management Plan - Natural Streams Group

- FEMA 100-year floodplain
- [F] Fire Station
- [H] Hospital
- × Repetitive loss property
- ⊗ Mitigation action taken
- [C] City/County Emergency Operations Center

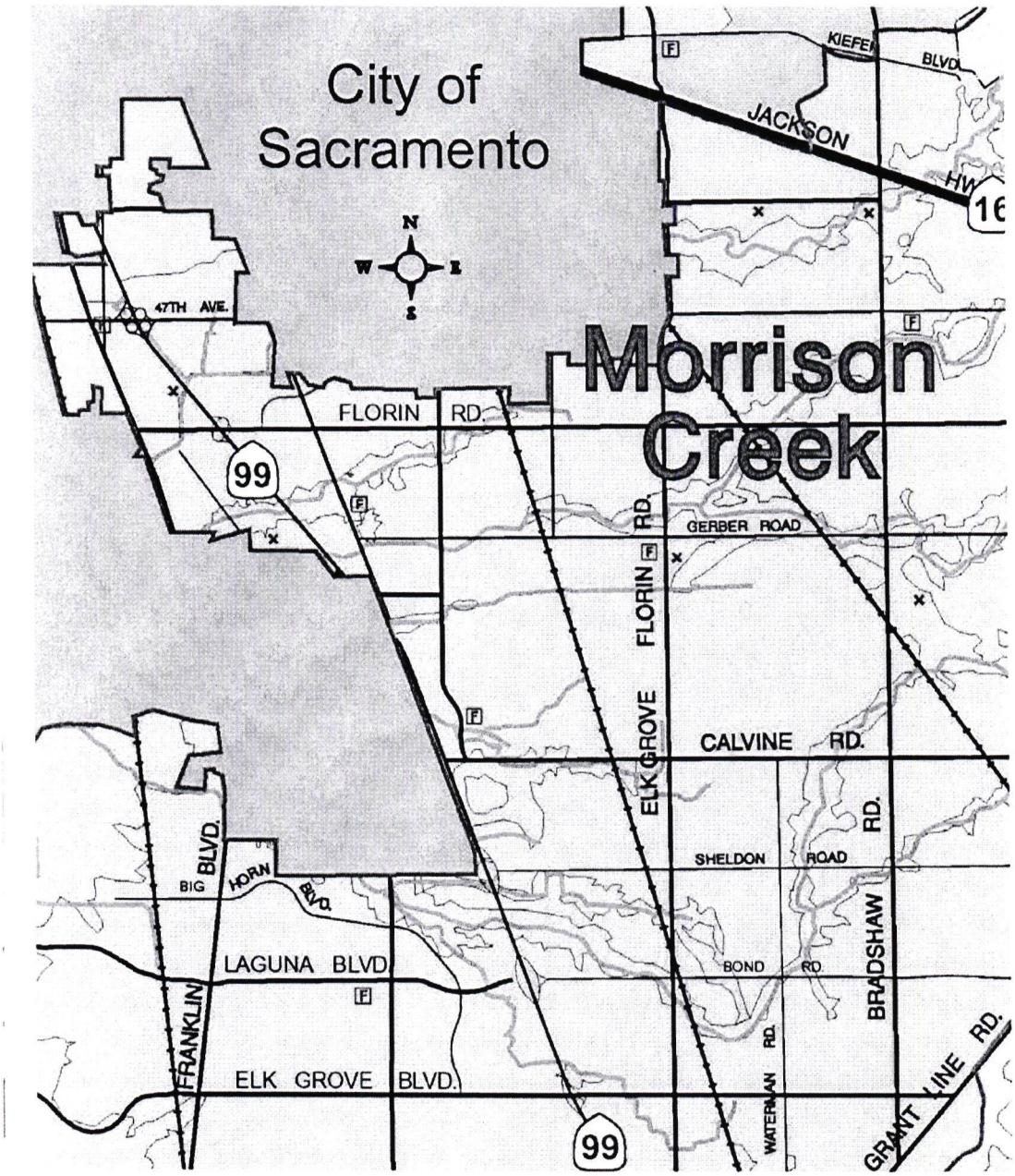
FLOODPLAIN VALUES AND DAMAGE ESTIMATION – NATURAL STREAMS GROUP

Structure Type by Flood Zone	Number of Structures	Structure and Contents Total Value	20% of Total Value
Residential			
A (various)	1,797	$477,643,000	$95,528,600
A99	8,199	$2,759,697,000	$551,939,400
Residential Total	**9,996**	**$3,237,340,000**	**$647,468,000**
Commercial			
A (various)	21	$77,161,000	$15,432,200
A99	165	$679,630,000	$135,926,000
Commercial Total	**186**	**$756,791,000**	**$151,358,200**
Industrial			
A (various)	1	$8,445,000	$1,689,000
A99	3	$40,376,000	$8,075,200
Industrial Total	**4**	**$48,822,000**	**$9,764,400**
Public			
A (various)	3	$14,685,000	$2,937,000
A99	10	$61,596,000	$12,319,200
Public Total	**13**	**$76,280,000**	**$15,256,000**
Total of each Total	**10,199**	**$4,119,233,000**	**$823,846,600**

Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento

Morrison Creek Stream Group. The Morrison Creek watershed consists of both urbanized and agricultural areas. The urbanized areas have been developed with piped storm water conveyance, pump stations, and concrete lined channels. Much of this development occurred many years ago, prior to current floodplain management policies. In the agricultural areas, the drainage is by roadside ditches and the channels are unimproved. The Morrison Creek Stream Group discharges into Beach Stone Lakes flowing southwest to the Delta.

An estimated 16,191 people live in the various A Zones based on HAZUS-MH block level data. Out of that total an estimated 13,354 live in the A99 zone. The following table details the number, types and values of structures located in the floodplain of the Natural Stream Group and Tributaries.



Sacramento County, California

Local Floodplain Management Plan - Morrison Creek Watershed

FEMA 100-year floodplain
Fire Station
Repetitive loss property
Mitigation action taken

FLOODPLAIN VALUES AND DAMAGE ESTIMATION – MORRISON CREEK GROUP

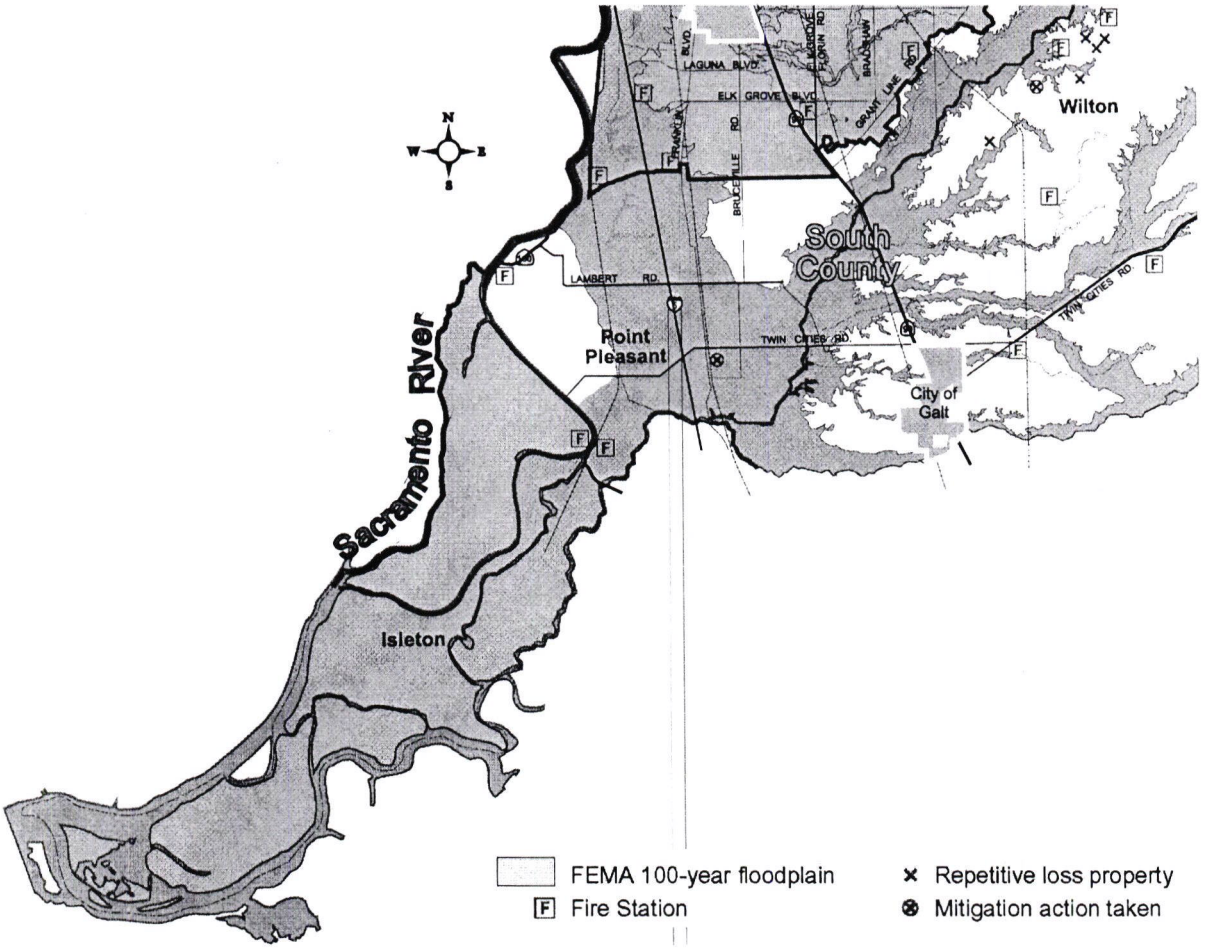
Structure Type by Flood Zone	Number of Structures	Structure and Contents Total Value	20% of Total Value
Residential			
A (various)	892	$196,653,000	$39,330,600
A99	2,385	$659,815,000	$131,963,000
Residential Total	**3,277**	$856,468,000	**$171,293,600**
Commercial			
A (various)	7	$23,053,000	$4,610,600
A99	45	$162,969,000	$32,593,800
Commercial Total	**52**	$186,022,000	**$37,204,400**
Industrial			
A (various)	2	$19,278,000	$3,855,600
A99	6	$31,883,000	$6,376,600
Industrial Total	**8**	$51,162,000	**$10,232,400**
Public			
A (various)	1	$5,458,000	$1,091,600
A99	6	$25,252,000	$5,050,400
Public Total	**7**	$30,710,000	**$6,142,000**
Total of each Total	**3,344**	**$1,124,362,000**	**$224,872,400**

Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento

Delta and Cosumnes River. All drainage from Sacramento County, as well as outflow from most of the rivers of the Central Valley, ultimately flows to the Delta and then the Pacific Ocean. In the early 1860's, extensive levees were constructed there in order to reclaim large areas for agricultural uses. The Army Corps of Engineers, the State Department of Water Resources and the Reclamation Districts have fortified these levees over the years. The effect of this reclamation activity has been to remove precious floodplain volume needed to contain the rising rivers and backwater caused by high tides in the Pacific Ocean.

There is a stream gage at Michigan Bar, near Rancho Murieta, in the Cosumnes River that has been in place for many decades. The data generated from this gage provides reasonable flood forecasting capabilities; however, if there were a stream and rain gage higher up the watershed it is likely that better flood warning could be provided to the property owners in the Cosumnes River floodplain.

SOUTH COUNTY AND DELTA FLOODPLAINS – SACRAMENTO AND COSUMNES RIVERS



Beach-Stone Lakes and Point Pleasant. This area lies within the 100-year floodplain and is a recipient of all the drainage for the south county streams. Problems are exacerbated when the Cosumnes River floods. All watercourses within the Morrison Creek Stream Group flow into the City of Sacramento outfalling to Beach Stone Lakes and ultimately to the Sacramento River Delta.

Point Pleasant, Glanville Tract, and Interstate 5 rely upon a railroad (WPRR) grade to function as their upstream levee, and that embankment (which was not constructed to levee standards) failed in both 1986 and 1997. The County is working with State Department of Water Resources (DWR) staff to formulate a project that upgrades existing RD 1002 levees, that improves the function of the WPRR grade pursuant to levee standards, and to evaluate alternatives for protecting the area from south-to-north flows. Finally, there is an effort to examine means of reducing flood hazard upstream of the WPRR.

For the past several years, a developer fee has been collected to mitigate volume impacts to the Beach-Stone Lake and Point Pleasant areas. All of Zone 11A (drainage developer impact fees

for the greater Morrison Creek Streams Group) contributes to the Interstate 5 / Point Pleasant Flood Protection Project in the amount of $220.00 per acre (in 2003 dollars). Additionally, fees have been collected from Lakeside/Laguna and Elliott Ranch South Developments as compensation for impacts. Furthermore, developers encroaching into the floodplain have paid additional impact fees. These funds are to be held in reserve for contribution toward a flood damage reduction project that will be formulated by California Department of Water Resources as it advances the CALFED North Delta program in coordination with flood control elements at Lambert Road and Point Pleasant.

An estimated 5,874 people live in the various A Zones based on HAZUS-MH block level data. Out of that total an estimated 43 live in the A99 zone. The following table details the number, types and values of structures located in the floodplain of the Delta and Cosumnes River Stream Group.

FLOODPLAIN VALUES AND DAMAGE ESTIMATION – DELTA AND COSUMNES RIVER GROUP

Structure Type by Flood Zone	Number of Structures	Structure and Contents Total Value	20% of Total Value
Residential			
A (various)	2,017	$408,265,000	$81,653,000
A99	24	$4,610,000	$922,000
Residential Total	**2,041**	**$412,874,000**	**$82,574,800**
Commercial			
A (various)	9	$47,159,000	$9,431,800
A99	1	$2,752,000	$550,400
Commercial Total	**10**	**$49,911,000**	**$9,982,200**
Industrial			
A (various)	3	$40,647,000	$8,129,400
A99	1	$346,000	$69,200
Industrial Total	**4**	**$40,993,000**	**$8,198,600**
Public			
A (various)	1	$5,718,000	**$1,143,600**
A99	0	$0	$0
Public Total	**1**	**$5,718,000**	**$1,143,600**
Total of each Total	**2,056**	**$509,496,000**	**$101,899,200**

Data Source HAZUS-MH Census Block level, Floodplains - County of Sacramento

Critical Facilities Inventory and Impacts

Critical Facilities are defined as any property that, if flooded, would result in severe consequences to public health and safety. Facilities in Sacramento that met this definition within existing data sources included schools, hospitals, fire departments, police stations, and utilities such as above ground water storage reservoirs and water treatment plants. HAZUS-MH

supplemented this data with EOC locations, wastewater treatment plants, and electrical power substations.

The following is a summary list of critical facilities at risk to flooding by flood zone for the aggregate County FIRM. The locations are not displayed on maps in this plan due to the sensitive nature of these facilities and the challenge of mapping them at scales appropriate to this plan. The facility locations are accessible to County staff through their GIS capabilities for further details and analysis.

The following is a summary list of critical facilities at risk to flooding by flood zone for the all 100-year floodplains in the County, excluding the City of Sacramento. The locations are not displayed on maps in this plan due to the sensitive nature of these facilities and the challenge of mapping them at scales appropriate to this plan. The facility locations are accessible to County staff through their GIS capabilities for further details and analysis.

SACRAMENTO COUNTY CRITICAL FACILITY SUMMARY BY FLOOD ZONE – EXCLUDING THE CITY OF SACRAMENTO

FACILITY TYPE	A99	AE	AO	A	TOTAL
Fire Department	1		1	1	3
Police Department	1	1			2
Hospitals					0
Schools	17	2	2	1	22
Sewer Pump Stations	8	11	2	2	23

Source data: County GIS

HISTORIC SITES INVENTORY

The following structures and districts are listed in the National Register of Historic Places for Sacramento County.

Alta Mesa Farm Bureau Hall (added 1987 - **Building** - #86003577)
Also known as **Alta Mesa Hall; Alta Mesa Community Center Hall**
10195 Alta Mesa Rd., Wilton

Imperial Theatre (added 1982 - **Building** - #82000980)
Also known as **Grove Theatre**
Market St., Walnut Grove

Rosebud Ranch (added 1979 - **Building** - #79000521)
Also known as **Rosebud Farm**
N of Hood, Hood

Runyon House (added 2000 - **Building** - #00001193)
Also known as **Alchorn Residence**
12865 River Rd., Courtland

Slocum House (added 1979 - **Building** - #79000520)
7992 California Ave., Fair Oaks

Walnut Grove Gakuen Hall (added 1980 - **Building** - #80000837)
Also known as **Walnut Grove Japanese Community Center; Senior Citizen's Cent**
Pine and C Sts., Walnut Grove

Historic Districts
Locke Historic District (added 1971 - **District** - #71000174)
Bounded on the W by the Sacramento River, on the N by Locke Rd., on the E by Alley St., and on the S by Levee St., Locke

Sacramento Air Depot Historic District (added 1992 - **District** - #91001969)
Also known as **McClellan Air Force Base; Sacramento Air Logistics Center**
McClellan Air Force Base, North Highlands

Walnut Grove Chinese-American Historic District (added 1990 - **District** - #90000484)
Also known as **Walnut Grove Chinatown**
Bounded by C, Tyler, and Bridge Sts., and River Rd., Walnut Grove

Walnut Grove Commercial/Residential Historic District (added 1990 - **District** - #90000551)
Also known as **Alex Brown Business District**
Browns Alley and River Rd., Walnut Grove

Walnut Grove Japanese-American Historic District (added 1990 - **District** - #90000483)
Also known as **Walnut Grove Japantown**
Bounded by Winnie St., Tyler St., C St., and River Rd., Walnut Grove

NATURAL RESOURCES INVENTORY

The California Natural Diversity Database contains all known occurrences of rare plants and animals, and terrestrial and aquatic communities. This includes all federally and state listed plants and animals, all species that are candidates for listing, all species of special concern, and those species that are considered "sensitive" by government agencies and the conservation community. This database includes 54 ecologically sensitive plant or animal communities within the city limits of Sacramento.

Natural and Beneficial Functions

The areas in the following table are within the Sacramento County floodplain which are in an undeveloped state, have been restored to a natural state, or protect natural and beneficial floodplain functions. These areas are protected in their natural state by the City Council adoption of various Park Master Plans, Community Plans, and County General Plan. The 23 mile-long American River Parkway lies along the American River within the Sacramento County. The Parkway is managed according to the American River Parkway Plan, which was

adopted by Sacramento City Council, the Sacramento County Board of Supervisors, and the California State Legislature in 1985. The Parkway Plan is written to ensure preservation of the natural environment while providing limited developments to facilitate human enjoyment of the Parkway.

Based on GIS analysis of point locations the following parks and natural areas are in floodplains within unincorporated Sacramento County

Landmark Name
American River Parkway
Ancil Hoffman Park
Arcade Creek Nature Area
Ashton Park
Bowling Green Park
Central (Rio Linda) Park
Charles C Jensen Botanical Park
Cosumnes River Parkway
Creekside Park
Del Paso Park
Depot Park
Dry Creek Parkway
Elkhorn Boat Access
Florin Creek Park
Fountain Plaza Park
Gibson Ranch Co Park
Howe Park
Larchmont Community Park
Larchmont Park
Linda Creek Park
Manlove Park
Mather Regional Park
Mission North Park
Nicholas Park
Northbrook Park
Oak Meadow Park
Park Oaks Park
Ponderosa Farm Community Park
Sand Cove Park
Sandy Beach Park
Santa Anita Park
Sheldon Park
Stone Lakes National Wildlife Refuge
Swanston Park

EXISTING MITIGATION CAPABILITIES

Similar to the HMPC's effort to describe hazards, risks and vulnerability where they differ across the planning area, this mitigation capability assessment describes the policies and procedures and plans that apply to Sacramento County. This is the next step prior to forming Goals and Objectives for improving the County's ability to reduce the impacts of these risks. This step coordinates this planning process with existing plans and procedures and inventories what is already "on the books" in terms of mitigation.

The HMPC took two approaches in conducting this assessment for the County. First, an inventory of common mitigation activities was made through the use of a matrix. The purpose for this effort was to identify activities and actions that were either in place, needed improvement, or could be undertaken, if deemed appropriate. Second, the HMPC conducted an inventory of existing policies, regulations and plans was made. These documents were collected and reviewed to determine if they contributed to reducing hazard related losses, or if they inadvertently contributed to increasing such losses.

The following matrix examines summarizes the results of the mitigation capability assessment. Excerpts from applicable plans, rules and regulations follows that provide more detail on the existing policies related to hazard mitigation, and highlight where Sacramento County has made efforts above and beyond the standard floodplain management requirements of the NFIP.

Sacramento County Capability Assessment Matrix

Capability	Notes
Comp Plan/General Plan	Y
Land Use Plan	Y
Subdivision Ord	Y
Zoning Ordinance	Y
NFIP/FPM Ordinance	Y
- Map Date	Sept 30, 1988, Feb 4, 1998, July 7, 1998
- Substantial Damage language?	Y
- Certified Floodplain Manager?	Y
- # of Floodprone Buildings?	17,369
- # of NFIP policies	17,228
- Maintain Elevation Certificates?	Y
- # of Repetitive Losses?	128
CRS Rating, if applicable	5
Stormwater Program?	Y
Building Code Version	UBC 1997
Full-time Building Official	Y
- Conduct "as-built" Inspections?	Y
BCEGS Rating	?
Local Emergency Operations Plan	Y
Hazard Mitigation Plan	Y
Warning System in Place?	
- Storm Ready Certified?	N
- Weather Radio reception?	Y
- Outdoor Warning Sirens?	?
- Emergency Notification (R-911)?	N
- Other? (e.g., cable over-ride)	Y
GIS System?	Y
- Hazard Data?	Y
- Building footprints?	N
- Tied to Assessor data?	Y
- Land-Use designations?	Y
Structural Protection Projects	Y-Levees/Dams
Property Owner Protection Projects	Y-Acq/El.
Critical Facilities Protected?	Y-Levees
Natural Resources Inventory?	Y-aggregates, mining, soil, prime farmlands
Cultural Resources Inventory?	Inventories for specific planning areas
Erosion Control procedures?	Y
Sediment Control procedures?	Y
Public Information Program/Outlet	Y
Environmental Education Program?	Y

FLOODPLAIN MANAGEMENT RELATED POLICIES

Sacramento County relies upon several documents to enforce floodplain regulations. Below is a list of these documents, along with a brief summarization of the document contents, and when the document was adopted.

Sacramento County General Plan, Adopted 12/15/93, Revised 5/2/97: (Update currently underway)

- The General Plan is considered a county "constitution" for rational decision-making concerning long-term physical development. The plan recognizes that environmental impacts of growth must be mitigated at the regional scale. The plan also recognizes natural hazards as a constraint to growth.

- The Land Use Element provides a broad outline of future land use patterns in the unincorporated county and illustrates the existing and potential open space, agricultural, conservation, and recreational land uses of the county. This Element provides an inventory of existing land supply and recognizes hazard-related constraints to future development. For example, it states that approximately 23,800 acres of the County are identified as vacant residential land; however, 4,900 acres are considered not developable because they reside within flood zones, airport noise contours, or aggregate resource areas. The Rural Growth Management Strategy section states that all growth of the Delta communities of Freeport, Hood, Courtland, Locke, and Walnut Grove should occur within the limitations of sewage disposal facilities and flood protection. The Delta Community Area Plan, which is incorporated by reference into the Community Planning Element of this General Plan, provides further guidance for the expansion of the Delta area towns. Further, Combining Land Use designations have been established to recognize the underlying zoning as the guide to land uses which are permitted on any particular piece of property. This approach preserves selected natural resources without imposing unnecessary restrictions on the use of the land.

- The Conservation Element discusses policies associated with managing water, mineral, soil, biological, and cultural resources. Erosion control and urban runoff policies are provided. Claims oxidation is the primary contributing factor to subsidence of Delta croplands and has the potential, to significantly alter agricultural production. Includes policies to discourage storage of hazardous materials in areas where they could potentially contaminate water resources (e.g., within 100-year floodplain). Identifies 25,000 acres of riparian habitat existing in the Sacramento River Valley today. Recognizes that increasing development greatly effects the Cosumnes River and its associated unique resources. Plan suggests that the County should reestablish jurisdiction (currently under the State Reclamation Board) over encroachments in the Cosumnes River floodplain and regulate so as to minimize impacts on the riparian corridor. One objective within the Vegetation and Wildlife section is to stabilize river banks to protect levees and riparian values. Another objective is to preserve the natural 100-year floodplain by minimizing fill; policy gives specific circumstances where fill may be used. The Cultural Resources section discusses the need for County-wide comprehensive knowledge of archeologic and historic site locations. **The Cultural section could be**

strengthened by compiling a County-wide, up to date cultural resources inventory, and also implement policies to protect historic resources in the event of floods and other hazards, where possible.

- The Hazardous Materials Element mentions how the floods of 1986 and 1995 resulted in the spread of hazardous materials, such as zinc-contaminated ash, over a wide area. Due to such incidents, this element recognizes the need to restrict and improve storage standards for hazardous materials.

- The Housing Element contains a Flood Control and Drainage section, which refers to Ordinance No. 1 of the County Water Agency as the principal policy tool for insuring flood protection through construction of drainage facilities. The ordinance prescribes collection of drainage fees when land is developed. Mentions the Sacramento Metropolitan Flood Protection Task Force, created in 1989, to oversee efforts in the development of flood control policy and protection. A three-phase strategy established by the Task Force includes stabilization of the levees; achievement of a 100-year levels of flood protection; and achievement of a 200-year level of flood protection.

- The Open Space Element also discusses the importance of retaining floodplains as open space areas. The first policy of the element is to, "permanently protect, as open space, areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains."

- The Public Facilities Element emphasizes fire protection and emergency services within the County. Main objectives are implementation of fire and emergency safety measures into all neighborhood and building design, and adequate funding for new fire protection facilities, equipment, and personnel.

- The Safety Element focuses on policies related to seismic events, flooding, and fires. One of the implementation measures for the seismic and geological hazard goal is, that the County shall designate generalized areas subject to seismic and geological hazards. The second implementation measure calls for drafting an ordinance to establish a program for the removal or strengthening of poorly anchored parapets on existing buildings. A few of the flood policies are stated below:

    - SA-6. The County will participate through the Sacramento Area Flood Control Agency in obtaining federal authorization for construction of a backbone flood control project along the Sacramento and American Rivers and the immediate connection of local internal streams to these rivers. The backbone project should provide 200-year flood protection.
    - SA-7. New and modified bridge structures shall not cause and increase in water surface elevations of the 100-year floodplain exceeding one foot, unless analysis clearly indicates that the physical and/or economic use of upstream property will not be adversely affected.

- SA-12. The County shall require all new urban development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing Comprehensive Drainage Plans.
- SA-15. Deny creation of parcels that do not have buildable areas outside the 100-year floodplain. The buildable area may be constructed by the placement of fill as long as it conforms with other adopted floodplain policies.
- SA-17. Vehicular access to the buildable area of newly created parcels must be at or above the 10-year flood elevation. Exceptions may be made when the existing public street from which access is obtained is below the 10-year flood elevation.
- If levee construction is approved to reclaim floodplain for new development then 200-year flood protection is required.

Zoning Code, 3/03

- The Zoning Code is the tool to achieve the objectives of the General Plan. It addresses setbacks, buffers, natural resources protection, and drainage. For example, the Parkway Corridor Combining Zone has been established to regulate property along the American River. This zone contains defined erosions zones with development setbacks identifying areas potentially subject to erosion within the next 100 years. Development standards have been created for buildings within erosion zones, for buildings protected by levees, and for buildings not protected by levees.

- The Flood Combining Land Use Zone comprises all land covered by rivers, creeks, and streams and land subject to flooding. Recognizes the need for strict regulation of flood lands in order to protect prospective buyers of land from "deception as to the utility of the land within flood zones".

Local Floodplain Management Plan, Adopted 9/16/97, Revised 2001, and updated and replaced herein.

County of Sacramento Development Policies

General Plan and Community Plan Policies - The recently adopted County General Plan (County of Sacramento Department of Planning and Community Development, ***General Plan: Planning for the 21st Century***, December 15, 1993) includes a comprehensive set of policies stressing flood hazard avoidance and mitigation in the planning and approval of new development. Policies applicable to drainage and flood control planning are included in the Safety Element, Conservation Element, and Open Space Element.

Drainage Ordinance - On November 23, 1993 (effective December 23, 1993), the Board of Supervisors adopted ***Ordinance No. SCZ 93-0061, An Ordinance Adding Title IX to the Sacramento County Zoning Code Relating to Floodplain Management.*** Title IX updated County floodplain management standards, construction standards in floodplain areas, and permit and mapping requirements relating to the National Flood Insurance Program.

Sacramento County Water Agency Code and Drainage Impact Fee – The Zone 11 Fee Plan and updated Water Agency Code Titles 1 and 2 were approved by the Board of Directors of the Sacramento County Water Agency, effective August 16, 2004. Since December 1991, flood control detention in Morrison Creek Stream Group watershed had been funded through the interim mechanism of a fair-share contribution by new development.

Repetitive Loss Plan - Unincorporated Sacramento County (FEMA Community Number 060262) has 103 unmitigated repetitive loss properties. Methods for mitigation include elevation, acquisition, flood proofing, floodwalls, storm drain system improvements, and site specific improvements to keep the lowest floor from flooding.

Drainage Master Planning Program - Since 1990, the Department of Water Resources has advance an extensive program of drainage master planning, to provide for the ultimate storm water quality, drainage, and flood control needs of the County. In planning and implementing cost-effective drainage and flood control systems, the master plans must: accommodate development, provide the objective levels of service and protection to existing and future communities, minimize continuing maintenance and operation costs, and minimize/mitigate downstream flooding and water quality impacts. One goal of the planning program is to plan and implement drainage and flood control projects that protect and enhance habitat, visual, recreational, and other water-related and riparian values. Drainage master plans have been completed for four watersheds, and several others are nearing completion. Future planning efforts will include flood hazard mitigation for Morrison Creek and Arcade Creek watershed.

Floodplain Management Policies - On March 9, 1993, Sacramento County Board of Supervisors adopted the ***Floodplain Management and Interim Floodplain Development Policies,*** which were developed by the Department of Water Resources of the Sacramento County Municipal Services Agency in consultation with Region IX of the Federal Emergency Management Agency. The floodplain Policies establish requirements and guidelines for minimizing and mitigating impacts of new development upon floodplains in most areas of Sacramento County, and how new development may be planned in or near floodplains.

Stormwater Ordinance and Grading and Erosion Control Ordinance – Address discharge of pollutants to storm drainage system.

New Development Policies

The following is a list of policies that are applicable to development within the entire County, with the exception of the Delta area. The Delta is defined as that portion of the County bounded on the east by the Western Pacific Railroad tracks, on the north by the southern city limits of the City of Sacramento, and on the south and west by the Sacramento County boundary.

Buildable Area. The lack of buildable area above the 100-year floodplain is a constant problem. Homeowners expect to be able to construct swimming pools and other structures associated with residential property. In the past, lots have been created that do not allow enough area above the 100-year floodplain to construct such structures, and in some cases only the residence or commercial structure itself is located above the floodplain. The proposed policies regarding fill

in the floodplain will prohibit such structures from being constructed. Specific minimum buildable areas are proposed to create areas where normal property uses will not be prohibited by policy.

1. Deny creation of parcels that do not have buildable areas outside the 100-year floodplain. The buildable area may be constructed by the placement of fill as long as it conforms to the other policies contained herein. The minimum buildable area per lot required for specific zoning is defined below. Note that for the purposes of this policy, "buildable area" only refers to the area above the 100-year floodplain. The entirety of this area may not be buildable due to setbacks or other requirements.

   AR-5 or larger: 1.00 acre
   AR-1, AR-2, RD-1: 0.50 acre
   RD-2: 0.25 acre
   RD-3, RD-4: 7,500 square feet
   RD-5 to RD-7: entire lot or 5,200 square feet, whichever is less
   RD-10 and denser: entire area except parking lots, streets, and open common areas
   Commercial and Industrial Entire area except parking lot, streets, and landscaping, unless pier foundations are approved.

2. For residential zoning, the area outside the 100-year floodplain must be contiguous or reasonably situated to provide buildable area for a residence and associated structures, such as pools, sheds, barns, and detached garages.

3. Buildable areas above the 100-year floodplain must be constructed prior to map recordation. Floodplain and/or floodway easement will be required over the floodplain outside the buildable area. Exceptions may be made for parcel maps provided a condition of approval is attached to the map requiring site plan review prior to issuance of building permits. Requirements including locations of excavation and fill, limitations on fill in the floodplain, etc. will be clearly indicated in the conditions of approval.

Access. Minimum access is required for all newly created parcels to allow ingress-egress during storm events. This is required for emergency access and to avoid creating "islands" during normal flooding. The idea is to provide "reasonable" access, but what is reasonable is highly subjective. At a minimum, access should be above the 10-year flood elevation, to minimize the occurrences of restricted access.

The least number of watercourse crossings are encouraged to minimize the impact to flood elevations, as well as to the riparian corridor.

Possible Activities for Dry Creek / NEMDC Area are as Follows:

Flood Control. For the **Natomas tributaries**, flood control detention may be required for subdivisions and any commercial sites larger than one acre, as deemed necessary and to be determined on a case-by-case basis.

Property Protection. For new development, all structures are required to be constructed at least one-foot above the highest 100-year base flood elevation determined by the County. The most effective protection for existing structures will be the acquisition of properties in the Dry Creek Parkway between the North and South branches of Dry Creek, and the elevation of properties in the floodway fringes. A total of 13 properties have been acquired, including eight repetitive loss properties. Five of the repetitive loss structures in this area have been elevated.

1. Vehicular access to the buildable area of newly created parcels must be at or above the 10-year flood elevation. Exceptions may be made when the existing public street from which access is obtained is below the 10-year elevation

2. Watercourse crossings shall be minimized. Creation of lots that require watercourse crossings for single lots, or that will likely encourage watercourse crossings to be built by property owners (lots with useable area on both sides of a watercourse) will not be allowed. Exceptions may be granted on a case-by-case basis for Agricultural and Agricultural-Residential zoned parcels larger than five acres.

Fill in the Floodplain

Reclaiming floodplain by importing fill has the effect of increasing flow downstream. Importing fill into the existing floodplain removes floodplain storage. Water that may have otherwise ponded outside the effective flow area of a watercourse will be forced downstream instead, thereby increasing the flow and water surface elevations downstream. Merely replacing fill with an offsetting amount of excavation will not always be adequate to mitigate any impact on flood elevations. The most important loss of storage in most watercourse situations is the fill that occurs at elevations near where the peak flood elevation will occur. Off-stream storage that occurs at the time of peak runoff will be the most effective in attenuating peak flow. It is therefore recommended that in-kind replacement storage be provided whenever fill is allowed to be placed within the 100-year floodplain for most watercourses. In-kind replacement is defined as excavating at the same elevation (hydraulically equivalent) as fill occurs. The impact of lost floodplain storage to flood elevations will vary from watercourse to watercourse depending on several factors such as width of the floodway, total in-stream and off-stream storage, etc.

1. Fill should not be allowed where the depth of the 100-year flood is greater than two feet. Exceptions may be made on a case-by-case basis, including for the following:

   (a) Agricultural and Agricultural-Residential zoned parcels;
   (b) Minor tributary swales and areas where piped drainage is required by County Improvement Standards;
   (c) Watercourse crossings;
   (d) Entitled construction in a manner that does not have an unmitigated adverse impact on upstream, downstream or adjacent neighboring property.

2. There will be no net loss of storage with the 100-year floodplain. In-kind replacement of lost storage will be required, with the following exceptions allowed:

(a) Morrison Basin in-fill areas;
(b) Basin "A", Sierra Creek, and Magpie Creek, on a case-by-case basis;
(c) Agricultural and Agricultural-Residential zoned parcels of five acres or more, on a case-by-case basis;
(d) Areas where piped drainage is required by the County Improvement Standards.

Pier Foundations

Pier foundations allow structures to be built in areas subject to flooding by elevating the structure above the adjacent low-lying lands. In no case should a pier foundation be placed in areas where storm water is conveyed. On a case-by-case basis, some structures may be allowed where floodwaters pond, as opposed to areas where the flow velocities are significant.

1. Pier foundations for structures are acceptable only when outside the conveyance area of a watercourse. Pier foundations may be allowed on a case-by-case basis for the following:

   (a) Agricultural and Agricultural-Residential zoned parcels;
   (b) Existing parcels that are within the 100-year floodplain and do not meet the buildable area criteria.

Fencing

Fencing within the floodplain occurs frequently and can significantly increase flood elevations. This is due to the fences collecting debris and effectively creating a dam. Limited fencing will be allowed within the floodplain provided it does not create flow restrictions and allows for the free flow of water. The policies will not apply to Agricultural or Agricultural-Residential zoned parcels greater than five acres, except where flood elevations are significantly impacted.

1. Fencing will be prohibited within the floodway of a watercourse. Open fencing parallel to the flow direction may be allowed within the floodway on a case-by-case basis.

2. Fencing outside the floodway but within the conveyance area of a watercourse will be restricted to the least flow-restrictive types of open fencing (3-strand wire, 3-board rail, etc.). Chain link, spaced board fencing, etc. will not be allowed.

3. Fencing outside the conveyance area of a watercourse but within the 100-year floodplain will be restricted to fencing that allows the passage of water.

Open Watercourse Easements

The County is requiring fee title or easements be dedicated over the 100-year floodplain on sites that are developed or subject to discretionary actions. Different types of easements will be required dependent on the flow situation within the specific floodplain. Dedication of the easement will be required to prevent any development within the floodplain that would impact flooding, including post-development fencing, grading, importation of fill, and construction of secondary structures. The easements are intended to provide some measure of assurance that the floodplain will not be

significantly altered, thereby impacting flooding. Easements will be required as conditions of discretionary actions, including rezone and map approval.

1. Upon development of a site, including rezones, and certain applications for building or use permits, the following easements will be required to be dedicated to the County:

   (a) Floodway easement will be required over the area of a watercourse necessary to pass the peak 100-year flow at an elevation designated by the Department of Water Resources.

   (b) Floodplain easement will be required over the remainder of the 100-year floodplain outside areas to be master planned, or consistent with provisions of an adopted Drainage Master Plan, if the site will be fully built-out under the proposed zoning.

   (c) When a site is not being fully built-out under the present zoning, or if a Drainage Master Plan has not yet been adopted, then a Conditional Floodplain Easement may be granted over that portion of the floodplain that is less than two feet below the 100-year water surface elevation. A Conditional Floodplain Easement is an easement over that portion of the 100-year floodplain where the depth is less than two feet, only used when a site is not fully built-out. It is intended to delineate the area where, at some later date and in accordance with County policies regarding development within the floodplain, a property owner may grade to create additional buildable area. The premise is not to take a normal easement over the entire floodplain before a site is fully built-out, since the property owner generally feels once the easement is given, the County has no reason to abandon a part of it later to allow the creation of additional buildable area. Therefore, the conditional easement is to be created with specific conditions under which portions of the easement may be abandoned at a later date.

2. Floodplain easements as set forth in policy 1(b) and 1(c) above will not be required for Agricultural and Agricultural-Residential parcels except on a case-by-case basis.

Levees

Levee construction to reclaim floodplain for new development is strongly discouraged by the Department of Water Resources. There are several possible impacts arising from levee construction. Levees may increase flood elevations outside the protected areas due to loss of floodplain storage and decreased conveyance area, possibly protecting one area only to increase the flood risk elsewhere.

Levees also put newly reclaimed areas unnecessarily at risk for a variety of reasons:

   (a) Levees must be maintained to assure they will work when needed. Despite the best maintenance programs, levees may fail when subjected to extended flooding.

   (b) Pumping may be required to evacuate local storm runoff. The pumps will require maintenance, which have the potential of failure during a storm event. Also, when an event occurs that is greater than the design event for a pump, there is no overland release for the excess storm water.

It should also be recognized that levees and associated pumping systems are expensive to construct initially as well as to maintain in perpetuity.

There is also the problem of an event in excess of the design event occurring and overtopping the levee. For example, if a levee is designed for the 100-year event, and an event in excess of the 100-year event occurs, the levee could be breached, causing significant flooding to occur behind the levee. In this scenario, the flooding could be catastrophic if the flood depths behind the levee are significant. For this reason, it is proposed that if a levee is allowed to be constructed, the levee be designed to withstand a 200-year flood. Besides providing greater than 100-year protection, this requirement also provides some assurance that if the 100-year flood elevation is increased in the future due to new information, the area behind the levee will be protected and will not suddenly be placed within FEMA's 100-year floodplain and subject to new insurance and development restrictions. It also lessens the chances of catastrophic flooding and possible fatalities associated with deep flooding.

It is not the intent of these policies to prevent the construction of levees to protect existing development. However, such proposals must be reviewed very carefully on a case-by-case basis to assure they will not adversely impact flooding elsewhere.

1. Levees should not be allowed to be constructed in order to reclaim floodplain for new development.

2. If levee construction is approved to reclaim floodplain for new development, then 200-year flood protection is required, to the satisfaction of the Director of the Sacramento County Department of Water Resources.

Miscellaneous

It is proposed that newly improved watercourses be designed to allow for low maintenance. The watercourses will be sized properly to allow for increased vegetative growth that may be expected. This is particularly important in areas within watercourses that are designated as wetland mitigation areas.

It is also proposed that street frontage be encouraged adjacent to floodplains where physically reasonable. Street frontage allows access to floodplain areas, typically provides additional floodplain storage, and discourages property owners from dumping trash in the floodplain by putting it in full public view.

1. Improvements to watercourses in currently undeveloped areas will be designed for low maintenance. Appropriate Manning's "n" values will be used in design of the watercourse to reflect future vegetative growth (including mitigation plantings) associated with the low maintenance concept.

2. Development adjacent to floodplains shall, where physically reasonable, provide a public street paralleling at least one side of the floodplain.

3. Naturally appearing channels will be encouraged for watercourses in newly developing areas (outside of identified in-fill areas).

4. The placement of concrete lining within watercourses will be strongly discouraged. However, it will not be prohibited in identified in-fill areas where it is consistent with the existing adjacent reaches of the watercourse. Concrete drainage outfall structures, access ways, bicycle trails, roadway crossings, etc. will not be prohibited.

5. Areas within a 100-year floodplain shall not be up zoned to a more intensive use unless and until a Master Drainage Plan is prepared that identifies areas of the floodplain that may be developed, except where development is allowed under the other policies contained within this document. For example, AR-5 zoning within a floodplain shall not be rezoned to RD-5.

Flood Mitigation Assistance. In order to mitigate against the long term risk of flood damage to repetitive loss structures county wide, and reduce or eliminate flood claims, Sacramento County Department of Water Resources applied for a Federal Emergency Management Agency sponsored Flood Mitigation Assistance Grant (FMA). These funds were used to acquire or elevate repetitive loss structures located in Sacramento County in accordance with the County General Plan. The priority properties are those repetitive loss structures contained within the NFIP Repetitive Loss List, ranked in the order they appear. In the FMA application, Sacramento County Department of Water Resources included other viable elevation applicants in addition to the repetitive loss properties reflecting the fact that many structures on the National Flood Insurance Program (NFIP) Repetitive Loss List have already been mitigated under the HMGP Home Elevation Program. Additional mitigation opportunities are being pursued with help from the Pre-Disaster Mitigation (PDM) grant program.

COUNTYWIDE EMERGENCY SERVICES ACTIVITIES

Emergency preparedness is part of the County's strategy to protect life and property from floods and other disasters. The following is a listing of the emergency services activities that the County has undertaken.

Emergency Management Program

Sacramento County Multi-Hazard Disaster Plan. (July, 1997)
This plan provides the planned response to extraordinary events associated with natural disasters and technological incidents. The plan outlines roles and responsibilities, and is designed to be part f the California Standardized Emergency Management System.

Dam Emergency Preparedness Plans. The county has copies of the emergency plans and inundation maps for Folsom Dam that were prepared by the US Bureau of Reclamation. For homeland security reasons, the inundation maps are not included with this plan.

County Sandbag locations. The county has an inventory of sandbag stockpiles and a map showing where these resources are located. These sites are posted on the Web at www.floodready.org. Sandbag locations are stocked and opened when there is recognized threat of impending high intensity storms. However, many property owners have addressed their site specific flooding issues with the help and technical expertise of Water Resources staff, so that cumbersome sandbags are no longer needed.

Sacramento County Flood ALERT system. ALERT, developed by National Weather Service (NWS), stands for Automated Local Evaluation in Real Time and signals the County Department of Water Resources of possible flooding. It provides continuous and automatic reports from river levels and rainfall gauges. These monitoring stations provide data to determine when to initiate evacuation procedures.

The primary warning for storms and flooding is the County's ALERT system at www.floodready.org. This is a widespread arrangement of stream and rain gages with data available in real time around the clock. Input into the system are flood monitoring and warning levels. There are links on the Web page to stream/river/reservoir gage systems managed by other entities. Additionally, the County and City are working with OneRain, Inc. to develop real time Doppler radar information, giving a broad and accurate account of the storm event. Field crews are activated to areas of known concern ahead of the storms such as debris-laden inlets. Specific concerns may be directed to the dispatcher at (916) 875-RAIN.

Sacramento County website. Emergency Information can be found on the Web at (www.saccodwr.org or www.floodready.org). Includes links to several municipalities serving the county to contact if power goes out, flood occurs, etc. (SMUD, PG&E, fire and police department links, sand bag locations, etc.)

Dry Creek/NEMDC specific warning. The County of Sacramento Department of Water Resources (County DWR) offers continuous technical assistance to property owners who want to protect themselves for flood risk. County DWR has a web site with real time rain gage, creek, stream and river flow information. Flood warning is done in conjunction with the County Sheriff and emergency operation personnel. Unfortunately, this area is prone to flooding with very little warning time. It is incumbent upon property owners to pursue sandbagging or other floodproofing measures for their flood-prone structure.

COUNTYWIDE PUBLIC INFORMATION ACTIVITIES

Map Determinations.

Water Resources provides flood zone information, including FEMA mapped Flood Insurance Studies and County flood data to anyone who inquires. The flood zone hot line number is (916)874-7517 on which anyone may leave a message with address, parcel number and contact information and Water Resources staff will provide flood zone information within two business days. There is also a public counter at 827-7th Street Room 301, at which during business hours, an interested party can view the various flood and drainage maps.

Near term goal: Water Resources will work to put this information on the Web based GIS map.

Outreach Projects

The following brochure is the County Insert annual mailer sent to everyone in urban unincorporated Sacramento County, approximately 260,000 properties.

For the residents of the County of Sacramento

CUBS #1500

Be Flood Ready!

Protect your family and property from flood hazards

A History of Flooding

In 1995, heavy rains hit the Sacramento region causing widespread localized flooding, in particular in the Arcade, Morrison, Florin, Unionhouse, and Dry Creeks areas. Two years later, a series of tropical storms hit northern California, causing the Cosumnes River to crash through its levees in 24 places.

Sacramento County has 276 square miles within the 100-year floodplain. The 100-year floodplain is shown on the Flood Insurance Rate Map (FIRM) and these areas are known as Special Flood Hazard Areas (SFHAs). In addition, Sacramento County has many local flood hazard areas. Normal rainfall years can bring high-intensity thunderstorms with localized flooding, resulting in devastating losses of property and possessions.

Flood Insurance

If you live in a floodplain, you should have flood insurance. Your homeowner's insurance policy will not cover losses due to flooding.

The National Flood Insurance Program (NFIP) makes flood insurance available to everyone in the county. The county's unincorporated flood prevention program improved its CRS (Community Rating System) rating in 2002 to 5, thereby earning a 25% discount in flood insurance premiums for those who live within a SFHA and up to 10% for those who do not—an annual savings of about $2,000,000 countywide.

If you are located within a SFHA, we urge you to buy flood insurance to protect yourself from flood losses. Information about flood insurance can be obtained from your insurance agent. Property owners can insure buildings and contents and renters can insure their possessions.

Elevation certificates may be on file at the Sacramento County Department of Water Resources (SCDWR).

Remember, you do not have to live in a floodplain to qualify for flood insurance.

Flood Warning

When high-intensity storms move through Sacramento County, flood-response officials need accurate rainfall information quickly. The Department of Water Resources' staff developed an Automated Local Evaluation in Real Time (ALERT) system that, through a network of 32 gauging stations, collects rainfall and stream-level data and provides Web site updates every 15 minutes. Local meteorologists, who keep Sacramento County residents informed through television and radio broadcasts, monitor the ALERT Web site. Creeks can flash flood without warning. To the extent possible, the communication and media officer issues news releases to all local media channels to identify waterways that are nearing flood stage and, as appropriate, evacuation procedures and locations.

KNOW YOUR FLOOD HAZARD!

For more information, visit our Web site at www.FloodReady.org.

Protecting Property

"Over 80 percent of the flood victims could have avoided flood damage by taking proactive actions to divert water from their property."

-- George Ioerth, Senior Engineer for Drainage Development and Hydrology on his investigation of flood damage after the 1995 flood.

Proactive steps taken before a flood can help protect your property.

Purchase sandbags, plywood, plastic sheeting and other products deemed necessary for the protection of your property and belongings before the rainy season begins. To be effective, sandbags must be properly stacked. See our Web site: www.FloodReady.org for sandbagging tips.

There are other steps that can be taken to protect your property from flood damage.

- You could consider elevating your house above the flood hazard. Approximately 100 homes have been elevated in our county in the last six years.
- Consider diverting floodwater around your structures.

Property owners are responsible for maintenance activities for their own property. However, if you think the maintenance requirement is within the countywide drainage system, call (916) 875-RAIN (7246) and we'll send a crew to evaluate the problem.

Floodplain Development Requirements

All construction, or fill, within a floodplain requires a floodplain management permit. If you plan to build or grade within a federal or local floodplain, please contact Sacramento County Department of Water Resources (SCDWR) staff at (916) 874-6851.

If you know of any non-permitted floodplain construction or fill, please contact SCDWR at (916) 874-6851. All new structures built within a flood hazard area are required to be constructed such that the lowest floor of the structure is at least one foot above the flood hazard. Substantially damaged or improved structures have the same elevation requirement as new construction. A substantially improved/damaged structure is where the cost of the improvements/damage is equal to or greater than 50 percent of the fair market value of the structure before the improvements are made or the damage occurred.

Surviving a Flood

Preparing for a flood before it occurs can prevent loss of property, possessions and, in the worst situation, lives. Here are tips to prepare you before a storm becomes an emergency:

- Know the safest route from your home or business to high, safe ground.
- Put insurance policies and lists of personal property in a safe place, such as a safe deposit box.
- Prepare a family disaster supply kit. The kit should contain items such as: flashlight, portable, battery-operated radio, extra batteries, first aid kit and manual, emergency food and water, non-electric can opener, essential medications, cash and credit cards, sturdy shoes, warm outer wear and blankets.
- Monitor local weather forecasts. For example, you can call the Weatherline Forecast System at (916) 646-2000 for weather updates or tune your radio to either KFBK 1530AM or KSTE 650AM.

Floodwaters can rise rapidly. Be prepared to evacuate before the water level reaches your property.

- If evacuation is required and you can safely do so, turn off all utilities at the main power switch and close the main gas valve.
- Move to higher ground if you can do so safely—DO NOT attempt to walk through moving water.
- Do not drive in flooded areas.
- Do not remove manhole covers or drain grates.
- If you are caught at home by rising water, move to the second floor or the roof. Take your disaster supplies kit with you. Wait for help—don't try to swim to safety.
- Watch for fallen power lines.
- If you come in contact with floodwaters, wash hands with soap and clean water.
- Stay out of disaster areas unless authorities give you permission to enter.

Are You in a Flood Zone?

To find out if you are located within a SFHA, call the Sacramento County Department of Water Resources (SCDWR) at (916) 874-7517. Be prepared to give your name, address and parcel number. You may also come to our public counter to view the floodplain maps (FIRM). We are located in downtown Sacramento at 827 7th Street, Room 301. Public hours are 9 a.m. – 4:45 p.m., Monday through Friday. No appointment is necessary.

Drainage System Maintenance

In 1996, the Stormwater Utility was formed in order to fund new programs for preventive maintenance, drainage repair and improvement projects. Entire storm drain systems in large areas of the county are systematically cleaned on a periodic basis. The creation of the Stormwater Utility also allows for more repair and construction projects that directly target local flooding problems. Typical sources of problems that may require cleaning or replacement of storm drains include blockage by tree roots, physical damage from other construction or landscape conditions altering over time.

Keep it Clean! Drainage problems are most frequently caused by debris not passing through drain inlets and blocking the flow of water. Keeping gutters and drain inlets clear of leaves and debris is one of the best things homeowners can do to prevent localized flooding. If your inlets are clear, but water is still not draining properly, call (916) 875-RAIN (7246). We'll send out a field crew to evaluate the problem.

Do not dump or throw anything into drainage ditches or streams. Dumping into our ditches or streams is a violation of Sacramento County Code Title 15, Chapter 15.12. Even grass clippings and branches can accumulate and restrict the flow of stormwater. Every piece of trash can contribute to flooding. If you see dumping or debris in our drainage ditches or streams, call (916) 875-RAIN (7246).

Drainage easements allow field crews to maintain public drainage systems that are on private property. Property owners who have creeks, ditches or pipes that carry storm runoff across their parcel can grant a maintenance easement to the county. Without an easement the responsibility for maintaining the ditch, pipe, or channel rests with the property owner. If you would like more information on drainage easements, call (916) 874-6851.

Sacramento Stormwater Management

The County of Sacramento has teamed with the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova to protect our creeks and rivers by keeping urban stormwater runoff clean and natural. Program goals include educating the public about urban runoff pollution, encouraging stormwater-friendly daily routines and organizing public involvement in community and clean-up events.

Rinsing toxic substances into storm drain inlets pollutes our creeks and streams because storm drains are direct paths to our waterways.

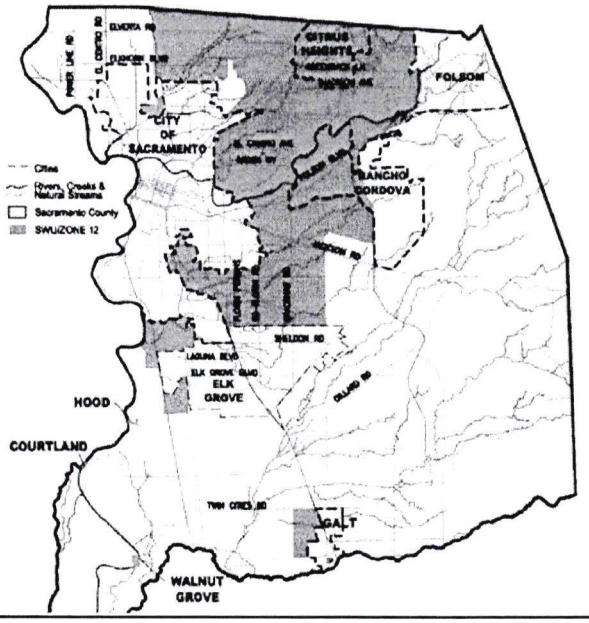
If you wouldn't drink it, please don't feed it to our fish and other wildlife that make the creeks and streams their homes.

OTHER ONGOING MITIGATION ACTIVITIES

Placer County/Dry Creek. Because Dry Creek flows through the City of Roseville in Placer County before entering the County of Sacramento, agencies from all three locations have banded together to devise strategies for reducing peak flows. As part of this ongoing effort, the Sacramento County Board of Supervisors and the Sacramento County Water Agency Board approved, by resolution, the Dry Creek Watershed Flood Control Program (Control Number 95-0577) and its associated Environmental Impact Report on January 23, 1996. Through this program, fees are collected within Sacramento County for development in the Linda Creek and Dry Creek watersheds to someday fund regional flood control detention, bridges and culverts, floodplain mapping, channel maintenance, flood warning, local projects, etc. Placer County Flood Control is taking the lead on locating viable projects within the shed area.

Sacramento County Department of Water Resources, along with the Federal Emergency Management Agency, Sacramento Area Flood Control Agency, and Sacramento Parks Department continues to further other mitigation projects in the Dry Creek area. Notable examples are the HMGP and FMA Home Elevation programs as well as the Dry Creek Parkway project for the purpose of clearing homes within the floodway and returning the area to open space.

Sacramento County Department of Water Resources, Stormwater Utility District operates and maintains stormwater system for Citrus Heights and unincorporated areas of Sacramento County. Their website has a 'flood-ready' web page, providing information to citizens on how to be prepared for a flood; what to do before, during and after a flood; how to prepare a family disaster plan; and how to find weather information. Their website also provides information about the NFIP, how to find out what flood zone your home may be located in, and how to purchase flood insurance. Further, one can find sandbag locations on their website, rainfall totals, stream levels, weather data, and other storm and flood related information.



DEVELOPMENT TRENDS

Building Permits Trends

138 building permits within the SFHA were issued within the past two years.
Source: Sacramento County Dept. of Water Resources

REVIEW OF POSSIBLE MITIGATION ACTIVITIES

The following are activities that are specific for each of the watersheds previously identified. The following is a brief summary for the causes of flooding in each area, along with possible activities that can be implemented to mitigate the problems of flooding.

Sacramento River

The Sacramento River weir protocol is being reviewed by the California Department of Water Resources, the Army Corps of Engineers and the Sacramento Area Flood Control Agency. Currently, it is recommended that the flood victims located on the wet side of the Sacramento River levee elevate above flood risk.

There are several repetitive loss properties that were built low, before the current County of Sacramento floodplain policies (pre-FIRM). There are other newer (post-FIRM) homes that have been built above the base flood elevation but still have repetitive loss claims. Additional investigation may conclude that flood damages are not due to water entering the main living areas.

The following are possible activities for structures located along the Sacramento River:

Flood Control. The US Army Corps of Engineers in conjunction with the Sacramento Area Flood Control Agency have made numerous improvements to the river levees improving flood protection for properties on the dry side of the levees. However, the homes that have been built on the wet side of the levees are still at risk.

Property Protection. For new development, all structures are required to be constructed one foot or higher above the highest 100-year base flood elevation determined by the County. Elevation of existing structures is possible and has been accomplished in this area. All owners of repetitive loss properties have been invited to participate in the elevation program, and some have been elevated.

Emergency Services. In the event that structures in this area have the potential of being flooded, sandbagging or other flood proofing method may be a feasible solution. Property owners will be responsible for these activities.

Floodplain Management. The County's Grading and Erosion Control Ordinance and Stormwater Ordinance apply countywide, including this area. The County has no comprehensive plan or zoning ordinance in place for this area, nor is one planned for the near future. There are existing residential

and commercial parcels that should enjoy their property rights without causing any negative impacts to the floodway of the Sacramento River.

Elevation of Structures. The County has received grant monies from the Federal Emergency Management Agency to facilitate elevation of repetitive loss structures

Dry Creek/NEMDC & Tributaries

Dry Creek. Dry Creek will essentially be treated as a natural stream in that there are existing flooding problems and overbank storage in extreme flood events. Sacramento and Placer Counties are jointly studying flooding along Dry Creek and have developed new hydrology for the watershed. Water Resources has used the results of this study to determine the 100-year flood elevation and floodplain location. Detention will not be required in this watershed (downstream of Placer County), per determination of the joint Placer/Sacramento County study.

Dry Creek Tributaries. These include Basin "A" and Basin "B" (also known as Sierra Creek), Magpie Creek, and Robla Creek. Robla Creek should be treated as a natural stream until a master plan is provided. Only short reaches of Basin "A" and Magpie Creek have not been previously channelized. More substantial reaches of Sierra Creek have not been channelized to date. New development within these watersheds will be considered in-fill. Flood control detention will not be required for these watercourses, consistent with results of the joint Placer/Sacramento County Dry Creek Study. Further channelization is acceptable since these are in-fill areas. It is recommended that development in these floodplains be reviewed on a case-by-case basis bearing in mind the impact on the watershed.

The NEMDC Tributaries. These are located in largely undeveloped areas. The downstream, or westerly end of the watercourses are in the backwater area of the NEMDC. The watercourses are typically very small, and need to be deepened to gravity drain adjacent lands before substantial development can occur. Water Resources recommends that master plans be prepared prior to any large-scale development within this watershed.

From its review of the numerous past studies the following conclusions may be drawn:

- Local and regional flood control detention above Roseville may be beneficial to halt increases in, or potentially reduce, peak flood flows.

- The Sacramento Area Flood Control Agency (SAFCA) project to raise existing levees and build new levees will improve flood protection for areas adjacent to the confluence of Dry Creek and Robla Creek.

- A fee plan has been put in place, a subzone of Zone 11C of the Sacramento County Water Agency, to collect funds from developments in the watersheds tributary to the Natomas East Main Drainage Canal. This fee may be used for upgrades to the D-15 pump station or other mitigation measure as impacts to the floodplain are realized over time due to development and channelization of the watersheds.

- Local projects are needed to protect areas that are now threatened, and those projects must be designed or mitigated to prevent any increased risk elsewhere in the watershed.

- Acquisition of properties within the Dry Creek floodway is deemed an appropriate mitigation measure. SAFCA and the County of Sacramento ultimately desire to rezone this floodway area to open space. Some properties have been acquired and the County is currently working with FEMA to obtain additional grant monies for acquisitions.

- Elevation of structures to above the base flood elevation is an effective mitigation measure and has been occurring in this area.

Floodplain Management Policies Related to New Construction.

Along with the County's Grading and Erosion Control Ordinance and Stormwater Ordinance (apply county-wide), the following policies are applicable for this area:

For the Natomas Tributaries:

1. Development and rezones to increase density may not occur within the 100-year floodplain prior to the establishment of a master drainage plan, except as outlined below. Building permits for single structures on a parcel will be reviewed on a case-by-case basis. Some development and rezones may occur in the floodplain fringe provided:

   (a) the depth of the 100-year flood is less than two feet;
   (b) there is no net loss of storage within the 100-year floodplain;
   (c) there is in-kind replacement of lost floodplain storage;
   (d) substantial grading within the floodplain will not occur less than 75 feet from the centerline of the existing watercourse.

2. Areas outside the 100-year floodplain designated as possible areas of channel realignment, detention sites, or urban runoff treatment sites during preliminary phases of the master plan study will not be allowed to develop until the study is complete.

3. Development and rezones will be allowed in areas outside the 100-year floodplain prior to the establishment of a master drainage study provided a fair share contribution is made toward the cost of future drainage improvements and master drainage plan study cost, with the exceptions listed in policy 2 above.

4. Development within areas adjoining the NEMDC that are designated as floodway shall be limited allowing driveway culverts, and minimal fill for driveways, and residential structures in accordance with existing entitlements.

For Dry Creek:

1. Development may not cause an offsite increase in the 100-year flood elevation.

2. Adequate topography with one-foot contours will be required for all land less than two feet above the 100-year flood elevation.

3. A certified grading plan will be required once grading is complete.

4. New development and increased zoning density will be discouraged in the floodway of Dry Creek; however, in the case where an existing parcel has entitlements, this shall not serve to inversely condemn.

For the Dry Creek Tributaries:

1. Floodplain encroachment may be allowed outside the floodway where the depth of the 100-year flood is less than two feet, except for Robla Creek, where development must be reviewed on a case-by-case basis. Floodplain encroachment where the depth of the 100-year flood is greater than two feet may be allowed on a case-by-case basis provided it is consistent with existing development in the watershed.

Natural Stream Group & Tributaries

The majority of the watersheds are approaching full buildout. The drainage corridors have been crowded by development. The effect of new development in the basins on increasing stream flow due to increased impervious area is considered minor for most of these watercourses. Possible activities within the Natural Stream Group area are as follows:

Flood Control. Levees and detention are not feasible due to the minimal open area available adjacent to creeks, and nearly full buildout of the watersheds. Channel improvements are discouraged, however some exceptions may be allowed for the following situations:

(a) as prescribed in the Natural Streams Plan;
(b) to provide erosion protection;
(c) for necessary transitions, crossings, maintenance ramps, etc.;
(d) as determined in approved master drainage plans; and
(e) tributary drainage not mapped on Flood Insurance Rate Map (FIRM).

Property Protection. For new development, all structures are required to be constructed one foot or higher than the highest 100-year base flood elevation determined by the County. The most effective protection for existing structures will be elevation of the structures. A total of 9 repetitive loss properties have been elevated in this area. There have also been several flood control projects, including drainage improvements and floodwalls that have reduced the flood risk on at least 11 repetitive loss properties in this area.

Emergency Services. This area is prone to flash flooding. The County DWR provides real time rain gage and stream gage information on the internet. In the event that structures in this area have the potential of being flooded, sandbagging may be a feasible solution. Property owners will be responsible for the sandbagging of their properties.

Floodplain Management Policies Related to New Construction.

Along with the County's Grading and Erosion Control Ordinance and Stormwater Ordinance (apply county-wide), the following policies are applicable for this area:

1. Development shall not cause an offsite increase in the 100-year water surface elevation due to encroachment within the conveyance portion of a watercourse unless a floodplain easement is obtained for all impacted offsite floodplain areas. Exceptions may be considered for watercourse crossings on a case-by-case basis.

2. Provisions of the Natural Streams Plan will be followed.

3. Adequate topography with one-foot contours will be required for all areas where the land is less than two feet above the 100-year water surface elevation. The topography must be based upon an onsite survey and stamped and signed by a licensed land surveyor or registered civil engineer.

4. A certified grading plan will be required once grading is complete.

5. Floodway easements will be required over those portions of the 100-year floodplain determined to be within the conveyance area of a watercourse.

Morrison Creek Stream Group

The Morrison Creek Stream Group watershed will be divided into two groups for floodplain policy, representing in-fill areas and currently undeveloped areas. The in-fill areas consist of watercourses that have previously been channelized and are generally surrounded by existing development, often to the channel banks. The undeveloped areas will include areas where little or no channel improvement has occurred and there is little or no existing development.

In-Fill Areas of the Morrison Creek Stream Group. The in-fill portions of these watercourses have previously been channelized and have significant urbanized area near the channel. Much of the original floodplain has been reclaimed. The existing improved channels often do not represent the ultimate required channel section as they were designed for lesser flows than are currently recognized as the 100-year flows. Channel improvements may still occur in these watercourses as they are not designated natural streams, and these improvements may reclaim land that is currently within the 100-year floodplain.

Undeveloped Areas within the Morrison Creek Stream Group. The watercourses in these areas have not been channelized beyond ditches constructed by private property owners. The floodplains are generally shallow and relatively wide. Some channel improvements will be necessary to provide gravity outfall to drain the adjacent lands. Regional detention may be required to keep the ultimate buildout flows to existing condition flows. Comments for the in-fill areas concerning peak flow apply to the undeveloped areas as well. Possible activities for the Morrison Creek Stream Group are as follows:

Flood Control. There are various, however yet unapproved and unfunded, plans for flood control at the Beach Stone Lakes outfall area. These projects are part of the bigger State Delta program and outside of the control of the County. Meanwhile, home elevation is a good idea. Property owners should also look at ways to provide islands for livestock to find dry refuge. Flood warning is available by real time ALERT system internet site. This area does not typically flash flood, some warning time is available, assuming accurate weather forecasts. Sandbagging can be an effective emergency measure. Owners of flood prone buildings should consider elevation.

Property Protection. For new development, all structures are required to be constructed at least one-foot above the highest 100-year base flood elevation determined by the County. Elevation will be an effective method of protection of existing structures. Two homes are currently being considered for elevation under the FEMA grant program.

Emergency Services. In the event that structures in this area have the potential of being flooded, sandbagging is a feasible solution and should work effectively. Property owners will be responsible for the sandbagging of their properties.

Floodplain Management Policies Related to New Construction. Along with the County's Grading and Erosion Control Ordinance and Stormwater Ordinance (apply county-wide), the following policies are in place for the in-fill areas of the Morrison Creek Stream Group:

1. Floodplain encroachment may be allowed on a case by case basis for the purpose of protecting homes and agricultural buildings, or for creation of a small area for livestock to take refuge above the floodwaters.

2. Encroachment into the conveyance area of a floodplain will not cause an increase in the peak 100-year flood elevation unless the increase has no adverse impact on existing development.

The following are policies in place for the undeveloped areas of the Morrison Creek Stream Group:

1. Development and rezones to increase density may not occur within the 100-year floodplain prior to the establishment of a master drainage plan, except as outlined below. Building permits for single structures on a single parcel will be reviewed on a case-by-case basis. Some development and rezones may occur in the outer edge of the floodplain provided:

   (a) the depth of the 100-year flood is less than two feet;
   (b) there is no net loss of storage within the 100-year floodplain;
   (c) there is in-kind replacement of lost floodplain storage;
   (d) substantial grading will not occur within the floodplain less than 150 feet from the centerline of the existing channels for Morrison, Elder (downstream of Bradshaw Road), Laguna, and Laguna Tributary #1 (downstream of the CCTRR) creeks; and not less than 75 feet from the centerline of all other watercourses.

2. Areas outside the 100-year floodplain designated as possible areas of channel realignment, detention sites, or urban runoff treatment sites during preliminary phases of the master plan study will not be allowed to develop until the master drainage plan is complete.

RECOMMENDATIONS

Update of Past Local Floodplain Management Plan Recommendations

- Continue to implement and enforce the Countywide policies listed in Section III- Review of Possible Activities. The majority of these policies are enforced by Water Resources. The implementation and enforcement of these policies are ongoing, and funding is provided through the normal budget of Water Resources.

- Provide regular periodic inspections and maintenance on all drainage channels, streams, ditches, and creeks within the County's jurisdiction, and record all work performed. This activity is currently in practice by the Operations and Maintenance section of Water Resources. All creeks shall be inspected and individually evaluated, and any special maintenance needed for each creek will be investigated and undertaken if practical. This activity is ongoing throughout each year, and is funded through the normal budgeting of Storm Water Utility monies.

- Pursue the acquisition of properties within the Dry Creek Parkway Corridor. The Sacramento County Department of Parks and Recreation is currently in the process of attempting to acquire parcels located within the floodplain, some of which are repetitive loss properties. This activity is ongoing and is funded through grants from FEMA.

- Review the Sacramento County repetitive loss properties on an annual basis to identify candidates for mitigation action. The primary mitigation actions are likely to be elevation of structures above the base flood elevation or acquisition of properties, but can also include improvement of local drainage, installation of floodwalls, or flood-proofing of the structures.

- Work with one-time flood victims to mitigate so that they do not become repetitive loss properties.

- Provide technical advice to residents who want to know more about flood protection and flood preparedness. This information is made available to the public by personnel at Water Resources via annual utility bill mailers, the Internet and at the public counter. If any questions should arise that can not be immediately answered, then the inquirer will either be instructed of other sources to call for technical advice, such as FEMA, or will be contacted later after research is performed by Water Resources. This activity is ongoing throughout each year, and is funded through the normal budget of Water Resources.

- Other activities are also being implemented by other agencies that affect Sacramento County. Work is being performed along the Sacramento River levees in the Natomas and

South Sacramento areas. The lead agency for this work is the Army Corps of Engineers (COE), and the local agencies are the State Department of Water Resources (Cal-DWR) and the Sacramento Area Flood Control Agency (SAFCA). This work being performed will bring the levees back to their original design capacity.

- The COE, along with Cal-DWR and SAFCA, are currently strengthening levees and are proposing other improvements at the lower American River; near the Folsom Dam. These activities are still at the feasibility stages, therefore it is uncertain whether the above projects will be undertaken.

2004 Local Floodplain Management Plan Recommendations:

Recommended Action Item #1: Lower Strong and Chicken Ranch Slough improvements by Cal Expo. Pump Station D-05 Chicken and Strong Ranch Sloughs.

Category (for CRS purposes): Structural Protection (540 – capital improvement)

Issue/Background Statement: Feb 1986 and twice in Jan 1997 Strong Ranch Slough was overwhelmed causing flooding to an area north and south of Northrop Avenue, and Ethan Way near Cal Expo. Also, in Jan 1995, there was widespread flooding in upper reaches of both sloughs.

The American River will be operated at higher levels more often, once improvements to Folsom Dam are complete. There is concern that this existing problem will be exacerbated as the capacity of the D-05 gravity outlet and pump station is greatly decreased when the river is high.

Other Alternatives Considered: No action, Floodwalls, including raising bridge crossings, Elevating structures, Increasing gravity outlet at D-05, Increase pump capacity at D-05, Provide peak flow detention upstream of D-05 (***Source:*** Strong and Chicken Ranch Slough Feasibility Study, October 2003, Sacramento County, Sacramento Area Flood Control Agency, US Army Corps of Engineers)

Responsible Office/Person: SAC County/SAFCA

Priority (H, M, L):

Cost Estimate/Potential Source of Funding:

Briefly Explain why this is cost-effective: The Study indicates that 4500 properties are at risk of flooding in the 100-year storm.

Desired Schedule:

Recommended Action Item #2: Laguna Creek Detention at Aggregate Pit

Category for CRS purposes: Structural Protection

Issue/Background Statement: Laguna Creek peak flows jump to Gerber Creek at the California Central Traction Railroad line. This is due to the fact that the crossing under the railroad embankment is undersized. Areas in and around the floodplain associated with this shed jump are slated for development.

Other Alternatives Considered: Peak flow detention at the Triangle Rock Aggregate Pit (currently being mined) is estimated to be adequate volume to attenuate peak flows in Laguna Creek to such a level that the shed jump will no longer occur in the 100-year flood. Increase conveyance under the railroad grade. Channelize the shed jump flow thereby reclaiming land for development. Leave the shed jump and accommodate the flow in the Gerber Creek proposed detention basins.

Responsible Office/Person: Sacramento County DWR

Priority (H,M,L): Medium, as it is likely that the Triangle pit will not be available for six years.

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule: 2010

Recommended Action Item #3: ALERT warning systems

Category for CRS purposes: Emergency Services (610 Warning)

Issue/Background Statement: The County ALERT system includes stream gage and rain gage data in real time. See www.floodready.org for real time web information with links to gages of other agencies. We also retained the services of OneRain to overlay Doppler radar information. Problem is that we really don't have a good way of informing people of impending flood risk. The news media uses our website and reports on what they see, but not everyone at risk of flooding is watching the news, particularly when the flooding occurs in the middle of the night.

It is well documented that, given a little bit of warning, residents and business owners can elevate valuables thereby saving significant property damage. Additionally, evacuation routes are not well defined or well known by the public or by the emergency response personnel.

Alternatives Considered: Storm Ready radios and Reverse 911

Responsible Office/Person: Sacramento County with Sacramento City ALERT teams.

Priority (H,M,L): High

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule: 2006

Recommended Action Item #4: Elevation and acquisitions project

Category for CRS purposes: Property Protection

Issue / Background Statement: The Sacramento County Department of Water Resources applied for and received Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Grant (FMA) funding for the purpose of elevating homes and acquiring and removing homes. An application has been submitted for Pre-Disaster Mitigation (PDM) Assistance as well.

Since the beginning of the HMGP and FMA programs, many homes have been removed from harm's way. In the Unincorporated County, to date, 53 home elevations have been performed, 22 structure acquisitions and removals, and 18 other home elevations have been reimbursed. A total of $6,453,109 (federal) has been spent on these mitigation projects.

Other Alternatives Considered (including no action): The flooding problems addressed by these mitigation programs are those that have no other solution. The acquisition program for instance took place in the Dry Creek Parkway.

At the outset of the acquisition activities, there were 43 flood prone homes located on "Cherry Island", a piece of land located between the two branches of Dry Creek in northern Sacramento County. This area has a history of frequent and dangerous flooding and comprises a federal and state floodway. Because of the progress made through the HMGP and FMA programs, 22 of the 43 structures have been removed.

The home elevations are located Countywide. The homes elevated have all been reviewed to check for other, less expensive or locally funded options. The Sacramento County stormwater utility provides revenue for small to medium engineering projects from increasing drain inlet capacity to installing detention basins to building floodwalls to correct flooding problems. All of the homes elevated were considered for such projects but were ineligible for either cost or physical reasons. The mitigation programs allow the opportunity to mitigate problems for individual homes when a regional project is not feasible.

Responsible Office / Person: SAC County DWR

Priority (H,M,L): High

Cost Estimate / Potential Source of Funding: Current grant amounts (November, 2004) are: $1,089,570 in HMGP funds; $979,083 in FMA funds; and $1,400,000 in PDM funds.

Brief Explanation why this may be Cost Effective: All mitigation projects have been reviewed for cost effectiveness using procedures outlined by the California State Office of Emergency Services using the Corps of Engineers developed Riverine Benefit Cost Analysis program. This program equates flood depth to a dollar amount of flood damage using the depth-damage function, then compares this to an anticipated cost for the mitigation project using Sacramento County developed project cost estimating analyses.

Desired Schedule: It is the desire of Sacramento County to complete all elevation and acquisition work by the end of 2005.

Recommended Action Item #5: Dry Creek Peak Flow at Placer County Line

Category for CRS purposes: 440

Issue/Background Statement: It is the intention of the April 1992 study to attenuate peak flows at the Placer/Sacramento County line to the level currently mapped by FEMA's Flood Insurance Study, dated 7/6/98.

Other Alternatives Considered: The Placer County Flood Control and Water Conservation District and Sacramento County, Final Report, Dry Creek Watershed Flood Control Plan, April 1992, Table 4-1 provides a list of 24 proposed regional detention basins.

Responsible Office/Person: Placer County

Priority (H,M,L): Medium

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective: Details included in 1992 Study.

Desired Schedule: Review of 1992 Study with Placer County should be a priority. The Study should then be revised and resubmitted publicly to each County Board. This will allow for scheduling of the various components of the plan or determination whether or not an update of the Study is proper.

Recommended Action Item #6: Flood Insurance Rate Map Studies (FIS)

Category for CRS purposes: Preventative

Issue / Background Statement: Many of our north county urban streams are in need of updated flood insurance studies. The County of Sacramento Department of Water Resources has been

keeping high water records and has found, over the years that record water surface elevations are higher than the 100-year elevation shown on the current Flood Insurance Rate Maps. The County keeps record of these high water episodes plotted on a profile compared to existing FIS.

Particular Streams of Interest are Arcade and Cripple Creeks and their tributaries.

Other Alternatives Considered (including no action): If financial assistance is not available to restudy these streams, the County may like to map known high water elevations on GIS, shown as a 'local flood hazard.' This will allow for better public information and better understanding of how to regulate development while saving the exorbitant cost of a map revision.

Responsible Office/Person: Sacramento County Dept. of Water Resources

Priority (H,M,L): Medium

Cost Estimate/Potential Source of Funding: FEMA with cost share from the County existing enterprise funds.

Brief Explanation why this may be Cost Effective: It is difficult to put a price on public information, particularly in the case of flood risk. People need to know to construct structures adequately above the 100-year floodplain as well as whether or not they should purchase flood insurance. Furthermore, when there are small projects that require a letter of map revision or map amendment, FEMA needs to be clear what water surface elevation is most appropriate. Recent 2' contours are available on GIS platform. The work should not be too difficult.

Desired Schedule: 2006

Recommended Action Item #7: Interior Flooding Due to High Water in the American River. Review necessary improvements to pump stations serving interior drainage.

Category for CRS purposes:

Issue/Background Statement: Various studies have been done over the years associated with the performance of the interior drainage pump stations along the Lower American River Levees when the American River is high. This issue may become more important as the improvements are made to Folsom Dam allowing 64,000 cfs release on a more regular basis.

These relatively small pump stations, serving local drainage for developed areas, include: D43 Wilhaggin, D02 Kadema, D10 Manlove, D09 Mayhew, D06 North Mayhew, D11 West Coloma, D13 Mills Tower, D08 Citrus Road, D07 Sunriver, and D01 Hagginbottom.

Other Alternatives Considered: Prior to improvement, if any, map the floodplain associated with failure or reduced capacity of the pump stations. Ultimately, where needed, capacity of the facility should be improved. Another alternative might be to elevate at risk homes.

Responsible Office/Person: Sacramento County with SAFCA

Priority (H,M,L): Medium. The Folsom Dam modifications will take six years to complete.

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule:

Recommended Action Item #8: Mayhew Drain – Flood Control Project

Category for CRS purposes: Structural Protection

Issue / Background Statement: This area was hammered by high intensity storm on January 10, 1995 causing much flooding. Fortunately, the American River was not flowing at a high level on this same date. This concern is further exacerbated by the possibility that higher flows will occur more often in the American River after the Folsom Dam modifications are completed.

Other Alternatives Considered: A detailed hydraulic analysis is needed to determine the needed repairs which may include increasing the size of the culvert under the freeway and under Folsom Blvd into the leveed area adjacent to the river. An automated sluice gate may be needed to keep river water from backwatering into the Mayhew Drain.

Responsible Office/Person: SAFCA, Army Corps of Engineers, Sacramento County DWR

Priority (H,M,L): Medium as the Folsom Dam modifications may be six years away.

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule:

Recommended Action Item #9: Morrison Creek Detention Basin at Aggregate Pit

Category for CRS purposes: Structural Protection

Issue/Background Statement: There is much development occurring upstream of the large aggregate mining pits located along Morrison Creek southwest of Mather Air Force Base (Jackson Road and Bradshaw Road area) These sites should serve well for attenuation of peak flow, now and in the future. Currently, there is an agreement and a weir that will spill peak flows into the Granite Construction aggregate mine. What some people would look for in the future is an overall beautification and functional facility that includes natural and beneficial functions as part of an overall mining reclamation plan.

The downstream neighbor, the City of Sacramento, will look for the County to attenuate peak flows in order to protect flooding concerns.

Other Alternatives Considered (including no action):

Responsible Office/Person: Sacramento County DWR with other City of Sacramento Departments, SAFCA, park and open space proponents, and the Mining Companies.

Priority (H,M,L): medium, although it is not too early to begin working on a plan.

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule:

Recommended Action Item #10: Coordinate with SAFCA on Proposed Flood Control projects on Florin Creek in the Morrison Creek Streams Group

Category (for CRS purposes): Structural Protection

Other Alternatives Considered (including No Action):

Issue/Background Statement:

Responsible Office/Person: SAFCA

Priority (H, M, L):

Cost Estimate/Potential Source of Funding:

Cost-Effectiveness Explanation:

Desired Schedule: SAFCA estimates this work to begin in 2007-08.

Recommended Action Item #11: Channel/Detention Project on South Branch of Arcade Creek upstream of Kenneth Avenue in the Fair Oaks community.

Category for CRS purposes: Structural Protection

Issue/Background Statement: South Branch Arcade Creek has a tendency to flood, exceeding the capacity of the 45-year-old concrete lined channel. Additionally, there is urban flooding upstream of the headwaters of the open channel due to an inadequate pipe at the point of discharge. There is a desire to remove the existing 33" x 60" corrugated metal pipe, from Illinois Avenue to the headwaters of the open channel, with a 60" concrete pipe. The upstream pipe work has been done. This last segment awaits improvement of the channel.

Other Alternatives Considered (including no action): The channel, however, should not be improved until a detention basin is constructed on the north side of the creek, west of Kenneth Avenue. Then the crossing at Kenneth Avenue should be increased, and subject to a hydraulic model, other upstream improvements should be made including another possible basin in a vacant parcel near Turnbill Avenue. Another alternative would be to elevate flood-prone structures.

Responsible Office/Person: Sacramento County DWR

Priority (H,M,L):

Cost Estimate/Potential Source of Funding:

Brief Explanation why this may be Cost Effective:

Desired Schedule:

Recommended Action Item #12: Hire a Consultant to Prepare a Condition Assessment report of the County drainage system. Report must include list and cost of needed repairs, pipe facility life expectancy, financial analysis of costs, evaluation of several alternative methods to fund repairs and maintenance of the drainage system.

Category for CRS purposes: Drainage Operations and Maintenance

Issue/Background Statement: Due to the substantial size of the underground drainage system, and limited funding for cleaning and repairing system, several reaches of pipes have exceeded their life expectance. The age of the drainage pipes and the materials used is currently unknown. Making condition assessment and financial planning to pay for repairs impossible. The County has yet to achieve a proactive condition assessment of the entire underground drainage. A

proactive inspection regimen will aid in the assessment of pipeline condition and will help prevent or mitigate future flooding.

Other Alternatives Considered (including no action): No action, continue performing repairing pipes based upon constituent complaints and problems identified during storm events. Increased system failures as a result of not identifying potential failures before they occur. In ability to fund future replacement of drainage pipes.

Responsible Office / Person: Drainage Operations and Maintenance

Priority (H,M,L): H

Cost Estimate / Potential Source of Funding: $500,000 / Stormwater Utility –limited funding

Brief Explanation why this may be Cost Effective: A thorough understanding of the drainage system age and construction materials is needed to plan and fund replacement of the facilities. Financing needs to initiated now in order to be able to fund future repairs. Repairing and upgrading the underground drainage system prior to failure will help minimize the costs incurred during and after major flood events.

Desired Schedule: Immediate

Recommended Action Item #13: Purchase Bucket Machine trucks - drainage pipe cleaning equipment.

Category for CRS purposes: Drainage Operations and Maintenance

Issue/Background Statement: Conventional pipeline cleaning methods and equipment such as Hydro-Vactors are ineffective when removing large quantities of sediment and debris from pipelines. Bucket Machines are designed to remove the large quantity of sediment and debris that can build up in drainage pipes.

Other Alternatives Considered (including no action): No action at this time – currently looking for alternative methods of cleaning

Responsible Office/Person: Drainage Operations and Maintenance

Priority (H,M,L): H

Cost Estimate/Potential Source of Funding: 2 trucks - $500,000 / Stormwater Utility –limited funding

Brief Explanation why this may be Cost Effective: The accumulation of stormwater throughout the underground drainage is ultimately conveyed through a mainline pipe system. If the mainline pipe system is not functioning it will cause flooding to occur throughout the

upstream drainage systems. A thorough cleaning of the mainline pipe system will greatly reduce the likelihood of upstream flooding. One flooded home in the Sacramento Area will cost between $250,000 to $1,000,000 to replace.

Desired Schedule: Immediate

Recommended Action Item #14: Purchase emergency power generators for the storm drainage pump stations

Category for CRS purposes: Emergency Operations

Issue/Background Statement: Due to the likelihood of a power failure during a large storm event the storm drainage pump stations need to have an alternative source of power so the pumps will run when utility electrical power is not available.

Other Alternatives Considered (including no action): No Action

Responsible Office/Person: Drainage Operations and Maintenance

Priority (H,M,L): H

Cost Estimate/Potential Source of Funding: Average $100,000 per generator for 20 pump stations. Total cost: $2,000,000 / Storm Water Utility – funding limited

Brief Explanation why this may be Cost Effective: This backup power supply system will keep the drainage pump stations up and running during the critical periods of a storm event. Keeping the pumps working at all times will ultimately prevent flooding. One substantially flood damaged home in the Sacramento Area will cost between $250,000 to $1,000,000 to replace.

Desired Schedule: Immediate action

Recommended Action Item #15: Coordinate with the City and State to create defensible space to protect vital infrastructure located in the American River Parkway from wildfires.

Category (for CRS purposes): Emergency Services

Issue/Background Statement: Major power lines traverse the American River Parkway in the vicinity of Bushy Lake. Tree and brush growth amongst the transmission line towers pose a potential wildfire hazard that could lead to major power disruption.

Other Alternatives Considered (including No Action): No Action

Responsible Office/Person: Sacramento County, State of California, SMUD, City Utilities Department, Fire Protection Districts, City Fire Department

Priority (H, M, L):

Cost Estimate/Potential Source of Funding:

Cost-Effectiveness Explanation:

Desired Schedule:

Recommended Action Item #16: Television Inspection Truck for Drainage Pipeline Condition Assessment

Category for CRS purposes: Drainage Operations and Maintenance

Issue/Background Statement: Due to the substantial size of the underground drainage system, the current television inspection truck is only able to respond reactively to drainage problems. The County has yet to achieve a proactive condition assessment of the entire underground drainage. A proactive inspection regimen will aid in the assessment of pipeline condition and will help prevent or mitigate future flooding.

Other Alternatives Considered (including no action): No action, continue performing inspections based upon constituent complaints and problems identified during storm events. Increased system failures as a result of not identifying potential failures before they occur.

Responsible Office/Person: Drainage Operations and Maintenance

Priority (H,M,L): H

Cost Estimate / Potential Source of Funding: $300,000 / Stormwater Utility –limited funding

Brief Explanation why this may be Cost Effective: A thorough inspection and assessment of the drainage system will help identify pipelines that need to be repaired or upgraded. Repairing and upgrading the underground drainage system prior to failure will help minimize the costs incurred during and after major flood events. In addition a thorough condition assessment will result in obtaining information that can be used to justify a rate increase to meet the anticipated repair costs of the extensive drainage pipe system.

Desired Schedule: Immediate

Recommended Action Item #17: Coordinate with SAFCA and the City of Sacramento on Public Education and Outreach regarding the changing Flood Insurance requirements related to the recertification of 100-yr. protection on the American and Sacramento Rivers.

Category (for CRS purposes): Property Protection/Public Information

Other Alternatives Considered (including No Action): No Action

Issue/Background Statement: In May 22, 2000 the AR Zone was re-designated A99 after substantial improvements were made to the levee system that brought the level of protection back to the 100-year flood. This removed the AR development requirements, while maintaining the insurance requirements. Additional levee work and erosion control efforts have been completed that will change the A99 zone to a Shaded X zone by early 2005. This will relieve approximately 40,000 property owners, mostly in the City of Sacramento, of the mandatory Flood Insurance requirement. SAFCA is currently planning an outreach project to the property owners that will be affected by the flood zone change. This outreach will include a direct mailing to the property owners notifying them of the change. The mailing should encourage property owners to maintain Flood Insurance at a reduced rate, as they are still at risk to a levee breach/failure flood.

Responsible Office/Person: SAFCA/ City Public Information Program working group/ Department of Utilities/County DWR

Priority (H, M, L): H

Cost Estimate/Potential Source of Funding: $215,000/SAFCA/FEMA

Cost-Effectiveness Explanation: People need to be informed of flood risk when they live behind levees. This program helps inform residents as to the risk and helps them to make informed decisions about maintaining flood insurance.

Schedule: Late 2004/Early 2005

Recommended Action Item #18: Coordinate with SAFCA,USACE, and Sacramento City on Proposed Flood Control projects on Magpie Creek that may impact the Rio Linda area.

Category (for CRS purposes): Structural Protection

Other Alternatives Considered (including No Action):

Issue/Background Statement: The proposed project would involve raising a portion of the Magpie Creek Diversion Channel (MCDC) levee between Raley Boulevard and Vinci Street, constructing a short section of new levee along Raley Boulevard to prevent outflanking flows, purchasing and preserving 80 acres of lands generally between Magpie and Don Julio Creeks to detain peak flows during major flood events, constructing a new maintenance road between Vinci Avenue and Dry Creek Road adjacent to the left bank (looking downstream) of the MCDC, and constructing a new culvert under the bike trail at Robla Creek. No channel widening is proposed.

Residents in the unincorporated area have voiced concerns about the proposed bike trail culvert size at Robla Creek. The new culvert must be adequate to prevent flows from backing up into Robla Creek. In a SAFCA 13 March 2002 Declaration, SAFCA proposed the addition of a 30 feet wide by five feet high culvert at the Bike Trail. This created an additional 150 square feet of area for the storm water to flow through the Bike Trail. A USACE January 2004 document is proposing culverts of about 75 square feet in area, which is half of SAFCA's proposal. This could potentially cause flood problems in the unincorporated County, while alleviating problems in the incorporated area.

Responsible Office/Person: SAFCA/UASCE/ County DWR/ City Department of Utilities

Priority (H, M, L):

Cost Estimate/Potential Source of Funding: SAFCA

Cost-Effectiveness Explanation:

Schedule: SAFCA estimates construction to begin in 2005-2006.

Recommended Action Item #19: Coordinate with the CALFED and the State Division of Water Resources to implement flood mitigation projects in the Beach Stone Lakes/Point Pleasant area.

Category (for CRS purposes): Structural Protection

Issue/Background Statement: Point Pleasant is an area within the 100-year floodplain (BFE 16')and is a recipient of all of the drainage from the south county streams. Problems are exacerbated when the Cosumnes River floods. There has been much debate over the 150 plus year history of the reclamation of the Sacramento River and Delta. The Cal-Fed project is supposed to be a big picture approach to delta levees and water supply issues but has been a very slow and cumbersome process.

Other Alternatives Considered (including No Action): No Action

Responsible Office/Person: Sacramento County, State of California, CALFED

Priority (H, M, L):

Cost Estimate/Potential Source of Funding: All of Zone 11A (drainage developer impact fees for the greater Morrison Creek Streams Group) contributes to the Interstate 5/Point Pleasant Flood Protection Project in the amount of $220.00 per acre (in 2003 dollars). Additionally, fees have been collected from Lakeside/Laguna and Elliott Ranch South Developments as compensation for impacts.

Cost-Effectiveness Explanation:

Desired Schedule:

Recommended Action Item #20: Initiate a discussion with Sutter County Department of Water Resources regarding their concerns over the AE flood zone immediately to the north of RD 1000, and the potential impact of their concerns on the goal of 200 year protection for the RD 1000 basin.

Category (for CRS purposes): Structural Protection

Issue/Background Statement: Sutter County has expressed some concerns about the AE flood zone immediately north of the Cross Canal, which is the northern boundary of RD 1000. There may be some need to improve the levees on the south side of the Canal so that they don't break in the case that the north levees are breached.

Other Alternatives Considered (including No Action): No Action

Responsible Office/Person: Sacramento County Department of Water Resources, RD 1000

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: TBD

Cost-Effectiveness Explanation: Life safety, Reduced flood losses

Desired Schedule: 2005

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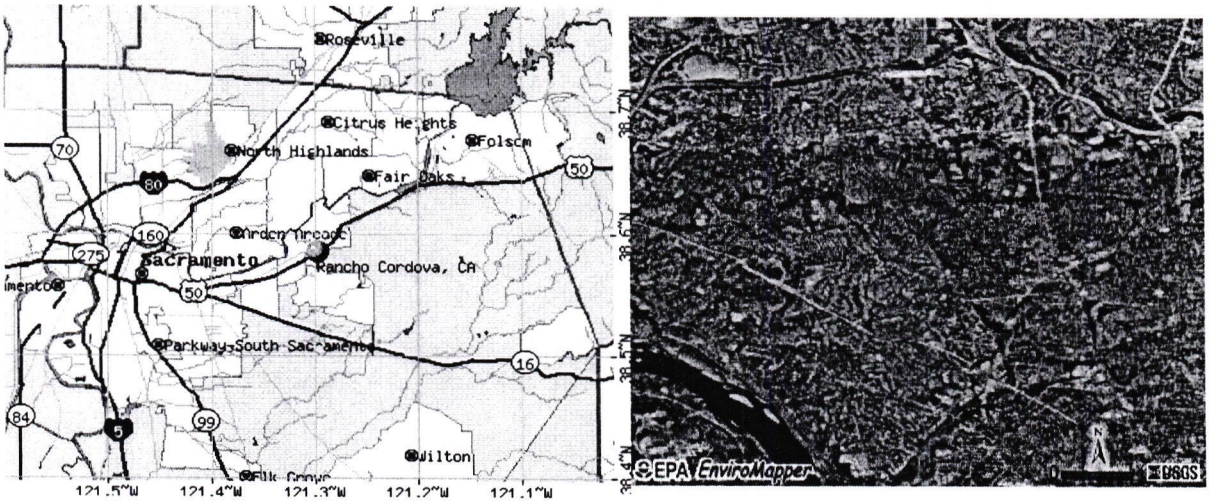
For brevity, the following sections are not included. Available upon request, or at the following website:

http://www.msa.saccounty.net/waterresources/files/Files.asp?c=dma

- Section 6.2 - Sacramento City Element
- Section 6.3 - Citrus Heights Element
- Section 6.4 - Elk Grove Element
- Section 6.5 - Folsom Element
- Section 6.6 - Galt Element
- Section 6.7 - Isleton-Delta Element

Multi-Hazard Mitigation Plan

6.8 Rancho Cordova Community Element



CITY OF RANCHO CORDOVA COMMUNITY PROFILE

Rancho Cordova, a Sacramento County suburb of 55,000, was first incorporated on July 1, 2003. The City covers an area of 33 square miles just east of the center of the County. Rancho Cordova has a rich past, which encompasses both agriculture and military service. Its history stretches back to the Gold Rush and the Pony Express. Mills Station, one of the stopping points for the Pony Express, is now being renovated into a community center.

Rancho Cordova is bound on the north by the American River Parkway, which extends 23 miles from near downtown Sacramento dam east to Nimbus Dam. The parkway provides hiking, biking, picnicking, fishing, swimming and other outdoor activities. Goethe Park is also located along the river.

Mather Field, once an Air Force Base in Rancho Cordova, is now in operation as a civilian air field and business park. Currently being developed at Mather is a 1,270-unit single-family project at Mather known as Independence at Mather.

A General Plan for the city is currently being drafted and the estimated date of adoption is December 2005.

TOTAL VALUES AT RISK FROM HAZARDS

The total values at risk from all hazards are presented as a worst-case baseline. Like other values presented in this plan, these are deceptively low because they do not include the values of infrastructure, government and church facilities, or the local economy. Additionally, assessed values in California are lower than actual because they are frozen to only reflect the value at the time of the last sale.

	Total Value	Land Value
2/3/4PLEX	114,168,263	30,268,521
COMMERCIAL/INDUSTRIAL	1,865,525,567	433,416,298
MULTI-FAMILY	303,518,223	55,851,589
SINGLE FAMILY	1,545,585,238	409,100,919
VACANT LAND/AG	364,963,460	364,400,643
RANCHO CORDOVA	4,193,760,751	1,293,037,970

Source: *Sacramento County Assessor's Office, Assessments by Land Use; 9-10-04*

There are very few events that would destroy an entire community, so in any given disaster event, one could expect the damages to be less than the $4.2 Billion displayed. The Risk Assessment portion of this plan also supports the statement that Rancho Cordova does not face a catastrophic natural disaster. However, the risk for Rancho Cordova varies from the rest of the County within the mapped floodplain due its different size, and the varying numbers of structures and varying values of those structures. Therefore, the following section takes a closer look at Rancho Cordova's vulnerability to flooding.

NFIP DATA AND FLOODPLAIN INVENTORY

Rancho Cordova's northwest city limit is the American River. The American River is the primary source of flood problems for the City. Rancho Cordova applied to the National Flood Insurance Program on July 7, 2004. Based on the application, the City estimated that 1,216 acres within the City limits were subject to flooding. Seventy-six structures were estimated to be within the floodplain; of these twenty-four were identified as residential structures. The estimated population within the floodplain is 65 persons. Since the City is newly incorporated and only recently applied to the NFIP program, additional information such as the number of flood insurance policies and past flood insurance claims are still contained within the unincorporated county information.

OTHER HAZARDS

There are no other hazard risks within Rancho Cordova that differ from those facing the rest of the county. Other than flood, there are no other mapped, identified natural hazard areas for the City of Rancho Cordova. Floods, to date, have not adversely impacted City. Severe weather has not resulted in significant impacts. There has been no major crop damage recorded. There is no significant wildland fire hazard.

CAPABILITY ASSESSMENT

As a newly incorporated city, most of the city's existing capabilities are those that were established under the County's jurisdiction. The City council, as its first action after incorporation, adopted by reference certain provisions of the county code and zoning code of the County of Sacramento (Ordinance No. 20-2003). The City also has adopted other county programs and procedures such as those for Stormwater and Erosion and Sediment Control.

Rancho Cordova Community Plan. Prior to the incorporation of the City of Rancho Cordova, the County of Sacramento completed a lengthy planning process which led to the creation of the Cordova Community Plan, a policy document which implemented the County's General Plan at a more detailed level. Hundreds of Rancho Cordova residents were part of the planning process that led to the creation of the Community Plan, working over a period of years to create that document. The Community Plan did not address the entire area included in the City of Rancho Cordova, and in particular did not cover the area south of Douglas Road where much of the future growth of Rancho Cordova is expected to occur, but it represents an important planning effort. The Community Plan contained a "Vision Statement" which laid out the following general vision for community:

> *"The plan aims to achieve a high quality of life for all residents and employees, young and old, of the community described by the Cordova Community Plan by building on its rich history and proud heritage, active citizenry and the multidisciplinary work of community-based interest groups, social and economic diversity, industry, recreational amenities, and its relation to surrounding communities."*

Rancho Cordova General Plan: Vision Book and Interim General Plan. As an interim step, the City has initiated a process to develop a General Plan for the City. Currently, the City has a Vision Book and Interim General Plan. The process of describing the "Vision" for Rancho Cordova involved several different forms of community input, including:

- A series of four "Vision" workshops in June and July
- A General Plan survey, distributed at various locations in Rancho Cordova and on the City's web site. (A copy of the General Plan survey with a summary of results is included as an appendix to this Vision Book.)
- A Visual Preference survey, also distributed in printed form and on the web site.

The results of the input received from hundreds of Rancho Cordova residents through this multifaceted Visioning process is reflected in the Vision statements for the City. The Vision statements are arranged into the twelve sections, or "Elements" of the General Plan.

EXPLANATION OF CAPABILITY ASSESSMENT MATRIX

Does the Community have:

Comp Plan: A Comprehensive Long-Term Community Growth Plan?

Land Use Plan: A plan that designates type of Land Use desired/required; uses Zoning

Subdivision Ordinance: A regulation that dictates lot sizes, density, setbacks and construction type

Zoning Ordinance: An ordinance that dictates type of Use and Occupancy, Implements Land Use Plan

NFIP/FPM Ord: A Floodplain Management Ordinance: Directs development in identified Flood Hazard Areas. Required for Participation in NFIP and Availability of Flood Insurance

Sub. Damage: Does your FPM Ordinance contain language on Substantial Damage/Improvements?

Administrator: Do you have a Floodplain Management Administrator (someone with the responsibility of enforcing the ordinance and providing ancillary services (e.g., map reading, public education)

# of FP Bldgs: How many buildings are in the mapped Floodplain?

# of policies? How many buildings are insured against flood through the NFIP?

# of RL's: # of Repetitive Losses: (Paid more than $1,000, twice in 10 years)

CRS Rating: A Community Rating System rating from the NFIP, and if so, what is it?

BCEGS: A Building Code Effectiveness Grading System Rating

LEOP: A Local Emergency Operations Plan – a disaster RESPONSE plan

HM Plan: A Hazard Mitigation Plan

Warning: Any type of system, such as "Storm Ready" Certification from NWS, NOAA Weather Radio reception, outdoor sirens, Cable (TV) Override, or an Emergency Warning Notification System?

GIS: A Geographic Information System

Structural Protection Projects: (levees, drainage facilities, detention/retention basins)

Property Protection Projects: (buy-outs, elevation of structures, floodproofing, small "residential" levees or berms/floodwalls)

Critical Facility Protection: (for example, protection of power substations, sewage lift stations, water-supply sources, the EOC, police/fire stations or medical facilities that are at risk)

Natural And Cultural Inventory: Do you have an inventory of resources, maps, or special regulations within the community? (wetlands and historic structures/districts, etc.)

Erosion Or Sediment Control: Do you have any projects or regulations in place?

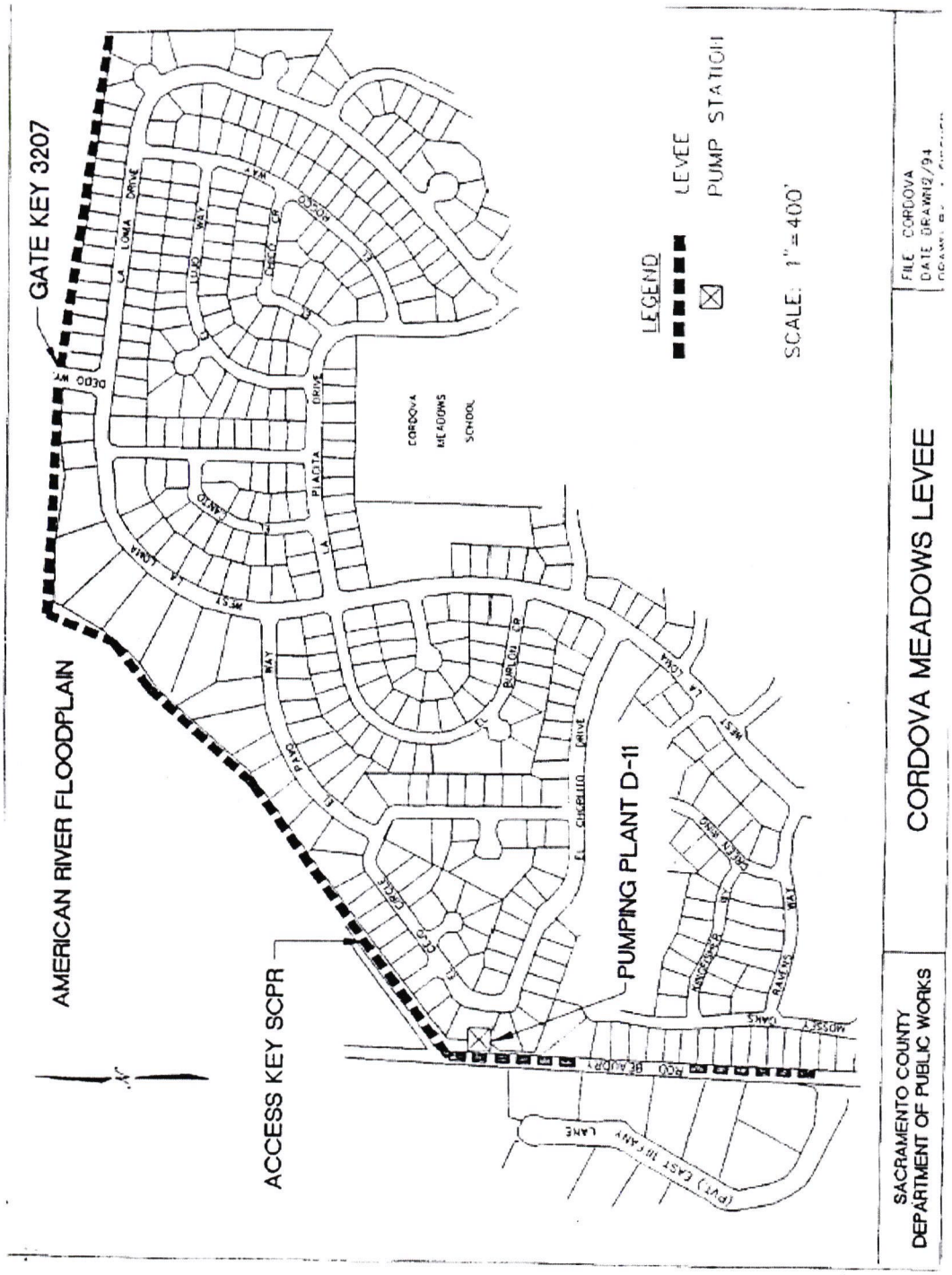
Public Information And/Or Environmental Education Program: Do you have an ongoing program even if its primary focus is not hazards? Examples would be "regular"

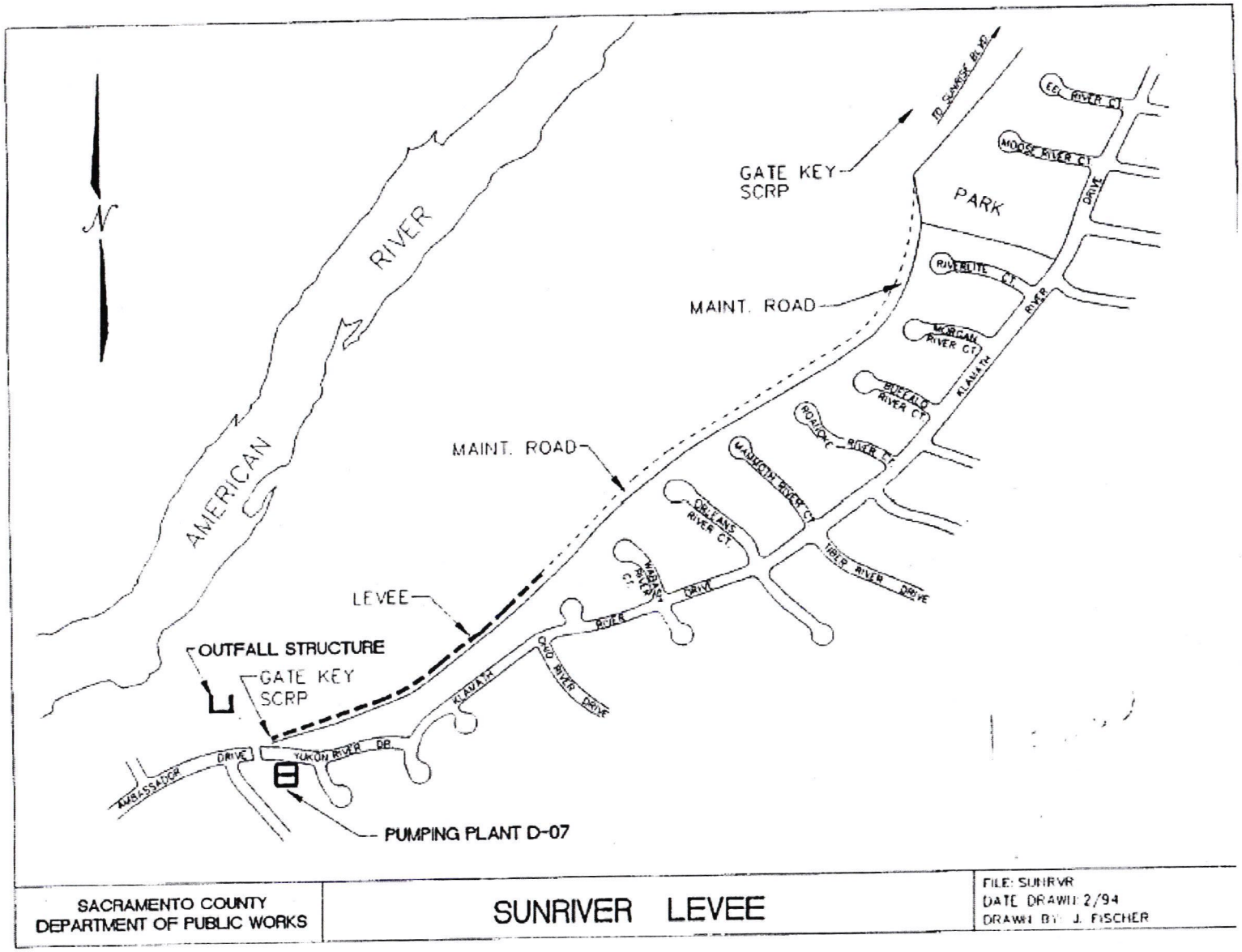
Capability Assessment Matrix

	RANCHO CORDOVA
Comp Plan/General Plan	Y- underway
Land Use Plan	Y- underway
Subdivision Ord	Y
Zoning Ordinance	Y
NFIP/FPM Ordinance	Y- adopts County's Ordinance
- Map Date	same as County
- Substantial Damage language?	Y
- Certified Floodplain Manager?	Y- County Manager
- # of Floodprone Buildings?	??
- # of NFIP policies	in County total
- Maintain Elevation Certificates?	Y
- # of Repetitive Losses?	0
CRS Rating, if applicable	N/A
Stormwater Program?	Yes, RC has adopted County policy
Building Code Version	UBC
Full-time Building Official	Y
- Conduct "as-built" Inspections?	Y
BCEGS Rating	N
Local Emergency Operations Plan	N
Hazard Mitigation Plan	N
Warning System in Place?	N
- Storm Ready Certified?	N
- Weather Radio reception?	N
- Outdoor Warning Sirens?	N
- Emergency Notification (R-911)?	N
- Other? (e.g., cable over-ride)	N
GIS System?	Y- County System
- Hazard Data?	Y- with County
- Building footprints?	N
- Tied to Assessor data?	Y- County System
- Land-Use designations?	Y
Structural Protection Projects	Y-Levees
Property Owner Protection Projec	N
Critical Facilities Protected?	Y
Natural Resources Inventory?	N
Cultural Resources Inventory?	N
Erosion Control procedures?	Y- adopted County policy
Sediment Control procedures?	Y- adopted County policy
Public Information Program/Outle	Y
Environmental Education Program	N

Structural Mitigation Capabilities

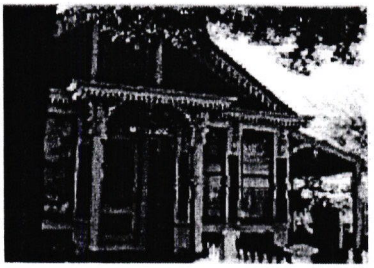
The levee system within the City consists of the Cordova Meadows Levee, which is approximately 5,000 feet long, and the Sunriver Levee which is approximately 1,500 feet long. Maps showing the locations of these levees are provided below.

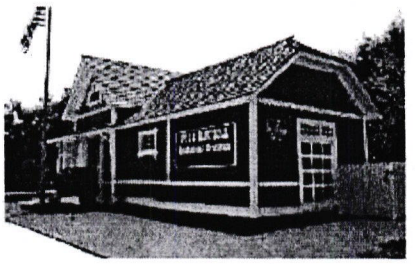


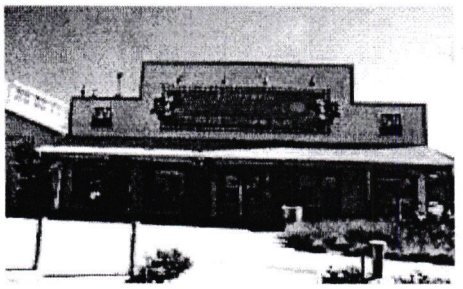

N
AMERICAN RIVER
GATE KEY
SCRP
MAINT. ROAD
PARK
MAINT. ROAD
LEVEE
OUTFALL STRUCTURE
GATE KEY
SCRP
PUMPING PLANT D-07
SACRAMENTO COUNTY
DEPARTMENT OF PUBLIC WORKS
SUNRIVER LEVEE
FILE: SUNRVR
DATE DRAWN: 2/94
DRAWN BY: J. FISCHER

HISTORIC PRESERVATION

There are several historic structures located within Rancho Cordova, three of which are pictured below.







One structure listed below appears on the National Historic Preservation District Register.

State and Federal Historic Preservation District Registers:

American River Grange Hall No. 172 (added 1996 - **Building** - #96001079)
2720 Kilgora Rd., Rancho Cordova
Source: http://www.nationalregisterofhistoricplaces.com/CA/Sacramento/state.html

NATURAL RESOURCES IDENTIFIED IN RANCHO CORDOVA

According to the California Natural Diversity Database the following threatened and endangered species have been identified with the City of Rancho Cordova:

CITY OF RANCHO CORDOVA

Ahart's dwarf rush
Bank swallow
Boggs Lake hedge-hyssop
Burrowing owl
California linderiella
Cooper's hawk
Great blue heron
Great egret
Legenere
Midvalley fairy shrimp
Northern Hardpan Vernal Pool
Sacramento orcutt grass
Sanford's arrowhead
Slender orcutt grass
Tri-colored blackbird
Valley elderberry longhorn beetle
Vernal pool fairy shrimp
Vernal pool tadpole shrimp
Western spadefoot
White-tailed kite

DEVELOPMENT TRENDS

Although the city has a large employment base with dozens of offices along Highway 50, including several Fortune 500 companies, a few retail centers are nearly empty. One example is the largely vacant Mervyn's shopping center at Folsom Boulevard and Olson Drive. Another recent blow was Sam's Club's announcement that it would close its Sunrise Boulevard store at the beginning of next year and reopen in Folsom.

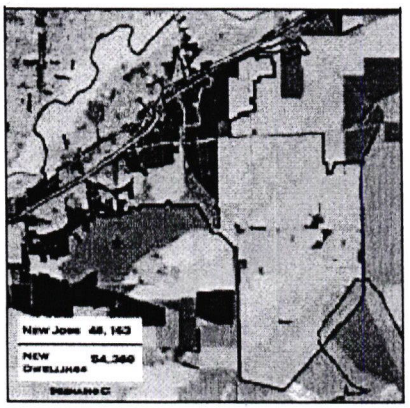
The city also is on the verge of an explosive population growth with the 22,000-home Sunrise Douglas development and the Rio del Oro proposal for 12,000 homes. Together, these projects on Rancho Cordova's southeast side would more than double the city's population.

Meanwhile, other subdivisions, such as Villages of Zinfandel, which has been under construction for the last two years, also are increasing the city's population. The Folsom Cordova Unified School District already reports that it expects to accumulate more developer fees from Rancho Cordova than from Folsom.

A major concern of Rancho Cordova's leaders is connecting its new and older communities so they don't splinter into two cities years from now.

The Interim General Plan for the City of Rancho Cordova includes a variety of visions statements reflecting the development trends of this new community:

- Land uses in Rancho Cordova should generally reflect the types and intensity of land uses shown in the Blueprint's "Scenario C" (shown below) which envisions relatively higher overall residential densities than currently in place. While not establishing 'buildout targets', this land use scenario anticipates the addition of approximately 54,000 to 60,000 new households and 48,000 new jobs in the current Rancho Cordova city limits (based on assumptions used in the Blueprint process), with possible additional growth in the planning area.
- The land use vision for Folsom Boulevard is to show higher intensity development than Scenario C, focusing development at the light rail stations.
- Development within the Planning Area should be contained within the current "Urban Service Boundary" as shown on the General Plan.
- Civic and educational uses along Folsom Boulevard.
- Less industrial use of the Aerojet property within Rancho Cordova.



- New uses along the American River Parkway (such as: expanded recreational, supportive commercial, amphitheater, and nature center)
- Regenerate existing underutilized commercial centers (including the Zinfandel/Olson Drive area and other underutilized commercial centers) by improving existing centers or by wholesale changes in land use Incentives to encourage infill development in the existing developed areas of the city
- A circulation system that links to regional destinations, including a proposed new Highway 50-Highway 99-I 5 connector.

COMMUNITY-SPECIFIC RECOMMENDATIONS

Rancho Cordova Action Item #1: *Participate with the development of a seasonal multi-hazard public education campaign to be implemented annually*

Issue/Background Statement: Refer to Section 5-4 Countywide Mitigation Recommendations. Public Education is one of the primary mechanisms in reducing future hazard related losses, and one that is inexpensive in comparison to other mitigation projects. This effort should be coordinated between the many organizations that already have extensive and/or limited programs in place.

The following topics could be addressed through this effort that apply to Rancho Cordova:

- Floods
  - Warning system components
  - Regional Evacuation plans/procedures (response to warning)
  - Public Info regarding manhole covers popping off: what they are, what they are for
  - Natural & Beneficial value of floodplains
  - Placing Flood-Depth signs county-wide
- Severe Weather
  - Tree-limb trimming
  - Fog – driving tips
  - Warning (NOAA Weather [All-Hazards] Radio)
- Earthquakes
- Health Hazards (West Nile Virus)
- Water Conservation (In conjunction with existing San Juan WD program effort)
- Develop/enhance Business Continuity Planning
- Conduct disaster exercises
- Train consumers/volunteers to be read to help when disasters strike
- Provide all-hazard curriculum for teachers

Other Alternatives Considered: Do nothing

Responsible Offices/Persons: City & County Emergency Management offices, City & County Floodplain Management Offices, SAFCA, the America Red Cross, Sacramento County Health Department, San Juan Water District, the California Fire Alliance, the Institute of Building and Home Safety, CA-OES, CA-DWR, CA-Reclamation Board and FEMA Region IX.

Priority (H,M,L): High

Cost Estimate / Potential Source of Funding: Existing budgets

Cost-Effectiveness Explanation: Life Safety, Reduced losses

Schedule: 2005

Multi-Hazard Mitigation Plan

6.9 "The Districts" Community Element

DMA 2000 includes "Districts" in its definition of local governments subject to the requirements of multi-hazard mitigation planning. Types of Districts vary in both form and function. The various types of Districts in Sacramento County include:

- Special Districts
- Multi-purpose Districts
- Joint Powers Authority

Special Districts that include both independent and dependent districts provide the full range of services to citizens of the County such as drinking water, electricity, garbage service, fire protection and Parks and Recreation service. An independent special district has a legislative body whose members are elected by registered voters from within the district or, in the case of cemetery districts, appointed by the Board of Supervisors to run the affairs of the district. A dependent special district may have appointed advisory boards, however, the Board of Supervisors, ex officio, is ultimately responsible for district affairs.

Multipurpose districts in Sacramento County consist of County Service Areas (CSA), Community Services Districts (CSD), and Municipal Utility Districts (i.e., SMUD). Each of the three types of districts provides a similar range of services. The primary distinction between the County Service Areas, the Community Services District and Municipal Utility District is their respective type of governance. A County Service Area is a dependent district, governed by the County Board of Supervisors, whereas a Community Services District or Municipal Utility District can be an independent district, governed by its own elected Board of Supervisors.

A Joint Powers Authority consists of two or more public agencies jointly exercising powers, limited by the combined territorial jurisdictions of the individual agencies. Examples include SAFCA, Sacramento Transportation Authority and Sacramento County Housing and Redevelopment Agency.

The Sacramento County HMPC included representatives from 69 districts --- many of which have never received any damage from a natural hazard, disaster assistance from state or federal programs, or mitigation assistance from FEMA. They chose to participate in the development of this DMA plan nonetheless, in order to preserve and maintain their eligibility for future mitigation assistance should the need and the opportunity arises. Thus, not every District has an individual Action Item recommended, while others have several. Each District, however, now recognizes the overall risk and vulnerability of the County and their role in minimizing future damage and facilitating recovery. In that light, each District will participate in the overall countywide public education recommendation that follows. The Districts, as all local

governments, reserve their right to revise this element of the plan to reflect new threats and to propose new mitigation activities as the need and the concepts arise.

All Districts Recommended Action Item: *Participate with the development of a seasonal multi-hazard public education campaign to be implemented annually*

Issue/Background Statement: Refer to Section 5-4 Countywide Mitigation Recommendations. Public Education is one of the primary mechanisms in reducing future hazard related losses, and one that is inexpensive in comparison to other mitigation projects. This effort should be coordinated between the many organizations that already have extensive and/or limited programs in place.

The following topics could be addressed through this effort that apply to all the districts:

- Floods
  - Flood insurance availability and Preferred Risk policies behind levees
  - City/County/SAFCA Program
  - Warning system components
  - Regional Evacuation plans/procedures (response to warning)
  - Public Info regarding manhole covers popping off: what they are, what they are for
  - Natural & Beneficial value of floodplains
  - Placing Flood-Depth signs county-wide
- Severe Weather
  - Tree-limb trimming
  - Fog – driving tips
  - Warning (NOAA Weather [All-Hazards] Radio)
- Earthquakes
- Health Hazards (West Nile Virus)
- Water Conservation (In conjunction with existing San Juan WD program effort)
- Wildfire (defensible space, subdivision regulations, ingress/egress, severe fire hazard mapping)
- Develop/enhance Business Continuity Planning
- Conduct disaster exercises
- Train consumers/volunteers to be read to help when disasters strike
- Provide all-hazard curriculum for teachers

Other Alternatives Considered: Do nothing

Responsible Offices/Persons: City & County Emergency Management offices, City & County Floodplain Management Offices, SAFCA, the America Red Cross, Sacramento County Health Department, San Juan Water District, the California Fire Alliance, the Institute of Building and Home Safety, CA-OES, CA-DWR, CA-Reclamation Board and FEMA Region IX.

Priority (H,M,L): High

Cost Estimate / Potential Source of Funding: TBD/HMGP

Cost-Effectiveness Explanation: Life Safety, Hazard loss reduction

Schedule: 2005

LOS RIOS COMMUNITY COLLEGE DISTRICT

It is important for CA-OES and FEMA Region IX to recognize that LRCCD is a political subdivision of the state, and that it has facilities in three counties, one of which is Sacramento. LRCCD was receiving mixed signals at the onset of their efforts to participate in the DMA planning process, and could not determine whether it was appropriate to participate at the state or local level – and if at the local level, with which of the three counties. The Sacramento County HMPC invited LRCCD to participate in this effort.

Los Rios Community College District (LRCCD) has undertaken an in-depth analysis of their previous losses and their continuing vulnerability to disasters as a result of their participation in this planning effort. The LRCCD representative followed FEMA's detailed "How To" guidance series and developed a wealth of documentation --- too extensive to include within this plan. For the purposes of LRCCD's continued eligibility for FEMA mitigation funding, the LRCCD documentation is on file with the Sacramento County-OES, with the rest of the county planning files. A brief synopsis is provided below, followed by their recommendations.

LRCCD has 261 structures, with an occupancy of 71,877, that are subject to light and moderate earthquake damage. LRCCD used the web-based USGS risk-by-zip-code methodology to determine risk at each site. The replacement value of the buildings is $267.1 million. The replacement value of the contents is $78 million. The value of the functional use, at $179/SF is $350.5 million. Because these buildings are scattered across the landscape in unmapped hazard areas, all of the above values also hold true for the severe weather hazard.

There are 159 structures in the floodplain (Zones AR, A99 and Shaded X) with an occupancy of 49,483, and a replacement value of at $191.2 million. They incurred $62,531 in damages from the January 1995 flooding, and $13,335 from the March 1995 floods. (Losses could have been larger as these figures represent FEMA and State reimbursement only from federal disaster declarations).

Historically, these two events, coupled with smaller flood and wind losses in 1994, 1997, 2003 and 2004, LRCCD has suffered approximately $120,000 in damages, of which approximately $97,500 was recovered through disaster assistance programs.

LRCCD has four structures exposed to the wildfire hazard – all in Eldorado County.

LRCCD developed the beginning of their own mitigation plan, from which the following summary was excerpted:

In a cooperative effort with Sacramento County, Los Rios Community College District will be an annex to the Sacramento City/County plan to include all of our educational facilities (leased & owned), and operational facilities. Please note we have leased classrooms in Davis (Yolo County) with an occupancy 220 people, and in El Dorado County we have an outreach center that has an occupancy of 665 people. The District has established a hazard mitigation committee to participate in the development of this plan. Debbie Turner (Risk Management Specialist) is the acting liaison with Sacramento's committee attending and participating in the meeting along with being the Chairperson for our local committee. In support of obtaining public input, the District posted the public meeting information on the Districts Safety & Risk Management website.

To identify the hazards for the 17 locations, the committee provided historically data from past damages caused by natural disasters. We also contacted our Regional FEMA office for claim information. During the Winter Storms of 1995 (FEMA disaster reference number 1044 & 1046), of the District filed claims, 12 claims were approved by FEMA. An additional, 25 minor repair claims were under a $1,000 and were covered by the District. The total amount paid to repair damages resulting from the Winter Storm of 1995 was $119,882. FEMA and OES paid $97,436 of the total repair cost. While the District paid out $22,446. Since the 1995 winter storms the District has had minor damage to buildings due to the strong winds and heavy rains during the winters of 1997, 2003, and 2004. In 1994, a portion of the parking lot of our South Sacramento Campus flooded but did not cause any damage.

As part of our Risk Assessment, the following chart summarizes our risk for Earthquake, Flood, Severe Weather, and Wild Fire. Also, attached are several detailed worksheets for each hazard. This information includes all leased and owned buildings.

Hazard	Risk	Number of Structures in Hazard Area	Total Square Feet in Hazard Area	Occupancy Count
Earthquake	Moderate	263	1,992,210	27,680
Flooding	Moderate	161	1,431,244	24,257
Severe Weather-Heavy Rains/winds	Moderate	263	1,992,210	27,680
Wild Fire	Very High	4	47,919	665

The following are LRCCD's Mitigation goals:

1. Minimize risk from Wild Fire for the El Dorado Center with proper defensible space.
2. To reduce property damage from flooding, examine re-locating certain operations out of the flood zone or flood way.
3. Examine practicality of obtaining flood insurance policies
4. To reduce operational cost for flood insurance, by having the ARC buildings surveyed and possibly removed from FEMA's flood zone.
5. To monitor and maintain healthy trees.

LRCCD Recommended Action Item #1: Protect critical facilities at the District Office at 1919 Spanos Court and 2100 Northrop from flood damage.

Issue/Background Statement: There is potential flooding from Strong Ranch Slough and Chicken Ranch Slough from either overloading the pump station and flooding the local area or flooding from the overflowing creeks. Although, two of our buildings are located next to the levee, our risk of flooding from a levee break may be minimal due to being located on the North side of the levee. According to Sac County the South side of the levee is more vulnerable to erosion and breaks.

Should our District computer operations become damaged from floodwater, we would incur significant equipment loss and a District Wide IT interruption.

Our building elevation is estimated at 34 feet and the base flood elevation according to the FIRM MAP (panel 0602620185F July 6, 1998) is 43.5 feet. The Strong Ranch Slough flooded at 36.4 on Feb 1986 at S/O Hurley @ Clinton Rd Apt. Bridge, which is near our facility.

Other Alternatives Considered (including No Action):

1. Flood proofing coordination with SAFCA and Sacramento County to improve the Strong Ranch Slough and Chicken Ranch Slough

2. Within the next two years, we are planning to move our critical computer/server equipment to the second floor of our building at Ethan Way. Although the Ethan Way building is still in the flood zone, the equipment will be on the second floor, which is estimated at 12-feet. The move will serve to protect the equipment verse replacing the equipment. The cost of the move has not been determined.

Responsible Office/Person: Debbie Turner – Risk Management Specialist

Priority (H,M,L): #1 is a priority set by SAFCA or Sac County. #2 is a high priority and will be completed within the next two years.

Cost Estimate/Potential Source of Funding: #2 Currently, LRCCD does not have a cost estimate and is looking to mitigation grant money to assist in the move. The equipment alone is estimated at $200,000.

Briefly Explain why this is cost-effective: #2 - Moving the equipment is more cost effective than replacing the equipment should it become damaged during a flood. In addition, moving critical operations to another building is less expensive than moving 133 people and operations to a new building outside the flood zone. Historically, we have not had damages to our two buildings.

Schedule: #2-Moving the equipment and operations to the Ethan Building should be completed in two years (December 2006).

LRCCD Recommended Action Item #2: Protect facility at 1410 Ethan Way from flood damages

Issue/Background Statement: There is potential flooding from Strong Ranch Slough and Chicken Ranch Slough from either overloading the pump station and flooding the local area or flooding from the overflowing creeks.

Although, our building is near the levee our risk of flooding from a levee break may be minimal due to being located on the North side of the levee. According to Sac County, the South side of the levee is more vulnerable to erosion and breaks.

Our goal is to prevent flood damage to our building, equipment, and office furniture. In addition, avoid building closure due to flood damages especially since the critical computer operations will be located on the second floor.

Our building elevation is estimated at 36.3 feet and the base flood elevation according to the FIRM MAP (panel 0602620185F July 6, 1998) is 34.5 feet. The Strong Ranch Slough flooded at 36.4 on Feb 1986 at S/O Hurley @ Clinton Rd Apt. Bridge, which is near our facility.

Historically, we have not incurred any damages to this building. However, during the 1986 area flooding the water came within inches of the entrance door.

Other Alternatives Considered (including No Action):

1. Flood proofing coordination with SAFCA and Sacramento County to improve the Strong and Chicken Ranch sloughs.

2. Add a 3-foot floodwall/berm around the building for added protection and use sandbags for the two entrances if the area is flooded. The building is already protected by a 7-foot block wall constructed on the East side of the property, shielding 1/3 of the building.

Responsible Office/Person: Debbie Turner – Risk Management Specialist

Priority (H,M,L): Medium

Cost Estimate/Potential Source of Funding: We do not have a cost at this time. Apply for Pre-Mitigation grant money to complete the work.

Briefly Explain why this is cost-effective: The cost of adding a floodwall/berm is significantly lower than moving all the operations to another building outside the flood zone. LRCCD is interested in constructing a berm to protect the other 2/3 of the building.

Schedule: For either alternative listed above is based on funding.

LRCCD Recommended Action Item #3:

Chicken Ranch – Protect critical functions of Los Rios Comm. College District from flooding (relocation vs. flood proofing)

LRCCD Recommended Action Item #4:

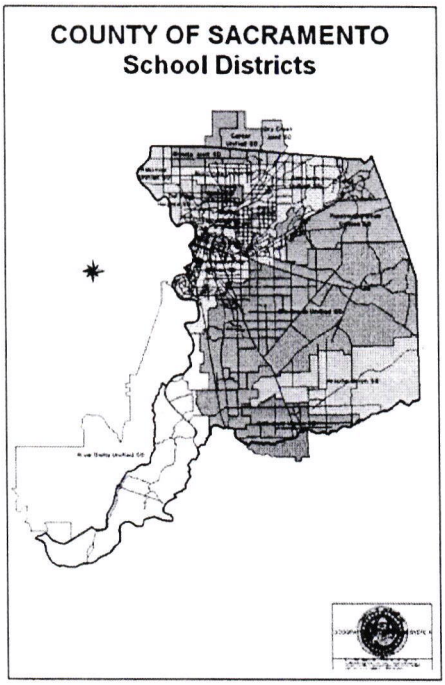
Defensible space

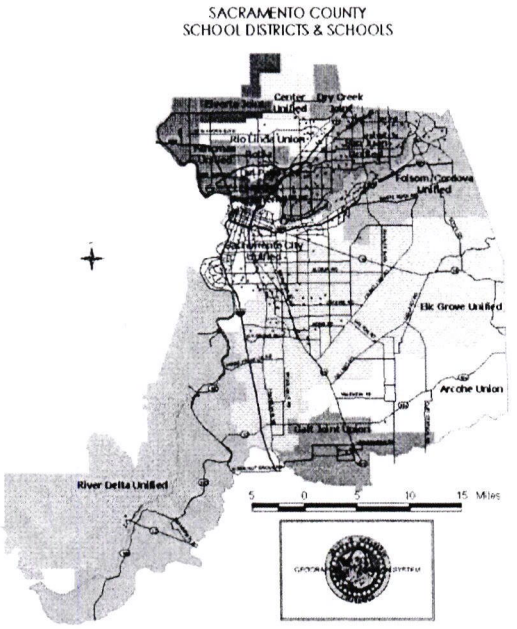
- El Dorado Center College Facilities
- Vital Infrastructure (Life Lines)

Areas w/problem:

- American River Parkway near the District offices
- Fair Oaks off Hazel Avenue La Cerrena
- Folsom
- El Dorado Center
    - Los Rios CC (El Dorado County)

SCHOOL DISTRICTS





The San Juan Unified School District incurred damages to eight schools in the floods of January and March 1995. The District developed a 57-page report, detailing damages to trailer classrooms on a school-by-school, trailer-by-trailer basis. The damage estimates prepared for the eight schools total $527,612 in the aggregate. The damage is typical of that to manufactured buildings impacted by deep flooding; roofs, siding, skirting; ceiling, wall and floor finishings; and doors, windows and trim. The report is on file with Sacramento County OES.

RECOMMENDED ACTIONS FOR SCHOOL DISTRICTS

Recommended Action Item #1: Emergency Training/Planning for Sacramento City Unified School District

- Develop loss estimates
- Coordinate with City/County Emergency Services

Category (for CRS purposes): Emergency Services

Issue/Background Statement: Through this mitigation planning process, the Sacramento City Unified School District has become more aware of the hazards and risks threatening their facilities, and are now ready to move forward with detailed loss estimates that will assist the District in making prioritized decisions regarding undertaking protective measures.

Other Alternatives Considered: (No Action)

Responsible Office/Person: Sacramento City Unified School District, Risk Management

Priority (H, M, L): H

Cost Estimate/Potential Source of Funding: Staff time only to conduct loss estimates

Briefly Explain why this is cost-effective: Leads to loss reduction actions, promotes hazard awareness

Schedule: Begin in next six months

Recommended Action Item #2: SAC School Unified, Natomas Unified and Elk Grove Unified School Districts are interested in tornado and sever winds and storm protection, particularly:

- Glass Protection
- Saferooms

Category (for CRS purposes): Protective Measures

Issue/Background Statement: These School Districts have suffered previous damage from severe weather/thunderstorm events and are seeking protection form broken, flying glass as well as safe shelter.

Other Alternatives Considered: No Action

Responsible Office/Person: Sacramento City Unified School District, Risk Management

Priority (H, M, L): H

Cost Estimate/Potential Source of Funding: Staff time only to conduct loss estimates

Briefly Explain why this is cost-effective: Life Safety, Leads to loss reduction actions, promotes hazard awareness

Schedule: Begin in next six months

Recommended Action Item #3: Natomas Unified School District seeks technical assistance in developing and testing school all-hazards evacuation procedures

Category (for CRS purposes): Emergency Services

Issue/Background Statement: The school district has facilities in all four "corners" of the intersection of I-80 and I-5 and is concerned about where to go and how to get there, should an

emergency need arise. The emergency could be severe weather, or a transportation accident and hazardous materials spill on the nearby interstates that resulted from severe weather.

Other Alternatives Considered: No action

Responsible Office/Person: Natomas Unified School District in conjunction with the City of Sacramento Office of Emergency Management

Priority (H, M, L): M

Cost Estimate/Potential Source of Funding: Staff time only

Briefly Explain why this is cost-effective: Life-safety, reduction in potential liability

Schedule: 2005

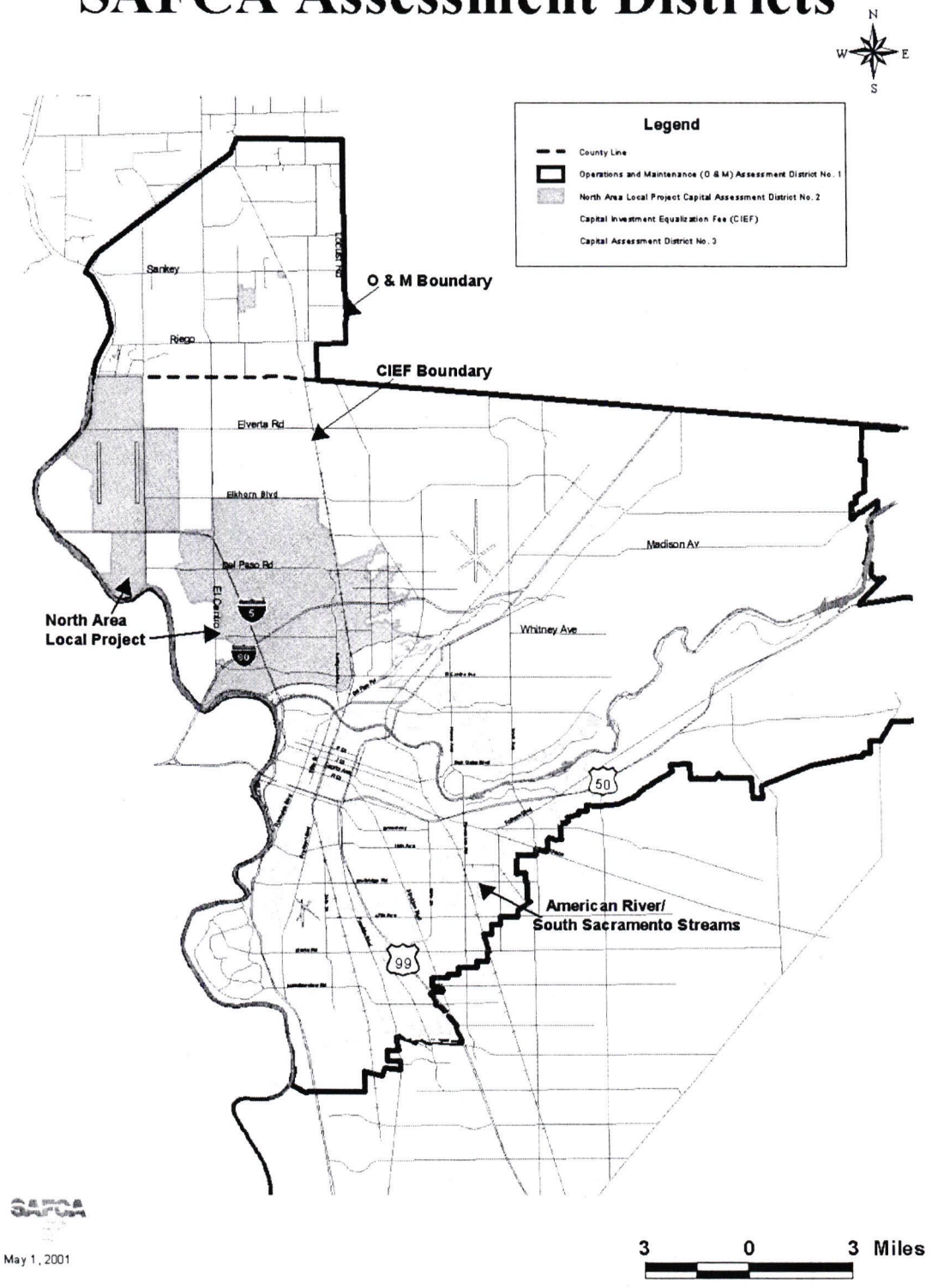
FLOOD CONTROL DISTRICTS

SAFCA

SAFCA's activities are funded from development fees and annual assessments imposed on benefiting properties in three separate districts in Sacramento and Sutter Counties. District 1 provides funding for annual operation and maintenance expenses and covers all of the properties in the Natomas Basin, including those lying within Sutter County, and all the properties in Sacramento County lying with the drainage basin of the American River. District 2 provides funding for capital improvements to the levees protecting Natomas and North Sacramento and covers all of the properties directly benefiting from these improvements. District 3 provides funding for capital improvements to Folsom Dam, the levees along the American River, and the levees and related flood control facilities along Morrison Creek and its tributaries in South Sacramento County and covers all the properties benefiting from these improvements.

A map displaying SAFCA's Assessment Districts is on the following page.

SAFCA Assessment Districts



SAFCA Recommended Action Item #1: Complete Flood Erosion Protection Projects to achieve recertification of 100-year flood protection from the American River – removing most of the City of Sacramento from the 100-yr. floodplain.

Category (for CRS purposes): Structural Protection

Issue/Background Statement: This project is underway and near completion. It is part of SAFCA's primary mission to lessen insurance requirements in the Sacramento area and to work towards protection from the 200-year food event. Two additional programs are being planned in conjunction with the pending map change; first, an "Agent's Workshop" to ensure that the insurance industry is prepared for up to 40,000 policy holders no longer required to maintain NFIP flood insurance, and can explain the benefits of switching to a "Preferred Risk" policy rather than simply canceling their existing policy; and second, a public education campaign explaining the pending map changes and the befits of maintaining a "Preferred Risk" policy.

Other Alternatives Considered: No Action

Responsible Office/Person: SAFCA

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: Work completed. Funded by SAFCA, CA-DWR, State Reclamation Board and USACE

Benefits: Reduced insurance costs, increased flood protection

Briefly Explain why this is cost-effective: Life safety, reduced flood losses, significantly reduced insurance premiums

Schedule: 2004/2005

SAFCA recommended Action Item #2: Coordinate with the City and County on Public Education and Outreach regarding the changing Flood Insurance requirements related to the recertification of 100-yr. protection on the American and Sacramento Rivers.

Category (for CRS purposes): Property Protection/Public Information

Other Alternatives Considered (including No Action): No Action

Issue/Background Statement: In May 22, 2000 the AR Zone was re-designated A99 after substantial improvements were made to the levee system that brought the level of protection back to the 100-year flood. This removed the AR development requirements, while maintaining the insurance requirements. Additional levee work and erosion control efforts have been completed that will change the A99 zone to a Shaded X zone by early 2005. This will relieve approximately 40,000 property owners, mostly in the City of Sacramento, of the mandatory

Flood Insurance requirement. SAFCA is currently planning an outreach project to the property owners that will be affected by the flood zone change. This outreach will include a direct mailing to the property owners notifying them of the change. The mailing should encourage property owners to maintain Flood Insurance at a reduced rate, as they are still at risk to a levee breach/failure flood.

Responsible Office/Person: SAFCA, City Department of Utilities and County Department of Water Resources.

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: $220,000. SAFCA with FEMA grant.

Cost-Effectiveness Explanation: Life safety, reduced flood losses, significantly reduced insurance premiums

Schedule: Late 2004/Early 2005

SAFCA Recommended Action Item #3: Complete South Sacramento Streams (includes Florin and Morrison Creeks) Group Projects in 2005. Provide greater than 100-year protection by improving conveyance and raising levees.

Category (for CRS purposes): Structural Protection

Issue/Background Statement: The flood of 1986 revealed that the South Sacramento Streams do not provide the desired level of protection to the community. In 1997, another series of storms confirmed that additional protection was needed. A project study was undertaken that identified measures that would provide greater than 100-year level of protection to the community. A USACE document describes issues and alternatives and is available from SAFCA.

Other Alternatives Considered: No Action

Responsible Office/Person: SAFCA, CA-DWR, State Reclamation Board, USACE

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: $90 million/ SAFCA/State DWR – Rec Board/Corps

Cost-Effectiveness Explanation: Life safety, reduced flood losses, significantly reduced insurance premiums

Schedule: Project to start in 2005

SAFCA Recommended Action Item #4: Folsom Dam – enlarge outlets & increase flood storage capacity by an additional 100,000 acre-feet.

Category (for CRS purposes): Structural Protection

Issue/Background Statement: These are two separate projects, grouped together because they both relate to the Reoperation of Folsom Dam. The outlets from Folsom Lake are inadequate in terms of releasing large enough volumes of water given the short lead-time that can accurately predict storms that will drain into the lake. Larger outlets will dump larger volumes of water, quicker, yet still be contained within the downstream levee system. The lowering of the lake provides additional flood control storage. The raise of the dam also provides additional storage.

Other Alternatives Considered: Upstream storage coupled with the increased downstream conveyance.

Responsible Office/Person: SAFCA, BOR and USACE

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: $450 Million for the two projects combined. $200,000,000 outlets, $250,000,000 Long Term (Long Term Project includes the raise, bridge, dam safety at LL Anderson, ecosystem restoration, Temperature shutters). Congressional appropriations (approved), SAFCA, CA-DWR, State Reclamation Board, BOR and USACE

Briefly Explain why this is cost-effective: Reduced flood losses, increased flood storage and control

Schedule: Major work to be initiated in 2005.

SAFCA Recommended Action Item #5: Stabilize Eroding Banks Along the Sacramento River South of Downtown

Category (for CRS purposes): Structural Protection

Issue/Background Statement: The Sacramento river levees provide protection to a large portion of the Sacramento area. These levees are subject to erosive forces from high river flows and boat wakes. The proposed work is to address areas where erosion has either cut into the levee section or is eroding soft bank material.

Other Alternatives Considered: The project is being designed now and will consider an array of solution that will range from rock protection to green fixes or a combination of the two.

Responsible Office/Person: SAFCA/State DWR – Reclamation Board/Corps

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: Unknown/ SAFCA/State DWR – Reclamation Board/Corps

Briefly Explain why this is cost-effective: Maintains flood control system. Life Safety, reduced flood losses, reduced insurance costs.

Schedule: 2005

SAFCA Recommended Action Item #6: Forecast Based Operation of Folsom Reservoir

Category: Non- structural Protection

Issues/Background: Forecast based operations of Folsom Reservoir can increase the level of protection provide by the dam. Water is released from the dam in anticipation of flood waters entering the reservoir creating additional storage for the flood event. This would only occur during extremely large events.

Other Alternatives Considered: N/A

Responsible Office/Person: SAFCA/State DWR – Reclamation Board/Corps/BOR

Priority: Medium

Cost Estimate: Unknown

Breifly Explain why this is cost-effective: Life safety, reduced flood loses, increased flood storage and control

Schedule: 2005

SAFCA Recommended Action Item #7: Coordinate with SAFCA, CA-DWR, USACE, and Sacramento County on Proposed Flood Control projects on Magpie Creek (City of Sacramento Recommended Action #6)

Category (for CRS purposes): Structural Protection

Other Alternatives Considered (including No Action):

Issue/Background Statement:
The proposed project would involve raising a portion of the Magpie Creek Diversion Channel (MCDC) levee between Raley Boulevard and Vinci Street, constructing a short section of new levee along Raley Boulevard to prevent outflanking flows, purchasing and preserving 80 acres of lands generally between Magpie and Don Julio Creeks to detain peak flows during major flood

events, constructing a new maintenance road between Vinci Avenue and Dry Creek Road adjacent to the left bank (looking downstream) of the MCDC, and constructing a new culvert under the bike trail at Robla Creek. No channel widening is proposed.

Residents in the area have voiced concerns about the proposed bike trail culvert size at Robla Creek. The new culvert must be adequate to prevent flows from backing up into Robla Creek. In a SAFCA 13 March 2002 Declaration, SAFCA proposed the addition of a 30 feet wide by five feet high culvert at the Bike Trail. This created an additional 150 square feet of area for the storm water to flow through the Bike Trail. A USACE January 2004 document is proposing culverts of about 75 square feet in area, which is half of SAFCA's proposal. This could potentially cause flood problems in the unincorporated County, while alleviating problems in the incorporated area.

Responsible Office/Person: SAFCA/UASCE/ County DWR/ City Department of Utilities

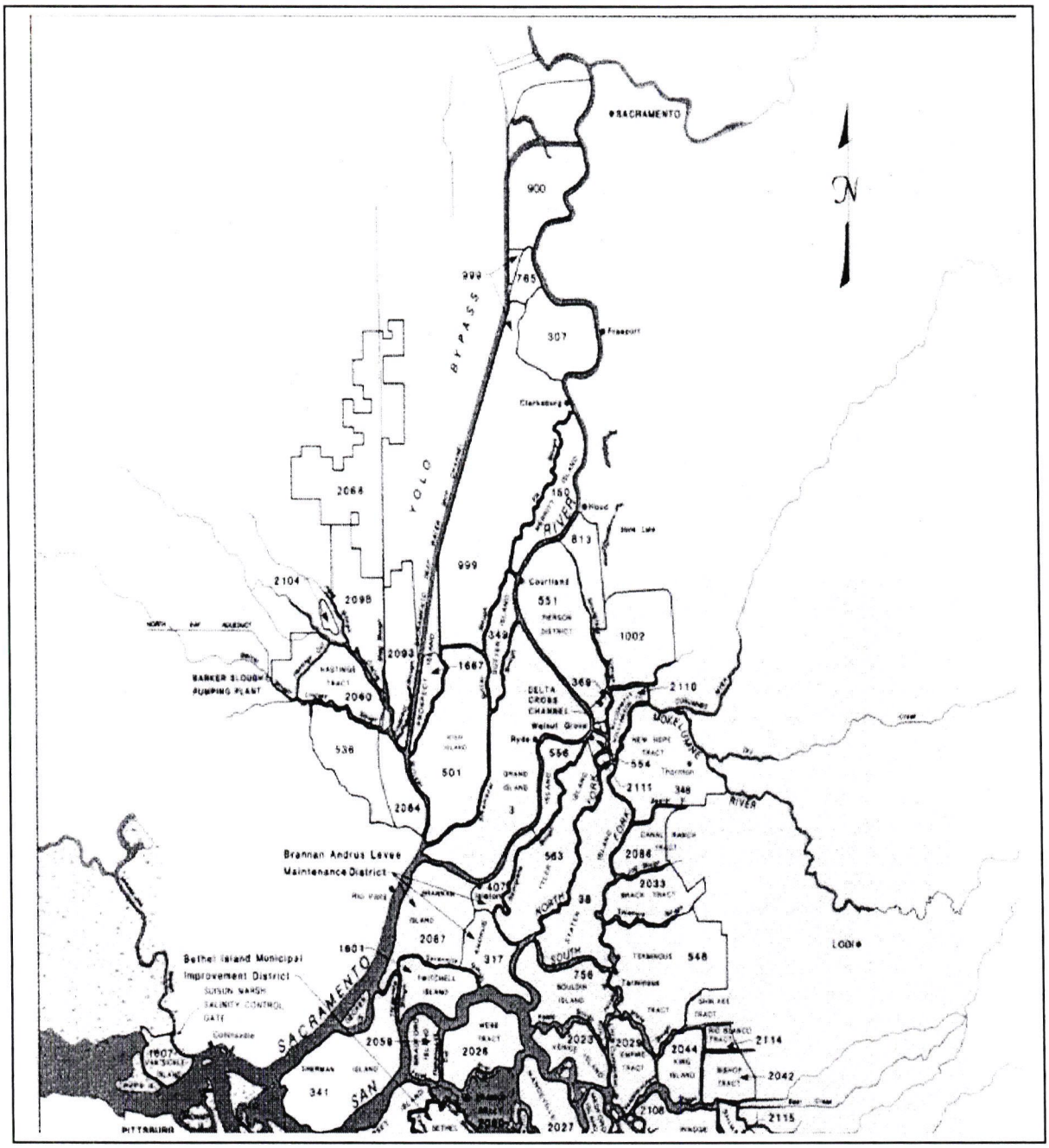
Priority (H, M, L): Ongoing

Cost Estimate/Potential Source of Funding: SAFCA

Cost-Effectiveness Explanation:

Schedule: SAFCA estimates construction to begin in 2005-2006.

RECLAMATION DISTRICTS



All District Recommended Action Item #1: Dredge the lower reaches of the Sacramento River throughout the Delta (See "The Delta" recommended Action #1, Section 6.7)

Category (for CRS purposes): Structural Protection

Issue/Background Statement: The primary issue is that *something needs to be done* regarding the entire Delta levee system. The surrounding land and islands are subsiding and the river channel is becoming more and more clogged with upstream sediment, continually increasing the risk to the entire area and beyond. At risk are communities, small and large agricultural operations, and a major component pf the southern California water supply system.

The Reclamation Districts of the Delta Plains have gone on record for over 20 years seeking the resumption of what was once an ongoing maintenance operation. Primary roadblocks are the temporary and ongoing nature of the solution and environmental regulations protecting habitat, aquatic species, and disposal of dredge materials.

With recent and frequent levee failures, and rising state liability for levee failures, the Districts feel it is time to act.

Other Alternatives Considered: Site-specific repairs, a parallel water supply channel, No action.

Responsible Office/Person: CALFED Bay-Delta Program, State Reclamation Board, The Water Forum, Southern California Water Providers, and FEMA,

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: Millions. State and Federal government, Water Users.

Briefly Explain why this is cost-effective: As a flood control measure alone, the necessary work is probably not cost-effective. However, when the costs of past failures, liability decisions, and the impacts of lost water supplies to Southern California is considered, the solutions appear not only cost-effective, but mandatory and urgent.

Schedule: As soon as possible

RD 800 Recommended Action Item #1: RD800 (East of Hwy. 99) Levee Maintenance & Weir to resolve repeated flooding. Construct overflow weirs on the Cosumnes River within Reclamation District No. 800 jurisdiction and/or rehabilitate existing levee system and construct new levees where needed to provide agricultural protection from a one in one hundred year flood event.

Category for CRS purposes:

Issue / Background Statement: Current levee system provides flood protection limited to a 1 in 10 year event, numerous levee failures have occurred in the past.

Other Alternatives Considered:

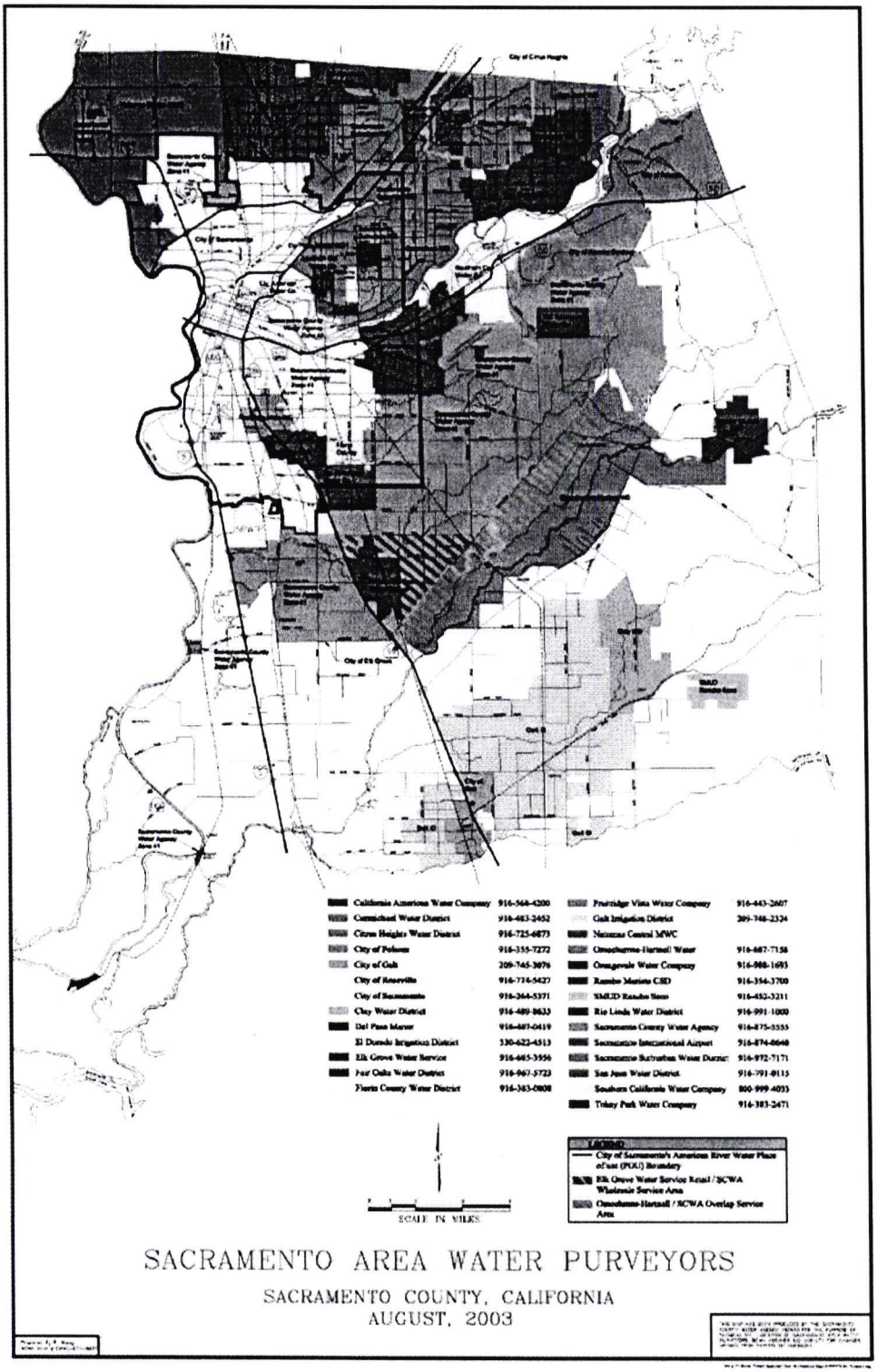
Responsible Office / Person: Reclamation District No. 800, Cosumnes River
Hanson Engineering
c/o Henry Matsunaga
444 North Third Street, Suite 400
Sacramento, CA 95814

Cost Estimate / Potential Source of Funding: Estimate of cost is in excess of $50 million, source of funding is unknown at this time.

Brief Explanation why this may be Cost Effective: Rehabilitating the existing levee system and/or installing overflow weirs will minimize the cyclical nature of rebuilding flood damages to the levee system and facilities within the District's jurisdiction. Flood damage and repair costs of the most recent flood event 1997, was in excess of $30 million inundating approximately 100 homes and flooding nearly 50,000 acres (FEAT Report, 1997). The damages were attributable to flood flows of the Cosumnes River and included areas downstream of the District boundaries. Cost effectiveness is always determined based on cost benefit analysis, and past flood damage costs and subsequent repair costs are not considered in the analysis. The rehabilitation of the system can be phased by river reaches. There have been levee repair projects where, due to funding constraints, levee repair projects were phased in five-mile segments.

Schedule: As soon as possible, once a source of funding is secured.

WATER DISTRICTS



San Juan Water District Recommended Action Item #1: Construction of (5) wells in Sacramento County

Category (for CRS purposes): "Property Protection, Natural Resource Protection, and Structural Projects" – disaster proofing for drought to help maintain and improve water supply

Issue/Background Statement: The primary supply of water for several communities in northern Sacramento County is surface water from Folsom Lake. A ground water supply also exists in the area and is pumped to the community via wells. Much discussion has been given toward preserving the existing ground water supply during wet years with the intent of utilizing the ground water source to supplement surface water supplies drought conditions. As a method of accomplishing this goal, additional wells are needed. San Juan Water District met with agencies within the service area boundary to discuss the possibility of constructing additional wells for this supply. It was proposed that the construction of five additional wells in the service area would be a proactive measure in helping maintain water supply to the area when the surface water supply is limited, as during drought.

Other Alternatives Considered: No action, Interagency Agreements with other agencies and water providers to help supplement water supplies

Responsible Office/Person: San Juan Water District, General Manager

Priority (H,M,L): Medium to High

Cost Estimate/Potential Source of Funding: $5 Million total (approx. $1 Million per well)

Briefly Explain why this is cost-effective: This is a cost effective measure to help supplement a limited surface water supply condition do to the fact that no other sources of supply exists in the area.

Schedule: No date at this time.

San Juan Water District Recommended Action Item #2: Public Information Water Conservation Campaigns

Category (for CRS purposes):"Public Information" – hazard mitigation to help preserve water supply during a drought.

Issue/Background Statement: Conservation is an effective way to help preserve the natural resource of water, especially during drought conditions. Public outreach and information are critical tools toward the effectiveness of any water conservation program. The district currently uses public information campaigns to inform and educate customers on how to conserve and use water more effective for domestic and irrigation purposes.

Other Alternatives Considered: No action, Water patrol

Responsible Office/Person: San Juan Water District, Customer Service Manager

Priority (H,M,L): Medium

Cost Estimate/Potential Source of Funding: Approximately $7,000.00 per publication (2) publications per year. $14,000.00 total.

Briefly Explain why this is cost-effective: It is much more cost-effective to save water using conservation measures via public information campaigns than it is to spend several million dollars to construct additional water storage facilities.

Schedule: No date at this time.

San Juan Water District Recommended Action Item #3: Irrigation System Controller Replacement and Rain Sensor Installation

Category (for CRS purposes):"Natural Resource Protection" – hazard mitigation to help preserve water supply during a drought.

Issue/Background Statement: Landscape irrigation systems are responsible for a large percentage of water used in the residential community of Sacramento County. Irrigation system controllers determine how much water is delivered to landscape thought the irrigation system. Older irrigation controllers have been found to be inefficient and are not designed to accommodate the water efficient irrigating schedules of current conservation programs. Additionally, rain sensors are available which, when connected to an irrigation controller, signal to the controller not to operate during rainy weather thus preventing an unnecessary waste of water. The existing antiquated irrigation controllers should be replaced with newer controllers and rain sensors in order to more effectively manage water used for irrigation.

Other Alternatives Considered: No action, Water patrol

Responsible Office/Person: San Juan Water District, Customer Service Manager

Priority (H,M,L): Medium

Cost Estimate/Potential Source of Funding: Approximately $585,000.00

Briefly Explain why this is cost-effective: The cost for this mitigation measure is a fraction of the cost to construct the alternative which is a water storage tank or reservoir.

Schedule: No date at this time.

Carmichael Water District Recommended Action Item #1: Coordination between SAFCA & Carmichael Water District to protect erosion sites at facilities when releases exceed 100,000 CFS from Folsom Reservoir. The purpose is to reduce the impact to the American River and specifically the District's Ranney Collectors in the event of high water.

Category (for CRS purposes): Preventative

Issue/Background Statement: Carmichael Water District (CWD) becomes severely impacted during high water events on the American River. CWD owns and operates four Ranney Collectors, three located at Rossmoor Bar one located at Ancil Hoffman Park. Ranney Collectors are concrete cylinders that are 14 feet in diameter and fifty feet in depth. The collectors are sunken along the edge of the American River. At the bottom of each collector are seven 10" diameter perforated pipelines that extend laterally from the collector between 50 and 100 feet into the American River and approximately 15-20 feet below the bottom of the riverbed. These structures are the surface water intakes for the CWD. In addition to these structures CWD also has a junction structure that is 29 feet in diameter and 60 feet in depth. The junction structure joins all three of the Ranney Collectors into a common 60" pipeline that travels under the American River approximately 30 feet below the bottom of the River.

At 50,000 cfs the collectors become islands that are unreachable; at 80,000 cfs, sand and gravels are removed; and between 80,000-130,000 cfs the area is completely under water. During the last two major invents in 1986 and 1997 over 1 million dollars of damage occurred at the collectors and a total of 100,000 cubic yards of sand and gravel were sent downstream. In 1999 CWD began an improvement project to protect the collectors, and in 2001 the work was completed. The collectors are in better shape to withstand high water events; however, flows in excess of 100,000 cfs can results in CWD losing 95% of its water supply for periods of several months.

During the last high water event CWD had to go to stage 3 of the District Urban Water Master Plan which allowed only one day per week of outside irrigation. This lasted for a period of three months while the District made repairs to the collectors.

Other Alternatives Considered (including No Action): None at this time.

Responsible Office/Person: General Manager, Carmichael Water District

Priority (H, M, L): High

Cost Estimate/Potential Source of Funding: Staff time for coordination between agencies.

Briefly Explain why this is cost-effective: This is a cost-effective measure to protect the District's surface water supply which supplies the District customers with 7-95% of its seasonal demand.

Schedule: Coordination on an as needed basis.

Additional Carmichael Water District Recommended Action Items:

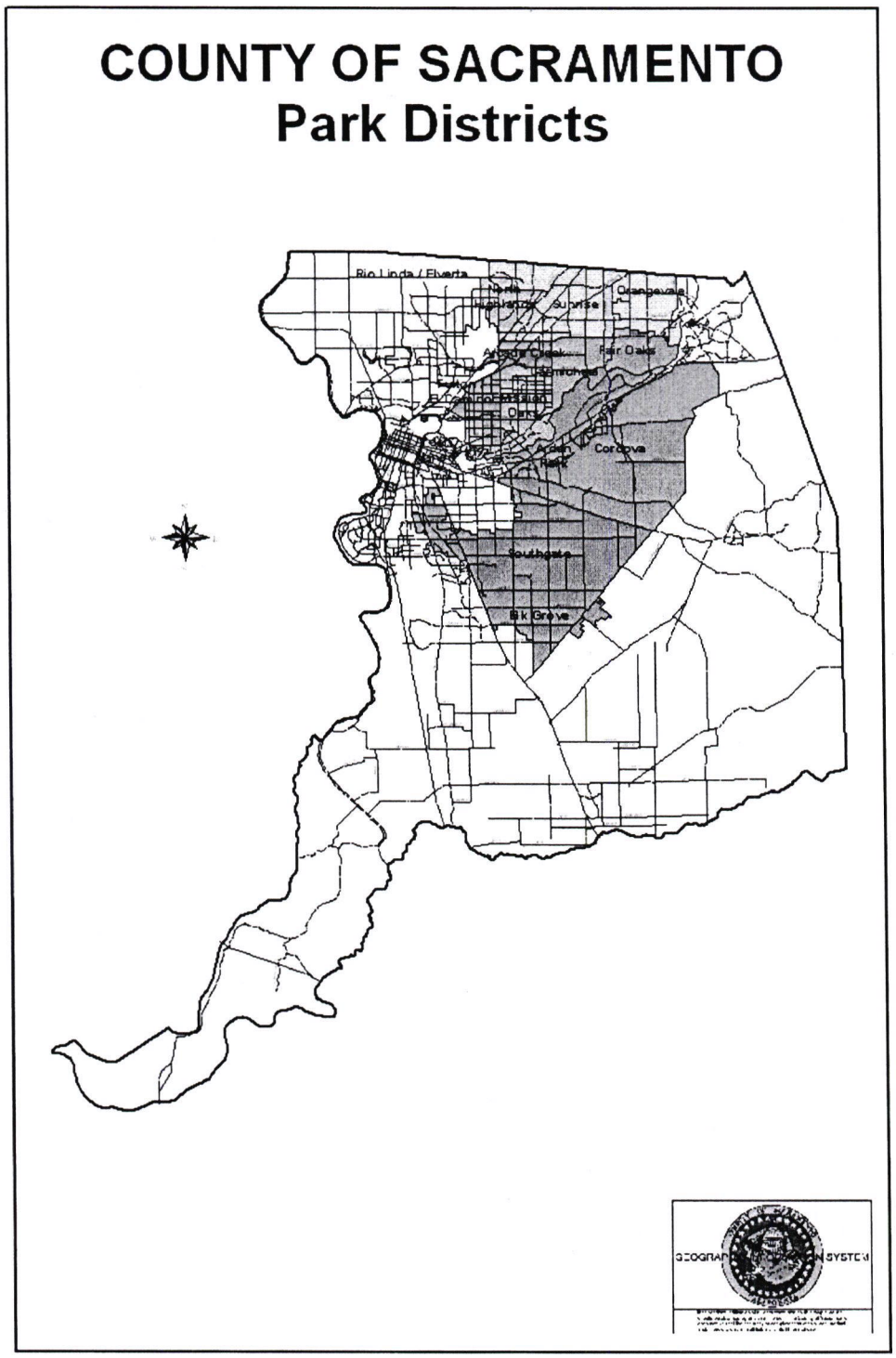
1. **Groundwater Recharge impacts:** Presently there are uncontained plumes of contamination from the Aerojet, and Mc Donald Douglas properties. These plumes contain PCE, TCE, Perchlorate, NDMA and potentially others. In the past, groundwater recharge or groundwater reinjection has lead to the migration of these plumes which in turn has impacted the water supply for Sacramento County, Rancho Cordova and most recently CWD. While groundwater recharge is a very good idea, some locations within Sacramento County will lead to increase migration groundwater contamination plumes.

2. **Water Conservation:** CWD has agreed and is currently following the Water Forum's Conservation Best Management Practices (BMP). These BMPs are set to meet 2030 water supply needs and call for a 26% water supply reduction. CWD has reduced water consumption by 1500 AF/yr and is within 500 AF/yr of reaching the Water Forum agreement.

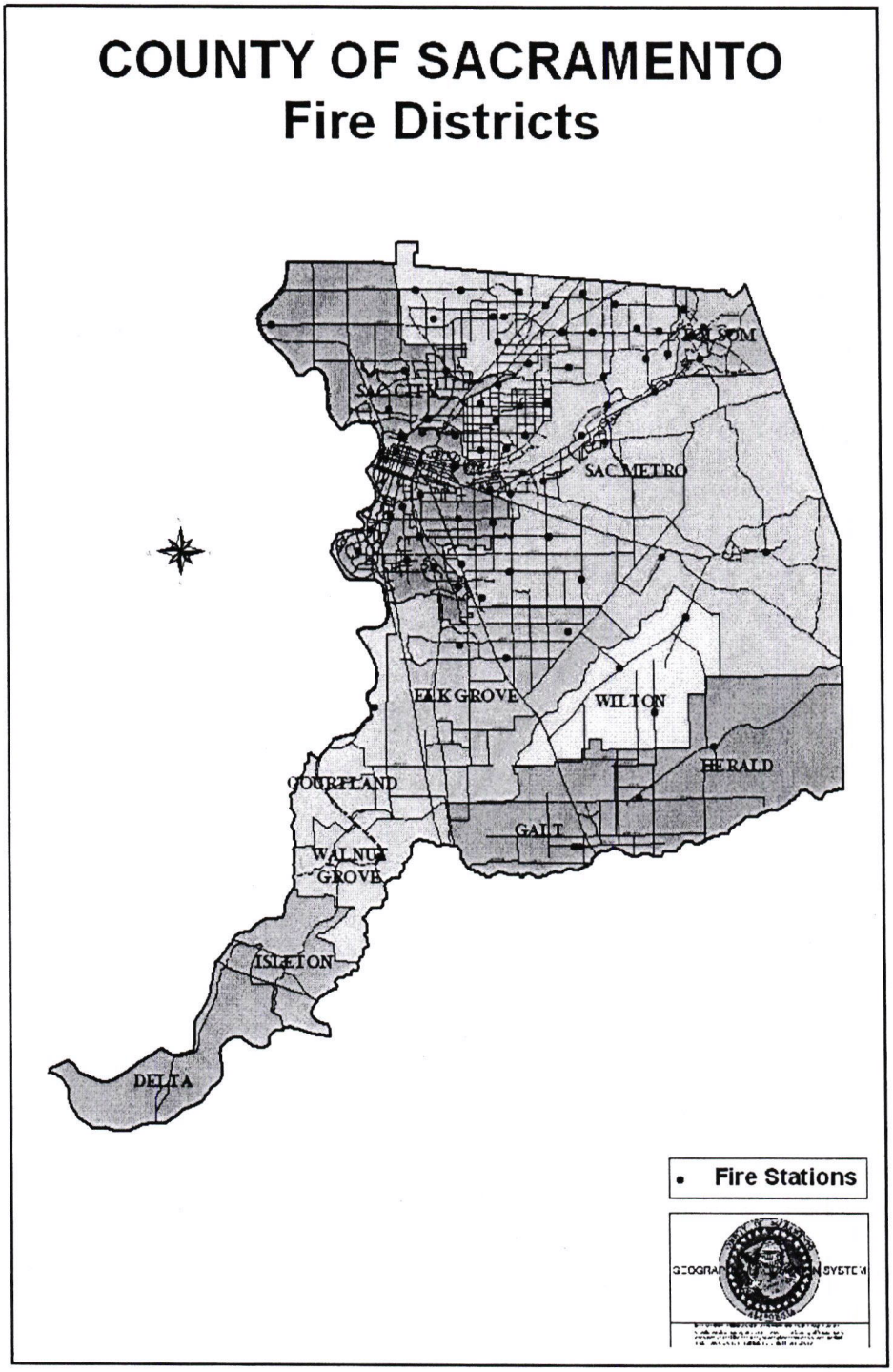
3. **Conjunctive Use:** Historically CWD is a conjunctive use agency. We are presently using 75% surface water and 25% groundwater. In times of drought or high water events the ratio changes from 75 % surface and 25% groundwater to 40% surface and 60% groundwater. Due to impacts from groundwater contamination from Aerojet, it is unlikely that CWD will be able to reduce surface water supply from 75% to 40%.

4. **Regional watershed planning:** CWD is currently involved with the Sacramento Groundwater Authority and the Regional Water Authority in development of a Regional Water Master Plan.

PARK AND RECREATION DISTRICTS



FIRE PROTECTION DISTRICTS



UTILITY DISTRICTS

Sacramento Municipal Utility District (SMUD)

SMUD is the sixth largest public owned utility in terms of customers in the country, and began providing electricity to customers in 1946. SMUD generates, transmits and distributes electric power to a 900-square-mile services area including Sacramento County and portions of Placer County.

SMUD crews consisting of tree trimmers, line workers and troubleshooters perform outage prevention and maintenance activities year-round to help ensure the integrity and reliability of SMUD power lines. Over the past couple of years, tree-trimming efforts took center stage resulting in a huge reduction in tree related outages. As part of an ongoing program, SMUD crews are increasing their effort to replace old underground cable with new cable, which will significantly lower the number of cable-related outages.

SMUD also provides the following tips for preparation for potential power outages during a storm:

"Before a storm ...

Become familiar with your service panel location and how to operate the main circuit breaker. Prepare a basic emergency kit and store it in an accessible place. The kit should contain:

- Flashlight
- Bottled water
- Extra batteries
- Wind-up clock
- Manual can opener
- Battery-operated radio or television

Protect your household appliances and sensitive electronic devices from damaging power surges caused by wind and lightning storms. To learn more about SMUD's Power Protection Service, see our surge protection page in Serving Your Home. If you have an uninterruptible power source -- a device with an internal battery that provides continuous power to computers plugged into it -- remember that the device provides backup power for only a short time, usually a few minutes. However, this is often enough time to ride out power glitches or short outages."

Sacramento Regional County Sanitation District (SRCSD)

SRCSD provides wastewater services for the Cities of Sacramento, Folsom, Elk Grove, Citrus Heights, Rancho Cordova, and the unincorporated areas of Sacramento County. The SRCSD plans to manage a countywide sewer rehabilitation program to replace old sewer pipes and keep the entire system up to date. Further, the SRCSD routinely monitors the condition of older pipelines through a television viewing system where small portable cameras are used to examine the structural integrity of the pipes.

MOSQUITO

The HMPC discussed the conflict between not disturbing "natural drainage ways" and how that sometime promotes "better breeding grounds" for mosquitoes. No actions were determined at this time.

Multi-Hazard Mitigation Plan

7.0 Plan Implementation and Maintenance

44 CFR 201.6(c)(4): "{The plan maintenance process shall include a} section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle."

IMPLEMENTATION

Step 10 of the Plan Development Process: Implementation and Maintenance of the Plan is critical to the overall success of Hazard Mitigation Planning. Upon adoption, the plan faces the truest test of its worth: implementation. Implementation implies two concepts: action and priority. These are closely related.

While this plan puts forth many worthwhile and 'High' priority recommendations, the decision of which action to undertake first will be the first issue that the HMPC faces. Fortunately, there are two factors that will help make that decision. First, there are high priority items and second, funding is always an issue. Thus, pursuing low or no-cost high-priority recommendations will have the greatest likelihood for succeeding.

It will be important to maintain a constant monitoring of funding opportunities that can be leveraged to implement some of the more costly recommended actions. This will include creating and maintaining a bank of ideas on how any required local match or participation requirement can be met. Then, when funding does become available, the HMPC will be in a position to capitalize upon the opportunity. Funding opportunities that can be monitored include special pre- and post-disaster funds, special district budgeted funds, state or federal ear-marked funds, and grant programs, including those that can serve or support multi-objective applications.

With adoption of this plan, Sacramento County and the participating communities commit to:

- Pursuing the implementation of the high priority, low/no-cost Recommended Actions,
- Keeping the concept of Mitigation in the forefront of community decision-making by identifying recommendations of this plan when other community goals, plans and activities overlap, influence, or directly affect increased community vulnerability to disasters, and
- Maintaining a vigilant monitoring of multi-objective cost-share opportunities to assist the participating communities in implementing the Recommended Actions of this plan for which current funding or support exists.

Priority: The HMPC decidedly chose *not* to prioritize our recommended actions – for two reasons. First, the HMPC did not want to have to rank apples and oranges between communities; e.g., fixing a site-specific problem in Citrus Heights, versus area-wide SAFCA projects, which does little or nothing for some of our participating communities, versus a massive, politically-charged, environmentally complicated project such as dredging the Sacramento River throughout

the Delta Plains. Each community has their own recommended actions in their own section and will have to determine how to identify their own match requirements and priorities. The priority assigned for each recommendation is an indication of how the project ranks in priority within the community making the recommendation. Second, the CA-OES state Hazard Mitigation Plan states their own criteria for funding local projects, so the HMPC ranking holds little weight compared to the state's. The DMA regulations state that Benefit-Cost is the #1 method by which projects should be prioritized. In the state ranking, the B/C criteria are one of 10, and while they do not state what their overall priority is, B/C is listed last.

With adoption of this plan, the HMPC should be converted to a permanent advisory body referred to as the Mitigation Coordinating Committee (MCC). This Committee, led by the Sacramento County Department of Water Resources, agrees to:

- Act as a forum for hazard mitigation issues;
- Disseminate hazard mitigation ideas and activities to all participants;
- Monitor implementation of this Plan;
- Report on progress and recommended changes to the participating Cities and County Commissioners; and
- Inform and solicit input from the public.

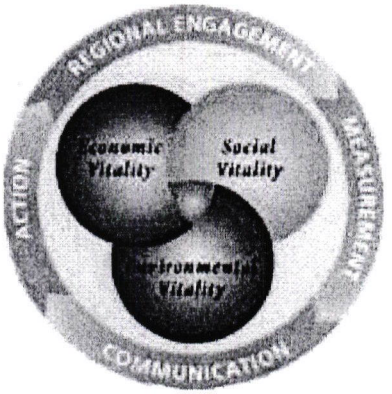
The Committee will not have any powers over County and City staff; it will be purely an advisory body. Its primary duty is to see the Plan successfully carried out and to report to the County Commissioners and the public on the status of Plan implementation and mitigation opportunities in the City of Sacramento and the County. Other duties include reviewing and promoting mitigation proposals, hearing stakeholder concerns about hazard mitigation, and passing the concerns on to the appropriate entities.

Another important implementation mechanism that is highly effective but low-cost, is to take steps to incorporate the recommendations, and equally important, the underlying principles of this Hazard Mitigation Plan into other community plans and mechanisms, such as Comprehensive Planning, Capital Improvement budgeting, Economic Development goals and incentives, or regional plans such as those put forth by the State Department of Transportation. Mitigation is most successful when it is incorporated within the day-to-day functions and priorities of government and development --- and so the best opportunity to be successful is to maintain a vigilance to do this.

Integrating existing planning efforts and mitigation policies and action strategies into this Hazard Mitigation Plan establishes a credible and consistent plan that ties into and supports other community programs. This Plan, therefore, links the specific natural hazards that present a risk in the community with the existing mitigation elements found in the various local government plans, for example the Safety Elements of each community's General Plan. The HMPC has identified and included each community's Safety Element policies within each specific Community Element section of this plan. A description of how the HMPC integrated these mitigation planning efforts with other planning efforts are described on page 3-7, **Relating This Plan to Other Community and Mitigation Planning Efforts and Activities.**

Ongoing integration of plans, policies and programs will be accomplished by a constant, pervasive and energetic effort to network, identify and highlight the multi-objective, "win-win" benefits to each program, the community, and the constituents. This effort is achieved through the often mundane actions of monitoring agendas, attending meetings, sending memos, and promoting safe, sustainable communities. Examples of other ongoing multi-objective planning efforts are addressed in the following section.

Valley Vision is a non-profit organization committed to building civic engagement while addressing regional issues. Valley Vision acts as a neutral convener, provides objective information on issues, and encourages a regional approach to the challenges and opportunities created by rapid growth.



Valley Vision is engaged with a cross-section of the region's leadership, committed to proactive and thoughtful solutions. Our membership includes representatives of business, agriculture, the environmental community, organized labor, education, utilities, government and the non-profit sector.

By partnering with other organizations and agencies, Valley Vision has successfully engaged citizens in a variety of issues. The result had been the creation of innovative outcomes in the areas of transportation and land use, business education partnerships, regional indicators, open-space and agriculture conservation, and services for low-income residents.

Blueprint Project - Region's Residents Can Shape the Future

The Challenge. The Sacramento Region is projected to add more than one million people and 600,000 new jobs in the next 25 years. Preparing and planning for this growth creates challenges for the entire region. Where and how should we grow? And how will this growth affect our standard of living? Implemented through a partnership between SACOG and Valley Vision, The Blueprint Project is a comprehensive regional process aimed at confronting these questions by integrating land use, transportation, air quality, and other regional concerns.

The project began with a preliminary "Base Case" study that examined the implications of the region's projected growth using current development trends. The study found that without changes to development pattern, residents are likely to spend more time commuting, find a severe housing shortage, and lose significant natural lands to development. The Blueprint Project offers an opportunity to get the public involved in planning acceptable growth strategies.

Scenario Planning

The Future of the Sacramento Region to 2025. In 2002, a diverse group of community leaders came together to participate in a structured exercise called, "Scenario Planning." These leaders took an engaging look at potential futures for the Sacramento Region. The result was four stories that project the reader into that future and an analysis of each (see below).

No one can predict the future. But we can see in the present several trends that, moving on their current courses, will change the shape of the Sacramento Region between now and 2025. Forewarned is forearmed.

These four stories were written with the input of a broad cross section of the region's citizens.

Paradise Lost
Paradise Lost reveals a world in which the regions economy booms but its leadership falters. Infighting, parochial thinking and lack of support for necessary public services result in the State's intervention to run a region those locals could not.

New Tech Mirage
New Tech Mirage portrays a world where the Sacramento Region makes a bid to become the New Tech Valley, but circumstances in the global marketplace, combined with mismanagement at home, lead to a failure of the ambitious strategy.

Silver Lining
Silver Lining is about cycles, not in the economy, but instead the weather. The Sacramento Region suffers a 500-year storm and is ill prepared for the flood. But the rebuilding effort reveals new strengths that might not have been tapped without such a challenge.

Rios De Oros
In Rios De Oros the region is able to achieve the balance necessary to create an economy that works. Investments on a variety of fronts are made in a coordinated, strategic plan to position the region for success on a global scale while meeting the needs for residents on a local and neighborhood scale.

Sacramento River Forum

The following is from a SAFCA Board Hearing given on January 15, 2004. There is much desire to further enhance the Sacramento Riverfront with hotels, restaurants, and marinas as well as maintaining the functionally beneficial natural resources and flood control capacity. The Sacramento Area Flood Control Agency formed the Sacramento River Forum to pursue these goals in a holistic manner. The reach of the Sacramento River being studied extends from the Fremont Weir downstream to the town of Courtland.

Key Elements of the Master Plan. The Master Plan presents a vision of the riverfront as a distinctive feature of an emerging downtown core that spans both sides of the river and includes

offices, retail, and restaurants attracting mid and high-density housing developments that help to deter sprawl in the surrounding metropolitan area. This vision would be achieved by:

- Connecting the riverfront internally and to the surrounding urban neighborhoods;
- Creating riverfront destinations;
- Improving public access and river recreation; and
- Enhancing the natural river ecosystem.

Based on these principles, the Master Plan proposes a number of specific short-term, mid-term, and long-term projects and planning efforts as well as some more general improvement ideas. The projects affecting the floodway include:

Promenades and Trails - To connect the riverfront internally and provide pedestrian and bicycle access to the river, the existing promenades on both sides of the river would be extended and the levee tops throughout the riverfront area would be paved and improved to serve as bicycle and pedestrian trails.

New Bridges - Because of the current lack of cross-river connectivity in the riverfront area, the Master Plan calls for five new non-vehicular bridges (Richards Boulevard, R Street, Pioneer Bridge suspension, Miller Park, and Lighthouse to Natomas) and two new vehicular bridges (Broadway and South River Road) in the riverfront area.

Connections to the Riverfront - In order to connect the riverfront to surrounding urban neighborhoods, the Master Plan envisions numerous street level improvements on both sides of the river, including pedestrian access improvements to the I Street Bridge and the Tower Bridge; "Parkway Street" improvements in the Washington Area of West Sacramento and along River Road, Richards Boulevard, 7th Street, R Street and Broadway on the Sacramento side; circulation improvements in Old Sacramento; and minimizing or eliminating the barrier effect of I-5.

Riverfront Developments - The Master Plan envisions office, retail and residential developments at numerous key locations in the riverfront area, including, on the West Sacramento side, the Triangle Area, Pioneer Bluff, Stone Lock Bluff, One Riverfront Plaza (just south of the I Street Bridge), the Washington Area, and Lighthouse (including the Governor's Residence site). On the Sacramento side, major developments are envisioned for the Docks Area, Jibboom Street (the old PG&E building site), Richards Boulevard, and the vicinity of Miller Park.

Parks - New riverfront parks would be created in West Sacramento at Stone Lock Bluff, the Governor's Residence, and Southport (on the south side of the mouth of the barge canal), and in Sacramento at Jibboom Street, the Rail Yards and the Docks Area.

Piers and Boat Docks - New fishing and viewing piers and public boat docks would be constructed at several locations on the Sacramento side of the river (piers only) in Old Sacramento and south of the Tower Bridge, and on the West Sacramento side (piers and docks) at the end of E Street, and at the existing North Pier and South Pier sites.

Marinas - The Master Plan proposes two new off-channel marinas on the West Sacramento side of the river at the Lighthouse lagoon and near the mouth of the barge canal.

Bank and Shoreline Plantings - In order to strengthen the "green commons" that will extend through the riverfront area, the Master Plan calls for creating a riverfront greenbelt connecting Discovery and Tiscornia Parks in the North with Miller Park and the Ship Channel in the South. Within the greenbelt, riparian forest zones would be recreated in large contiguous upland spaces and shoreline plantings would be established on existing shoreline embankments on both sides of the river.

River Corridor Floodway Guidelines. Based on the interaction of planners and flood managers within the Forum, the Master Plan also embraces the goal that riverfront improvements should be designed to avoid adverse impacts to the flood control system in the area and should collectively improve the functionality and reliability of the system. The Guidelines developed by the Forum are intended to provide a framework for achieving this goal. Toward this end, the Guidelines are organized around the following general principles:

- Improve the stability of eroding or unstable banks and levee slopes;
- Maintain the ability to inspect levees and floodwalls;
- Improve access for levee and bank protection maintenance activities;
- Maintain or improve flood conveyance capacity and reliability;
- Reduce navigation and flood-related safety risks; and
- Limit the damage vulnerability of riverfront improvements.

These general principles provide a foundation for developing the following more specific guidelines:

Bank and Levee Stabilization - These guidelines are designed to ensure that riverfront improvements incorporate features that will improve bank and levee stability in the project area. The guidelines call for removal of derelict or abandoned structures from the levee and floodway as part of the riverfront development process; limiting structures on the levee and within ten feet of the landside toe of the levee to infrastructure that is maintained and operated by public agencies; improving deficient levees and protecting eroding banks as part of the riverfront development process; and avoiding structural designs that increase the risk of levee seepage or otherwise compromise levee stability. The guidelines also clarify the applicability of these design principles to irregular levees in the project area and underscore the importance of protecting the eroding banks in the project area that may provide the only remaining landscape in the project area for achieving the Master Plan's greenbelt and recreation access objectives.

Improved Access for Routine Maintenance and Emergency Response - These guidelines recognize that the continuity and condition of the levee roadway is the most essential component of a viable flood operations and maintenance program. Thus, the guidelines complement the Master Plan's call for a continuous system of multiple-use paved levee top promenades and trails throughout the project area. In order to ensure that these facilities are properly designed and maintained, the guidelines call for elimination of barriers and gaps in the levee roadway system; provision of adequate levee top widths to accommodate the safe passage of levee maintenance vehicles; incorporation of adequate levee access points and vehicle turnouts to permit effective levee maintenance; inspection and emergency response activity; and posting of informational signs to explain the rules for shared use of levee roads.

Assurance of Floodway Hydraulic Capacity - A key goal of the guidelines is to ensure that as the development envisioned in the Master Plan unfolds, the capacity of the floodway to safely convey floodwaters is maintained or improved. This goal extends to improving the predictability of hydraulic conditions during floods, evaluating the potential effects of debris and ensuring the security of floating and fixed structures. Toward this end, SAFCA has evaluated the cumulative effects of the Master Plan on the hydraulic capacity of the floodway using a one-dimensional model developed by the U.S. Army Corps of Engineers. This evaluation indicated that these cumulative effects would be minimal due to the relative magnitude of the planned developments in comparison to the size of the river channel. Nevertheless, the guidelines call for additional, detailed modeling of individual facilities as they are proposed, using two-dimensional model simulations as necessary, to ensure that these facilities will not adversely affect channel bed or bank stability in discreet locations of the floodway.

The guidelines also contain specific provisions regarding the design of Master Plan facilities that will encroach into the floodway, including marinas, new bridges, fishing piers, floating docks and bank vegetation. These guidelines anticipate that the two new marinas called for in the Master Plan will be sited exclusively in off-channel locations. The guidelines on fishing piers are intended to reduce the dependence on or use of submerged piles to support piers, or other typical designs that will create new flow obstructions or trap floating debris. The guidelines on floating docks are intended to address the potential for these facilities to inappropriately reduce the conveyance area of the channel, increase the risk of debris accumulation, induce sediment deposition in areas of reduced channel velocities, and heighten the risk of breakaway boats or other structures that can be impinged on bridges or other facilities. The guidelines on bank vegetation are intended to allow for the fulfillment of the greenbelt objective of the Master Plan in a manner that does not impair the maintenance of flood project facilities, flood fight activities, or the inspection of the channel and levee banks. The guidelines do not address the appropriateness of developing riverfront restaurants in the project area. Rather, this issue has been deferred for further consideration in the next phase of the Forum process.

MAINTENANCE

Plan maintenance implies an ongoing effort to monitor and evaluate the implementation of the plan, and to update the plan as progress, roadblocks, or changing circumstances are recognized.

This monitoring and updating will take place through a semi-annual review by the Sacramento County Department of Water Resources, an annual review through the standing HMPC or Mitigation Coordinating Committee, and a 5-year written update to be submitted to the state and FEMA Region IX, unless disaster or other circumstances (e.g., changing regulations) lead to a different time frame. CRS requires an annual re-certification report for Sacramento County and the City of Sacramento.

When the Committee reconvenes for the review they will coordinate with all stakeholders that participated in the planning process – or that have joined the Committee since the inception of the planning process – to update and revise the plan. Public notice will be given and public participation will be invited, at a minimum, through available webpostings and press releases to the local media outlets, primarily newspapers and AM radio stations.

The evaluation of the progress can be achieved by monitoring changes in the vulnerability identified in the plan. Changes in vulnerability can be identified by noting:

- Lessened vulnerability as a result of implementing Recommended Actions;
- Increased vulnerability as a result of failed or ineffective mitigation actions; and/or,
- Increased vulnerability as a result of new development (and/or annexation).

The updating of the plan will be by written changes and submissions, as the Committee deems appropriate and necessary.

STAFF REPORT

Date: May 16, 2005

To: Honorable City Council

From: Steve Meyers, City Attorney

Subject: Amendment of Resolution 28-2005, Amending the Findings on which Resolution 28-2005 Was Adopted

Staff Recommendation

Staff recommends that the City Council consider the information in this staff report, and adopt additional findings to Resolution 28-2005, by which the City adopted and incorporated into the City's Vision Book the park facility standards of the Cordova Recreation and Park District ("Park District"), and Open Space standards.

Background

The City adopted Resolution 28-2005 on February 22, 2005, adopting the park and recreation facility standards of the Park District and open space standards, to be incorporated into the City's Vision Book. Among other things, Resolution 28-2005 raised the requirement for parkland to seven (7) acres per 1,000 persons, as compared to the then current five (5) or three (3) acres per 1,000 residents. In addition, the Resolution imposed a requirement that, in addition to public parks, a minimum of ten percent (10%) of all new residential developable areas must be provided as accessible open space areas. These standards will be applied to all applicable development projects being processed by the City, pursuant to Government Code Section 65360.

This Resolution is being adopted to amend Resolution 28-2005 by adding additional findings thereto. These findings help explain the factual and administrative background on which the City adopted Resolution 28-2005 and the park and open space standards. In addition, they explain the basis on which the City's adoption of the interim standards were exempt from the California Environmental Quality Act.

The Amendment is effected by replacing the recitals found in Resolution 28-2005 with the recitals in the Resolution attached hereto. This Amendment makes no

AGENDA ITEM # 6

substantive changes in the park and open space standards set forth in Resolution 28-2005.

Attachment

1. Resolution 61-2005, Amending Resolution 28-2005 By Adopting Additional Findings Related to Park and Open Space Standards
2. Resolution 28-2005

CITY OF RANCHO CORDOVA

RESOLUTION NO. 61-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AMENDING RESOLUTION 28-2005 BY ADOPTING ADDITIONAL FINDINGS RELATED TO PARK AND OPEN SPACE STANDARDS

WHEREAS, the City of Rancho Cordova ("City") was incorporated on July 1, 2003; and

WHEREAS, the City is proceeding in a timely fashion to prepare a Draft General Plan/Draft Environmental Impact Report consistent with the State Planning and Zoning Law and the California Environmental Quality Act (CEQA); and

WHEREAS, the City adopted Resolution 28-2005 on February 22, 2005, by which the City adopted the park and recreation facility standards of the Cordova Recreation and Park District ("Park District"), and also adopted open space standards; and

WHEREAS, the standards adopted have been incorporated into the "Open Space, Parks, and Trails" section of the City's Vision Book, which provides interim guidance to the City, pursuant to Government Code Section 65360; and

WHEREAS, the City intends to amend Resolution 28-2005 in order to supplement the City's findings related to the park and open space standards adopted pursuant to Resolution 28-2005; and

WHEREAS, the City is not amending the park and open space standards contained in Resolution 28-2005 themselves.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HEREBY RESOLVES AS FOLLOWS:

Resolution 28-2005 shall be amended as follows:

The following recitals shall replace and supercede the recitals in Resolution 28-2005:

WHEREAS, the City of Rancho Cordova was founded upon expectations of outstanding public amenities throughout the community, including within new development; and

WHEREAS, the provision of parks, recreational facilities and open space amenities have been identified as a high priority of the community and the City Council; and

WHEREAS, providing open space and park amenities is a crucial component of public health and welfare in that they are a crucial component of the quality of life within Rancho Cordova and of creating a desirable community, as explained herein; and

WHEREAS, the community and the City Council have repeatedly stated a strong desire to create a system of trails, paseos and greenbelts linking various parts of the City; and

WHEREAS, provision of parks and recreational facilities encourage recreational activities such as walking and bicycling, and help establish civic pride and identity; and

WHEREAS, the City has established a specific priority of providing connected open space throughout all new development within the City; and

WHEREAS, open space within a community is a key feature that creates a desirable setting, sense of place and ambiance, and provides visual and psychological relief from uninterrupted urban development, and definition and scale to neighborhoods, enhancing aesthetics and community character; and

WHEREAS, it has also been demonstrated that open space, by which natural land corridors are created, helps perpetuate complete ecosystems and wildlife habitats, and protect biologically important transition zones; and

WHEREAS, it is the stated desire of the City Council that development within Rancho Cordova will be of a higher density than historic development, which heightens the need for open space and park amenities; and

WHEREAS, Rancho Cordova lacks physical features such as creek corridors, ravines and ridgelines that typically result in publicly accessible open space in neighboring communities such as Folsom and Roseville; and

WHEREAS, providing open space and park amenities is critical to ensuring long-term desirability of future development within the City; and

WHEREAS, open space and park amenities have become especially important in recent years, especially since enactment of the Quimby Act in 1965 (Government Code Section 66477), as urbanization and loss of open space lands and lands that could be used for park and recreation purposes have generally resulted in a decrease in average residential lot size, open space per dwelling, and in land available for private recreation; and

WHEREAS, the experiences of cities and counties across the country demonstrate that open space zoning alone cannot withstand the economic and political momentum created by rapid urban growth; and

WHEREAS, the City Council met with the Board of Directors of the Park District on September 12, 2004 to establish a shared vision for Rancho Cordova parks; and

WHEREAS, the District considered standards to achieve appropriate park amenities within Rancho Cordova, and the District Board revised its park dedication standards on January 12, 2005, and recommended such revised standards to the City of Rancho Cordova; and

WHEREAS, the Park District prepared the Park Land Dedication Analysis ("Analysis") in February 2005, whereby it demonstrated a quantifiable need for 7.49 acres per 1,000 City residents; and

WHEREAS, the Analysis considers the type and acreage of park and recreation facilities and land needed within the City to address the rapid population growth that is expected within the Park District in the next 10 years; and

WHEREAS, the City finds that the Analysis demonstrates a reasonable relationship between the need for park and recreation facilities in the City and the number of City residents, and sets forth a justifiable conclusion that the maximum five acres per 1,000 population standard provided by the Quimby Act is inadequate to meet the City's (and District's) need for such land and facilities; and

WHEREAS, the City is proceeding in a timely fashion to prepare a Draft General Plan/Draft Environmental Impact Report consistent with the State Planning and Zoning Law and the California Environmental Quality Act (CEQA); and

WHEREAS, the City intends to include the park and open space standards adopted pursuant to Resolution 28-2005 in the City's Draft General Plan/Draft Environmental Impact Report for further study and review; and

WHEREAS, Government Code Section 65360 supports the use of interim policies and standards when making decisions, such as contemplating project approvals and taking other actions, prior to the adoption of a General Plan, and reflects that such decisions are not required to be consistent with a General Plan currently in effect, as long as other specified requirements of Section 65360 are met; and

WHEREAS, the park and open space standards adopted pursuant to Resolution 28-2005 are intended to supplement the City's Vision Book, in accordance with Government Code Section 65360; and

WHEREAS, the City's adoption of the park and open space standards pursuant to adoption of Resolution 28-2005, is exempt from CEQA because:

a. The adoption of the park and open space standards, supported by Government Code Section 65360(b), enables the City to make the required findings that there is a reasonable probability that a proposed land use or action will be consistent with the General Plan proposal being considered or studied, or a General Plan proposal "which will be studied within a reasonable time;"

b. The park and open space standards will only be employed by the City on a short-term basis while the environmental effects of such policies are comprehensively studied and evaluated as part of the Draft General Plan/Draft Environmental Impact Report;

c. The park and open space standards are expected to help minimize adverse impacts on the environment while the City prepares its General Plan by requiring development proposed in the City to be consistent with the park and open space standards either in effect via the City's General Plan, or with the park and open space standards the City expects eventually will be part of the General Plan adopted later;

d. All land use proposals and actions that the City evaluates relative to the park and open space standards will undergo program or project-level site specific environmental review under CEQA, so that the physical implementation of the park and open space standards will comply in all respects with CEQA; and

WHEREAS, for the reasons discussed herein, the adoption of the park and open space standards do not create the potential for causing a significant effect on the environment as described in CEQA Guidelines Section 15061(b)(3), and the City intends to file a Notice of Exemption consistent with this finding; and

WHEREAS, the City intends to use the park and open space standards in a manner that is consistent with Government Code Section 65360, and for only so long as is required to complete and adopt a General Plan and certify a Final Environmental Impact Report, or until such time as the City Council adopts a subsequent enactment that amends or alters such standards, whichever comes first; and

WHEREAS, the City intends to apply the park and open space standards to all development, including subdivisions with tentative map applications that have not yet been deemed complete, because the City initiated proceedings for Resolution 28-2005 in accordance with Government Code Section 66474.2(b), and published notice in the manner prescribed by Government Code Section 65090(a); and

WHEREAS, it is the City's intent that all portions of Resolution 28-2005 are severable from one another. Therefore, if any individual component or any portion of Resolution 28-2005 is found invalid and unenforceable by a court of competent jurisdiction, it is the City Council's intent and desire that the remaining portions of the Resolution continue in full force and effect.

PASSED AND ADOPTED this 16th day of May, 2005, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

_____
Ken Cooley, Mayor

ATTEST:

_____
Lillian E. Hare, City Clerk

CITY OF RANCHO CORDOVA

RESOLUTION NO. 28-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ADOPTING PARK AND OPEN SPACE STANDARDS

WHEREAS, the City of Rancho Cordova was founded upon expectations of outstanding public amenities throughout the community, including within new development; and

WHEREAS, the provision of parks, recreational facilities and open space amenities has been identified as a high priority of the community and the City Council; and

WHEREAS, the City Council met with the Board of Directors of the Cordova Recreation and Park District (District) on September 12, 2004 to establish a shared vision for Rancho Cordova parks; and

WHEREAS, the District has considered standards to achieve appropriate park amenities within Rancho Cordova and the District Board did revise its park dedication standards on January 12, 2005 and has recommended such revised standards to the City of Rancho Cordova; and

WHEREAS, the City has established a specific priority of providing connected open space throughout all new development within the community; and

WHEREAS, Open space within a community is a key feature that creates a desirable setting, sense of place and ambiance, as well as providing relief from uninterrupted urban development; and

WHEREAS, Rancho Cordova lacks physical features such as creek corridors, ravines and ridgelines that typically result in publicly accessible open space in neighboring communities such as Folsom and Roseville; and

WHEREAS, the community and the City Council have repeatedly stated a strong desire to create a system of trails, paseos and greenbelts throughout the City; and

WHEREAS, providing outstanding park and open space amenities is crucial to ensuring long-term desirability of future development within the City; and

WHEREAS, State law allows newly incorporated cities to use a Draft General Plan when making decisions and processing development and other projects prior to the adoption of the General Plan; and

WHEREAS, State law provides for the use of an Interim General Plan when making decisions and processing development and other projects prior to the adoption of the General Plan; and

WHEREAS, the park and open space standards described herein will supplement the Vision Book to serve as the Interim General Plan for the City of Rancho Cordova pursuant California Government Code Section 65360).

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HEREBY RESOLVES AS FOLLOWS:

The City of Rancho Cordova does hereby adopt the park and recreation facility standards of the Cordova Recreation and Park District, as described in Exhibit A.

BE IT FURTHER RESOLVED:

The following language describing park and open space standards is hereby adopted as part of the "Open Space, Parks, and Trails" section of the Vision Book/Interim General Plan:

Parks

Park Acreage Requirement

a. *The City shall implement the requirement that all new residential development dedicate land at a rate of seven (7) acres of land per 1,000 population or provides in-lieu payment for parkland sufficient to fund the acquisition of an amount of acceptable land equal to the dedication requirement.*

b. *The City shall coordinate with the Cordova Recreation and Park District to ensure that parks are provided, developed, and operated in a way that ensures that the City's parks goals are achieved throughout the community.*

c. *Required parkland dedication shall be calculated separate from any required open space.*

d. *Determination of the acceptability of lands proposed for dedication as public parkland shall be made by the City, with input from the Cordova Recreation and Park District, as part of the review and approval of each project.*

Park Implementation Items

a. *Each residential project shall demonstrate compliance with the City's parkland dedication standard prior to approval by the City.*

b. *The City shall coordinate with the Cordova Recreation and Park District to ensure that parks are provided, developed, and operated in a way that ensures that the City's parks goals are achieved throughout the community.*

c. *Funding for maintenance of parks and/or trails shall be assured to the City's satisfaction prior to the approval of any Final Subdivision Map which contains or contributes to the need for a public parks and facilities.*

d. *The City shall pursue the implementation of funding mechanisms to provide for the long-term maintenance of parks and/or trails in those instances where funding is not available from other sources. Such mechanisms may include local or regional assessment districts, homeowners associations, or other methods as determined appropriate by the City.*

Open Space

Minimum Open Space Acreage Requirement

a. *A minimum of ten percent (10%) of all new residential developable areas shall generally be provided as accessible open space areas in addition to public parks. These open space areas are referred to as "paseos/ greenbelts," but may take other forms if approved by the City.*

   For the purposes of compliance with this policy, "residential developable areas" may be either of the following:

   - *A master-planned development, such as a specific plan, in which case the required open space shall be calculated as ten percent of the net project residential area (defined as the total project area minus any areas proposed for commercial, office, or industrial development and minus any lands not available for development due to mitigation requirements, public utility corridors or similar restrictions).*
   - *An individual tentative tract which is not included in a master-planned development*

b. *The following types of residential development may be exempted from the minimum open space requirement at the City's discretion:*

   - *Residential subdivisions of ten acres or less which are not part of a master-planned development which meets the minimum open space requirement.*
   - *Affordable housing developments in which at least 75 percent of the units are affordable to low- or very-low-income households.*

c. *The City may find developments to be in conformance with this requirement if they provide dedicated open space generally in keeping with this policy.*

d. *Open Space requirements shall be calculated separately from park acreage dedication or in-lieu fee payment requirements.*

e. *Land which is encumbered in some way (such as a power line easement) but which otherwise meets the requirements for open space as defined in this policy may be considered for inclusion in the open space system on a case-by-case basis, with adjustment to the level of credit determined by the City.*

f. *The City shall coordinate with the Cordova Recreation and Park District to ensure that open space is provided, developed, and operated in a way that ensures that the City's open space goals are achieved throughout the community.*

g.. *Funding for maintenance of open space shall be assured to the City's satisfaction prior to the approval of any Final Subdivision Map which contains or contributes to the need for a public parks and facilities.*

Performance Standards for Open Space

a. *The following performance standards shall be followed in the design and location of open space areas:*

- *All new residential developments shall include a paseo/greenbelt system that is accessible.*
- *Convenient access points should be provided along all paseos/greenbelts to facilitate public use for enjoyment and as an alternative transportation route. Generally, dwellings should be located no further than 1/4 mile from trail access points.*
- *Paseos/greenbelts should serve as a visually unifying landscape element.*
- *Paseos/greenbelts should provide view corridors to points of orientation throughout the City; both for local, short range views to local landmarks, and long range vistas such as mountains or hills.*
- *Greenbelts should be sited where feasible and appropriate to be adjacent to existing riparian or other wildlife or botanical habitat areas. Habitat areas which are part of a mandated set-aside area, and are closed to the public, shall not be included in the required open space area.*
- *Paseo width should be sufficient to create an attractive, inviting space which allows for adequate distance between trails and adjoining homes; generally, 50 feet should be the minimum width.*
- *New greenbelt links should be created in places where access to the existing greenbelt/bikeway system is currently lacking.*
- *Paseos/greenbelts may be used to provide a buffer between disparate land uses.*
- *In order to protect privacy of residents, project grading should ensure, to the maximum extent feasible, that trails are located 2 feet lower in elevation than adjacent property fences.*
- *Commercial developments shall be required to incorporate features to provide continuous linkages in those cases where the commercial site is located on a trail alignment.*
- *Paseos and greenbelts should connect the neighborhoods to collocated parks and schools around which neighborhoods are designed. Neighborhood schools on a traditional school year provide the best opportunity to continue the historic joint facilities agreements between CRPD and the local school districts.*
- *Paseos and greenbelts adjacent to roads shall be credited as open space when such corridors are located between the adjacent road and park land, open space or natural resource mitigation land.*
- *If a project satisfies the above performance standards for open space, the City may require less than 10% open space.*

Open Space Implementation Items

a. *Funding for the development and long-term maintenance of paseos/greenbelts shall be assured prior to the approval of the residential project in which the paseo-greenbelt is located. This may occur through a Homeowners Association (HOA), a Mello Roos Maintenance District, or other methods as deemed appropriate by the City.*

b. *The City shall:*

- *Prepare standards defining the improvements which must be provided in the paseo/greenbelt areas*

- *Develop standards for including detention basins, power line and other easements, and similar features in the required paseo/greenbelt area*

Findings:
The City is proceeding in a timely fashion with the preparation of the General Plan and adoption of an Interim General Plan is consistent with State Law.

Evidence:
California Government Code Section 65360 provides for the City to use an Interim General Plan when making decisions and processing development and other projects prior to the adoption of the General Plan.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 22nd day of February, 2005.

AYES: Budge, Sander, Skoglund, McGarvey, Cooley

NOES: None

ABSENT: None

ABSTAIN: None

Ken Cooley, Mayor

ATTEST:

Lillian E. Hare, City Clerk

Exhibit A

Cordova Recreation and Park District

Park Facility Standards

(Adopted 1/26/05)

Activity/ Facility	Units per Population
Aeronautic Hobby Field	1/50,000
Amphitheater 500 seat	1/50,000
Amphitheater 2,500 seat	1/100,000
Aquatic Center (Outdoor)	1/50,000
Aquatic Center (Indoor)	1/50,000
Archery Range	1/100,000
Art in park	2% of total cost
Baseball Field Adult: Lighted	1/35,000
Baseball Field Adult: Un-Lighted	1/35,000
Baseball Field: Little League Lighted	1/12,500
Baseball Field: Little League Game Field	1/5,000
Baseball Little League Practice Field:	1/5,000
Baseball SrLL/HS Field Lighted	1/50,000
Basketball Indoor	1/8,000
Basketball, Outdoor	1/3,000
Before/After School Day Care	1/School
Campground (urban)	1/100,000
Community Center	1/50,000
Community Center (seniors)	1/50,000
Community Center II Transitional Program Facility	1/100,000
Cultural Gardens	1/50,000
Dog Park: Neighborhood	1/7,500
Dog Park: Community	1/25,000
Equestrian Center	1/100,000
Field Hockey	1/20,000
Football	1/50,000
Frisbee Course	1/100,000
Golf 9 holes	1/100,000
Golf driving range	1/50,000
Handball	1/20,000
Horseshoe	1/2,500
Informational Kiosk	1/Park
Model Boating Lake	1/50,000
Paint Ball Course	1/100,000
Petanque/Bocce Ball	1/100,000
Picnic: Family	1/2,500
Picnic: Group	1/10,000
Play Apparatus	1/2,500
Ponds & Reflecting Pools	1/15,000
Roller Hockey	1/50,000
Restrooms	Min 1/Park, Excludes Mini Parks

Activity/ Facility	Units per Population
Shooting Range: Includes Gun Range, Skeet & Trap	1/100,000
Shooting Range	1/100,000
Skate/BMX Street Feature	1/2,500
Skate Park	1/50,000
Softball Field Mens: Lighted	1/25,000
Softball Field Girls Practice	1/10,000
Softball Field Girls: Game	1/15,000
Softball Field Girls: Lighted	1/25,000
Soccer, Bantam Large	1/6,000
Soccer, Bantam Small	1/6,000
Soccer, Regulation	1/5,000
Soccer Field: Lighted Synthetic	1/16,000
Spray park	1/20,000
Sports Field: Multi-use	1/5,000
Tennis	1/10,000
Track (Fitness): 1/2 Mile	1/25,000
Trail System	1 system/ region
Urban Forest Areas	1/3,000
Water Feature	1/20,000
Water Park	1/100,000

MEMORANDUM

DATE: May 16, 2005

TO: Mayor and Council Members

FROM: Cyrus Abhar, Public Works Director

SUBJECT: **ADOPTION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM FOR THE CITY OF RANCHO CORDOVA AND DBE GOALS FOR FEDERAL FISCAL YEAR 2005/06**

RECOMMENDATION

Staff recommends the City Council adopt the Disadvantaged Business Enterprise (DBE) Program for the City of Rancho Cordova and approve the annual DBE goal of five percent for U.S. Department of Transportation-Assisted Projects for Federal Year 2005/06.

BACKGROUND

Federal guidelines require that public government organizations accessing Federal/State funds directly must adopt a Disadvantaged Business Enterprise (DBE) Program and annual goals in accordance with U.S. Department of Transportation (DOT), 49 CFR Part 26. This is to ensure nondiscrimination and to create a level playing field in the award and administration of DOT-assisted contracts.

The City of Rancho Cordova has prepared a DBE Program. The draft DBE program was made available for public comment and Caltrans review, as required by Caltrans. No comments were received during the 45-day review period which began March 30, 2005.

The City is required to submit annual DBE goals calculated using a methodology approved by Caltrans, The overall annual DBE goals for FFY 2005/06 for the City of Rancho Cordova is five percent (5%). The goal-methodology was determined by utilizing the Census Bureau's County Business Pattern (CBP) database and the Caltrans DBE Directory to establish the City's base figure relative availability of DBEs for FFY 2005/06 in the market in the greater Sacramento area and outlining areas. The overall annual DBE goals were made available for public comment and Caltrans review, as required by Caltrans. No comments were received during the 45-day review period with began March 30, 2005.

Attachment(s): (1) Resolution 59-2005
(2) Resolution 60-2005

AGENDA ITEM # 7

(3) Disadvantaged Business Enterprise (DBE) Program for the City of Rancho Cordova
(4) Overall Annual DBE Goals FFY 2005/06

ATTACHMENT 1

CITY OF RANCHO CORDOVA

RESOLUTION NO. 59-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ADOPTING THE DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

WHEREAS, the City of Rancho Cordova must conform to the state and federal regulations pertaining to Disadvantaged Businesses (DBE) for federally-funded projects; and

WHEREAS, the City of Rancho Cordova is establishing a Disadvantage Business Enterprise (DBE) Program in accordance with the regulations of the United States Department of Transportation (US DOT) Title 49, Part 26 of the Code of Federal Regulations as a requirement to receive Federal funding; and

WHEREAS, upon the draft DBE program was made available for public comment and Caltrans review, as required by Caltrans, and no comments were received during the 45-day review period.

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Rancho Cordova does hereby adopt the Disadvantaged Enterprise Program for the City of Rancho Cordova for transportation projects involving US DOT Federal funding, and authorizes the City Manager to sign the DBE Program document.

On a motion by Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted by the City Council of Rancho Cordova, State of California, this 16th, day of May, 2005, with the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Ken Cooley, Mayor

ATTEST:

_____
Lillian E. Hare, City Clerk

ATTACHMENT 2

CITY OF RANCHO CORDOVA

RESOLUTION NO. 60-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA APPROVING A FINAL ANNUAL DISADVANTAGED BUSINESS ENTERPRISE GOAL FOR U.S. DEPARTMENT OF TRANSPORTATION-ASSISTED PROJECTS FOR FEDERAL FISCAL YEAR 2005/06

WHEREAS, the City of Rancho Cordova must conform to the state and federal regulations pertaining to Disadvantaged Businesses (DBE) for federally-funded projects; and

WHEREAS, the City has conformed to these regulations by calculating a Draft DBE goal of five percent for Federal Fiscal Year 2005/06, using a methodology approved by Caltrans

WHEREAS, upon the draft DBE goal and methodology was made available for public comment and Caltrans review, as required by Caltrans, and no comments were received during the 45-day review period; and

WHEREAS, a final DBE goal must be adopted by October 1, 2005:

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Rancho Cordova does hereby approve a final annual Disadvantaged Business Enterprise goal of five percent for U.S. Department of Transportation-Assisted Projects for Federal Year 2005/06.

On a motion by Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted by the City Council of Rancho Cordova, State of California, this 16th, day of May, 2005, with the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Ken Cooley, Mayor

ATTEST:

_____
Lillian E. Hare, City Clerk

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM FOR THE CITY OF RANCHO CORDOVA

TO BE ADOPTED: May 16, 2005
(Public Hearing and City Council Adoption)

I Definitions of Terms

The terms used in this program have the meanings defined in 49 CFR §26.5.

II Objectives/Policy Statement (§§26.1, 26.23)

The City of Rancho Cordova has established a Disadvantage Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26. The City of Rancho Cordova has received federal financial assistance from the DOT, and as a condition of receiving this assistance, the City of Rancho Cordova will sign an assurance that it will comply with 49 CFR Part 26.

It is the policy of the City of Rancho Cordova to ensure that DBEs, as defined in part 26, have an equal opportunity to receive and participate in DOT -assisted contracts. It is our policy:

- To ensure nondiscrimination in the award and administration of DOT-assisted contracts;
- To create a level playing field on which DBEs can complete fairly for DOT-assisted contracts;
- To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
- To ensure that only firms that fully meet 49 CFR Part 26 eligibility standard are permitted to participate as DBEs;
- To help remove barriers to the participation of DBEs in DOT-assisted contracts; and
- To assist the development of firms that can complete successfully in the market place outside the DBE program.

Kathy Garcia has been delegated as the DBE Liaison Officer. In that capacity, Kathy Garcia is responsible for implementing all aspects of the DBE program. Implementation of the DBE program is accorded the same priority as compliance with all other legal obligations incurred by the City of Rancho Cordova in its financial assistance agreements with the California Department of Transportation (Caltrans).

The City of Rancho Cordova has disseminated this policy statement to the City Council and all the components of our organization. We have distributed this statement to DBE and non-DBE business communities that perform work for us on DOT-assisted contracts.

III Nondiscrimination (§26.7)

The City of Rancho Cordova will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR Part 26 on the basis of race, color, sex, or national origin.

In administering its DBE program, the City of Rancho Cordova will not, directly or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the DBE program with respect to individuals of a particular race, color, sex, or national origin.

IV DBE Program Updates (§26.21)

The City of Rancho Cordova will continue to carry out this program until the City has established a new goal setting methodology or until significant changes to this DBE Program are adopted. The City of Rancho Cordova will provide to Caltrans a proposed overall goal and goal setting methodology and other program updates by June 1 of every year.

V Quotas (§26.43)

The City of Rancho Cordova will not use quotas or set asides in any way the administration of this DBE Program.

VI DBE Liaison Officer (DBELO) (§26.25)

The City of Rancho Cordova has designated the following individual as the DBE Liaison Officer: Kathy Garcia. In that capacity, Kathy Garcia is responsible for implementing all aspects of the DBE program and ensuring that the City of Rancho Cordova complies with all provisions of 49 CFR Part 26. This is available on the Internet at osdbuweb.dot.gov/main.cfm. Kathy Garcia has direct, independent access to the City Manager concerning DBE program matters.

The DBELO is responsible for developing, implementing and monitoring the DBE program, in coordination other appropriate officials. Duties and responsibilities include the following:

1. Gathers and reports statistical data and other information as required.
2. Reviews third party contracts and purchase requisitions for compliance with this program.
3. Works with all departments to set overall goals.
4. Ensures that bid notices and requests for proposals are available to DBEs in a timely manner.
5. Identifies contracts and procurements so that DBE goals are included in solicitations (both race-neutral methods and contract specific goals) and monitors results.
6. Analyzes the City of Rancho Cordova's progress toward goal attainment and identifies ways to improve progress.
7. Participates in pre-bid meetings.
8. Advises the City Council on DBE matters and achievement.
9. Chairs the DBE Advisory Commitee
10. Participates with legal counsel and project director to determine contractor compliance with good faith efforts.
11. Provides DBEs with information and assistance in preparing bids, obtaining bonding and insurance.
12. Plans and participates in DBE training seminars.
13. Provides outreach to DBEs and community organizations to advise them of opportunities.

VII Federal Financial Assistance Agreement Assurance (§26.13)

The City of Rancho Cordova will sign the following assurance, applicable to all DOT-assisted contracts and their administration as part of the program supplement agreement for each project:

The City of Rancho Cordova shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE Program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The City's DBE Program, as required by 49 CFR Part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the City of its failure to carry out its approved program, the DOT may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

VIII DBE Financial Institutions

It is the policy of the City of Rancho Cordova to investigate the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in the community, to make reasonable efforts to use these institutions, and to encourage prime contractors on DOT-assisted contracts to make use of these institutions.

Information on the availability of such institutions can be obtained from the DBE Liaison Officer. The Caltrans Disadvantaged Business Enterprise Program may offer assistance to the DBE Liaison Officer.

IX Directory (§26.31)

The City of Rancho Cordova will refer interested persons to the DBE directory available from the Caltrans Disadvantaged Business Enterprise Program website at www.dot.ca.gov/hq/bep.

X Overconcentration (§26.33)

The City of Rancho Cordova has not identified any types of work in DOT-assisted contracts that have a overconcentration of DBE participation. If in the future the City identifies the need to address overconcentration, measures for addressing overconcentration will be submitted to the DLAE for approval.

XI Business Development Programs (§26.35)

The City of Rancho Cordova does not have a business development or mentor-protégé program. If the City identifies the need for such a program in the future, the rationale for adopting such a program and a comprehensive description of it will be submitted to the DLAE for approval.

XII Required Contract Clauses (§§26.33, 26.29)

Contract Assurance

The City of Rancho Cordova ensures that the following clause is placed in every DOT-assisted contract and subcontract.

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as recipient deems appropriate.

Prompt Payment

The City of Rancho Cordova ensures that the following clauses or equivalent will be included in each DOT-assisted prime contract.

Prompt Progress Payment To Subcontractors

A prime contractor or subcontractor shall pay to any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless, a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to penalties, sanctions, and other remedies of that Section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise, available to the contractor or subcontractor in the event of a dispute involving late payment, or nonpayment by the contractor, or deficient subcontractor performance, or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors.

Prompt Payment Of Withheld Fund To Subcontractors

The City of Rancho Cordova shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptance of portions, as determined by the City of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the City. Any delay of postponement of payment may take place only for good cause and with the City's prior written approval. Any violation of these provisions shall subject the violating prime contractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise, available to the prime contractor or subcontractor in the event of a dispute involving late payment, or nonpayment by the contractor, or deficient subcontractor's performance, or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors.

XIII Monitoring and Enforcement Mechanisms (§26.37)

The City of Rancho Cordova will assign a Resident Engineer (RE) or Contract Manager to monitor and track actual DBE participation through contractor and subcontractor reports of payment in accordance with the following:

After Contract Award

After the contract award the City of Rancho Cordova will review the award documents for the portion of items each DBE and first tier subcontractor will be performing and the dollar value of that work. With these documents the RE/Contract Manager will be able to determine the work to be performed by the DBEs or subcontractors listed.

Preconstruction Conference

A preconstruction conference will be scheduled between the RE and the contractor or their representative to discuss the work each DBE subcontractor will perform.

Before work can begin on a subcontract, the local agency will require the contractor to submit a completed "Subcontracting Request," Exhibit 16-B of the Local Assistance Procedures Manual (LAPM). When the RE receives the completed form it will be checked for agreement of the first tier subcontractors and DBEs. The RE will not approve the request when it identifies someone other than the DBE or first tier subcontractor listed in the previously completed "Local Agency Bidder DBE Information," Exhibit 15-G. The "Subcontracting Request" will not be approved until any discrepancies are resolved. If an issue cannot be resolved at that time, or there is some other concern, the RE will require the contractor to eliminate the subcontractor in question before signing the subcontracting request. A change in the DBE or first tier subcontractor may be addressed during a substitution process at a later date.

Suppliers, vendors, or manufacturers listed on the "Local Agency Bidder DBE Information" will be compared to those listed in the completed Exhibit 16-I. Differences must be resolved by either making corrections or requesting a substitution.

Substitutions will be subject to the Subletting and Subcontracting Fair Practices Act (FPA). Local agencies will require contractor to adhere to the provisions within Subletting and Subcontracting Fair Practices Act (State Law) Sections 4100-4114. FPA requires the contractor to list all subcontractors in excess of one half of one percent (0.5%) of the contractor's total bid or $10,000 whichever is greater. The statue is designed to prevent bid shopping by contractors. The FPA explains that a contractor may not substitute a subcontractor listed in the original bid except with the approval of the awarding authority.

The RE will give the contractor a blank Exhibit 17-F. "Final Report Utilization of Disadvantaged Business Enterprises, First Tier Subcontractors" and will explain to them that the document will be required at the end of the project, for which payment can be withheld, in conformance with the contract.

Construction Contract Monitoring

The RE will ensure that the RE's staff (inspectors) know what items of work each DBE is responsible for performing. Inspectors will notify the RE immediately of apparent violations.

When a firm other than the listed DBE subcontractor is found performing the work, the RE will notify the contractor of the apparent discrepancy and potential loss of payment. Based on the contractor's response, the RE will take appropriate action: The DBE Liaison Officer will perform a preliminary investigation to identify any potential issues related to the DBE subcontractor performing a commercially useful function. Any substantive issues will be forwarded to the Caltrans Disadvantaged Business Enterprise Program. If the contractor fails to adequately explain why there is a discrepancy, payment for the work will be withheld and a letter will be sent to the contractor referencing the applicable specification violation and the required withholding of payment.

If the contract requires the submittal of a monthly truck document, the contractor will be required to submit documentation to the RE showing the owner's name; California Highway Patrol CA number; and the DBE certification number of the owner of the truck for each truck used during that month for which DBE participation will be claimed. The trucks will be listed by California Highway Patrol CA number in the daily diary or on a separate piece of paper documentation. The numbers are checked by inspectors regularly to confirm compliance.

Providing evidence of DBE payment is the responsibility of the contractor.

Substitution

When a DBE substitution is requested, the RE/Contract Manager will request a letter from the contractor explaining why substitution is needed. The RE/Contract Manager must review the letter to be sure names and addresses are shown, dollar values are included, and reason for the request is explained. If the RE/Contract Manager agrees to the substitution, the RE/Contract Manager will notify, in writing, the DBE subcontractor regarding the proposed substitution and procedure for written objection from the DBE subcontractor in accordance with the Subletting and Subcontracting Fair Practices Act. If the contractor is not meeting the contract goal with this substitution, the contractor must provide the required good faith effort to the RE/Contract Manager for local agency consideration.

If there is any doubt in the RE/Contract Manager's mind regarding the requested substitution, the RE/Contract Manager may contract the DLAE for assistance and direction.

Record Keeping and Final Report Utilization of Disadvantaged Business Enterprises

The contractor shall maintain records showing the name and address of each first-tier subcontractor. The record shall also show:

1. The name and business address, regardless of tier, of every DBE subcontractor, DBE vendor or material and DBE trucking company.
2. The date of payment and the total dollar figure paid to each of the firms.

3. The DBE prime contractor shall also show the date of work performed by their own forces along with the corresponding dollar value of the work claimed toward DBE goals.

When a contract has been completed, the contractor will provide a summary of the records stated above. The DBE utilization information will be documented on the form "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors" (Exhibit 17-F) and will be submitted to the DLAE attached to the Report of Expenditures. The RE will compare the completed "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First Tier Subcontractors" form to the contractor's completed "Local Agency Bidder-DBE-Information" (Exhibit 15-G) and, if applicable, to the completed "Subcontracting Request" (Exhibit 16-B). The DBEs shown on the completed form "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors" form should be the same as those originally listed unless an authorized substitution was allowed, or the contractor used more DBEs and they were added. The dollar amount should reflect any changes made in planned work done by the DBE. The contractor will be required to explain in writing why the names of the subcontractors, the work items or dollar figures are different from what was originally shown on the completed form "Local Agency Bidder-DBE-Information" form when:

- There have been no changes made by the RE.
- The contractor has not provided a sufficient explanation in the comments section of the completed "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors" form.

The explanation will be attached to the completed "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors" form for submittal. The RE will file this in the project records.

The City of Rancho Cordova Liaison Officer will keep track of the DBE certification status on the Internet at www.dot.ca.gov/hq/bep and keep the RE informed of changes that affect the contract. The RE will require the contractor to act in accordance with existing contractual commitments regardless of decertification.

The DLAE will use the PS&E checklist to monitor the City of Rancho Cordova's commitment to require bidders list information to be submitted to the City from the awarded prime and subcontractors as a means to develop a bidders list. This monitoring will only take place if the bidders list information is required to be submitted as stipulated in the special provisions.

The City of Rancho Cordova will bring to the attention of the DOT through the DLAE any false, fraudulent, or dishonest conduct in connection with the program, so that DOT can take the steps (e.g., referral to the Department of Justice for criminal prosecution, referral to the DOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules) provided in §26.109. The City of Rancho Cordova also will consider similar action under our own legal authorities, including responsibility determinations in future contracts.

XIV Overall Goals (§26.45)

The City of Rancho Cordova's overall goal for the federal fiscal year FY 2005/2006 is the following: 5% of the federal financial assistance in DOT-assisted contracts.

Methodology

Use of DBE Directories and Census Bureau Data

The City determined the number of ready, willing and able DBEs in the City's market. Using the Cansus Bureau's County Business Patter (CBP) database, determined the number of all ready, willing and able business available in the City's market that perform work in the same SIC codes. The number of DBEs was then divided by all businesses to derive a base figure for the relative availability of DBEs in the City's market.

Breakout of Estimate Race-Neutral and Race-Conscious Particiaption

Race and gender neutral methods will include: Making efforts to assure that bidding and contract requirements facilitate participation by DBEs and other small businesses; unbundling of large contracts to make them more accessible to small businesses; encouraging prime contractors to subcontract portions of the work that they might otherwise perform themselves; and providing information and access to City's electronic website and directory. The remaining portion of the annual goal is anticipated to be accomplished through race-conscious measures, which includes establishing contract specific goals on contracts with contracting possibilities, when needed, to meet the City of Rancho Cordova's overall annual DBE goal.

Process

Starting with the federal year 2005/2006, the amount of overall goal, the method to calculate the goal, and the breakout of estimated race-neutral and race-conscious participation will be required annually by June 1 in advance of the federal fiscal year beginning October 1 for DOT-assisted contracts. Submittals will be to the Caltrans' DLAE. An exception to this will be if FTA or FAA recipients are required by FTA or FAA to submit the annual information to them or a designee by another date. FHWA recipients will follow this process.

Once the DLAE has responded with preliminary comments and the comments have been incorporated into the draft overall goal information, the City of Rancho Cordova will publish a notice of the proposed overall goal, informing the public that the proposed goal and its rationale are available for inspection during normal business hours at the City's principal office for 30 days following the date of the notice. The notice must be published in general circulation media and available minority-focused media and trade association publications. The notice will include addresses to which comments may be sent and addresses (including offices and websites) where the proposal may be reviewed.

The overall goal resubmission to the Caltrans DLAE, will include a summary of information and comments received during this public participation process and the City's responses. This will be due by September 1

to the Caltrans DLAE. The DLAE will have a month to make a final review so the City may begin using the overall goal on October 1 of each year.

If there is a design build please refer to Appendix B of this DBE Program

XV Contract Goals (§26.51)

The City of Rancho Cordova will use contract goals to meet any portion of the overall goal the City does not project being able to meet by the use of race-neutral means. Contract goals are established so that, over the period to which the overall goal applies, they will cumulatively result in meeting any portion of the overall goal that is not projected to be met through the use of race-neutral means.

Contract goals will be established only on those DOT-assisted contracts that have subcontracting possibilities. Contract goals need not be established on every such contract, and the size of contract goals will be adapted to the circumstances of each such contract (e.g., type and location of work, availability of DBEs to perform the particular type of work). The contract work items will be compared with eligible DBE contractors willing to work on the project. A determination will also be made to decide which items are likely to be performed by the prime contractor and which ones are likely to be performed by the subcontractor(s). The goal will then be incorporated into the contract documents. Contract goals will be expressed as a percentage of the total amount of DOT-assisted contract.

XVI Transit Vehicle Manufacturers ((§26.49)

If DOT-assisted contracts will include transit vehicle procurements, the City of Rancho Cordova will require each transit vehicle manufacturer, as a condition of being authorized to bid or propose on transit vehicle procurements, to certify that it has complied with the requirements of 49 CFR Part 26, Section 49. The City will direct the transit vehicle manufacturer to the subject requirements located on the Internet at http://osdbuweb.dot.gov/programs/dbe/dbe.htm.

XVII Good Faith Efforts (§26.53)

Information to be Submitted

The City of Rancho Cordova treats bidders'/offerors' compliance with good faith effort requirements as a matter of responsiveness. A responsive proposal is meeting all the requirements of the advertisement and solicitation.

Each solicitation for which a contract goal has been established will require the bidders/offerors to submit the following information to the City no later than 4:00 p.m. on or before the fourth day, not including Saturdays, Sundays and legal holidays, following bid opening:

1. The names and addresses of known DBE firms that will participate in the contract;
2. A description of the work that each DBE will perform;
3. The dollar amount of the participation of each DBE firm participation;

4. Written and signed documentation of commitment to use a DBE subcontractor whose participation it submits to meet contract goal;
5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment; and
6. If the contract goal is not met, evidence of good faith efforts.

Demonstration of Good Faith Efforts

The obligation of the bidder/offeror is to make good faith efforts. The bidder/offeror can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts. Examples of good faith efforts are found in Appendix A to Part 26 which is attached.

The following personnel are responsible for determining whether a bidder/offeror who has not met the contract goal has documented sufficient good faith efforts to be regarded as responsive: Kathy Garcia, Public Works Department, 3121 Gold Canal Drive, Rancho Cordova CA 95670.

The City of Rancho Cordova will ensure that all information is complete and accurate and adequately documents the bidder/offeror's good faith efforts before a commitment to the performance of the contract by the bidder/offeror is made.

Administrative Reconsideration

Within 10 days of being informed by the City that it is not responsive because it has not documented sufficient good faith efforts, a bidder/offeror may request administrative reconsideration. Bidder/offerors should make this request in writing to the following reconsideration official: City Manager, City of Rancho Cordova, 3121 Gold Canal Drive, Rancho Cordova CA 95670 . The reconsideration official will not have played any role in the original determination that the bidder/offeror did not make or document sufficient good faith effort.

As part of this reconsideration, the bidder/offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder/offeror will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. The City will send the bidder/offeror a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to Caltrans, FHWA or the DOT.

Good Faith Efforts when a DBE is Replaced on a Contract

The City of Rancho Cordova will require a contractor to make good faith efforts to replace a DBE that is terminated or has otherwise failed to complete its work on a contract with another certified DBE, to the extent needed to meet the contract goal. The prime contractor is required to notify the RE immediately of the DBE's inability or unwillingness to perform and provide reasonable documentation.

In this situation, the prime contractor will be required to obtain the City's prior approval of the substitute DBE and to provide copies of new or amended subcontracts, or documentation of good faith efforts. If the

contractor fails or refuses to comply in the time specified, the City's contracting office will issue an order stopping all or part of payment/work until satisfactory action has been taken. If the contractor still fails to comply, the contracting officer may issue a termination for default proceeding.

XVIII Counting DBE Participation (§26.55)

The City of Rancho Cordova will count DBE participation toward overall and contract goals as provided in the contract specifications for the prime contractor, subcontractor, joint venture partner with prime or subcontractor, or vendor of material or supplies.

XIX Certification (§26.83(a))

The City of Rancho Cordova ensures that only DBE firms currently certified on the Caltrans' directory will participate as DBEs in our program.

XX Information Collection and Reporting

Bidders List

The City of Rancho Cordova will create and maintain a bidders list, consisting of information about all DBE and non-DBE firms that bid or quote on its DOT-assisted contracts. The bidders list will include the name, address, DBE/non-DBE status, age, and annual gross receipts of firms.

Monitoring Payment to DBEs

Prime contractors are required to maintain records and documents of payments to DBEs for three years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative of the City, Caltrans, FHWA, or DOT. This reporting requirement also extends to any certified DBE subcontractor.

Payment to DBE subcontractors will be reviewed by the City to ensure that the actual amount paid to DBE subcontractors equals or exceeds the dollar amounts stated in the schedule of DBE participation.

Reporting to Caltrans

The City of Rancho Cordova's final utilization of DBE participation will be reported to the DLAE using Exhibit 17-F of the Caltrans' LAPM.

Confidentiality

The City of Rancho Cordova will safeguard from disclosure to third parties information that may reasonably be regarded as confidential business information, consistent with federal, state, and local laws.

_____

City Manager **Date:** _____

This Disadvantaged Business Enterprise Program for design-build contracts is accepted by:

_____ **Date:** _____

[Signature of DLAE]

APPENDIX A TO PART 26 – GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT-assigned contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they are not fully successful.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as a part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested in taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible unites to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent within available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

APPENDIX B
TO BE USED FOR DESIGN-BUILD CONTRACTS

The following are hereby incorporated into the Agency's Disadvantaged Business Enterprise (DBE) program:

II Objectives/Policy Statement (§§26.1, 26.23)

At the end of the first paragraph, add the following:

The City recognizes that certain modifications are necessary to adapt the program for use in connection with design-build contracts, and has therefore established certain procedures applicable to design-build DBE contracts under the DBE Program. Public Contract Code Section 4109 requires subcontractors to be identified by the prime contractor for the subletting or subcontracting of any portion of the work in excess of one-half of 1 percent of the prime contractor's total bid. Exceptions are only in the cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the awarding authority setting forth the facts constituting the emergency or necessity. The written public record of the City as to either emergency or necessity is attached hereto (See Appendix C for sample).

XIII Monitoring and Enforcement Mechanisms (§26.37)

At the end of the first paragraph below "After Contract Award", add the following paragraph:

After Design-Build Contract Award

As described in the Section entitled "GOOD FAITH EFFORTS" below, each prosper for a City design-build contract will be required to submit a DBE Performance Plan as part of a responsive proposal. Following award of a design-build contract and during both the design and construction portions of the project, the design-build contractor will be required to submit documentation, in the form of progress reports described below, to show that the design-build contractor must submit satisfactory evidence that it has made good faith efforts, in accordance with Section XVII, to meet the goal. Evidence of good faith efforts, as described in 49 CFR Part 26 Section 26.53 and Appendix A, will be monitored by the City throughout the duration of the design-build project.

At the end of the first paragraph below "Preconstruction Conference", add the following sentence:

The contractor will promptly provide the City with the information required by the form entitled "Local Agency DBE Information" upon selection of any DBE or other subcontractor not previously identified by the design-build contractor. During the course of the contract, differences must be explained and resolved by either making corrections or requesting a substitution.

At the end of the fourth paragraph below "<u>Construction Contract Monitoring</u>", add the following paragraph:

The contractor will provide DBE Progress Reports to the City with each invoice and will provide an annual report on or before August 1 of each year of the design-build contract. Each report must also include a narrative summary stating whether the contractor is on target with respect to the DBE goal set forth in the design-build contract, whether the goal has been exceeded (stating the amount of the excess), or whether the contractor is behind target (stating the amount of the deficit).

XVII Good Faith Efforts (§26.53)

At the end of the third paragraph below "Information to be Submitted", add the following items:

7. A DBE Performance Plan containing a detailed description of the design-build contractor's planned methodology for achieving the DBE goal stated in the contract, including a description of the good faith efforts the design-build contractor intends to undertake to achieve that goal.

8. A design-build proposal must also include an affidavit that the proposer will either attain the DBE goals for the design-build contract or will exercise good faith efforts to do so.

At the end of the first paragraph below "Demonstration of Good Faith Efforts", add the following sentence:

If it is a design-build contract, each contractor proposing will be required to submit a DBE Performance Plan as part of a responsive proposal and good faith efforts.

_____

City Manager **Date:** _____

This Disadvantaged Business Enterprise Program for design-build contracts is accepted by:

_____ **Date:** _____

[Signature of DLAE]

APPENDIX C

RESOLUTION OF THE CITY OF RANCHO CORDOVA
REGARDING NECESSITY OR EMERGENCY FOR SUBSEQUENT
SUBCONTRACTOR IDENTIFICATION AND SELECTION FOR
DESIGN-BUILD CONTRACTS

(REQUIRED BY PUBLIC CONTRACT CODE SECTION 4109
ENTITLED "Public Emergency Grounds for Change")

A. EXPLANATION OF PUBLIC NECESSITY OR EMERGENCY

B. FACTS CONSTITUTING THE PUBLIC NECESSITY OR EMERGENCY

C. FINDINGS

D. RESOLUTION FOR SUBSEQUENT IDENTIFICATION OF SUBCONTRACTORS

E. ADOPTION OF PROCEDURE TO BE USED BY DESIGN-BUILD CONTRACTOR FOR SUBSEQUENT IDENTIFICATION OF SUBCONTRACTORS

F. CERTIFICATE OF SECRETARY

1. MOTION MADE AND DATE

2. VOTING RESULTS

3. SIGNATURES

(a) Secretary

(b) Chairperson

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ANNUAL OVERALL GOAL INFORMATION

TO: **CALTRANS DISTRICT _____**

District Local Assistance Engineer

The amount of overall goal, methodology, breakout of estimated race-neutral and race-conscious participation, and any DBE program updates are presented herein in accordance with Title 49 of the Code of Federal Regulations Part 26, and as described in the *Local Assistance Procedures Manual.*

The City of Rancho Cordova Submits our annual overall goal information (and any needed updates of our DBE program) for your review and comment. We propose an annual overall DBE goal of 5.0% for the Federal Fiscal Year 2005/2006, beginning on July 1, 2005 and ending on June 30, 2006.

Methodology

Use of DBE Directories and Census Bureau Data

The City will determine the number of ready, willing and able DBEs in the City's market. Using the Cansus Bureau's County Business Patter (CBP) database, determine the number of all ready, willing and able business available in the City's market that perform work in the same SIC codes. The number of DBEs is then divided by all businesses to derive a base figure for the relative availability of DBEs in the City's market.

DBE Program Updates

None for Federal Fiscal Year 2005/2006

_____ Date: _____

DEB Liaison Officer

PUBLIC HEARING

CITY OF RANCHO CORDOVA

NOTICE IS HEREBY GIVEN that the City of Rancho Cordova has plans to establish an Overall Annual Disadvantage Business Enterprise Goal, applicable to contracting opportunities scheduled to be awarded during the fiscal year of 2005 – 2006. The City of Rancho Cordova's proposed Overall Annual Goal and its rationale were developed in response to U. S. Department of Transportation's New Disadvantage Business Enterprise Program Final Rule (49 CFR Part 26).

The City of Rancho Cordova's Public Hearing will be held:

Date: May 16, 2005
Place: City of Rancho Cordova
City Hall
3121 Gold Canal Drive
Rancho Cordova, CA 95670
Time: 5:30 P.M.

If you have any questions please contact Kathy Garcia, Public Works, 3121 Gold Canal Drive, Rancho Cordova, CA 95670, or telephone (916) 942-0243.

CITY OF RANCHO CORDOVA
OVERALL ANNUAL DBE GOAL AND METHODOLOGY

1. USDOT-ASSISTED CONTRACTING PROGRAM FOR FFY 2005/06

The following is a list of the City of Rancho Cordova's USDOT-assisted projects to be designed and/or constructed during Federal Fiscal Year (FFY) 2005/06:

PROJECT DESCRIPTION	TOTAL PROJECT COST	ESTIMATED USDOT FUNDING VALUE	USDOT FUNDING AMOUNT BY WORK CATEGORY	
			HIGHWAY	HEAVY CONSTRUCT.
US 50 at Mather Field Rd. Interchange Landscape	$1.4M	$1.2M		$1.01M
TOTAL	**$1.4M**	**$1.2M**		**$1.01M**

The following represents the City of Rancho Cordova's projected USDOT-funded contracts and expenditures by work category and corresponding North American Industry Classification System (NAICS) for FFY 2005/06:

WORK CATEGORY	NAICS CATEGORY	ESTIMATED USDOT FUNDING VALUE	% OF FEDERAL FUNDING BY WORK CATEGORY
Construction (Landscaping Contactor)	23	$1.2M	100%
TOTAL		**$1.2M**	**100%**

2. GOAL-METHODOLOGY

Step 1: Determination of Base Figure

The City of Rancho Cordova utilized the Census Bureau's County Business Pattern (CBP) database and the Caltrans DBE Directory as a means of establishing the City's Base Figure of relative availability of DBEs for FFY 2005/06 in the market in the greater Sacramento area and outlining areas.

To derive the Base Figure for the relative availability of DBEs, the number of DBEs available in Caltrans' DBE Directory (by NAICS code), is divided by the number of all comparable CBP firms (by NAICS code) available.

The following table describes the ratio of DBE firms in the Rancho Cordova relevant market area determined from of Caltrans DBE Directory and CBP information.

Ratio of DBE Firms in Rancho Cordova Relevant Market Area Based on Caltrans DBE Directory and CBP

Construction (Landscape Contractors)						
	No. of DBE Firms		Non-BDE Classification		Total	
	#	%	#	%	#	%
Total	16	5%	355	95%	371	100%

Calculating the Base Figure

The Base Figure resulting from the relevant market area DBE availability data is 5%. This percentage is obtained by multiplying the percentage of federal funding available for each category by the relative availability of DBEs in that category as follows:

Construction

Base Figure = [(.100)(5.0%)] = 5%

The City also compared the base goals of other local agencies with similar markets such as the City of Citrus Heights whose overall DBE goals for 2005/06 is 5% and the City of Folsom's overall DBE is 12%.

Step 2: Adjusting the Base Figure

Current Capacity of DBEs Measured by Actual Attainments

The City of Rancho Cordova incorporated in July 2003. For that reason, the City does not have available relevant data needed to determine what additional adjustments to the Base Figure derived in Step 1 to narrowly tailor the Base Figure to Rancho Cordova's marketplace. At this time, the City is currently still in the process of collecting the data regarding DBE participation within the City's jurisdiction and necessary in determining the Base Figure adjustments. Therefore the City is unable to assess current capacity of DBEs measured by Actual Attainments.

Disparity Study Results; DBE Availability Ratios vs. Utilization Ratios

The City of Rancho Cordova has not identified any disparity studies relevant to the projected USDOT-assisted contracting program in the City of Rancho Cordova's market area.

3. PUBLIC PARTICIPATION IN SETTING OVERALL ANNUAL DBE GOALS

In conformance with Public Participation Regulatory Requirements of 49 CFR Part 26.45 and Caltrans Local Assistance Procedures Manual (LAPM) – Chapter 9, this goal analysis will be reviewed with minority, women, local business chambers, community organizations, and other USDOT recipients. These entities are knowledgeable about the availability of disadvantaged and non-disadvantaged businesses and the effects of discrimination on contracting opportunities for DBEs within the City of Rancho Cordova's marketplace.

Additionally, the City of Rancho Cordova will publish a Public Notice in general circulation media and women/minority focused media, announcing the City of Rancho Cordova's proposed overall annual goals for the FY 2004/05 contracts assisted by USDOT. Such Notice shall inform the public that the proposed goals and their rationale will be available for the inspection at the City of Rancho Cordova during normal business hours for 30 days following the data of the Public Notice and, that the City of Rancho Cordova and Caltrans District 3 office will accept comments on the goals for 45 days from the date of the Public Notice. The required public participation provisions will be fully satisfied prior to submitting the City of Rancho Cordova's DBE Program and Overall Annual DBE Goal for Final Review and Approval.

MEMORANDUM

DATE: May 2, 2005

TO: Mayor and Council Members

FROM: Thomas L. Trimberger, Chief Building Official

SUBJECT: **RESOLUTION NO. 54-2005 DOCUMENTING FINDINGS FOR LOCAL ELECTRICAL CODE AMENDMENTS & ORDINANCE NO. 11-2005 UPDATING THE RANCHO CORDOVA ELECTRICAL CODE**

RECOMMENDATION

1. Receive the Staff Report
2. Open Public Hearing
3. Receive testimony
4. Close Public Hearing
5. Adopt the Resolution No. 54-2005 documenting findings necessary for local amendments
6. Introduce Ordinance No. 11-2005, waive its full reading, and continue the Ordinance to the Council meeting of May 16, 2005 for adoption.

BACKGROUND

This ordinance will accomplish two requirements. First, this ordinance will adopt the most recent Electrical Code mandated by the California Building Standards Commission to take effect on August 1, 2005. Secondly, it allows the City to tailor its amendments to the state mandated codes.

State Law requires that all local amendments to Building Standards be filed with the California Building Standards Commission due to local seismic, geographic, or climactic conditions. This filing will be made subsequent to action by the Council.

A summary of amendments is included as "Attachment A". The effective date of the Rancho Cordova Electrical Code would be August 1, 2005

AMENDMENT DRAFTING PROCESS

The ordinance adopts the 2002 National Electric Code (NEC), as published by the National Fire Prevention Association (NFPA). This is the model code adopted by the state which must be enforced by all jurisdictions in California.

AGENDA ITEM # 8

The book has been reformatted, but there are no significant changes from the existing 1999 NEC.

The ordinance contains local code amendments to the model code. These amendments were developed by comparison with local jurisdictions and feedback from Building and Safety staff, local contractors, builders, designers, and enforcement personnel. It is very similar to the existing Rancho Cordova Electrical Code and is basically a status quo update.

The overall philosophy of the adoption has been to keep the mandatory code requirements to the minimum specified by model code organizations. These code organizations promulgate codes with many years of development and tens of thousand of hours from professionals of many jurisdictions. Every aim was taken to avoid the addition of unnecessary restrictions.

Even though the goal was to minimize the amendments, several amendments have been made. Several are a result of coordination with local requirements by SMUD and/or Sacramento Metropolitan Fire District requirements. All modifications to building standards are connected to climactic, geographic and/or topographical findings as required by state regulation. All are continuations of existing practices and amendments from Sacramento County and surrounding jurisdictions.

See Attachment A for a brief description of each locally proposed amendment.

FINANCIAL ANALYSIS

There is no significant financial impact on the City or on the public. The overall cost to the public for construction could go down incrementally as the result of an overall loosening of previous County restrictions on construction practices.

ATTACHMENTS: Summary of Electrical Code Amendments
Resolution No. 54-2005
Ordinance No. 11-2005

Attachment A

Summary of Electrical Code Amendments

Description	Article
A. This amendment administratively defines when a product is "approved"	90.5(D)
B. This amendment requires that common areas in buildings. Site lighting, parking lot lighting, lobbies, etc. be controlled from a house meter and not billed to a tenant.	210.26
C. This amendment assures appropriate anchorage at fences and roofs.	225.20(A) and (B)
D. This amendment provides an additional level of safety for unprotected overhead service entrances.	230.28(A) and (B)
E. This amendment limits the wiring methods for service entrance conductors to coordinate with SMUD requirements.	230.43
F. This amendment limits the length of unprotected service entrance conductors. This is a safety issue for firefighters and those involved in building remodeling and construction.	230.70(D)
G. This amendment requires a single main disconnect means. This allows firefighters to shut off the power to a building quickly and easily.	230.71
H. This amendment prohibits panel boards in storage areas that are often cluttered and may contain combustibles.	240.24(F)
I. This amendment provides for proper grounding in buildings. Many building are or will be retrofitted with nonmetallic water services, which eliminates proper grounding through conventional means.	250.50
J. This amendment limits the use of wiring methods in commercial buildings to methods that are listed and appropriate for its uses. It effectively eliminates "Rome" and "Knob and Tube" wiring in commercial buildings.	300.2(C)
K. This amendment increases the depth of cover for an underground service to match SMUD requirements.	300.5(K).
L. This amendment requires light fixtures to be independently supported in suspended ceilings.	410.16(C)
M. This amendment administratively requires permitting and labeling of electrical signs. Electric signs are not appropriately covered by model code and are often installed with a lesser degree of electrical expertise. The labeling and permit requirements help maintain a more appropriate level of expertise and enforcement.	600.1(A) and (B)
N. This requirement is an agreement with SMUD to allow for easy future installation of electric vehicle charging stations in new homes.	625.9(G)

CITY OF RANCHO CORDOVA

RESOLUTION NO. 54-2005

A RESOLUTION OF THE CITY COUNCIL OF RANCHO CORDOVA FINDING AND DETERMINING THE NEED FOR MODIFICATIONS TO THE CALIFORNIA BUILDING STANDARDS CODE

RECITALS

WHEREAS, Title 24 of the California Code of Regulations, also known as the California Building Standards Code ("CBSC"), contains construction standards applicable to local jurisdictions throughout the state including the City of Rancho Cordova ("City"); and

WHEREAS, when reasonably necessary due to local climatic, geological, or topographical conditions, Health and Safety Code Sections 17958.5 and 18941.5 permit the City to establish more restrictive building standards than those set forth in the CBSC; and

WHEREAS, before making changes to the CBSC pursuant to Health and Safety Code Section 17958.5, Health and Safety Code Section 17958.7 requires the City to make express findings that such changes are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, the City is adopting local amendments to the California Electrical Code; and

WHEREAS, these local amendments have been evaluated and recognized by the City as tools for addressing problems with building construction in the City of Rancho Cordova, which are aimed at establishing and maintaining an environment that will afford the City a high level of fire and life safety to all those who work live and play within the City's boundaries; and

WHEREAS, once adopted, the City is required to file its local amendments and findings with the California Building Standards Commission.

DECISION

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Rancho Cordova hereby declares and finds the following:

A. The City, pursuant to the authority granted it under California Health and Safety Code Sections 17958.5 and18941.5, has determined that there is a need to establish building standards that are more restrictive than those adopted by the State of California and found in Title 24 and Title 25 of the California Code of Regulations. These new building standards have been determined by the City of Rancho Cordova to address the problems, concerns and future direction by which the City can establish and maintain an environment which will afford an appropriate level of fire and life safety to all who live and work within its boundary.

B. The City has determined that it is necessary to amend state building standards found in the electrical code of the California Building Standards Code. The City's amendments are set forth in Rancho Cordova Ordinance 11-2005.

C. Under the provisions of Sections 17958.5 and 18941.5 of the Health and Safety Code, the amendment of state building standards at the local level must be reasonably necessary due

to local climatic, topographical and/or geological conditions and the City must make express findings in this regard. The Council has determined that the following findings of fact address and present the local climatic, topographical, and/or geological conditions, which either singularly or in combination, has caused the aforementioned amendments to be adopted:

1. CLIMATIC

a. The Rancho Cordova area has extreme variations in weather patterns: summers are arid and hot, winters are cool to freezing, fall and spring can bring any combination of weather pattern together. As a result, the climate in the Rancho Cordova area can have a great influence on fire behavior and other major emergency events in the City.

b. The City of Rancho Cordova has a mix of urban and rural areas and is undergoing a tremendous amount of developmental and population growth. The population growth has impacted service levels causing a fiscal strain on emergency services and the result is increased response times. In addition, intensive use of land in urban areas means bigger buildings, which can also create complex problems for fire safety.

c. The doubling of average rainfall called an "El Nino" event has occurred from time to time and does cause the grass to mature and grow in excess of six feet high before it dries out. Ten square feet of this type of fuel is equivalent to the energy content of one gallon of gasoline. The building of homes within the weed covered rural areas and the existence of combustible weeds on vacant urban lots coupled with windy conditions creates a recipe for disaster.

d. Average yearly rainfall for the City is approximately 17.87 inches. This rainfall normally occurs from October to April. Low-level fog (tule fog) is present throughout the winter months, which brings visibility to almost zero feet. The fog delays emergency responders and has caused numerous vehicle accidents including the December 11, 1997, Interstate 5 incident in Elk Grove which involved 36 vehicles and caused 31 casualties including 5 fatalities. The fog can also contribute to freezing and slick roadways.

e. During the summer months there is generally no measurable precipitation. Temperatures for this dry period range from 70 to 112 degrees F and are frequently accompanied by light to gusty Delta winds. The relative humidity during summer months ranges from 2 to 30 mmHG, which is arid. The City contains several areas of grasslands, which, in conjunction with the dry and windy conditions create a hazardous situation, which has lead to extensive grass and brush fires in recent years. Development is extending from the urban core into the grass-covered areas. Wind-driven fires could and have led to serious consequences in similar areas of the state.

f. In the past, several consecutive years of drought conditions have occurred, thus reducing the available water supply. Ground water as well as surface supplies have been affected. The drought conditions have led to lower water tables, reduced fire flow testing, water contamination, water conservation efforts, and increased demands on water systems due to extreme population growth. These impacts have negatively impacted water use and availability for the fire service. The degradation of water systems reduces the quality of fixed fire protection as well as fire suppression activities. As an example, in 1998, the City of Sacramento lowered its static water pressure from 50 psi. to 30 psi. This change will make many fire protection systems ineffective and corrective measures such as adding pressure increasing booster pumps will be necessary at great cost to the community.

g. The City of Rancho Cordova is in an area with localized pockets of high water tables.

Additionally, the semi-arid climate in Rancho Cordova receives 16.4 inches mean rainfall in the 9 months from October to April with an average of 40 days of fog. The combination of effects leaves hot, dry summers, and cool, damp winters. Either or both of these factors can cause prolonged soils saturation, which can cause an increased risk of moisture intrusion into homes.

2. TOPOGRAPHICAL

a. The City is bisected by numerous topographical features including a river, creeks, aqueducts, lakes, sloughs, natural parkways, open space, bridges/overpasses, freeways, railroad tracks, light rail tracks, drainage canals, and sprawling industrial facilities, such as Gencorp Aerojet and Mather Business Park. Traffic has to be channeled around several of these topographical features and limitations, which creates traffic congestion and delays emergency response. These features are located between many of the fire stations located within the City of Rancho Cordova. As a result of the OSHA "two in-two out" rule, which requires two fire fighters ready to make fire attack only when two others are present, it is imperative that no delays affect the timely response of the fire fighters.

b. Heavy traffic congestion on the City's major streets already acts as a barrier to timely response for fire and emergency vehicles. As a result of increased development, some roadways in the City are expected to have significantly increased traffic flow rates in the future. In the event of an accident or other emergency sections of the City could be isolated or response time could be sufficiently slowed so as to increase the risk of injury or damage.

c. Preservation of wetland areas, natural parkways, riparian corridors along rivers/streams, vernal pools, open space and endangered species habitat have all contributed to access problems as well as exemption from vegetation abatement programs. These situations, though very environmentally important, do increase the demands on the fire service due to the extreme fire hazard created by fuel loading and limited access.

d. Large areas of rural grasslands and rolling hills significantly increase response times to residential development in the City. Available infrastructure features, such as water supplies, do not provide sufficient fire flow in these areas. The rural geographical areas not yet provided with adequate fire protection are subject to a higher degree of risk without mitigating measures.

e. The City of Rancho Cordova is located within the Sacramento Valley. Summer weather conditions often create an inversion layer of high pressure which traps air pollution in the valley, and combines with the hot weather to create unhealthful effect of raising ozone levels. Automobile use has been found to be a major source of air pollution.

f. The City of Rancho Cordova contains several communities for which fire protection efforts are provided through "mutual aid" agreements allowing for each community to support each other. Although this system has its benefits, it can reduce fire station coverage during first and multiple response incidents. For example, a first alarm assignment draws two fire engines, one ladder truck and a water tender in a rural area emptying three fire stations. A home as little as 1,500 sq. ft can draw a second alarm assignment in some instances. This could take out of service as much as six fire stations. This situation would cause a "move-up" of other fire stations to cover the empty stations. Thus, up to 15 fire stations could ultimately be affected for a second alarm assignment/dispatch. If exacerbated by simultaneous calls/events, long term commitments to emergencies, station brown outs, out of service emergency vehicles, etc., extended response times will occur.

3. GEOLOGICAL

a. The Rancho Cordova Area is subject to ground tremors from seismic events as the City is in Seismic Zone 3. Water inundation has occurred in the portion that lay in river Delta areas. Intricate levee systems hold back a portion of the floodwater, however, development has moved into areas that have the potential for flooding.

b. The City of Rancho Cordova is in an area with localized pockets of clay and expansive soils. These soil conditions have been found to be a source of concern for footing and foundation design. Additionally, expansive soils can hold large amounts of moisture for extended periods of time. Either of these factors, or a combination of both has been found to create an increased risk of moisture intrusion under slabs in certain, common construction methods.

c. Rancho Cordova and its surrounding region contain many pockets of "hot" or corrosive soils. Galvanic corrosion is self-generating and occurs on the surface of a metal exposed to an electrolyte (such as moist, salt-laden soil). The action is similar to that which occurs in a wet, or dry, cell battery. Differences in electrical potential between locations on the surface of the metal (pipe) in contact with such soil may occur for a variety of reasons, including the joining of different metals (iron and copper or brass for example). This can be due to the characteristics of the soil in contact with the pipe surface, e.g., pH, soluble salt, oxygen and moisture content, soil resistivity, temperature and presence of certain bacteria. Any one or a combination of these factors may cause a small amount of electrical current to flow through the soil between areas on the pipe or metal surface. Where this current discharges into the soil from such an area, metal is removed from the pipe surface and corrosion occurs. Premature failure of buried metallic pipe due to galvanic action has been experienced in the Rancho Cordova area for decades.

d. The City of Rancho Cordova is served with natural gas by the Pacific Gas and Electric Company (PG&E). The gas provided from PG&E is obtained primarily from sources in the Western United States and Canada. According to the Copper Development Association, Copper and copper alloy tube (except tin-lined copper tube) should not be used if the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 standard cubic feet (scf) of gas (0.7 mg/100 L). PG&E cannot assure that its gas supplies meet this criterion. Excess hydrogen sulfide will cause corrosion of pipes as well as the creation of copper sulfides, which can cause failures in the appliances served.

e. The City of Rancho Cordova is situated in "Seismic Zone 3" as defined by the International Code Council. This area contains a higher risk of seismic activity than most areas in the country. Catastrophic earthquakes account for 60% of worldwide casualties associated with natural disasters. Economic damage from earthquakes is increasing, even in technologically advanced countries, as shown by the 1989 Loma Prieta, CA, ($ 6 billion), 1994 Northridge, CA, ($ 25 billion), and 1995 Kobe, Japan, (> $ 100 billion) earthquakes. Additionally, a high degree of hazard to occupants has been found to occur from unsupported fixtures, appliances and appurtenances in ceilings. These fixtures, though small in size, have been found to create a significant hazard to occupants in the event of seismic activity.

D. Based upon the local climatic, topographical and geological conditions identified in Section C, the specific amendments identified in Rancho Cordova Ordinance 11-2005 are found to be reasonable and necessary modifications to the requirements established pursuant to Sections 17958.5 and 18941.5. While it is clearly understood that the adoption of such amendments may not prevent the incidence failures, the implementation of these various

amendments to the code attempt to reduce the severity and potential loss of life, property and protection of the environment.

E. California Health and Safety Code Section 17958.7 requires that building standards modifications or change be expressly marked and identified as to which each finding refers. Therefore, the City Council finds that the following table identifies the sections of the California Building, Plumbing and Electrical Codes that have been amended by the City and the corresponding local climatic, geological and topographical conditions, as identified in Section C, that have necessitated the modification of the state's building standards.

California Electrical Code Article:	
Article 80 Exclusion	(Administrative amendment - no justification required)
A. 210.25(A)	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
B. 225.22(A) and (B)	1.a, 1c,1e, 3a, 3e
C. 230.28(A) and (B)	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
D. 230.43	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
E. 230.70(D)	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
F. 230.71	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
G. 240.24(F)	1a, 1b, 1c, 1d, 1e. 1f, 1g, 2a, 2b, 3e
H. 250.50	3c
I. 300.2(C)	1a,1b,1c,1d,1e,1f,2a,2b,2c,2d,2f,3a
J. 300.5(L)	3e
K. 410.16(C)	3e
L. 600.1 (A) and (B)	1a, 2a, 2b, 3b,3e
M. 625.1(A)	2e,3e

BE IT FURTHER RESOLVED that a copy of this Resolution and Rancho Cordova Ordinance 11-2005 shall be filed with the California Building Standards Commission in accordance with Health and Safety Code Section 17958.7.

ADOPTED, THIS 16th day of May, 2005, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

_____
Ken Cooley, Mayor

ATTEST:

_____
Lillian E. Hare, City Clerk

CITY OF RANCHO CORDOVA

ORDINANCE NO. 11-2005

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AMENDING CHAPTER 16.28, "ELECTRICAL CODE," OF THE RANCHO CORDOVA MUNICIPAL CODE

THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA DOES ORDAIN AS FOLLOWS:

SECTION 1: Title 16, Chapter 16.28, "Electrical Code," is hereby amended to read as follows:

"Electrical Code

16.28.010 Title.
16.28.020 Purpose.
16.28.030 Adoption of Electrical Codes.
16.28.040 Amendment of Adopted Codes.

16.28.010 Title.

This chapter shall be known and cited as the "Rancho Cordova Electrical Code."

16.28.020 Purpose.

The purpose of the Rancho Cordova Electrical Code is to provide minimum electrical system standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, installation, and quality of materials.

16.28.030 Adoption of Electrical Codes.

The California Electrical Code, Part 3, Title 24 of the California Code of Regulations, a portion of the California Building Standards Code, as defined in the California State Health and Safety Code Section 18901 et. seq. (hereinafter referred to as the "State Code"), and any rules and regulations promulgated pursuant thereto including the National Electrical Code, 2002 Edition (excluding Article 80), as published by the National Fire Protection Association, and as referenced in and adopted pursuant to California State Health and Safety Code Sections 17922 and 18935, (hereinafter referred to as the "NEC") are hereby adopted and incorporated by reference herein. Except as otherwise provided by this Chapter and Chapter 16.02 of the Rancho Cordova County Code, all electrical systems associated with construction, alteration, moving, demolition, repair, and use of any building or structure within the County shall be made in conformance with the State Code and any rules and regulations promulgated pursuant thereto, including the NEC.

16.28.040 Amendment of Adopted Codes.

Notwithstanding the provisions of Section 16.28.030, the State Code and the NEC are amended as follows

A. Article 210.25(A) is added to read as follows:

210.25(A) Branch Circuits Serving Common Use Areas. All circuits serving common use areas and public use areas shall be served from house service equipment. Where buildings are multi.metered, a separate meter for house equipment shall be required.

B. Article 225.22(A) and (B) are added as follows:

225.22(A) Fences. Electrical equipment and conduit shall not be installed on any fence.

Exception:

Conduit and equipment shall be permitted on metallic and masonry fences when installed with a continuous support system.

225.22(B) Roofs. Raceways installed on or across roofs shall clear the roof a minimum of 1 ½" and be supported every 4' or less.

C. Article 230.28(A) and (B) are added to read as follows:

230.28(A) Service Entrance or Load Centers located in walls or partitions. When overhead service entrance conductors are installed in walls or partitions, they shall be enclosed in rigid metal or intermediate metal conduit of 1 ½ inch minimum trade size.

230.28(B) Service Entrance method of attachment. No overhead service drop shall be attached to the structure. The service mast shall be used as the support and shall be of 1 ½" rigid metal or intermediate metal conduit.

D.. Article 230.43 is amended to read as follows:

230.43 Wiring Methods for 600 Volts, Nominal, or Less. Service.entrance conductors shall be installed in accordance with the applicable requirements of this Code covering the wiring method used and shall be limited to the following methods:

(1) Rigid nonmetallic conduit
(2) Rigid metal conduit
(3) Intermediate metal conduit
(4) Auxiliary gutters
(5) Bussways that have been approved by the Building Official

E. Article 230.70(D) is added to read as follows:

230.70(D) Ten Foot Limit for Service Raceway. Service entrance conductors shall not extend inside any building for more than ten feet to reach the disconnect or overcurrent protection device except when under a concrete floor.

F. Article 230.71 is amended to read as follows:

230.71 Service Switches. A single main disconnecting means shall be provided for each set of service entrance conductors, the service overcurrent device shall be an integral part of the disconnecting means. It shall be located at the nearest readily accessible location either outside of building or structure or inside nearest the point of entrance of the service conductors.

Exceptions:
1. A main disconnecting means shall not be required on Group R occupancies with not more than 6 dwelling units.
2. For fire pumps where a separate service is required.
3. For Emergency Electrical systems where a separate service is required.
4. Up to six switches or circuit breakers may be permitted provided not more than one is rated less than 2000 amperes, 600 volts, and all switches or circuit breakers are installed in a common enclosure or group of enclosures.
5. Up to six switches or circuit breakers may be permitted for unmanned cellular monopole sites not located in or on a building.

G. Article 240.24(F) is added as follows:

240.24(F) Prohibited Locations. Service equipment and panel boards shall not be located in clothes closets, broom closets, janitor's closets, bathrooms, storage rooms, or over or under stairways.

H. Article 250.50 is amended to read as follows:

250.50 Grounding Electrode (Ufer Ground) System. A concrete encased electrode shall be used as the grounding electrode. The grounding electrode shall be encased for not less than 20 linear feet in a concrete foundation or footing, which is in direct contact with the earth. This electrode shall be sized in accordance with this code and, in no case, be less than No. 4 awg bare copper conductor, or ½ inch reinforcing steel rod. The electrode shall be so supported that it is below finished grade near the bottom of a trench and in no case less than 12 inches below finished grade and approximately 3 inches from the bottom or sides of the concrete. A point of connection shall be located that will make it readily accessible for inspection and testing purposes. An approved ground clamp or connector shall be used to connect the grounding electrode with a grounding conductor sized in accordance with this code. The use of reinforcing steel exposed to the elements is prohibited.

Exceptions:

a. An 8 foot driven rod will be acceptable when complying with the installation of a grounding electrode at a separate building or structure.
b. On service changes where the existing grounding electrode is a metal water pipe of at least 10 feet in length (shall be verified as such), it shall be supplemented by an additional electrode. An 8 foot minimum ground rod would be acceptable.

The interior metallic water and gas piping systems and metal frame of buildings shall be bonded in accordance with Table 250.66 of this Code.

Grounding electrode conductors shall be sized in accordance with Table 250.66.

The capacity rating for made electrodes shall be as follows:

a) 200 amperes or less: a minimum of one reinforcing steel rod.
b) From 201 amperes to 600 amperes, a minimum of 2 reinforcing steel rods installed a minimum of 90 degrees apart.
c) Over 600 amperes: grounding electrodes shall be sized in accordance with Table 250.66.

2) Grounding electrode conductors shall be sized in accordance with Table 250.66.

I. Article 300.2(C) is added to read as follows:

300.2(C) Raceway Requirements. All occupancy groups shall have wiring installed in approved raceways or type MC cable. An approved MC cable stripper shall be used when installing the cable.

Exceptions:

1. Group R occupancies, other than hotels and motels.
2. Group U occupancies.
3. Recreation rooms associated with an R occupancy, other than hotels and motels and designed or intended for use by less than 100 persons, shall be wired using the same wiring methods required for the building of which they are a part.
4. Laundry rooms, associated with an R occupancy, other than hotels and motels, shall be wired using the same wiring methods required for the building of which they are a part.

J. Article 300.5(L) is added to read as follows:

300.5(L) Depth Requirement. All underground service entrance raceways shall be buried a minimum of 30 inches below grade unless located below a concrete building slab, in which case, the depth may be reduced to 12 inches below grade.

K. Article 410.16 (C) is amended to read as follows:

410.16(C) Suspended Ceilings. Lighting fixtures shall be supported independently of suspended ceiling framing members.

L. Article 600.1(A) and (B) are added to read as follows:

600.1(A) Electric Sign Installation. Electric signs shall be installed in accordance with the provisions of this Code pertaining to the installation of electric signs. The trademark, maker's name, approximate weight, voltage, amperage, Underwriters' label, and permit reference number, shall be permanently and conspicuously marked on the exterior of all electric signs.

600.1(B) Permit Required. An electrical permit shall be required for any of the following:

- A new electric sign installation with new branch wiring
- A new electrical sign installation with existing branch wiring
- A electric sign repair and reinstallation

M. Article 625.1(A) is added as follows:

625.1(A) Charging Circuit required for R.3 Occupancies.
Every new group R.3 occupancy building shall provide for a future electric vehicle charging circuit by providing a ¾ inch raceway or a 3.wire with ground NM or NMC cable rated at a minimum 40 ampere from the service panel to a 2 gang box located in the garage.

SECTION 2: Severability

If any provision of this ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable. This City Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced.

SECTION 3: Effective Date and Publication

Within fifteen (15) days from and after adoption, this Ordinance shall be published once in the Grapevine Independent, a newspaper of general circulation printed and published in Sacramento County and circulated in the City of Rancho Cordova, in accordance with California Government Code Section 36933. This Ordinance shall take effect on August 1, 2005

PASSED AND ADOPTED this _____ day of _____, 2005, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

_____
MAYOR

ATTEST:

_____
CITY CLERK

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MEMORANDUM

DATE: **May 16, 2005**

TO: **City Council Members**

FROM: **Kathleen Franklin, Assistant Planner**

SUBJECT: **NORTHWEST EXTERIORS DESIGN REVIEW**

OWNER / APPLICANT:	**REPRESENTATIVE:**
Northwest Exteriors Scott McKinstry 11290 Trade Center Drive #C Rancho Cordova, CA 95742	GBDH Design Group Roy Hunt/Christina Rodriguez 9806 Old Winery Place #1 Sacramento, CA 95827

PROJECT:	Northwest Exteriors Design Review
FILE:	RC-04-137
LOCATION:	Sun Center Drive at Gold Pan Court
APN:	072-0490-022
PLANNER:	Kathleen Franklin, Assistant Planner

REQUEST

- Design Review for the construction of two concrete tilt-up office/warehouse buildings in the MP zoning on a 1.65 acre site.

STAFF RECOMMENDATION

The Planning Commission forwards a recommendation to the City Council to find the project Categorically Exempt under Section 15332 (In-Fill Development Projects) of the California Environmental Quality Act (CEQA) Guidelines and to adopt Resolution No. 56-2005 approving the Design Review for Northwest Exteriors, Project No. RC-04-137, subject to the findings, evidence, the Design Review Package (Exhibit A) and the Conditions of Approval (Exhibit B).

ANALYSIS

The application is for Design Review for two concrete tilt-up buildings on the southeast corner of Sun Center Drive and Gold Pan Court. The plans were submitted to the Planning Department and the applicant has worked with staff to improve the overall architectural features of the buildings and to enhance the total composition of the buildings in the area.

AGENDA ITEM # 10

The applicant is requesting Design Review for the construction of a warehouse/office building (A) with a total area of approximately 12,900 square feet and a 7,500 square foot building (B). The site area totals 1.67 acres. The applicant's architect and staff have worked together to create a building that would be functional and afford the applicant the desired warehouse space while not appearing as a "large warehouse" block building to the adjoining buildings that are more office oriented in use and appearance.

The proposed project shares a common access with the fast food business on the corner. The applicant's architect has indicated that both properties will share access points and driveway aisles. A condition of approval has been placed that will require submitting a copy of the reciprocal access agreement, prior to the issuance of building permits.

PLANNING COMMISSION COMMENTS:

The Commission reviewed the project at its April 28, 2005 meeting. The Commission had few comments (See Attachment 2) with the overall feeling that the building design would compliment the surrounding neighborhood and meet the criteria of the Design Review Ordinance. The Commission requested that the applicant provide additional architectural features on the south elevation of Building B. After a brief discussion, the Commission requested that score lines and the color "band" shown on the tower feature continue on the two additional panels on the eastern side of the building. The Commission also asked that the applicant submit a lighting plan to staff prior to the project being reviewed by the City Council. On a 6-0 vote, the Planning Commission recommended approval of the project to the Council.

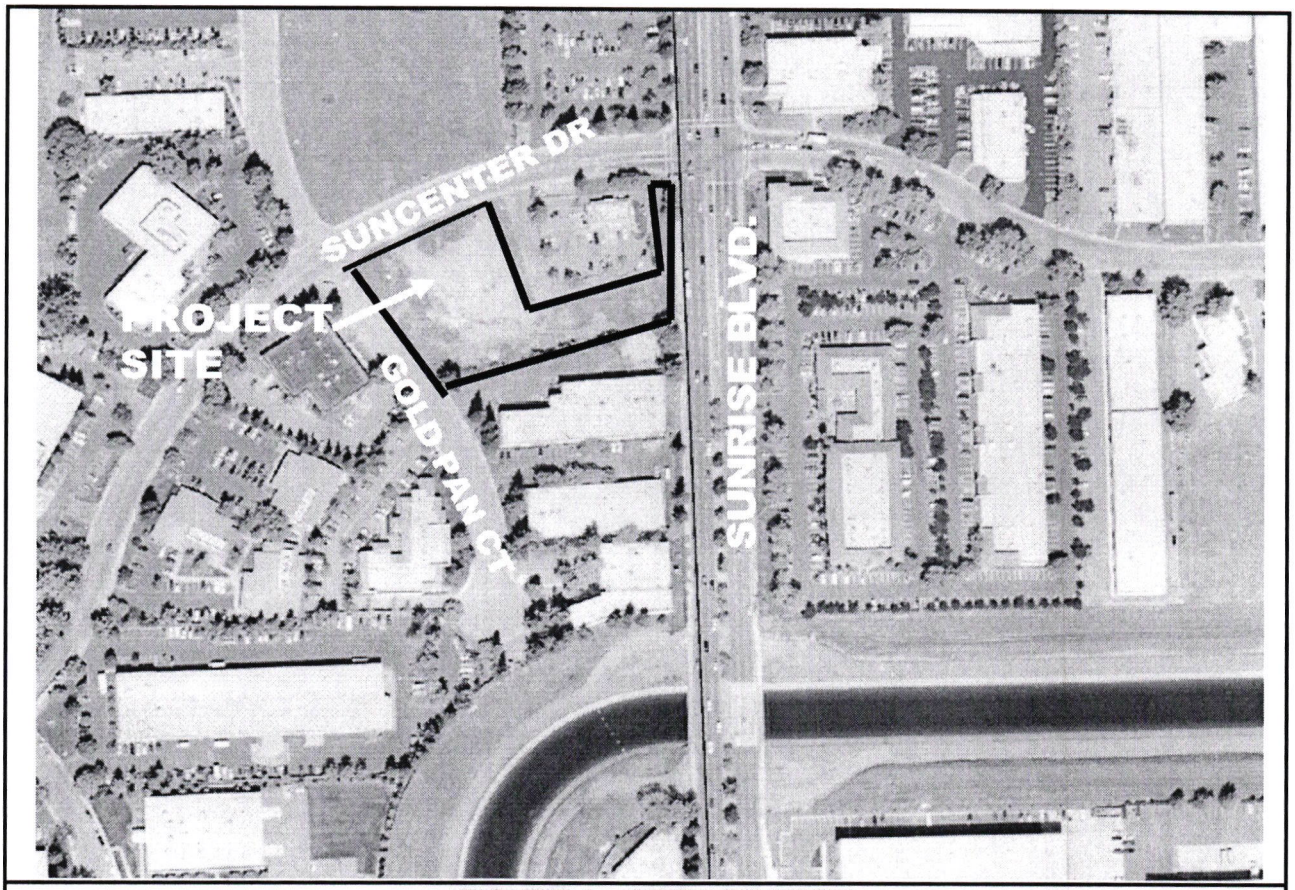


FIGURE 1 – SITE LOCATION

Land Use Relationships with Adjacent Properties:

	General Plan Land Use Designation	Zoning and Community Plan Designations	Existing Land Use
Subject Property	Intensive Industrial	MP	Vacant
North	Intensive Industrial	MP	Approved for Office
East	Intensive Industrial	MP	Fast Food
South	Intensive Industrial	M1	Industrial Office
West	Intensive Industrial	MP and M1	Office

CONCLUSION:

The proposed building is consistent with the surrounding buildings in the MP zoning. The applicant and staff worked together, making changes to the architecture, which created buildings that have architectural interest and integrate architecturally into the surrounding office park area. The buildings are functional, providing the applicant with the desired amount of warehouse and office needed for the proposed use.

ENVIRONMENTAL ANALYSIS:

The project is Categorically Exempt under Section 15332 (In-Fill Development Projects) of the California Environmental Quality Act (CEQA).

FINANCIAL IMPLICATIONS TO CITY:

There are no significant cost implications to the City for this development.

RECOMMENDED MOTIONS:

1. "I move the City Council to find the project is Categorically Exempt under Section 15332 (In-Fill Development Projects) of the California Environmental Quality Act (CEQA)Guidelines."
2. "I move the City Council adopt Resolution No. 56-2005 approving the Design Review for Northwest Exteriors Office/ Showroom/ Warehouse Building, RC-04-137, subject to the findings, evidence, Design Review Package (Exhibit A) and Conditions of Approval (Exhibit B)."

ATTACHMENTS:

1. Resolution 56-2005 with the Design Review Package (Exhibit A) and Conditions of Approval (Exhibit B).
2. April 28, 2005 Planning Commission minutes
3. Title Report showing joint access through the adjoining (Taco Bell) parcel.
4. April 7, 2007 e-mail from Richard P. Bernstein
5. Design Review Package including color elevations, site plan, and electrical site plan
6. Light standard example
7. 500' radius map and mailing labels

RESOLUTION No. 56-2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA APPROVING DESIGN REVIEW FOR NORTHWEST EXTERIORS WAREHOUSE/OFFICE BUILDING PROJECT # RC-04-137

WHEREAS, Scott McKinstry, Northwest Exteriors (hereinafter referred to as Applicant) filed an application with the City of Rancho Cordova (hereinafter referred to as City) for Design Review for two new concrete tilt-up buildings to be located at Sun Center Drive (Assessor's Parcel Number 072-0490-022); and

WHEREAS, the City Council is the appropriate authority to hear and take action on this project; and

WHEREAS, the project is Categorically Exempt under Section 15332, In-Fill Development Projects of the California Environmental Quality Act (CEQA); and

WHEREAS, the City Council of the City of Rancho Cordova has conducted a property noticed public hearing pursuant to Government Code Section 65090 and has duly considered all written and verbal testimony presented during the hearing.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HEREBY RESOLVES AS FOLLOWS:

Approve the Design Review based on the following findings:

Findings

1. CEQA

Finding:
The project is an in-fill project and is Categorically Exempt under Section 15332 of the California Environmental Quality Act (CEQA).

Evidence:
The project meets the Class 32 conditions of CEQA which state: (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations; (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses; (c) The project site has no value as habitat for endangered, rare or threatened species; (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and (e) the site can be adequately served by all required utilities and public services.

2. DESIGN REVIEW

Approve the Design Review subject to the Design Package (see Exhibit A) and the Conditions of Approval (see Exhibit B) based on the following findings:

Findings:

a) High quality building designs that consist of durable and maintainable materials and that provide diversity to the community.
b) Building designs that maintain human scale and interest.
c) Use of an architectural style and or/theme for new non-residential development that is consistent for building elevations of a single structure or consistent among all buildings within an integrated development.
d) Design of buildings or structures that is sensitive to the neighborhood character with regard to scale, architectural style, use of materials and bulk.
e) Interesting and attractive architecture which includes varied relief of the facade elements and detailed articulation of the building features.
f) Incorporate quality site design, including landscaping, signage and other elements of site design.

Evidence:

a) The buildings will be constructed of durable/maintainable materials. The panels will be concrete tilt-up, will have metal storefronts and canopies, large entry glazing, well articulated wall design and cornice details at the top of the parapets.
b) The north and west elevations face the corner and a tower feature anchors the corner elevation. The main entry to the building is oriented to the parking lot facing Gold Pan Court. The street facing elevations are well fenestrated in order to break up the solid mass of the concrete tilt up building and further address the human scale of the building.
c) The zoning for the site of the proposed building is M-P, Industrial Office Park. The majority of the building will be used as office/showroom space and warehouse. Windows are provided on the north, east and west elevations, the south and east elevations provide cargo "roll-up" doors and some window area along with score lines to help break up the mass of the building. The architectural style is typical of an industrial building, however, additional scoring on the concrete panels, metal canopies, and proportionate glazing on the north, east and west elevations provide greater interest and create a building that is architecturally pleasing and enhances the area.
d) (See "c" above).
e) The design includes extensive horizontal and vertical score lines that are used to break the large expanse of the wall planes. The varying height parapets of the building add to the building articulation, thereby breaking up the "basic box" appearance and adding architectural interest. The cornice detail adds architectural accent to the corner projections and provides a "finish" to the concrete tilt-up walls. The entry feature has been capitalized with an arched awning and architectural projections to accentuate the entry feature. The color scheme and veneer stone for the building establishes the entry feature on the corner and transitions the body of the warehouse portion with a complementary lighter color. In addition, the window mullions are anodized aluminum and the glazing will be tinted green.
f) Extensive landscaping and well placed pedestrian walks are proposed to connect the building to the parking and between the two buildings. Decorative concrete will delineate this area and pedestrian pathways are provided to the entry door.

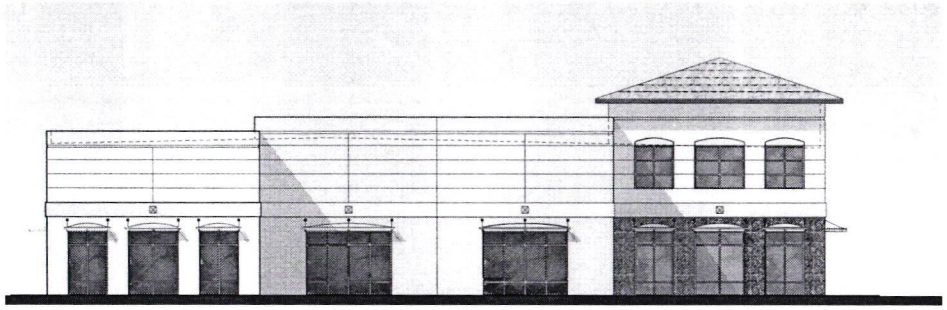
PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 16th day of May, 2005.

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
KEN COOLEY, MAYOR of the
CITY OF RANCHO CORDOVA

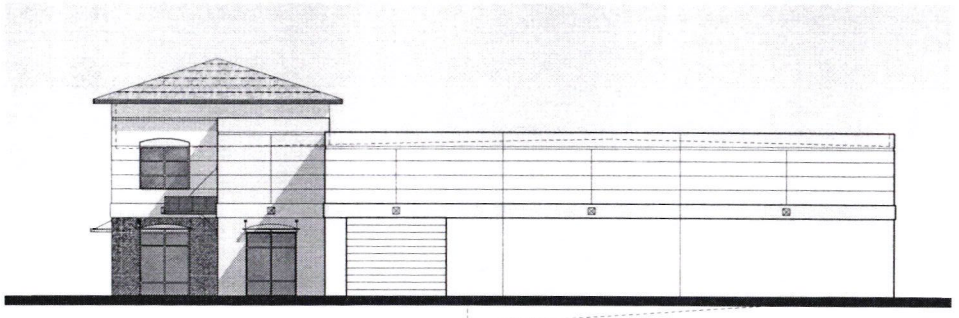
ATTEST:

_____
LILLIAN HARE
CITY CLERK



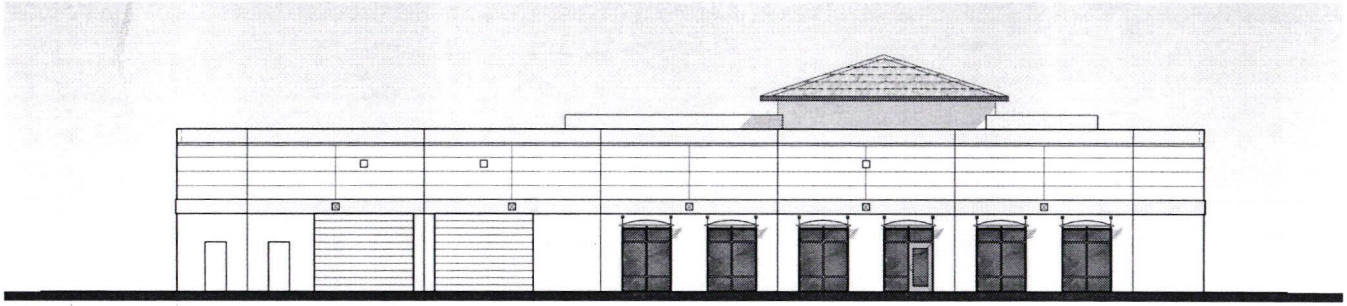
PROPOSED NORTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED SOUTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED EAST ELEVATION

SCALE: 1/8"=1'-0"

PROPOSED WEST ELEVATION

SCALE: 1/8"=1'-0"

NORTHWEST EXTERIORS

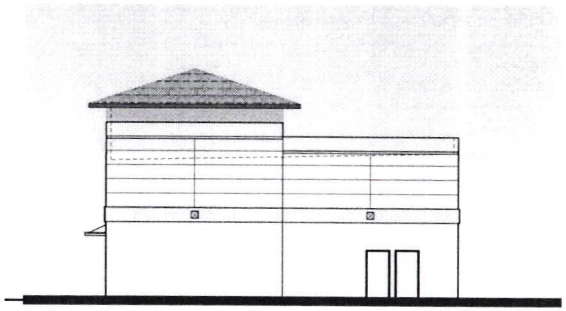
NORTHWEST EXTERIORS, - BUILDING A

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, SACRAMENTO COUNTY, CA

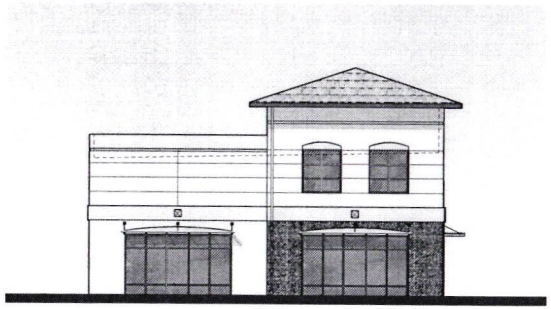
GBDH
DESIGN GROUP INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
tel 916.854.9901 fax 916.854.9840
M07-2334 05/06/05

Exhibit A



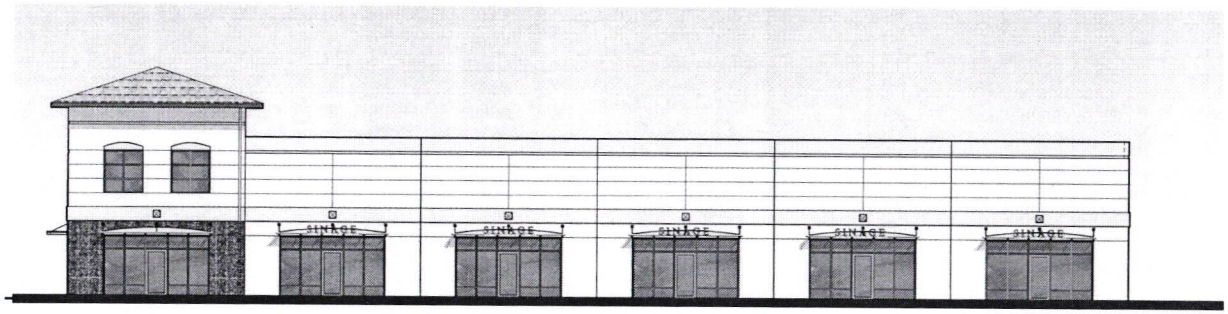
PROPOSED EAST ELEVATION

SCALE: 1/8"=1'-0"



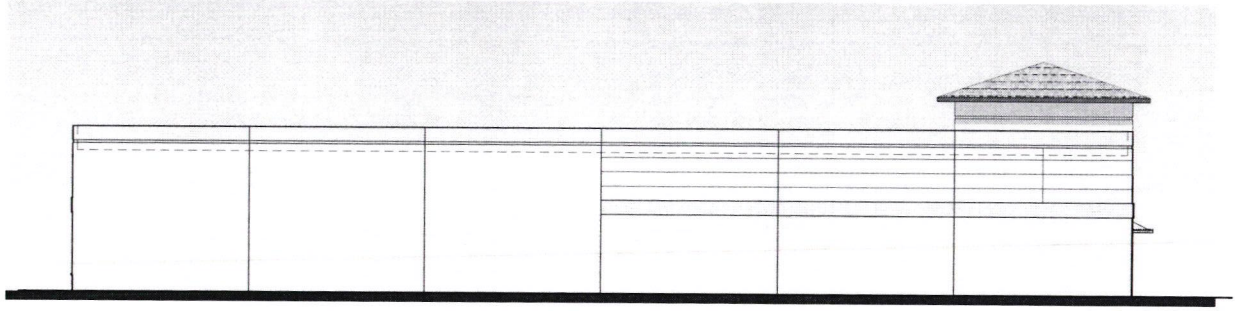
PROPOSED WEST ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED NORTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED SOUTH ELEVATION

SCALE: 1/8"=1'-0"

NORTHWEST EXTERIORS

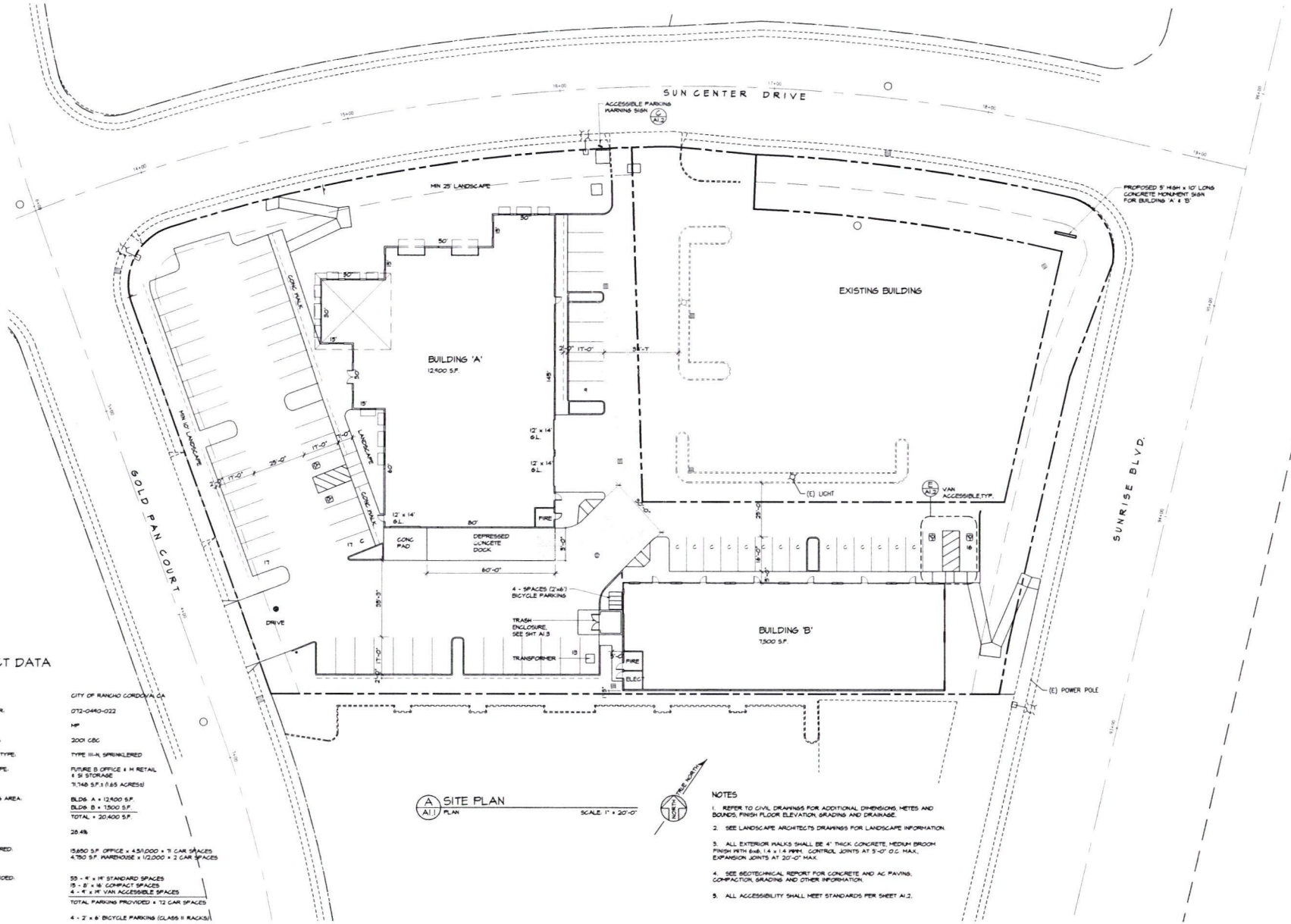
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

NORTHWEST EXTERIORS, - BUILDING B

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA,CA

G B D H
DESIGN GROUP INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
tel 916.854.9901 Fax 916.854.9840

M07-2334 05/06/05



A A1.1 SITE PLAN

SCALE: 1" = 20'-0"

NOTES

1. REFER TO CIVIL DRAWINGS FOR ADDITIONAL DIMENSIONS, METES AND BOUNDS, FINISH FLOOR ELEVATION, GRADING AND DRAINAGE.
2. SEE LANDSCAPE ARCHITECTS DRAWINGS FOR LANDSCAPE INFORMATION.
3. ALL EXTERIOR WALKS SHALL BE 4" THICK CONCRETE, MEDIUM BROOM FINISH WITH 6x6, 1.4 x 1.4 MMM. CONTROL JOINTS AT 5'-0" O.C. MAX., EXPANSION JOINTS AT 20'-0" MAX.
4. SEE GEOTECHNICAL REPORT FOR CONCRETE AND AC PAVING, COMPACTION, GRADING AND OTHER INFORMATION.
5. ALL ACCESSIBILITY SHALL MEET STANDARDS PER SHEET A1.2.

PROJECT DATA

JURISDICTION:	CITY OF RANCHO CORDOVA, CA
PARCEL NUMBER:	072-0440-022
ZONING:	MP
BUILDING CODE:	2001 CBC
CONSTRUCTION TYPE:	TYPE III-N, SPRINKLERED
OCCUPANCY TYPE:	FUTURE B OFFICE & M RETAIL & S1 STORAGE
LOT AREA:	71,748 S.F. ± (1.65 ACRES±)
TOTAL BUILDING AREA:	BLDG. A = 12,900 S.F. BLDG. B = 7,500 S.F. TOTAL = 20,400 S.F.
COVERAGE:	28.4%
PARKING REQUIRED: BLDGS. A & B	15,850 S.F. OFFICE x 4.5/1,000 = 71 CAR SPACES 4,750 S.F. WAREHOUSE x 1/2,000 = 2 CAR SPACES
PARKING PROVIDED:	53 - 9' x 19' STANDARD SPACES 15 - 8' x 16' COMPACT SPACES 4 - 9' x 19' VAN ACCESSIBLE SPACES TOTAL PARKING PROVIDED = 72 CAR SPACES
	4 - 2' x 6' BICYCLE PARKING (CLASS II RACKS)

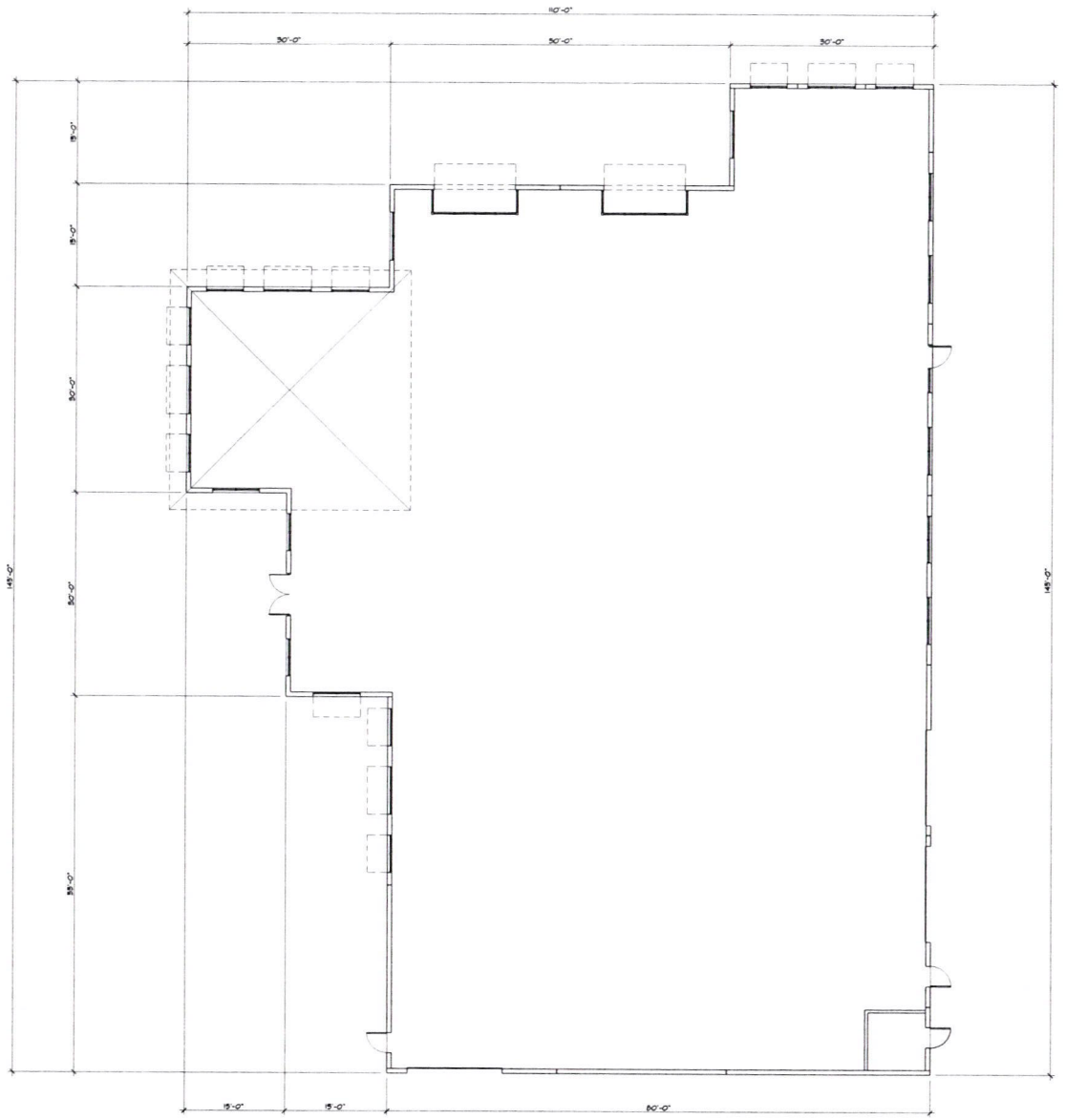
NORTHWEST EXTERIORS
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1705

NORTHWEST EXTERIORS, 2 BUILDINGS

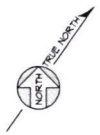
SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, SACRAMENTO COUNTY, CA

GBDH
DESIGN GROUP, INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840

N17-2334 MAY 05/06/05



A / A2.1 BUILDING A - FLOOR PLAN
PLAN
SCALE: 1/8" = 1'-0"



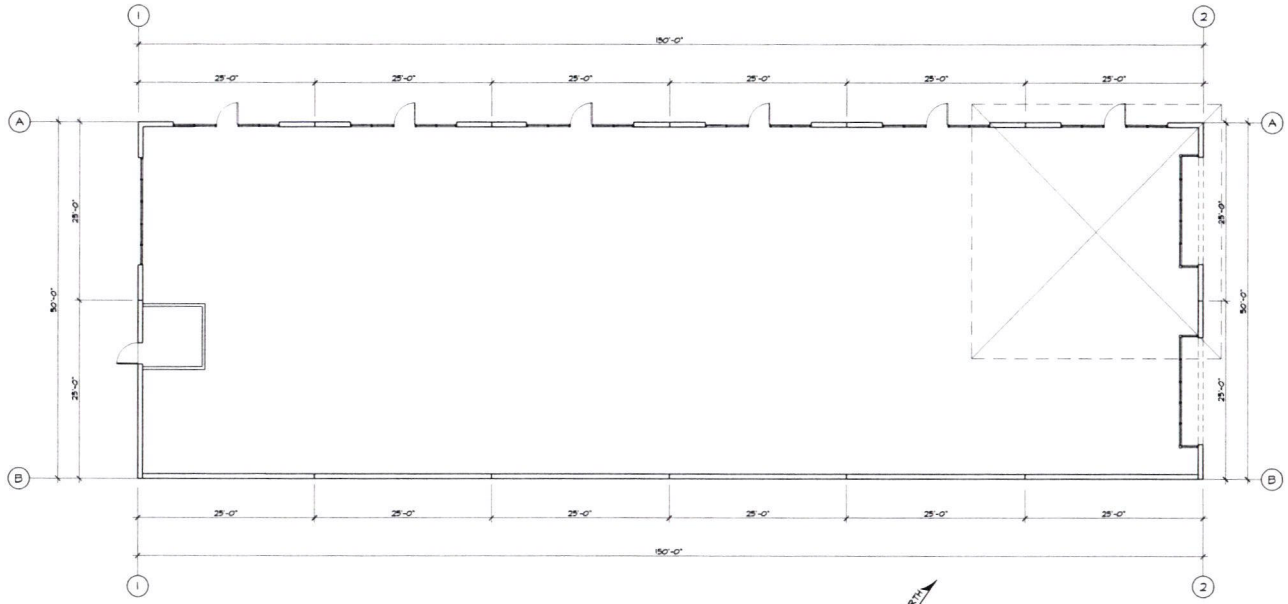
NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1705

NORTHWEST EXTERIORS, 2 BUILDINGS

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9806 Old Winery Place, Suite I
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
N17-2334 MAY 05/06/05



A A2.2 BLDG. 'B' FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1709

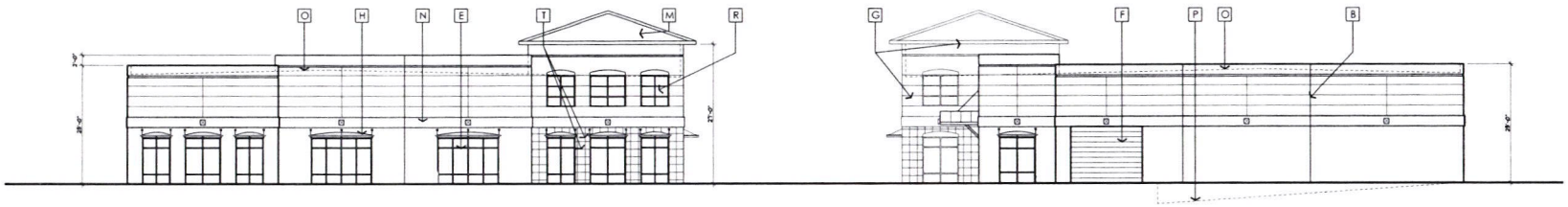
NORTHWEST EXTERIORS, 2 BUILDINGS

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH

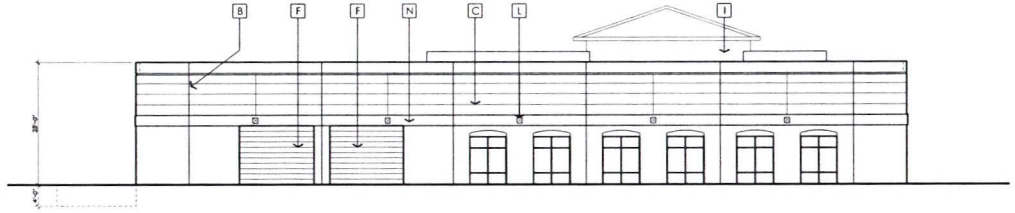
DESIGN GROUP, INC.

9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
N17-2334 MAV 05/06/05



A/A3.1 NORTH ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

A/A3.1 SOUTH ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"



A/A3.1 EAST ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

A/A3.1 WEST ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

ELEVATIONS LEGEND

A TILT-UP CONCRETE PANEL

B PANRL JOINT

C REVEAL, TYP. SEE DETAIL D/A5.1

D 3' x 7' MAN DOOR

E STOREFRONT W/ INSULATED GLAZING

F 12' x 14' GRADE LEVEL OVERHEAD DOO

G GUTTER & DOWNSPOUT

H METAL SUN SHADE & WALL REVEAL, SEE ELEVATIONS A/A5.3.

I CEMENT PLASTER

J COMPANY SIGNAGE

K STREET ADDRESS

L MEDALLION

M FIRE SESISTIVE ROOFING

N HIGHLIGHT BAND

O ROOF - SLOPE TO DRAIN

P LOADING DOCK RAMP

R STOREFRONT W/ SINGLE PANE GLAZING

S SIGNAGE - BACKLIGHTED

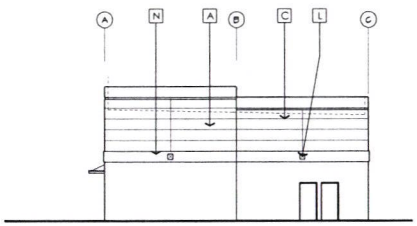
T GRANITE TILE

NORTHWEST EXTERIORS
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

NORTHWEST EXTERIORS, 2 BUILDINGS

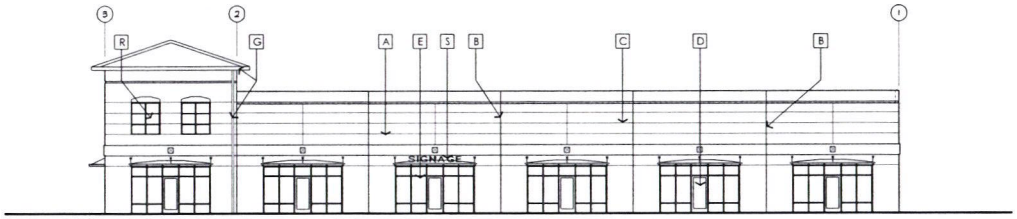
SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
N17-2334 MAY 05/06/05

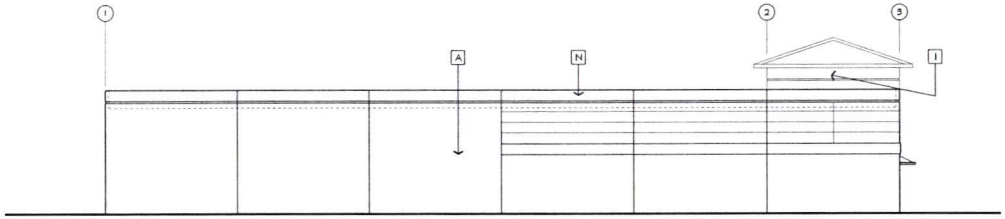


A WEST ELEVATION BUILDING 'B'
A5.2 SCALE: 3/32"=1'-0"

B EAST ELEVATION BUILDING 'B'
A5.2 SCALE: 3/32"=1'-0"



C NORTH ELEVATION BUILDING 'B'
A5.2 SCALE: 3/32"=1'-0"



D EAST ELEVATION BUILDING 'B'
A5.2 SCALE: 3/32"=1'-0"

ELEVATIONS LEGE

A TILT-UP CONCRETE PAI
B PANRL JOINT
C REVEAL, TYP. SEE DE
D 3' x 7' MAN DOOR
E STOREFRONT W/ INSULA
F 12' x 14' GRADE LEVEL
G GUTTER & DOWNSPOUT
H METAL SUN SHADE & W
SEE ELEVATIONS A/A5.
I CEMENT PLASTER
J COMPANY SIGNAGE
K STREET ADDRESS
L MEDALLION
M FIRE SESISTIVE ROOFI
N HIGHLIGHT BAND
O ROOF - SLOPE TO DR
P LOADING DOCK RAMP
R STOREFRONT W/ SINGL
S SIGNAGE - BACKLIGHT
T GRANITE TILE

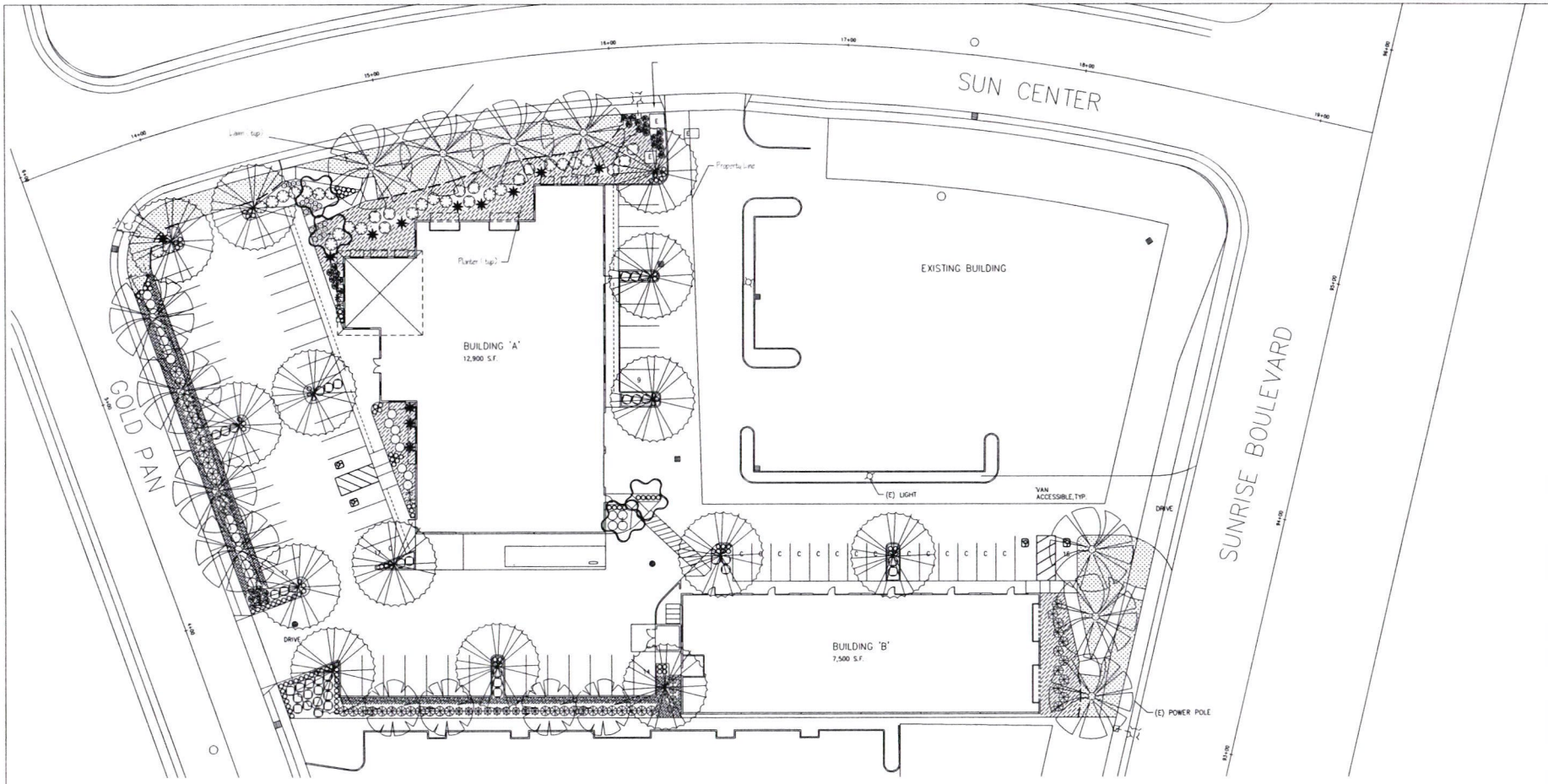
NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1709

NORTHWEST EXTERIORS, 2 BUILDINGS

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9086 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
N17-2334 MAY 05/06/05



PLANT LEGEND

Trees

Lagerstroemia Muskogee	Crepe Myrtle	Low	15 Gallon	Deciduous accent tree
Pistachia chinensis	Chinese Pistache	Low	15 Gallon	Deciduous shade tree
Platanus Bloodgood	London Plane Tree	Low	15 Gallon	Deciduous shade/street tree
Pyrus Chanticleer	Ornamental Pear	Med	15 Gallon	Deciduous shade tree

Shrubs

Ceanothus Skylark	California Lilac	Low	5 Gallon	Evergreen foundation shrub
Cotoneaster parneyi	NCN	Low	5 Gallon	Evergreen foundation shrub
Dietes vegeta	Fortnight Lily	Low	1 Gallon	Access shrub
Miscanthus Yaku Jima	Eulalia	Low	5 Gallon	Ornamental Grass
Nerium oleander dwf pink	Dwarf Oleander	Low	5 Gallon	Evergreen foundation shrub
Nerium oleander dwf red	Dwarf Oleander	Low	5 Gallon	Evergreen foundation shrub
Raphiolepis Pink Lady	India Hawthorne	Low	5 Gallon	Evergreen foundation shrub
Rosmarinus Tuscan Blue	Tuscan Rosemary	Low	5 Gallon	Evergreen screen shrub
Rosa Red Carpet	Red Carpet Rose	Med	1 Gallon	Accent shrub
Tulbaghia violacea	Society Garlic	Low	1 Gallon	Evergreen accent shrub
Verbena tapien purple	Dwarf Verbena	Low	1 Gallon	Evergreen ground cover
Viburnum Spring Bouquet	Spring Bouquet	Low	5 Gallon	Evergreen screen shrub

Ground Cover

Cotneaster lowfast	Bearberry	Low	1 Gallon	48" OC Evergreen ground cover
Myoporum parvifolium	NCN	Low	1 Gallon	36" OC Evergreen ground cover
Fescue Bluegrass Blend	Lawn	High	Sod	

Plant material exceeds water use calculations.
Irrigation system will meet State Water Model.

Shade Calculations

Tree Variety	Full Value	Full	½	Half	¼	Total Sq.'
20' Trees						
Pyrus Chanticleer	314 sq.'			4		628
35' Trees						
Pistachia chinensis	962 sq.'	5		9		9139
Platanus Bloodgood	962 sq.'			5		2405
Total Shade Area Provided						12172
Parking Area						21220
Shade required	50%					10610
Shade Provided	57%					12172

20 0 20 40 60
Scale 1" = 20'

NORTH

Landscape Visions, Inc.
Landscape Construction
11325 SUNRISE GOLD CIRCLE SUITE A
RANCHO CORDOVA, CA 95742
PHONE (916) 635-3494

NORTHWEST EXTERIORS
Sunrise Blvd at Sun Center
Rancho Cordova, CA

DESIGN BUILD CONSULTANTS SIGNATURE

ERIC BEARING, LANDSCAPE VISIONS, INC.

DATE

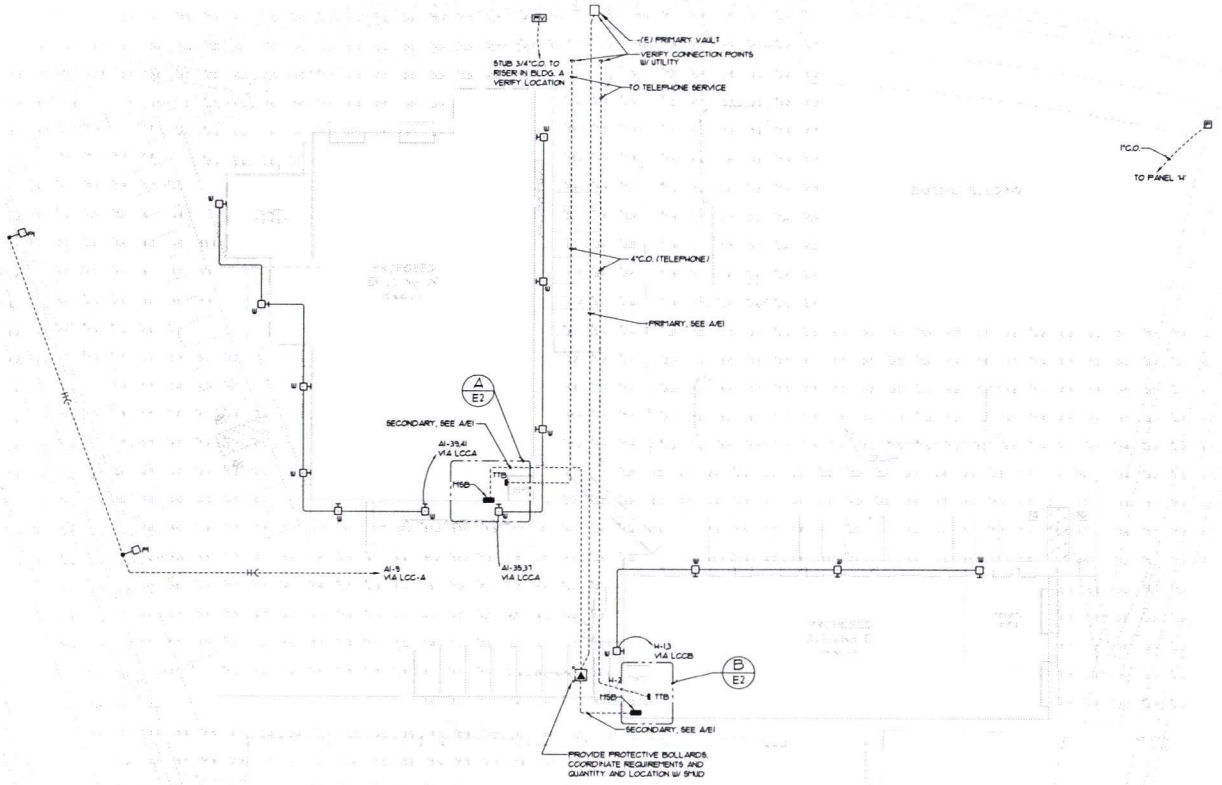
REVISIONS △ / ISSUES ○ DATE

○
○
○
△
△
△

PRELIMINARY PLANTING PLAN

Oct 13, 2004

LP



ELECTRICAL SITE PLAN

SCALE: 1"=20'-0

A
ES1

REVISION	BY

Robert C. Hamilton E 8838 (EXP. 6/2005)

Date Signed May 15, 2005

NORTHWEST EXTERIORS

1250 TRADE CENTRE DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1701

ELECTRICAL SITE PLAN

DATE	4-6-05
SCALE	1"=20'
DRAWN	SM
JOB	05465
SHEET	ES1
OF	SHEETS

Conditions of Approval

EXHIBIT B

		Timing/ Implementation	Enforcement / Monitoring	Verification (date and Signature)
1.	The project shall be constructed in substantial compliance with the approved Design Review Package (Exhibit A) for the Northwest Exteriors Buildings to be located on the southeast corner of Sun Center Drive and Gold Pan Court, APN 072-0490-022, Project No. RC-04-137.	On-Going	Planning	
2.	The Applicant shall hold harmless the City, its Council Members, its Planning Commission, officers, agents, employees, and representatives from liability for any award, damages, costs and fees incurred by the City and/or awarded to any plaintiff in an action challenging the validity of this permit or any environmental or other documentation related to approval of this permit. Applicant further agrees to provide a defense for the City in any such action.	On-Going	Planning	
	Prior to Issuance of Building Permits			
3.	The building shall be reviewed for architectural consistency with the approved plans by the Planning Director.	Prior to Building Permit	Planning	
4.	On site fire protection devices, hydrants, and adequate water supply shall be installed and approved by the Metro Fire, prior to combustible materials stored on site.	Prior to Building Permits	Metro Fire District	
5.	The building colors shall be as depicted in the submitted building design plans.	At Building Permit	Planning	
6.	The applicant shall provide proof of the reciprocal access and drive easement with the adjoining property (APN 072-0490-020)	Prior to Building Permit	Planning	
	Prior to Occupancy Permit			
7.	All landscaping shall be approved by the Planning Director and planted according to the approved landscape plans.	Prior to Occupancy	Planning	

Exhibit B

Associate City Attorney, Joe Chapman recommended the Planning Commission close the hearing and table the matter until staff is ready to bring this item back before the Planning Commission.

The Commissioners had the following concerns and comments:

- There were no comments from the Planning Commissioners.

Action:

Motion: Commissioner Wentz moved, seconded by Vice Chair Vance, to recommend the Planning Commission close the hearing and table the matter.

Vote on the Motion:

AYES:	Burke, Konarski, Smith, Savorn, Vance, Wentz
NOES:	NONE
ABSTAIN:	NONE
ABSENT:	Moe

There being 6 Ayes, 0 Noes, 0 Abstains and 1 Absentees, the motion is hereby declared to be passed.

B. **Consideration of the Design Review for NORTHWEST EXTERIORS – Project No. RC-04-137.**

Request: Applicant is requesting Design Review for the construction of two concrete tilt-up office/warehouse buildings on a 1.65 acre site in the MP (Industrial Office Park) zone.
Project Applicant: Northwest Exteriors, 11290 Trade Center Drive #C, Rancho Cordova, CA 95742.
Project Location: APN: 072-0490-022, Sun Center Drive at Gold Pan Court.

Assistant Planner Kathleen Franklin presented the staff report and recommended the Planning Commission forward a recommendation to the City Council to find the project Categorically Exempt under Section 15332 (In-Fill Development Projects) of the California Environmental Quality Act (CEQA) Guidelines and adopt a resolution approving the Design Review for Northwest Exteriors, Project No. RC-04-137, subject to the findings, evidence, Conditions of Approval, and Design Review Package. Chair Smith opened the public hearing and took testimony from Scott McKinstry, Project Applicant and Wayne Nigren.

The Commissioners had the following concerns and comments:

- Are there tenants proposed for this project? The large building will be occupied by the applicant. The smaller building is proposed to be sold, but there are no prospective buyers at this time.
- Will there be signage on the building? There is a monument sign on the corner and there is signage on the front of the building.
- Is there foliage along Sunrise Blvd.? Yes, there will be trees and there are some grassy areas proposed.

- What color is proposed for the tented windows? The plans show them as a green tint; however, they will most likely be clear, not the green tent showing on the color elevation plans. Planning Staff has recommended a grey tent.
- Chair Smith is concerned that the South elevation is too blank. Staff has recommended that the score lines come down. The Commission decided that they would rather see two more bands instead.
- Will there be a fence or wall surrounding the Taco Bell property to help stop tagging on the south wall? Nothing is proposed at this time.
- Vice Chair Vance is concerned that there is not adequate lighting? There is proposed poll lighting and existing street lighting which was not shown on the plans when submitted to the Commissioners.

The Commissioners felt staff and the representatives adequately addressed the above concerns and comments.

Action:

Motion 1: Commissioner Wentz moved, seconded by Commissioner Burke forward a recommendation to the City Council to find the project Categorically Exempt under Section 15332 (In-Fill Development Projects) of the California Environmental Quality Act (CEQA) Guidelines adopt a resolution approving the Design Review for Northwest Exteriors, Project No. RC-04-137, subject to the findings, evidence, Conditions of Approval, and Design Review Package.

Vote on the Motion:

AYES:	Burke, Konarski, Smith, Savorn, Vance, Wentz
NOES:	NONE
ABSTAIN:	NONE
ABSENT:	Moe

There being 6 Ayes, 0 Noes, 0 Abstains and 1 Absentees, the motions are hereby declared to be passed.

Motion 2: Vice Chair Vance moved, seconded by Commissioner Wentz to adopt a resolution approving the Design Review for Northwest Exteriors, Project No. RC-04-137, subject to the findings, evidence, Conditions of Approval, and Design Review Package.

Vote on the Motion:

AYES:	Burke, Konarski, Smith, Savorn, Vance, Wentz
NOES:	NONE
ABSTAIN:	NONE
ABSENT:	Moe

There being 6 Ayes, 0 Noes, 0 Abstains and 1 Absentees, the motions are hereby declared to be passed.

Attachment 3

BOOK PAGE
91 0222 1172

TNTIC 250110-LAB

OFFICIAL RECORDS
SACRAMENTO COUNTY, CALIF.

91 FEB 22 PM 3:54

COUNTY CLERK-RECORDER

WHEN RECORDED RETURN TO:
Taco Bell Corp.
17901 Von Karman Avenue
Irvine, California 92714
Attn: Real Estate Services
Site # 06-427

MAINTENANCE AGREEMENT
AND
DECLARATION OF EASEMENT AGREEMENT

FEE $27 4
15

Preamble

THIS AGREEMENT, made and entered into this 15th day of September, 90 between TACO BELL CORP., a California corporation ("Taco Bell") with principal offices located at 17901 Von Karman, Irvine, CA 92714, and LUKENBILL O.I. PROPERTIES NO. 5- SUNRISE SUN CENTER, a California General Partnership ("Lukenbill") with principal offices located at 3600 Power Inn Rd., Suite H, Sacramento, CA 95826.

Recitals

WHEREAS, Lukenbill is the legal owner of that certain property (herewith referred to as "said property") located in the unincorporated city of Rancho Cordova, County of Sacramento, State of California, more particularly described on Exhibit "A" (outlined in red) attached hereto.

Legal Description

WHEREAS, Lukenbill intends to grant to Taco Bell a portion of said property located in the unincorporated city of Rancho Cordova, County of Sacramento, State of California, being more particularly described as Parcel "A" on Exhibit "B" (outlined in red) attached hereto, and hereinafter referred to as "Taco Bell Parcel";

WHEREAS, after conveyance of the Taco Bell Parcel, Lukenbill will retain a portion of said property, said portion hereinafter referred to as the "Lukenbill Parcel" which parcel is in the process of further development and described as Parcel "B" on Exhibit "C" (outlined in red) attached hereto;

WHEREAS, Lukenbill desires to obtain from Taco Bell right of way privileges, both pedestrian and vehicular, for ingress and egress to and from the driveway and roadways, over, across and upon the Taco Bell Parcel in favor of the Lukenbill Parcel which is described on Exhibit "D" (cross-hatched area) attached hereto;

WHEREAS, Taco Bell desires to obtain from Lukenbill right of way privileges, both pedestrian vehicular, for ingress and egress to and from the driveway and roadways, over, across and upon the

Kathleen 942-0279
FRANKLIN
Gold Canal

Lukenbill Parcel in favor of the Taco Bell Parcel which is described on Exhibit "E", (cross-hatched area) attached hereto;

WHEREAS, both parties hereto desire to share the expenses associated with the installment, maintenance, and repair of said ingress/egress driveway at the north property line and along Sun Center drive and incidental roadways as described in Exhibit "F" (cross-hatched area) attached hereto and hereinafter referred to as "Common Area";

WHEREAS, Taco Bell desires to obtain from Lukenbill additional right of way pedestrian privileges for installment, maintenance and repair of landsceped area along Sun Center Drive and Sunrise Blvd as described in Exhibit "G" (crosshatched area) attached hereto and hereinafter referred to as "Landscape Area";

NOW THEREFORE, for and in consideration of mutual promises, covenants and conditions hereinafter set forth, the parties hereto agree as follows:

Grant of Lukenbill Easement

1. Taco Bell hereby grants to Lukenbill the non-exclusive, right and privilege of passage and use, both pedestrian and vehicular, for ingress and egress to and from the driveway, and over, across and upon roadways of that portion of Taco Bell Parcel which is described on Exhibit "D" attached hereto.

Location of the Lukenbill Easement

2. The location of the Lukenbill easement is the cross-hatched area described on EXHIBIT "D".

Grant of Taco Bell Easement

3. Lukenbill hereby grants to Taco Bell the non-exclusive, right and privilege of passage and use, both pedestrian and vehicular, for ingress and egress to and from the driveway, and over, across and upon roadways of that portion of Lukenbill Parcel which is described on Exhibit "E" attached hereto.

Location of the Taco Bell Easement

4. The location of the Taco Bell easement is the cross-hatched area described on Exhibit "E".

Maintenance and Repairs

5. Lukenbill and Taco Bell agree to at all times during the duration of the Easement to maintain the Common Area in a state of good repair and in a safe, clean and sanitary condition free of accumulated debris, water and other obstructions or hazards. Lukenbill and Taco Bell also hereby agrees to install, repair maintain and replace the roadway (described as the cross-hatched

area on Exhibit "E" which is attached hereto and incorporated herein by this reference) and to share the expenses of said repairs, maintenance, and replacement in the following percentages: Lukenbill 50% and Taco Bell 50%.

Lukenbill and Taco Bell agree hereto that Lukenbill shall install, and Taco Bell shall reimburse (not to exceed $7,000), the Landscape Area as located in Exhibit G in a manner that is of the same level or greater than the rest of the Center. Lukenbill and Taco Bell agree hereto that Lukenbill shall maintain solely at Taco Bell's expense, the Landscape Area as located in Exhibit G in a manner that is of the same level or greater than the rest of the Center. Such efforts shall include, but are not limited to the following: the proper watering, cutting, fertilizing of the lawn areas; the pruning of any shrubs and trees; the washing off of walkways and any paved areas; the replacing of any of the Landscaped Area as needed, plus any other efforts necessary to achieve the level of maintenance as prescribed herein.

In the event that either party shall convey his fee interest in any part or all of his property (other than to a joint or co-owner), upon such conveyance said party shall be relieved of all or a portion, as the case may be, of his obligations with respect to future responsibilities under this agreement. It is intended that the parties shall be liable under this agreement only for those obligations accruing during their ownership. It is expected that, if Lukenbill creates and conveys new parcels off the Lukenbill Parcel, the new owners will become responsible for a pro rata share of Lukenbill's portion of the expenses and obligations.

Lukenbill and Taco Bell agree at all times during the duration of the easement, to each provide liability and property insurance on the area that respective parties have easements.

Enforcement and Remedies

6. Any party acting alone or acting together, may but shall not be required to, bring suit or legal action for the enforcement of the terms, covenants, restrictions and encumbrances of this Declaration as for damages arising out of any breach hereof.

If any parties during the term of this Declaration, default in the full, faithful, and punctual performance of any obligation required hereunder, and if at the end of ten (10) days after written notice in the case of other defaults from any of the other parties stating with particularity the nature and extent of such default, the defaulting party has failed to cure such default, or if a diligent effort is not then being made to cure such default, then any other party may, but shall not be required to, perform such obligation of this Declaration on behalf of such defaulting party of the cost thereof together with interest at

the lesser rate allowed by law. Any such claim for reimbursement together with interest as aforesaid, shall be a secured right, and a lien therefore may attach to the portion of the parties property and improvements thereon owned by the defaulting party effective upon recording of a notice of claim of lien in the Recorder's Office of Sacramento County, California, signed and certified, stating the amount due, the name of the Owner, and the legal description of the Parcel owned by such defaulting party. Except for a lien concerning a failure to make the payments required by Section 5, such lien shall be subordinate to any first mortgage or deed of trust now or hereafter covering any portion of the said property and improvements thereon, and any purchaser at any foreclosure or trustee's sale (as well as any grantee by deed in lieu of foreclosure or trustee's sale) under any such first mortgage or deed of trust shall take title free and clear from any such then existing lien, but otherwise subject to the provisions of this Declaration.

Court Costs

7. Should suit or legal action be instituted to enforce any of the foregoing terms, covenants, conditions, restrictions, and encumbrances, then the losing party, in addition to any judgment, order, or decree, agrees to pay the prevailing party its reasonable attorney fees and court costs as may be awarded by a court adjudging or decreeing such suit or action and the prevailing party's attorney's fees and costs incurred on appeal, if any.

Attorney's Fees

8. In the event of any controversy, claim, or dispute relating to this instrument or the breach thereof, the prevailing party shall be entitled to recover from the losing party, in addition to such other relief as may be awarded, reasonable expenses, attorney's fees and costs.

Entire Agreement

9. This instrument contains the entire measure of rights of, and understanding between, the parties relating to the rights herein granted and the obligations herein assumed. Any oral representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent modification in writing, signed by the party to be charge.

Restricted Covenants

10. The easements, rights and privileges hereinbefore granted shall be used and enjoyed in such a manner as to cause the least possible interference with the conduct of business at any time

existing on the Lukenbill Parcel and Taco Bell Parcel and the parties agree that any parking facilities located on the Lukenbill Parcel shall be for the office and retail use only and benefit of any business operations conducted thereon, and any parking facilities located on the Taco Bell Parcel shall be for the fast food/restaurant use only and benefit of any business operations conducted thereon.

11. The parties agree that no barriers, fences, curbs, wall, ditches, barricades of other structures or obstacles will be erected on the Easement area, so as to burden or interfere with, impede, slow, divert or in any way prevent vehicular and pedestrian traffic from freely passing across the Lukenbill Parcel to the Taco Bell Parcel , or from the Taco Bell Parcel to the Lukenbill Parcel. This Agreement is not to be construed as being intended to prevent further or additional development on or use of the Lukenbill Parcel or Taco Bell Parcel from time to time.

Binding Effect

12. The Easement, covenants and provisions contained in this Agreement shall constitute covenants running with the land, and shall inure to the benefit of, and be binding upon Lukenbill and Taco Bell and all future owners or tenants of all or any portion of the Lukenbill Parcel and Taco Bell Parcel or and their respective heirs, successors and assigns, and any and all persons claiming under them.

Liability

13. Lukenbill and Taco Bell shall bear the liability in the same percentages as they share the costs and expenses of repairs, maintenance and replacement, for any personal injury or property damage to any person arising out of any acts or omissions relating to the design, repairs, maintenance and replacement of the roadway. As cost sharing percentages change due to parcelization of the Lukenbill Parcel so too shall liability percentages change.

Indemnity

14. Each party shall protect, defend, and indemnify the other party against, and hold the other party harmless from, all claims, expenses, liabilities, loss damage and costs, including any actions or proceedings in connections therewith and including reasonable attorneys' fees, incurred in connection with, arising from, due to or as a result of the death of or any accident, injury, loss or damage, howsoever caused, to any person or loss or damage to the property of any person as shall occur in or about the Common Area and Landscape Area located on each parties respective parcel, except claims resulting from the negligence or willful act or omission of the indemnified Owner of any occupancy

of any party's parcel, or the agents, servants or employees of such indemnified party, wherever the same my occur.

Secondary Easements

15. Each party shall have the incidental rights of maintenance, repair, and replacement of the roadway described as follows: access to the roadways for the purpose of performing the necessary maintenance, repair and replacement of the roadways.

Recordation

16. Immediately following the execution of this instrument by all parties, it shall be recorded in the Sacramento County Recorder's Office and become effective.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first written above.

OF PARTIES NO. 5 - SUNRISE SUN CENTER

LUKENBILL ~~ENTERPRISES~~, A CA General Partnership
By: LUKENBILL ENTERPRISES, GENERAL PARTNER
By: Gregg Lukenbill
Its: GENERAL PARTNER
Date: 2/22/91

TACO BELL CORP.,
a California corporation
By: James Chronley
Its: JAMES A. CHRONLEY SENIOR VICE PRESIDENT
Date: 2/21/91

REVIEWED BY: [illegible]
DATE 2-20-91

STATE OF CALIFORNIA)
)SS
COUNTY OF SACRAMENTO)

On this 22nd day of FEBRUARY, 1991, before me, the undersigned, a Notary Public in and for said State, personally appeared GREGG LUKENBILL, personally known to me or proved to me on the basis of satisfactory evidence to be one of the partners of LUKENBILL ENTERPRISES, a general partnership, said partnership being known to me to be one of the partners of LUKENBILL-O.I. PROPERTIES NO. 5 - SUNRISE SUN CENTER, a California general partnership, the partnership that executed the within instrument and acknowledged to me that he executed the same as a partner of the partnership first above named, that said partnership executed the same as a partner of LUKENBILL-O.I. PROPERTIES NO. 5 - SUNRISE SUN CENTER, and that said last-named partnership executed the same.

Witness my hand and official seal.

OFFICIAL NOTARY SEAL
LORNA L ALDERTSON
Notary Public - California
SACRAMENTO COUNTY
My Comm Expires OCT 26,1994

Lorna L Aldertson
Notary Public

CAT. NO. NN0673J
TO 1948 CA (8-84)
(Corporation)

TICOR TITLE INSURANCE

STATE OF CALIFORNIA
COUNTY OF ORANGE } ss.

On February 21, 1991 before me, the undersigned, a Notary Public in and for said State, personally appeared James A. Chronley personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Senior Vice-President, xxxxx

xxxx

EXHIBIT A

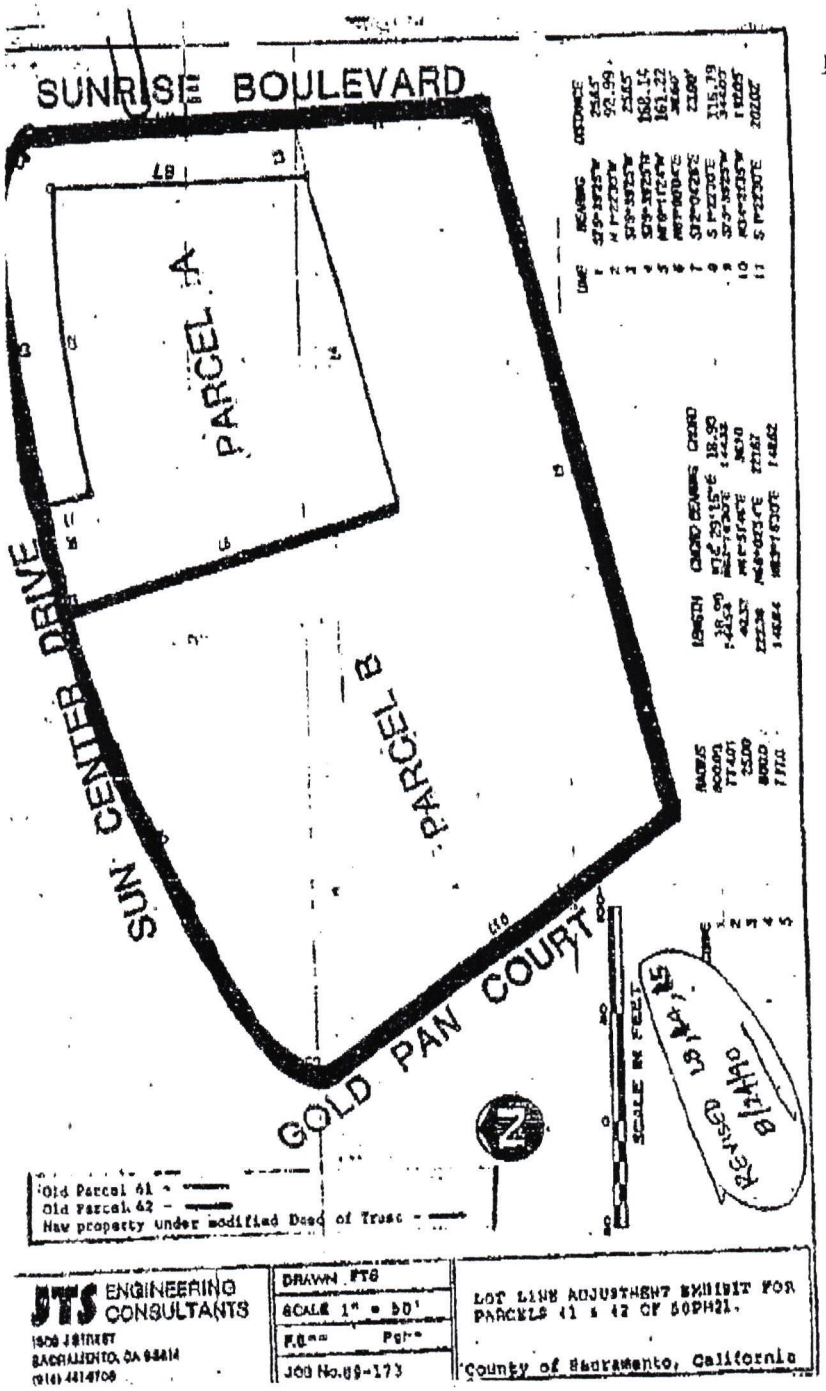

SUNRISE BOULEVARD
PARCEL A
PARCEL B
SUN CENTER DRIVE
GOLD PAN COURT
SCALE IN FEET
Old Parcel 41
Old Parcel 42
New property under modified Deed of Trust
JTS ENGINEERING CONSULTANTS
DRAWN FTS
SCALE 1" = 50'
JOB No.89-173
LOT LINE ADJUSTMENT EXHIBIT FOR PARCELS 41 & 42 OF 50PH21.
County of Sacramento, California

EXHIBIT B

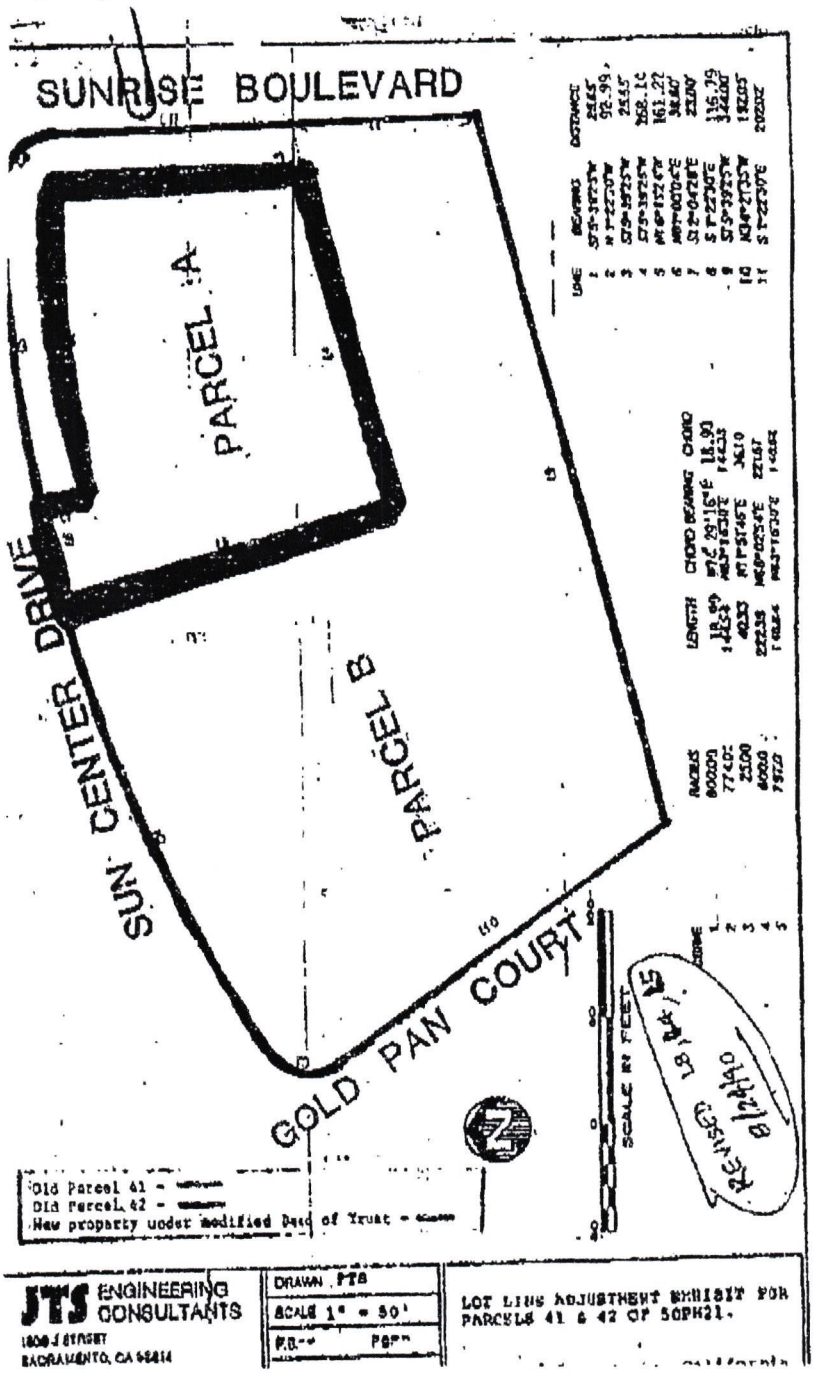

SUNRISE BOULEVARD
PARCEL A
PARCEL B
SUN CENTER DRIVE
GOLD PAN COURT
SCALE IN FEET
Old Parcel 41 -
Old Parcel 42 -
New property under modified Deed of Trust -
JTS ENGINEERING CONSULTANTS
DRAWN: PTB
SCALE 1" = 50'
LOT LINE ADJUSTMENT EXHIBIT FOR PARCELS 41 & 42 OF SCPM21.

EXHIBIT C

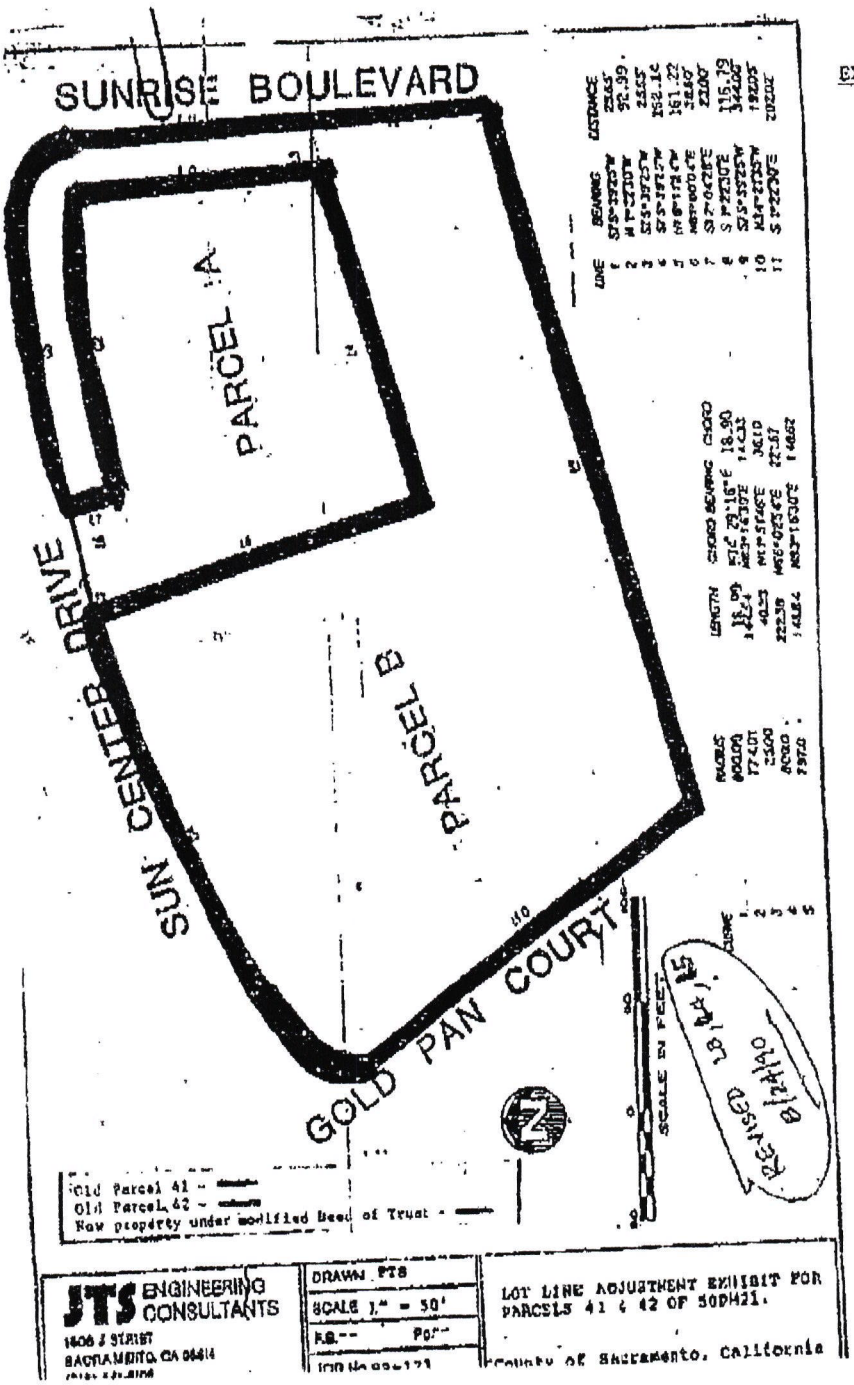

SUNRISE BOULEVARD
SUN CENTER DRIVE
GOLD PAN COURT
PARCEL A
PARCEL B
Old Parcel 41 -
Old Parcel 42 -
New property under modified Deed of Trust -
SCALE IN FEET
JTS ENGINEERING CONSULTANTS
1606 J STREET
SACRAMENTO, CA 95814
DRAWN PTS
SCALE 1" = 50'
LOT LINE ADJUSTMENT EXHIBIT FOR PARCELS 41 & 42 OF SDPM21.
County of Sacramento, California

EXHIBIT D

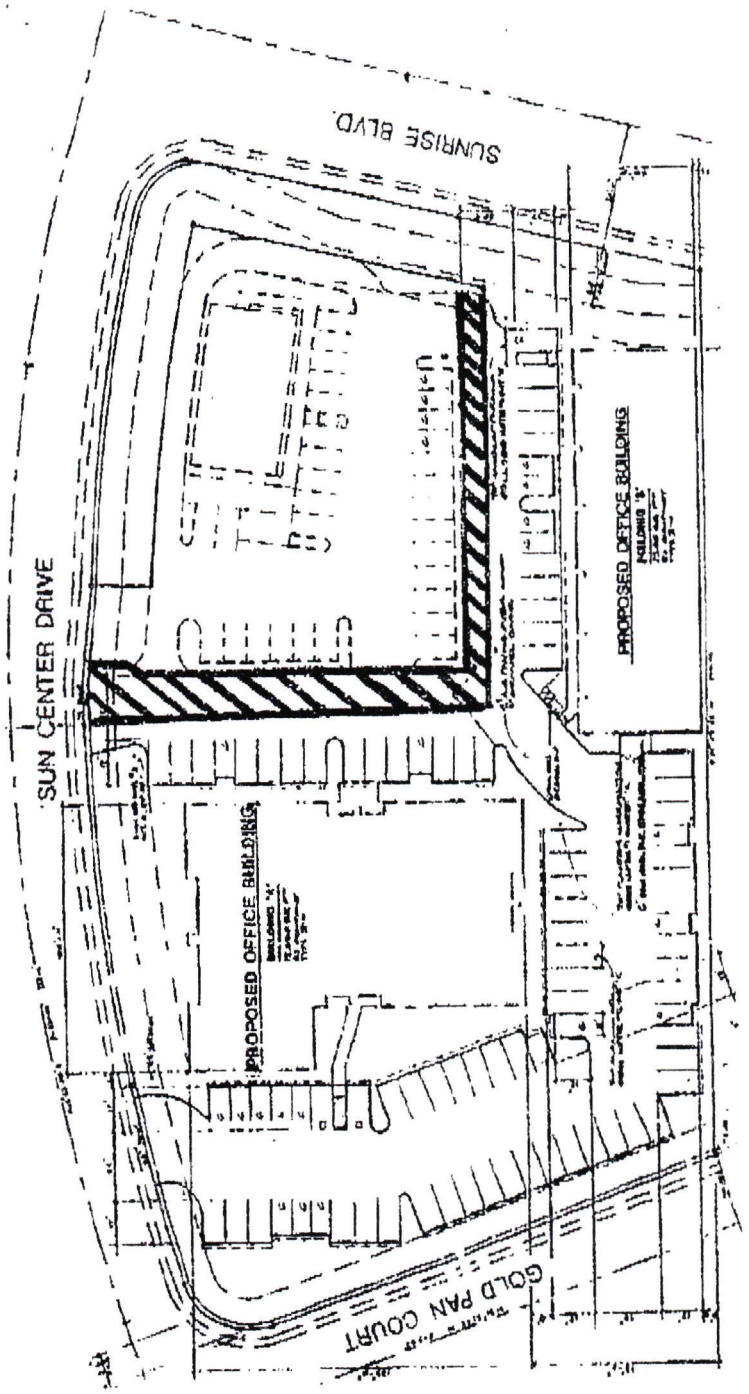

SUNRISE BLVD.
SUN CENTER DRIVE
PROPOSED OFFICE BUILDING
PROPOSED OFFICE BUILDING
GOLD PAN COURT

EXHIBIT E

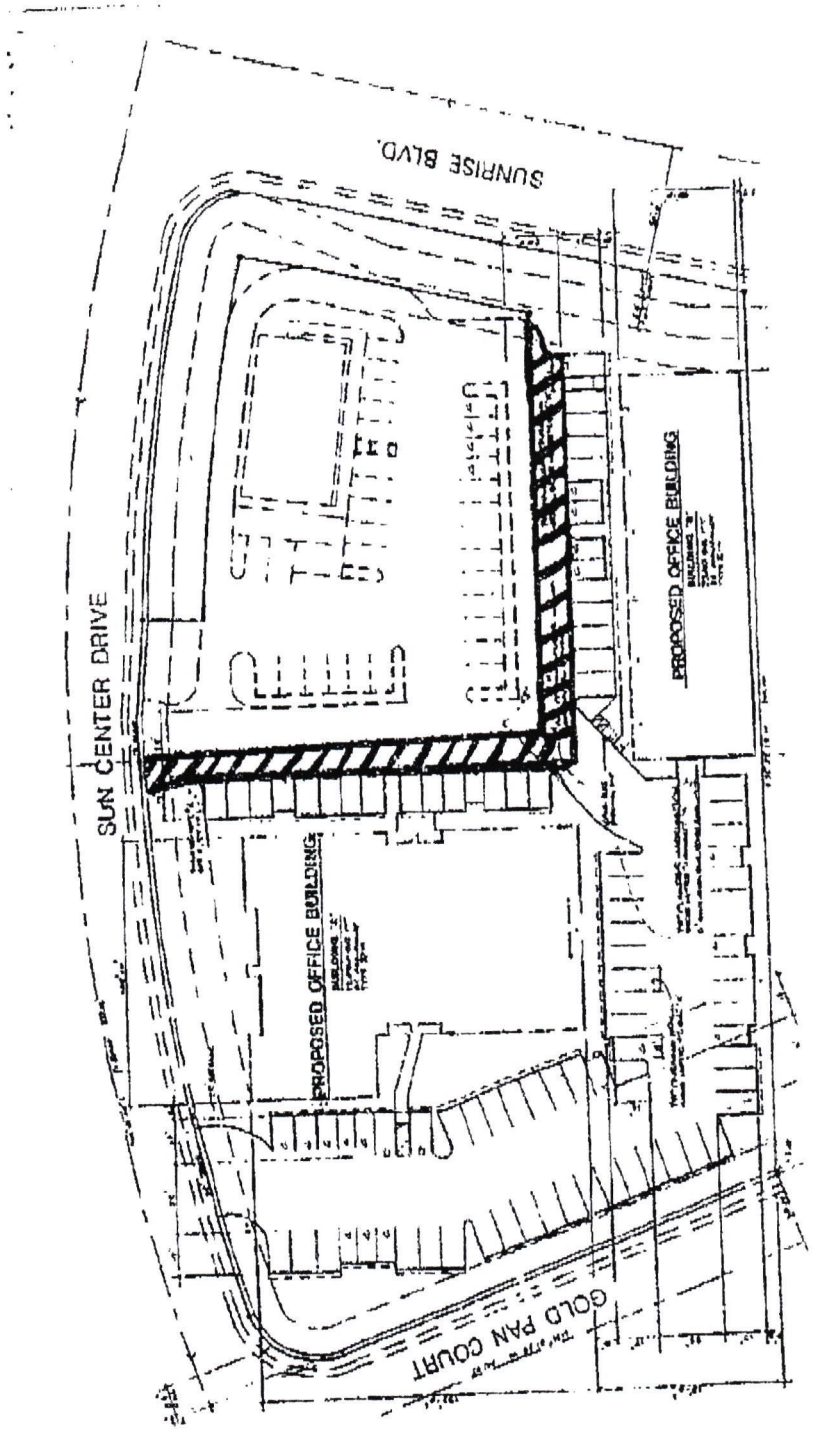

SUNRISE BLVD.
SUN CENTER DRIVE
PROPOSED OFFICE BUILDING
PROPOSED OFFICE BUILDING
GOLD PAN COURT

EXHIBIT F

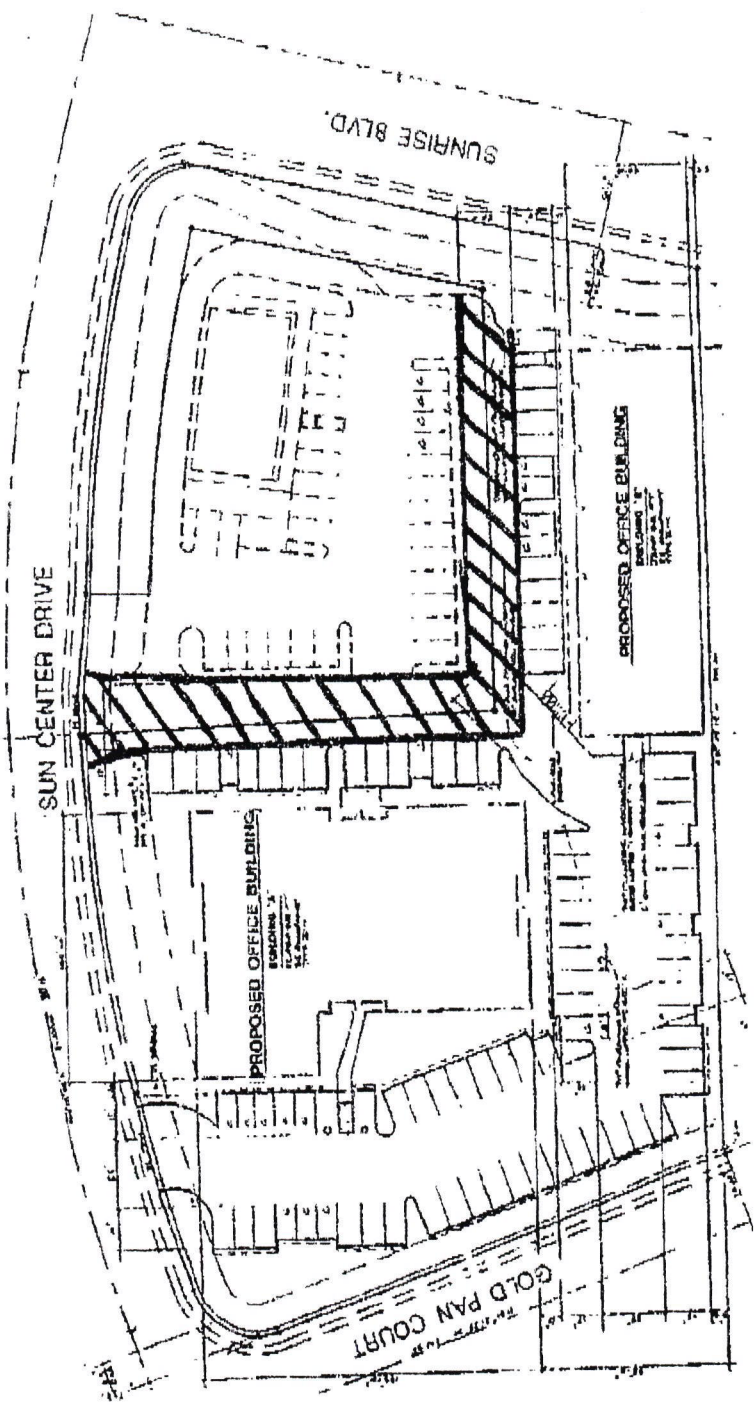
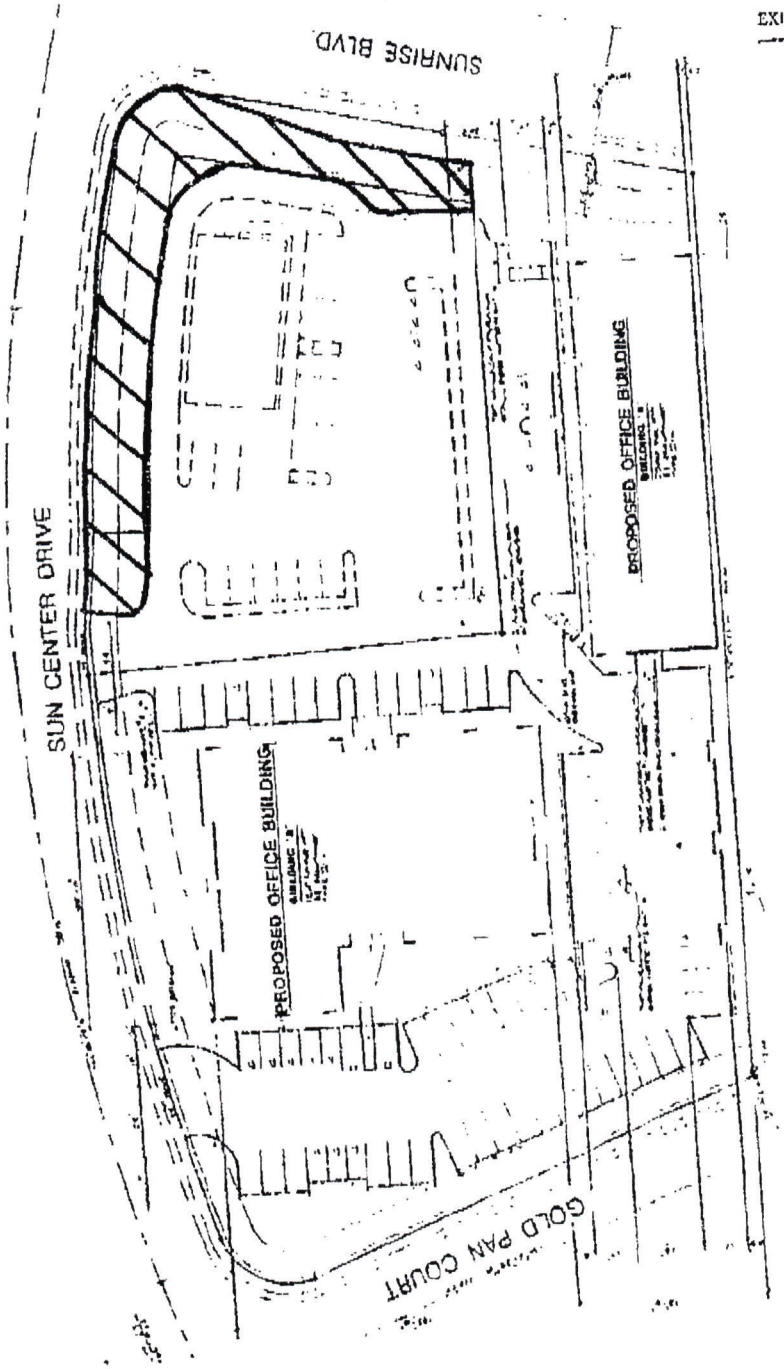

SUNRISE BLVD.
SUN CENTER DRIVE
PROPOSED OFFICE BUILDING
PROPOSED OFFICE BUILDING
GOLD PAN COURT

EXHIBIT C


SUNRISE BLVD
SUN CENTER DRIVE
PROPOSED OFFICE BUILDING
PROPOSED OFFICE BUILDING
GOLD PAN COURT

Attachment 4

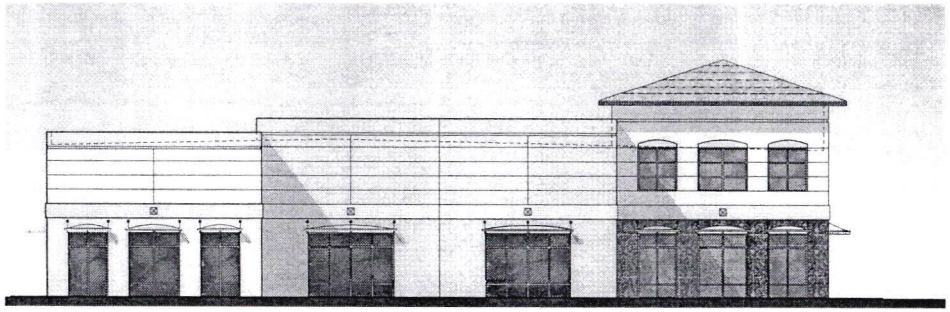
From: Richard P. Bernstein [rbernstein@wanbern.com]
Sent: Thursday, April 07, 2005 3:11 PM
To: Kathleen Franklin
Cc: smckinstry@msn.com
Subject: Northwest Interiors

Ms. Franklin, I represent Scott McKinstry and his company, Northwest Interiors, concerning the ownership of the property located on Sun Center Drive and Sunrise Blvd, APN 072-0490-022. I understand from Scott that you had some concerns in processing his develpoment plan, based upon a concern about the mutual ingress and egress easement between his lot and the adjacent lot owned by Taco Bell, APN 072-0490-020. You should have received a copy of that certain Maintenance Agreement and Declaration of Easement Agreement dated September 15, 1990, between Taco Bell Corp and Lukenbill O.I. Properties No. 5- Sunrise Sun Center, predecessor to Scott, recorded Feb 22, 1991, in Book 91 02 22, Page 1172, which establishes the mutual access easement and maintanance agreement from Sun Center Drive. If you have not received, please let me know and I will send you a copy. This agreement should provide the access you have requested. Please feel free to call if you have any questions, or need any other information.

Richard P. Bernstein
Wanland & Bernstein
705 University Avenue
Sacramento, CA 95825
Tel. (916) 568-6000
Fax (916) 568-6009
email: rbernstein@wanbern.com

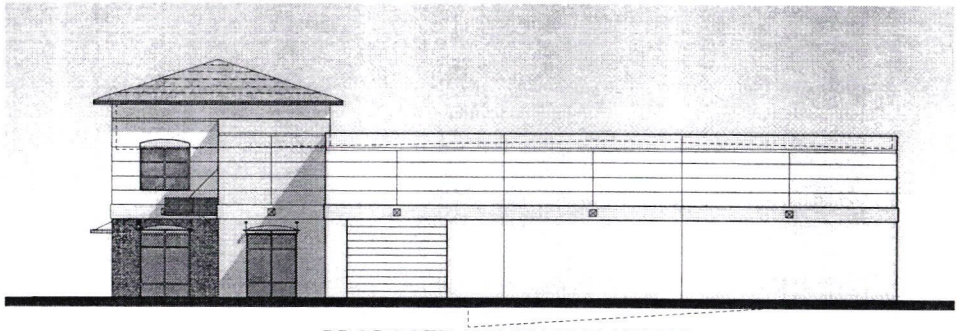
NOTICE

This e-mail message is intended only for the named recipient(s) above. It may contain confidential information that is privileged or that constitutes attorney work product. If you are not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this e-mail and any attachment(s) is strictly prohibited. If you have received this e-mail in error, please immediately notify the sender by replying to this e-mail and delete the message and any attachment(s) from your system. Thank you.



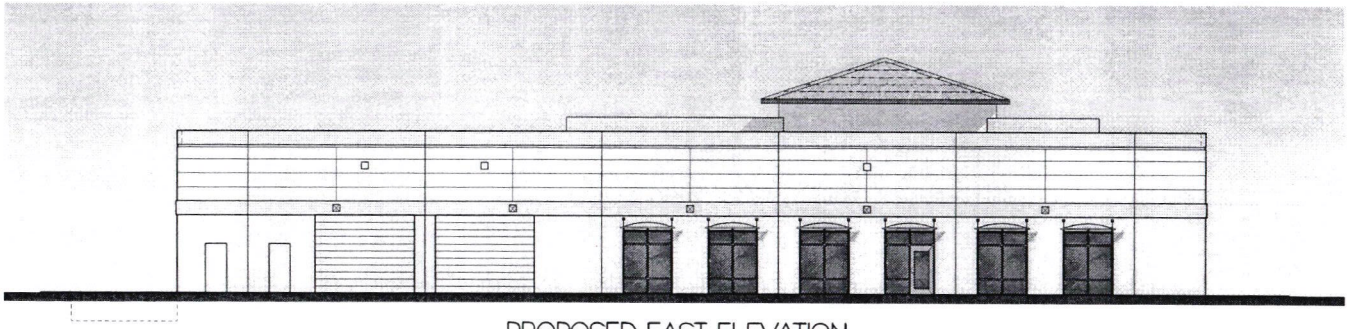
PROPOSED NORTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED SOUTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED EAST ELEVATION

SCALE: 1/8"=1'-0"

PROPOSED WEST ELEVATION

SCALE: 1/8"=1'-0"

NORTHWEST EXTERIORS

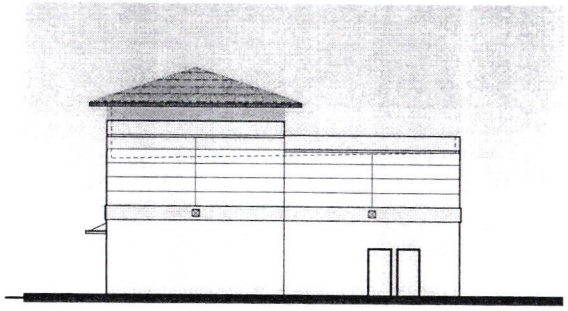
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

NORTHWEST EXTERIORS, - BUILDING A

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, SACRAMENTO COUNTY, CA

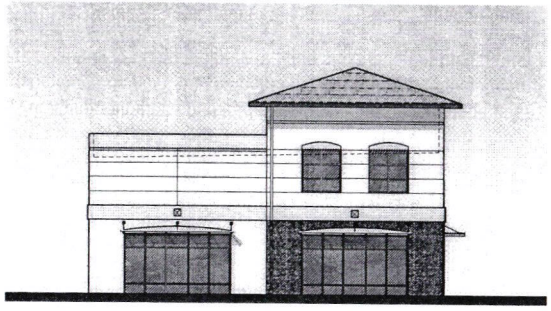
GBDH
DESIGN GROUP INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
tel 916.854.9901 fax 916.854.9840
M17-2334 05/06/05

Attachment 5



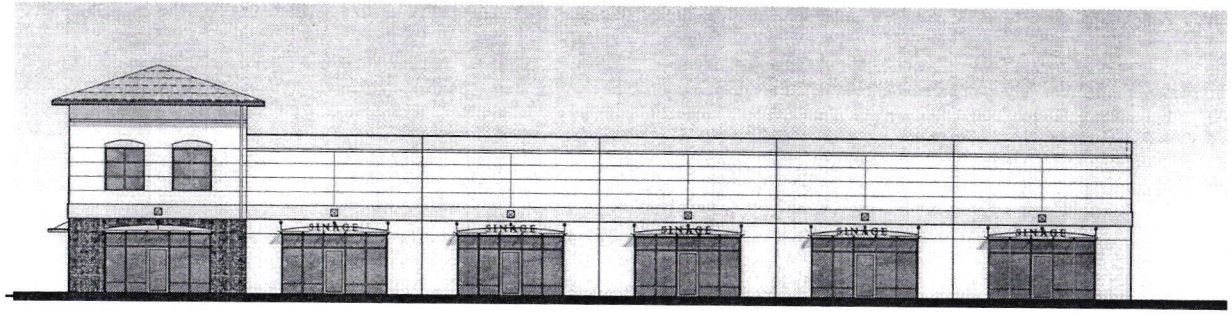
PROPOSED EAST ELEVATION

SCALE: 1/8"=1'-0"



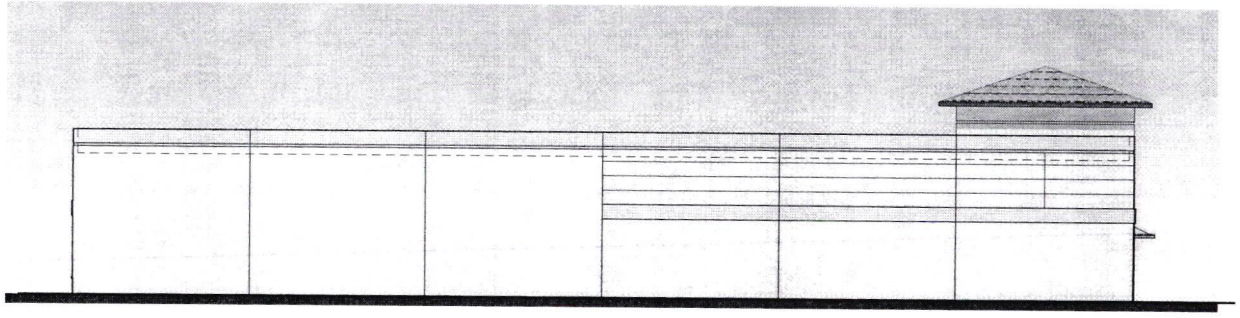
PROPOSED WEST ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED NORTH ELEVATION

SCALE: 1/8"=1'-0"



PROPOSED SOUTH ELEVATION

SCALE: 1/8"=1'-0"

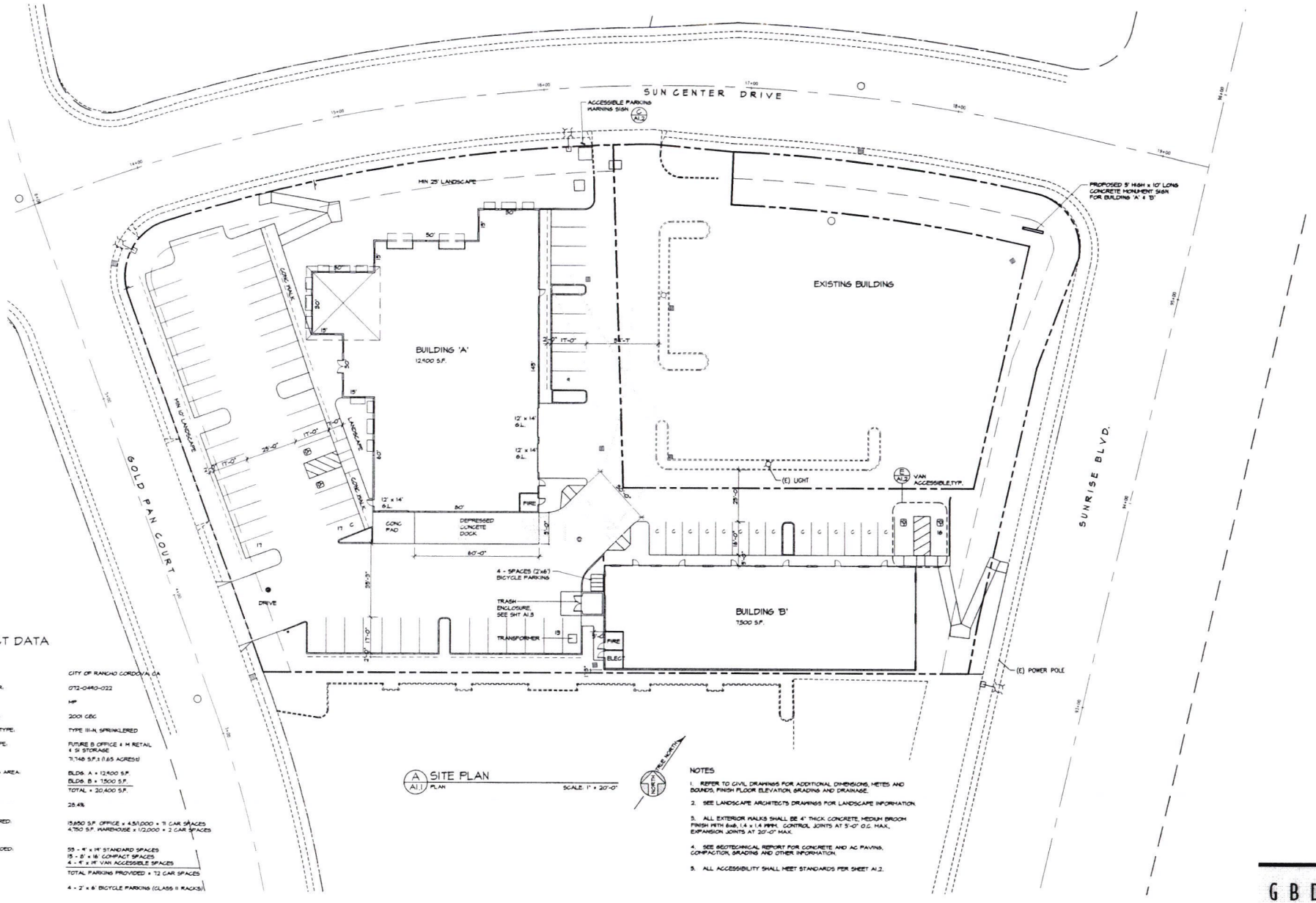
NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

NORTHWEST EXTERIORS, - BUILDING B

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA,CA

GBDH
DESIGN GROUP INC.
9806 Old Winery Place, Suite 3
Sacramento, California 95827
tel 916.854.9901 Fax 916.854.9840
MD7-2334 05/06/05



A A1.1 SITE PLAN

SCALE: 1" = 20'-0"

NORTH

PROJECT DATA

JURISDICTION:	CITY OF RANCHO CORDOVA, CA
PARCEL NUMBER:	072-0440-022
ZONING:	MP
BUILDING CODE:	2001 CBC
CONSTRUCTION TYPE:	TYPE III-N, SPRINKLERED
OCCUPANCY TYPE:	FUTURE B OFFICE & M RETAIL & S1 STORAGE
LOT AREA:	71,748 S.F.± (1.65 ACRES±)
TOTAL BUILDING AREA:	BLDG. A = 12,900 S.F. BLDG. B = 7,500 S.F. TOTAL = 20,400 S.F.
COVERAGE:	28.4%
PARKING REQUIRED: BLDGS. A & B	15,850 S.F. OFFICE x 4.5/1,000 = 71 CAR SPACES 4,750 S.F. WAREHOUSE x 1/2,000 = 2 CAR SPACES
PARKING PROVIDED:	53 - 9' x 19' STANDARD SPACES 15 - 8' x 16' COMPACT SPACES 4 - 9' x 19' VAN ACCESSIBLE SPACES TOTAL PARKING PROVIDED = 72 CAR SPACES
	4 - 2' x 6' BICYCLE PARKING (CLASS II RACKS)

NOTES

1. REFER TO CIVIL DRAWINGS FOR ADDITIONAL DIMENSIONS, NOTES AND BOUNDS, FINISH FLOOR ELEVATION, GRADING AND DRAINAGE.
2. SEE LANDSCAPE ARCHITECTS DRAWINGS FOR LANDSCAPE INFORMATION.
3. ALL EXTERIOR WALKS SHALL BE 4" THICK CONCRETE, MEDIUM BROOM FINISH WITH 6x6, 1.4 x 1.4 WWM. CONTROL JOINTS AT 5'-0" O.C. MAX. EXPANSION JOINTS AT 20'-0" MAX.
4. SEE GEOTECHNICAL REPORT FOR CONCRETE AND AC PAVING, COMPACTION, GRADING AND OTHER INFORMATION.
5. ALL ACCESSIBILITY SHALL MEET STANDARDS PER SHEET A1.2.

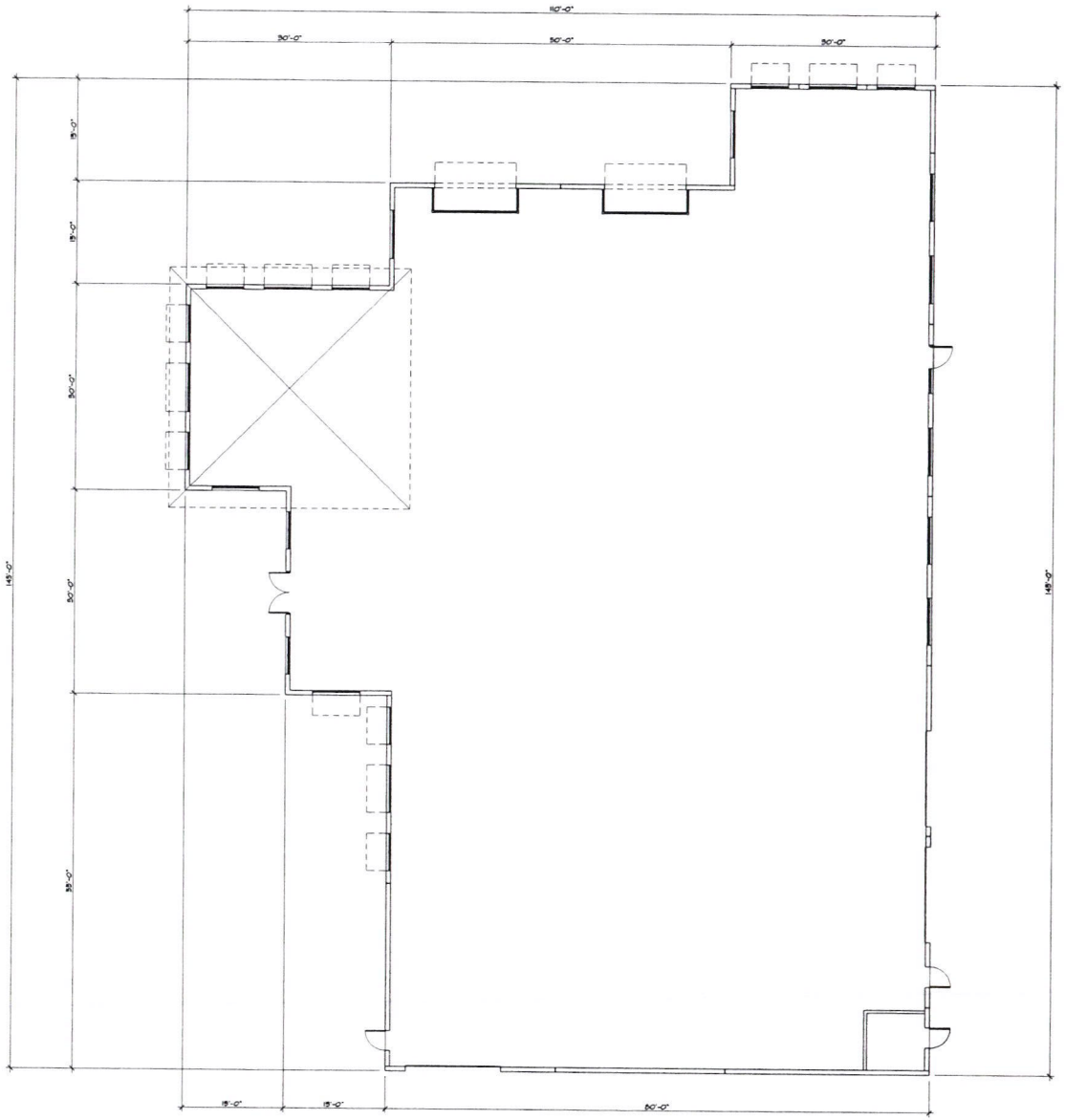
NORTHWEST EXTERIORS
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1705

NORTHWEST EXTERIORS, 2 BUILDINGS

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, SACRAMENTO COUNTY, CA

GBDH
DESIGN GROUP, INC.
9804 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9981 Fax 916.854.9840

N17-2334 MAY 05/06/05



A / A2.1 BUILDING A - FLOOR PLAN
PLAN
SCALE: 1/8" = 1'-0"

NORTH TRUE NORTH

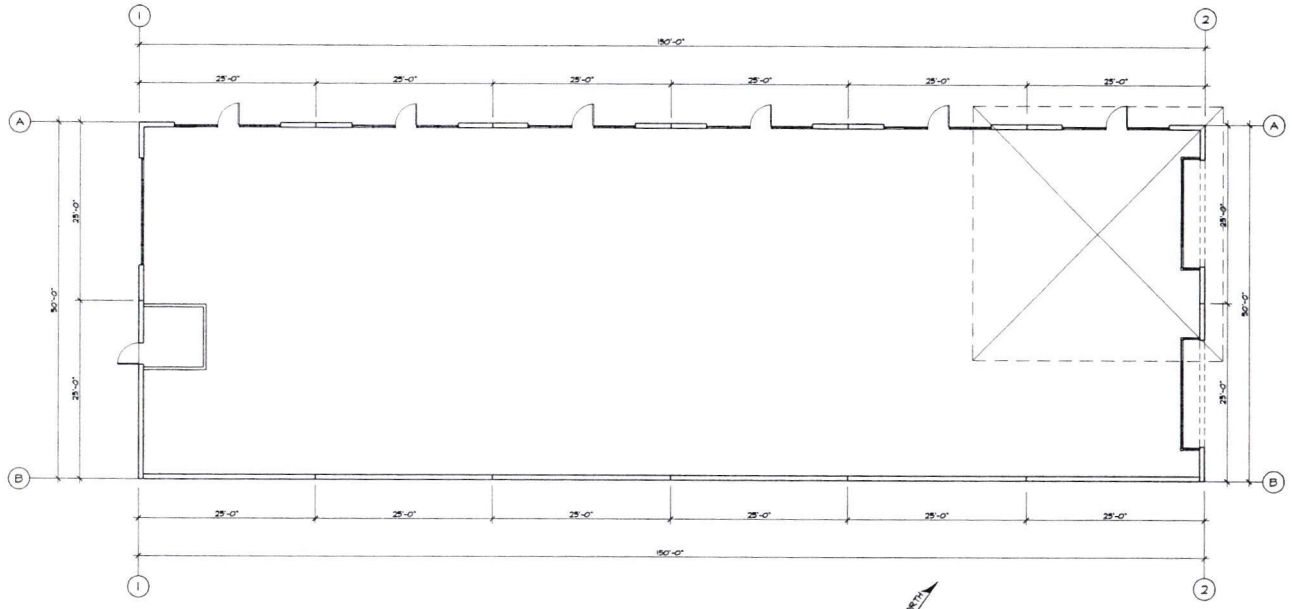
NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1709

NORTHWEST EXTERIORS, 2 BUILDINGS

SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
H17-2334 MAY 05/06/05



A2.2 BLDG. 'B' FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH TRUE NORTH

NORTHWEST EXTERIORS

11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1705

NORTHWEST EXTERIORS, 2 BUILDINGS

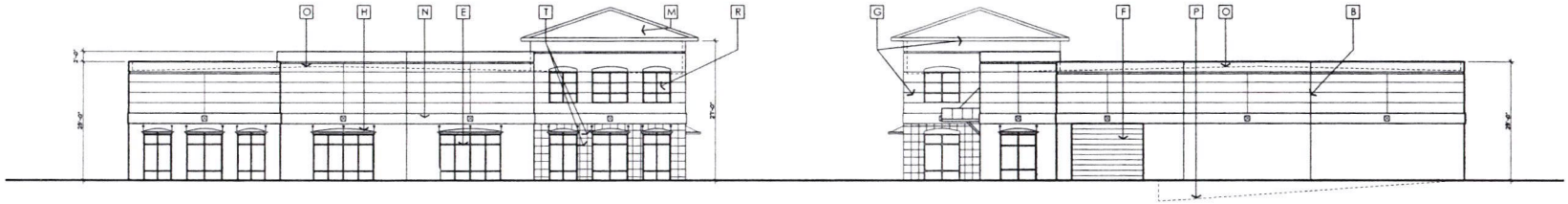
SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH

DESIGN GROUP, INC.

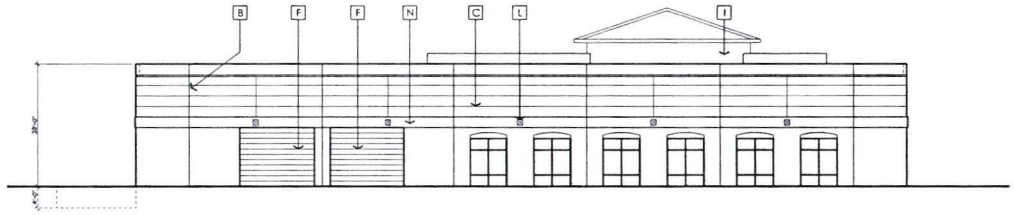
9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840

H17-2334 MAY 05/06/05



A/A5.1 NORTH ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

A/A5.1 SOUTH ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"



A/A5.1 EAST ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

A/A5.1 WEST ELEVATION - BLDG. 'A'
SCALE: 3/32"=1'-0"

ELEVATIONS LEGEND

A TILT-UP CONCRETE PANEL

B PANRL JOINT

C REVEAL, TYP. SEE DETAIL D/A5.1

D 3' x 7' MAN DOOR

E STOREFRONT W/ INSULATED GLAZING

F 12' x 14' GRADE LEVEL OVERHEAD DOOR

G GUTTER & DOWNSPOUT

H METAL SUN SHADE & WALL REVEAL, SEE ELEVATIONS A/A5.3.

I CEMENT PLASTER

J COMPANY SIGNAGE

K STREET ADDRESS

L MEDALLION

M FIRE SESISTIVE ROOFING

N HIGHLIGHT BAND

O ROOF - SLOPE TO DRAIN

P LOADING DOCK RAMP

R STOREFRONT W/ SINGLE PANE GLAZING

S SIGNAGE - BACKLIGHTED

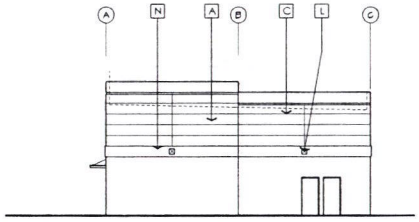
T GRANITE TILE

NORTHWEST EXTERIORS
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916.851.1632 FX 916.851.1705

NORTHWEST EXTERIORS, 2 BUILDINGS

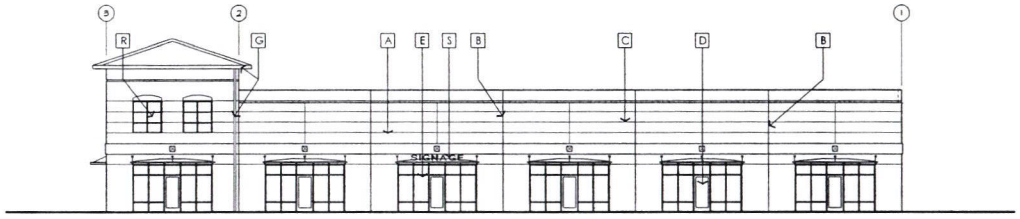
SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9806 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9901 Fax 916.854.9840
N17-2324 MAY 05/06/05

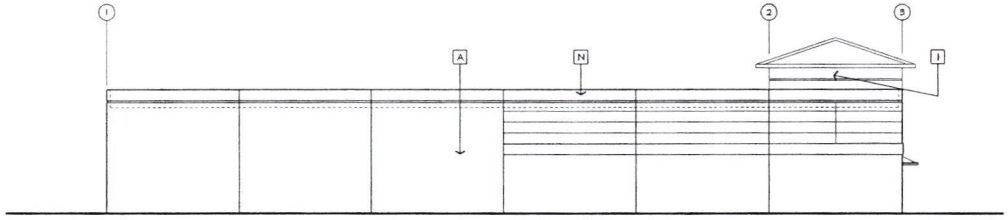


A A3.2 WEST ELEVATION BUILDING 'B'
SCALE: 3/32"=1'-0"

B A3.2 EAST ELEVATION BUILDING 'B'
SCALE: 3/32"=1'-0"



C A3.2 NORTH ELEVATION BUILDING 'B'
SCALE: 3/32"=1'-0"



D A3.2 EAST ELEVATION BUILDING 'B'
SCALE: 3/32"=1'-0"

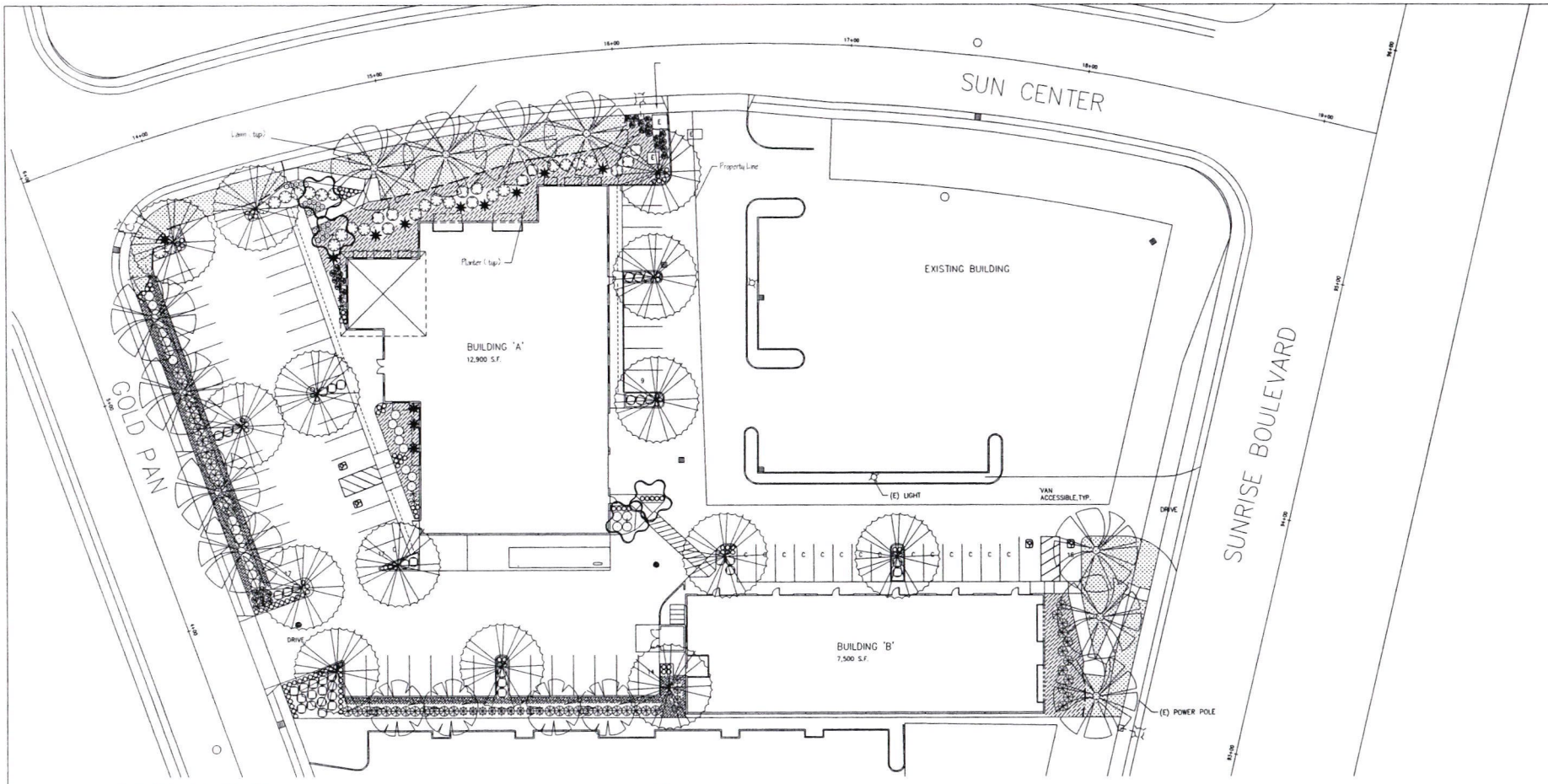
ELEVATIONS LEGE

A TILT-UP CONCRETE PAI
B PANRL JOINT
C REVEAL, TYP. SEE DE
D 3' x 7' MAN DOOR
E STOREFRONT W/ INSULA
F 12' x 14' GRADE LEVEL
G GUTTER & DOWNSPOUT
H METAL SUN SHADE & W
SEE ELEVATIONS A/A5.
I CEMENT PLASTER
J COMPANY SIGNAGE
K STREET ADDRESS
L MEDALLION
M FIRE SESISTIVE ROOFI
N HIGHLIGHT BAND
O ROOF - SLOPE TO DR
P LOADING DOCK RAMP
R STOREFRONT W/ SINGL
S SIGNAGE - BACKLIGHT
T GRANITE TILE

NORTHWEST EXTERIORS
11290 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 1632 FX 916 851 1705

NORTHWEST EXTERIORS, 2 BUILDINGS
SUNRISE BOULEVARD & SUN CENTER DRIVE
RANCHO CORDOVA, CA

GBDH
DESIGN GROUP, INC.
9086 Old Winery Place, Suite 1
Sacramento, California 95827
Tel 916.854.9981 Fax 916.854.9840
N17-2334 MAY 05/06/05



PLANT LEGEND

Trees

Lagerstroemia Muskogee	Crepe Myrtle	Low	15 Gallon	Deciduous accent tree	
Pistachia chinensis	Chinese Pistache	Low	15 Gallon	Deciduous shade tree	
Platanus Bloodgood	London Plane Tree	Low	15 Gallon	Deciduous shade/street tree	
Pyrus Chanticleer	Ornamental Pear	Med	15 Gallon	Deciduous shade tree	

Shrubs

Ceanothus Skylark	California Lilac	Low	5 Gallon	Evergreen foundation shrub	
Cotoneaster parneyi	NCN	Low	5 Gallon	Evergreen foundation shrub	
Dietes vegeta	Fortnight Lily	Low	1 Gallon	Access shrub	
Miscanthus Yaku Jima	Eulalia	Low	5 Gallon	Ornamental Grass	
Nerium oleander dwf pink	Dwarf Oleander	Low	5 Gallon	Evergreen foundation shrub	
Nerium oleander dwf red	Dwarf Oleander	Low	5 Gallon	Evergreen foundation shrub	
Raphiolepis Pink Lady	India Hawthorne	Low	5 Gallon	Evergreen foundation shrub	
Rosmarinus Tuscan Blue	Tuscan Rosemary	Low	5 Gallon	Evergreen screen shrub	
Rosa Red Carpet	Red Carpet Rose	Med	1 Gallon	Accent shrub	
Tulbaghia violacea	Society Garlic	Low	1 Gallon	Evergreen accent shrub	
Verbena tapien purple	Dwarf Verbena	Low	1 Gallon	Evergreen ground cover	
Viburnum Spring Bouquet	Spring Bouquet	Low	5 Gallon	Evergreen screen shrub	

Ground Cover

Cotneaster lowfast	Bearberry	Low	1 Gallon	48" OC Evergreen ground cover
Myoporum parvifolium	NCN	Low	1 Gallon	36" OC Evergreen ground cover
Fescue Bluegrass Blend	Lawn	High	Sod	

Shade Calculations

Tree Variety	Full Value	Full	¾	Half	¼	Total Sq.'
20' Trees						
Pyrus Chanticleer	314 sq.'			4		628
35' Trees						
Pistachia chinensis	962 sq.'	5		9		9139
Platanus Bloodgood	962 sq.'			5		2405
Total Shade Area Provided						12172
Parking Area						21220
Shade required	50%					10610
Shade Provided	57%					12172

Scale 1" = 20'

NORTH

Plant material exceeds water use calculations.
Irrigation system will meet State Water Model.

Landscape Visions, Inc.
Landscape Construction
11325 SUNRISE GOLD CIRCLE SUITE A
RANCHO CORDOVA, CA 95742
PHONE (916) 635-3494

NORTHWEST EXTERIORS
Sunrise Blvd at Sun Center
Rancho Cordova, CA

DESIGN BUILD CONSULTANTS SIGNATURE

ERIC DEARING, LANDSCAPE VISIONS, INC.

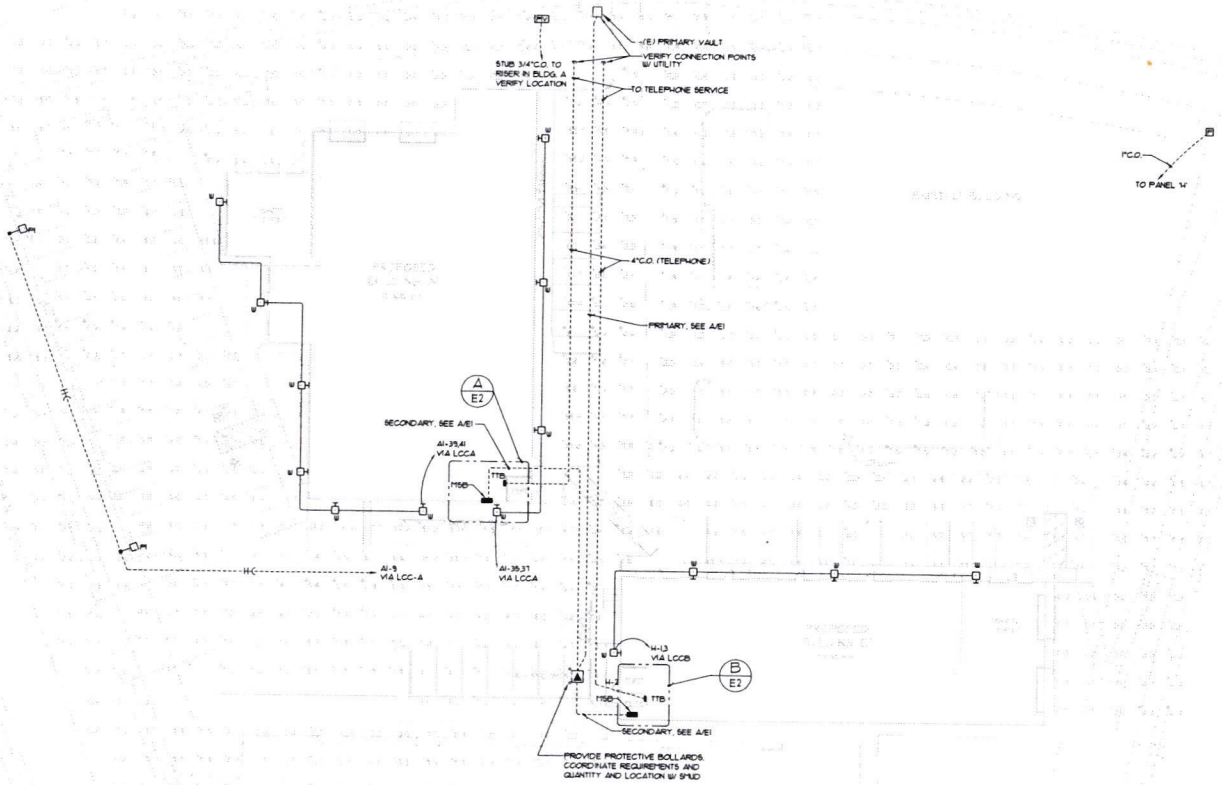
DATE

REVISIONS △ / ISSUES ○ DATE

PRELIMINARY PLANTING PLAN

Oct 13, 2004

LP



ELECTRICAL SITE PLAN

SCALE: 1"=20'-0

A
ES1

REVISION	BY

ENGINEERING CONCEPTS
Robert C. Hamilton C 10859 EXP. 6/30/06 ELECTRICAL

NORTHWEST EXTERIORS

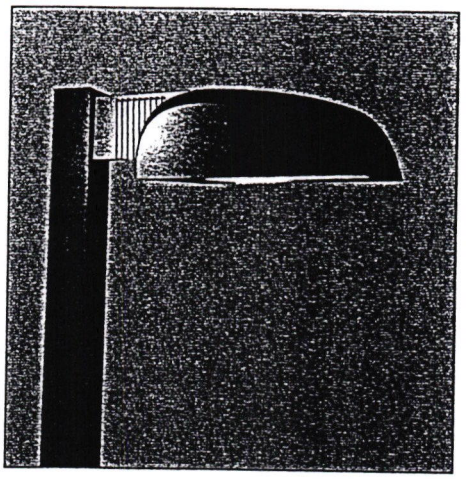
11280 TRADE CENTER DRIVE, SUITE C
RANCHO CORDOVA, CALIFORNIA
PH 916 851 6632 FX 916 851 1703

ELECTRICAL SITE PLAN

DATE	4-6-05
SCALE	1"=20'
DRAWN	SM
JOB	05145
SHEET	ES1
OF	SHEETS

Aeris™

Architectural Arm-Mounted Cutoff



Intended Use

For streets, walkways, parking lots and surrounding areas.

Features

Housing – Die-cast single-piece aluminum with nominal 1/8" wall thickness. Integral arm provides easy installation to pole or wall. Housing completely sealed against moisture or environmental contaminants.

Door Assembly – Die-cast door frame, impact-resistant, tempered, glass lens, 3/16" thick, fully sealed with one-piece tubular silicone gasket. Tool-less entry and closure via spring-loaded die-cast latches.

Optics – Anodized segmented reflectors for superior uniformity and control. Reflectors attach with tool-less fasteners and are rotatable and interchangeable.

Installation – Heavy-duty easy-mount block attaches to pole or wall to provide ease of installation as well as ensured alignment and leveling.

Electrical – 150W and below utilize a high reactance, high power factor. 175W and above use a constant-wattage autotransformer ballast. Compact fluorescent uses an electronic high frequency ballast. Ballasts mounted on removable power tray with tool-less latch and have positive locking disconnect plugs. Ballasts are copper wound and 100% factory tested.

Finish – Standard finish is dark bronze (DDB) corrosion-resistant polyester powder finish. Other architectural colors available.

Socket – Porcelain, medium-base socket for AS1, mogul-base socket for AS2 , with copper alloy nickel-plated screw shell and center contact. UL listed.

Listings – UL Listed (standard). CSA Certified or NOM certified (see Options). UL listed for wet locations in lens-down orientation (damp location listed in lens-up orientation. Meets IESNA full cutoff criteria. U.S. patent no. D447, 590. Canadian patent no. 94324.

Ordering Information

Example: **AS1 150S SR2 120 SPA SF LPI**

Designation

High Pressure Sodium

AS1	35S[1]
AS1	50S[2]
AS1	70S
AS1	100S
AS1	150S
AS2	200S
AS2	250S
AS2	400S

Metal Halide

AS1	50M[3]
AS1	70M[3]
AS1	100M
AS1	150M[4]
AS1	175M
AS2	200M[5]
AS2	250M[4]
AS2	320M[5]
AS2	350M[5]
AS2	400M[4]

Compact Fluorescent

AS1	2/32TRT[6]
AS1	42TRT
AS1	2/42TRT[6]
AS1	57TRT
AS1	70TRT

Distribution

SR2	Segmented Type II roadway
SR3	Segmented Type III asymmetric
SR4SC	Segmented Type IV forward throw, sharp cutoff
SR4W	Segmented Type IV wide, forward throw (size 2 only)
SR5S	Segmented Type V square

Voltage

120, 208[7], 240[7], 277, 347, 480[7], TB[8], MVOLT[9,10]

Mounting[11]

Included

SPA	Square pole mounting block
RPA	Round pole mounting block
WBA	wall bracket (up or down)

Shipped separately

ASKMA1	Mast arm adapter (size 1)
ASKMA2	Mast arm adapter (size 2)
DSAS1	Decorative straight arm, square pole only (size 1)
DSAS2	Decorative straight arm, square pole only (size 2)
DCAS1	Decorative curved arm, square pole only (size 1)
DCAS2	Decorative curved arm, square pole only (size 2)

Options/Accessories

Installed

SF	Single fuse, 120V, 277V, 347V (n/a TB & MVOLT)[12]
DF	Double fuse, 208V, 240V, 480V (n/a TB & MVOLT)[12]
PER	NEMA twist-lock receptacle only (no photocontrol)
QRS	Quartz restrike system (100W max. AS1, 250W max. AS2, lamp not included)[12]
CR	Enhanced corrosion resistance
HS	House-side shield (n/a with SR4SC)
EC	Emergency circuit[13]
TP	Tamperproof
SCWA	Super CWA pulse start ballast (not available with HPS, TRT, 50, 70, 100M or 480V)
LPI	Lamp included (standard)
L/LP	Less lamp
CSA	CSA Certified
NOM	NOM Certified[13]

For optional architectural colors, see page 485.

Shipped separately

PE1	NEMA twist-lock PE (120V, 208V, 240V)
PE3	NEMA twist-lock PE (347V)
PE4	NEMA twist-lock PE (480V)
PE7	NEMA twist-lock PE (277V)
SC	Shorting cap
AS1VG	Vandal guard
AS2VG	Vandal guard

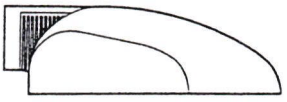
For tenon slipfitters, see page 486.

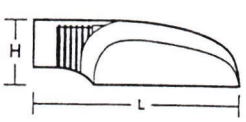
NOTES:

1. 120V only.
2. 120V & 277V only.
3. Not available with 480V.
4. May be ordered with SCWA option.
5. Must be ordered with SCWA option.
6. Available in SR3 only.
7. Consult factory for availability in Canada.
8. Optional multi-tap ballast (120V, 208V, 240V, 277V). In Canada 120V, 277V, 347V; ships as 120V/347V.
9. Compact Fluorescent only, 120V-277V.
10. Multi-volt electronic ballast (for TRT lamps) capable of operating on any line voltage between 120V & 277V.
11. Mounting block standard.
12. SF, DF or QRS options cannot be ordered together.
13. Consult factory for availability.

Drilling Pattern
(see pole ordering, pg. 494)

DM19AS	1 at 90°
DM28AS	2 at 180°
DM29AS	2 at 90°
DM39AS	3 at 90°
DM49AS	4 at 90°
DM32AS	3 at 120° (Round poles only)

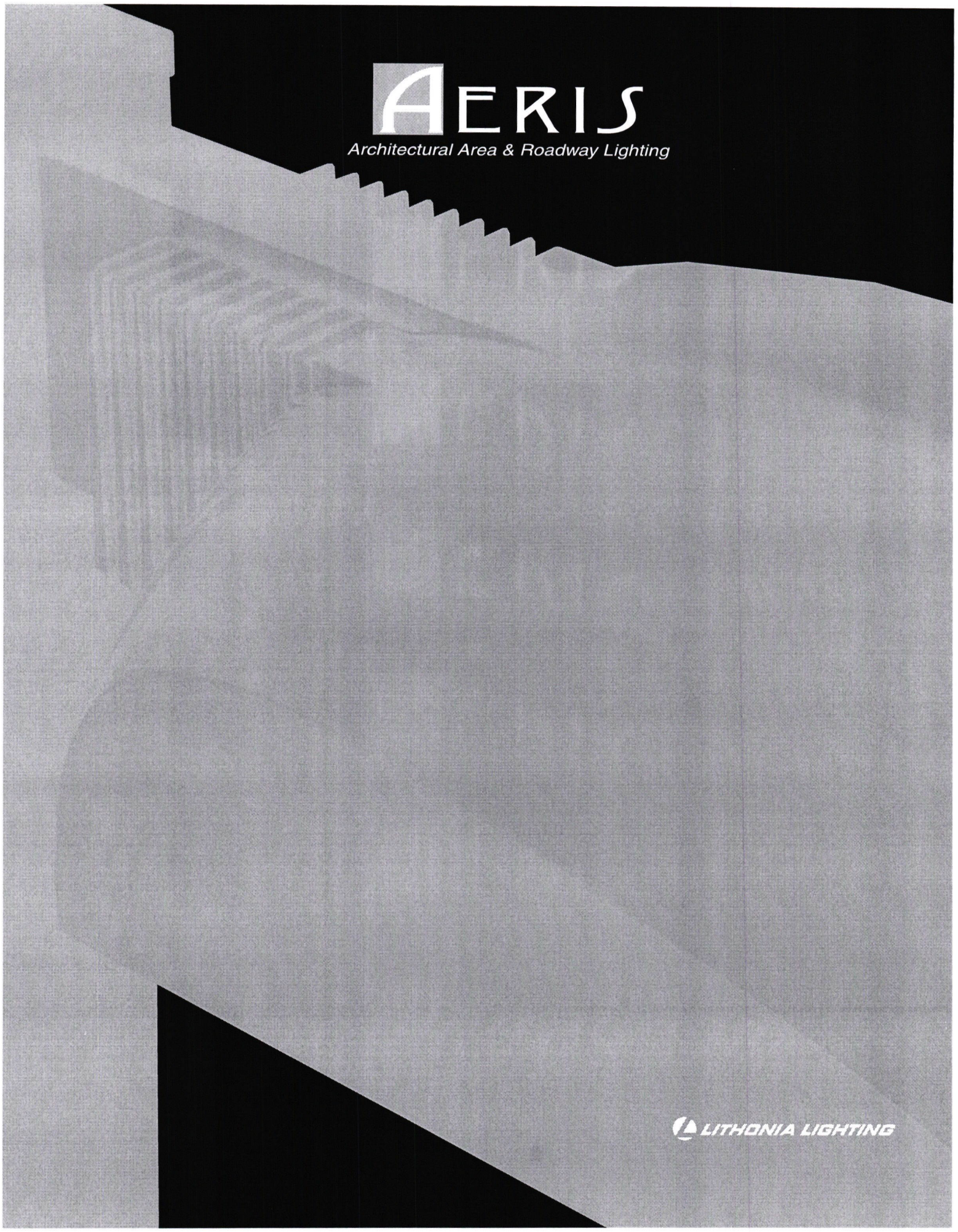




Dimensions are shown in **inches (centimeters)** unless otherwise noted.

	AS1	AS2
EPA	.7 ft²	1.2 ft²
Length	21.38 (54.5 cm)	28 (71.0 cm)
Width	12.5 (31.7 cm)	16.25 (41.9 cm)
Height	6.28 (15.9 cm)	8.25 (21.0 cm)
Weight	22 lbs (10 kg)	45 lbs (20.4 kg)

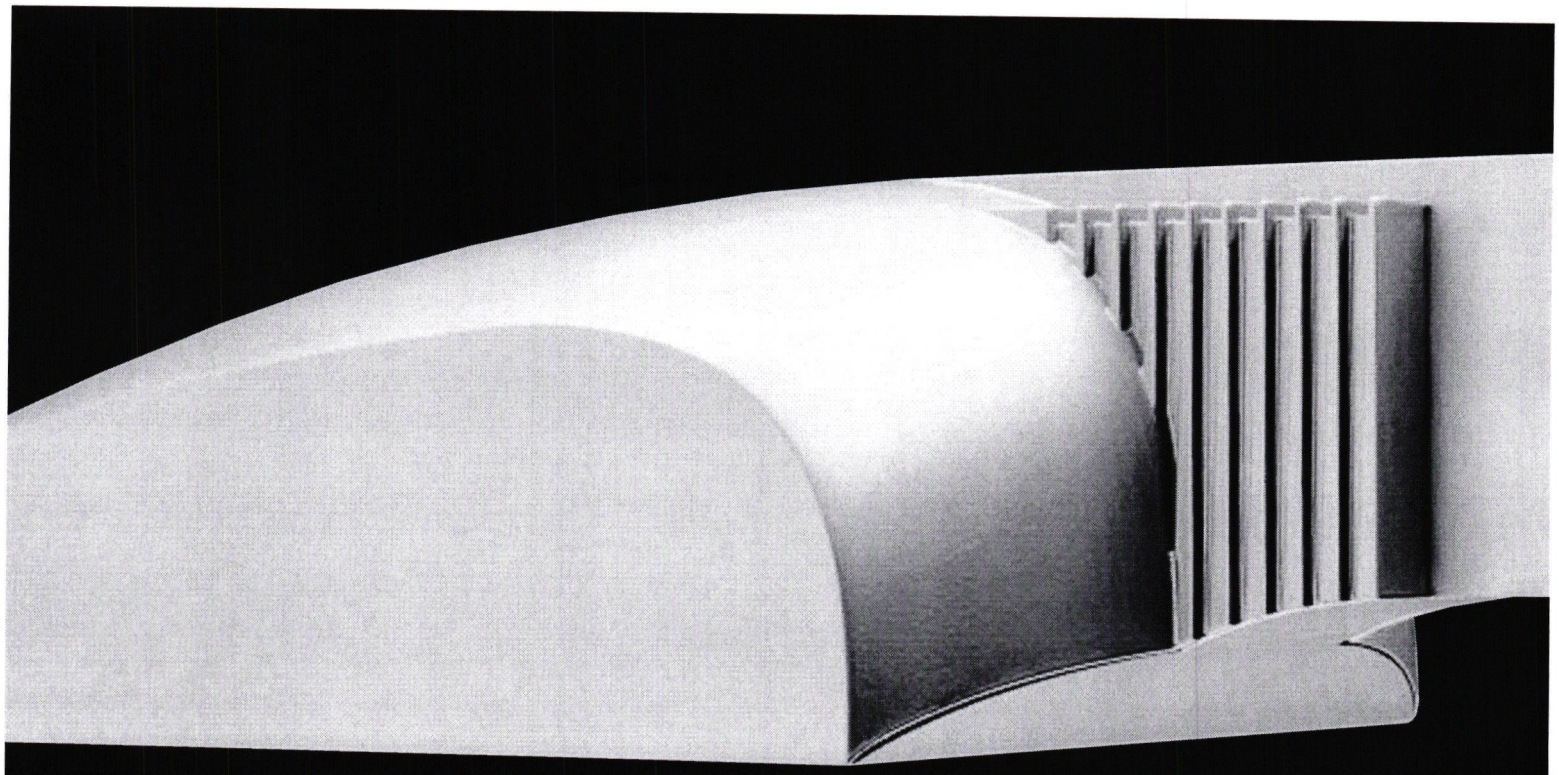
International Dark Sky Member


AERIS
Architectural Area & Roadway Lighting
LITHONIA LIGHTING

AERIS

Lithonia Lighting proudly offers Aeris™, the premier low-profile architectural area luminaire available today. Aeris enhances the surrounding environment by addressing the need for daytime appearance and nighttime performance. While advanced mechanical details enhance the ease of installation and maintenance, they also prevent the intrusion of harsh environmental contaminants. Aeris represents the complete lighting solution.

Aeris further extends the offering of quality outdoor lighting products from Lithonia. The coupling of unique style with industry-leading lighting performance yields a truly superior product. Multiple luminaire sizes, matched with thoughtfully created companion elements produce a unified lighting design from street to entry.

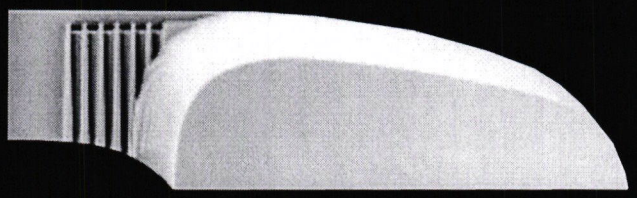


AESTHETICS

The Aeris design is graceful in nature but practical in purpose. Flowing surfaces meet hard-edged lines, and organic inspiration combines with precisely engineered details to complement both the uniqueness of the project and to create the desired lighting effect.

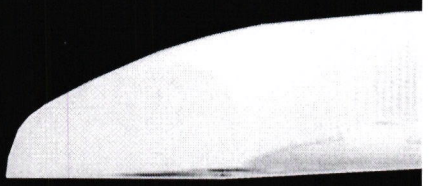
PERFORMANCE

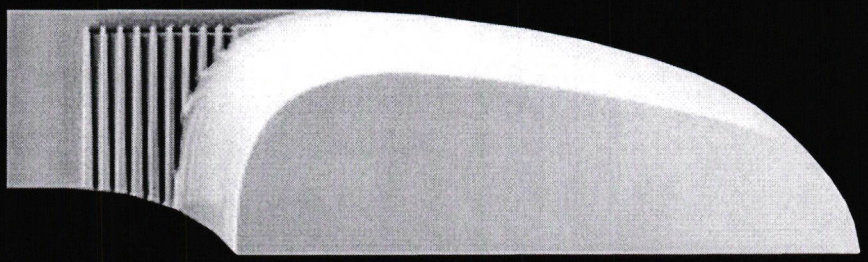
Aeris shields the night sky, providing full cutoff of all light at and above a horizontal plane without compromising performance. Horizontal lamp optics offer an array of well defined distributions while available internal shields control stray light along property lines. The Aeris high performance optical designs reduce energy usage, control spill light and reduce glare, while addressing needs for enhanced visibility.



AERIS 1

The smaller Aeris 1 accommodates low wattage H.I.D. lamps as well as compact fluorescent sources. Lower pole heights and smaller luminaires create a sense of proper scale in pedestrian spaces. Aeris 1 provides uniform, well defined lighting patterns along walkways, paths, and common areas between buildings.





AERIS 2

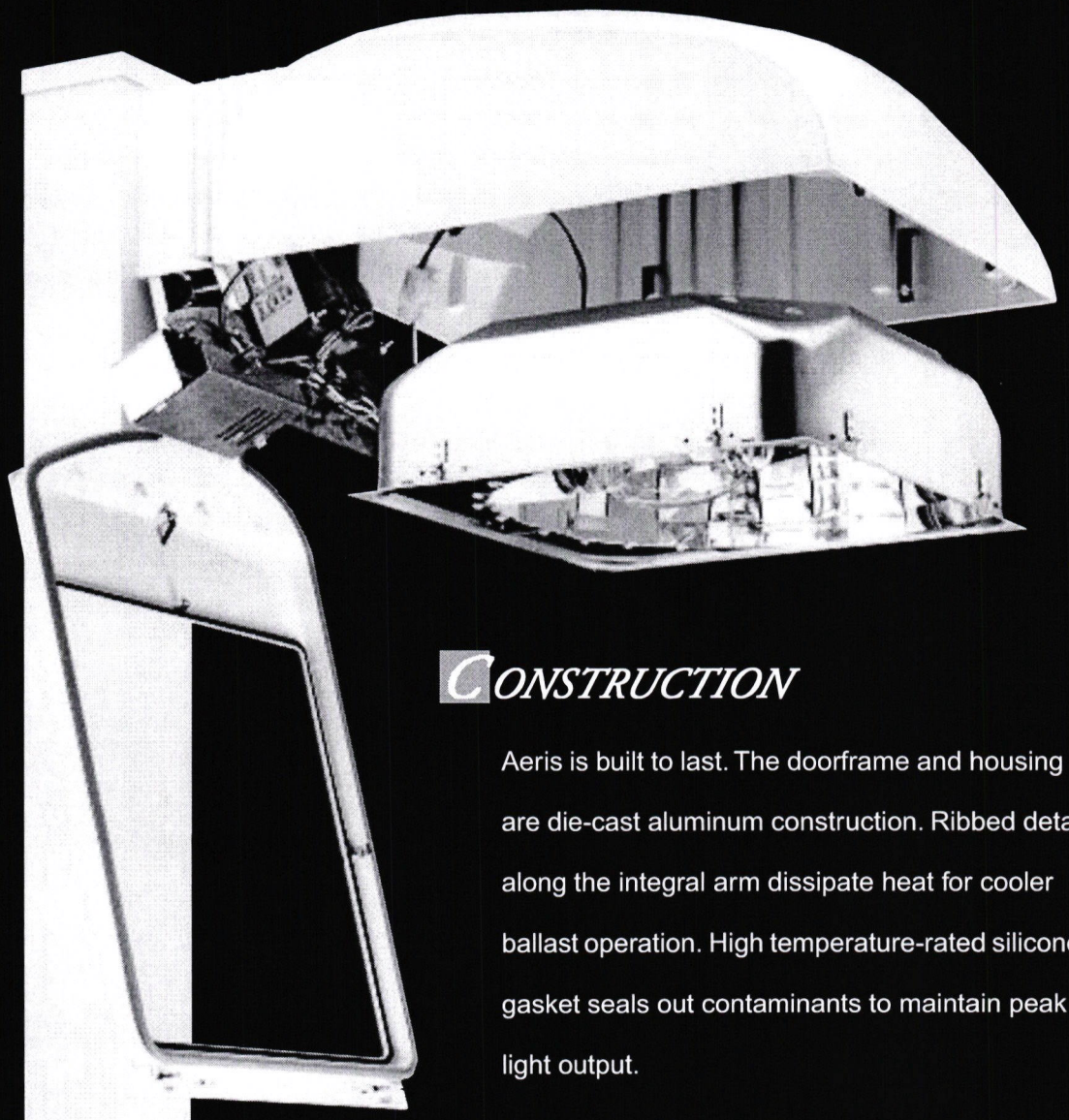
The Aeris 2, utilizing the most efficient H.I.D. sources, is ideally suited for open parking areas, entry drives, and roadways. The larger size provides proper scale at the elevated mounting heights associated with these applications. Lithonia's industry-leading SR4SC reflector has been further improved to provide up to 50% more light on parking lots while maintaining its sharp cutoff behind the pole.

AERIS ROADWAY ARMS

Decorative 24" mounting arms reflect the Aeris elegance while evoking the style of more traditional roadway luminaires. A choice of straight or curved arms affords the designer the opportunity to reinforce architectural design themes.

AERIS WALL MOUNT

The clean appearance of the wall mounting option offers designers the opportunity to attach Aeris to walls and columns. The lens-up orientation produces high intensity indirect lighting for canopies, atriums and lobbies, extending the exterior luminaire design element into the building. Available internal back light shields reduce the "hot spot" on the wall behind the luminaire.



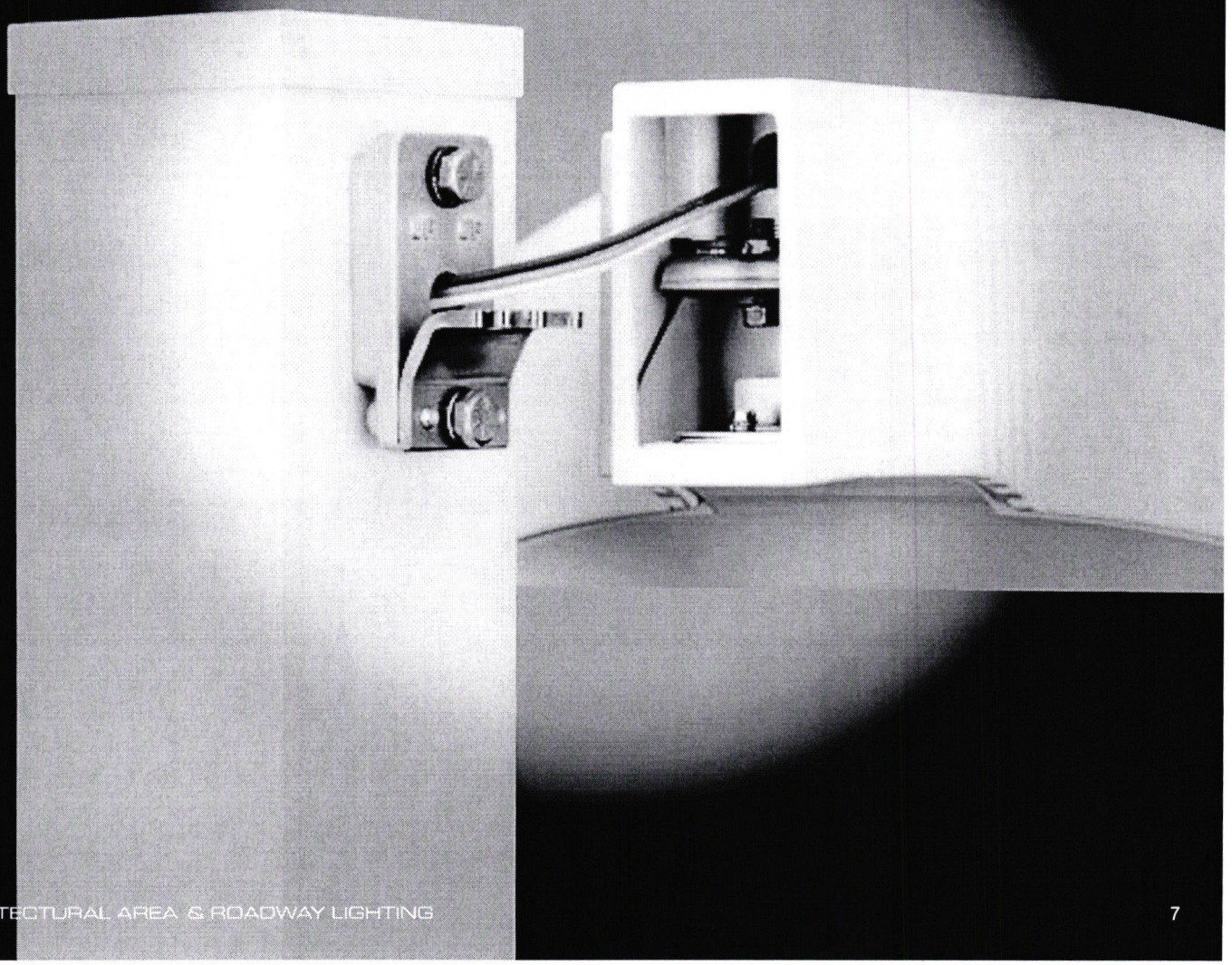
CONSTRUCTION

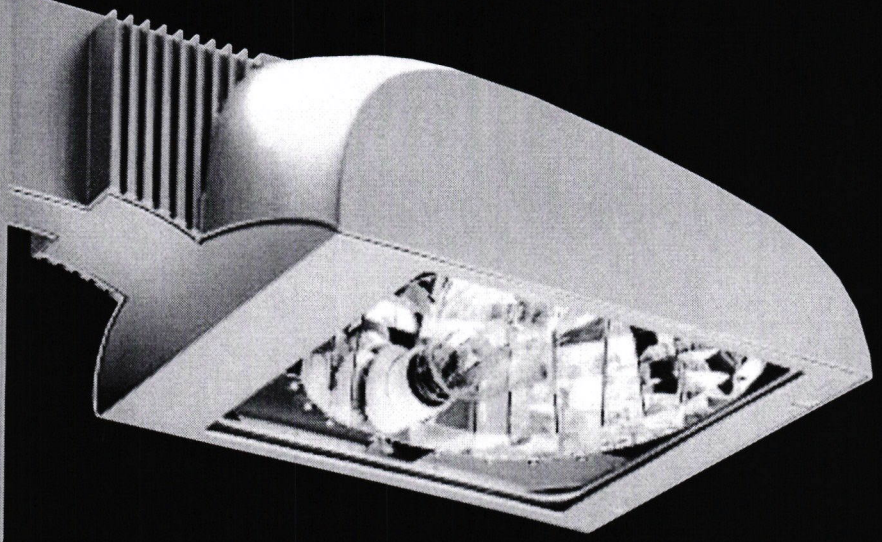
Aeris is built to last. The doorframe and housing are die-cast aluminum construction. Ribbed details along the integral arm dissipate heat for cooler ballast operation. High temperature-rated silicone gasket seals out contaminants to maintain peak light output.

Once installed, Aeris area luminaires require no tools for maintenance. Concealed hand operated latches provide access and positive closure. Reflectors and unitized electrical modules can be removed and replaced by hand.

MOUNTING

Aeris offers a unique mechanical connection between the luminaire and pole. Based on the Simplex style connector used on roadway lighting poles for many years, the new mounting arrangement reduces installation effort while providing a self leveling function. The mounting block attaches to a broad variety of pole types. The luminaire firmly engages to the mounting block and is locked into place with a single locking fastener. The unique design secures the Aeris luminaire in either a lens up or down orientation.



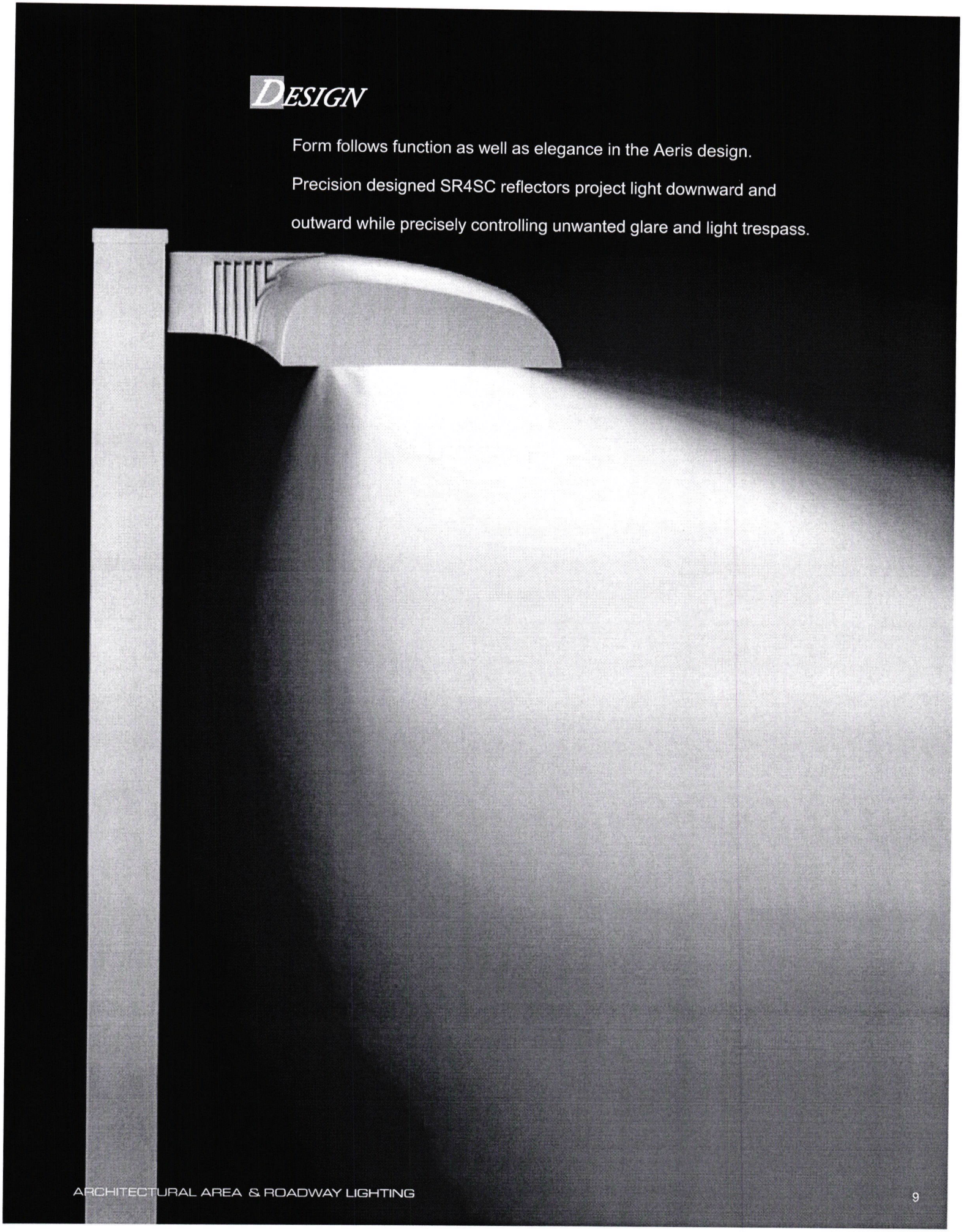


OPTICS

Aeris provides nighttime performance as dramatic as its daytime appearance. High performance optics make the best use of new efficient lamps, resulting in low energy consumption. These reflectors are tuned for improved performance at lower mounting heights to allow pole-mounted luminaires the ability to maintain proper scale with the structure.

Distribution types SR2, SR3, SR4SC (sharp cutoff), SR4W (wide), and SR5S provide choices for effective coverage of roadways, parking lots, walkways and campuses. All reflectors are interchangeable and rotatable in 90° increments.

The unique nature of the Aeris optics virtually eliminates the stripes, or striations, normally associated with horizontal lamp luminaires. For over 10 years, the SR4SC distribution has been the industry's best solution to controlling stray light behind the pole. With a new and improved design, the SR4SC now provides even more light in front of the pole while retaining its true cutoff of back light. Aeris is a true architectural lighting instrument.



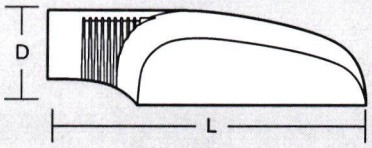
DESIGN

Form follows function as well as elegance in the Aeris design.

Precision designed SR4SC reflectors project light downward and

outward while precisely controlling unwanted glare and light trespass.

AERIS TECHNICAL SPECIFICATIONS



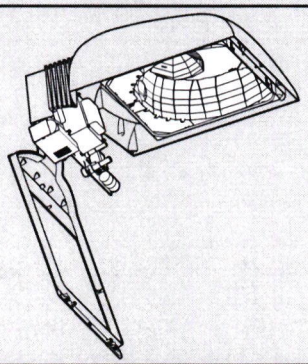
	AS1	AS2
Length	21.5"	28.0"
Width	12.5"	16.5"
Depth	6.3"	8.3"

Enclosure: Housing and mounting arm are integrated into a single high pressure die-cast aluminum part. The sculpted style produces an effective projected area (EPA) of 0.7 sq. ft. for the AS1 and 1.2 sq. ft. for the AS2. Wireway is sealed with silicone grommet.

Door: The door assembly consists of a one-piece high-pressure die-cast aluminum frame, two concealed hand operated spring loaded cast latches, a concealed door hinge, an extruded silicone gasket, a 0.188" thick heat tempered glass lens, and a stainless steel safety cable that limits travel of the door when first opened. The luminaire door may be opened, closed, removed, and replaced without the use of tools.

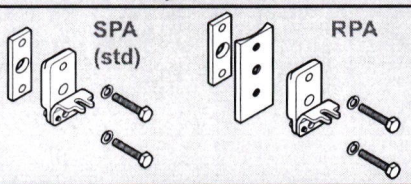
Finish: Aeris is finished with a five stage TGIC thermoset polyester powder coat process, including an environmentally friendly chromate-free substrate. Standard colors are dark bronze (DDB), black (DBL), and white (DWH). Please refer to Architectural Colors brochure for optional catalogued colors, or specify a four digit RAL number.

Certifications: Aeris luminaires are UL listed for wet location in lens down orientation and damp location in lens up orientation. US Patent no. D447,590. Canadian patent pending. CSA Certified or NOM Certified (see options). All units are IP certified.



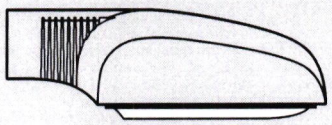
Reflector: Reflector segments are fashioned of 95% reflective anodized aluminum sheet. Segments are secured into a one piece deep drawn chassis to ensure precise alignment. All reflectors may be removed, replaced, and rotated in 90° increments without the use of tools. AS1 reflectors include medium-base porcelain sockets pulse rated for 4KV for HPS, or Metal Halide. AS2 reflectors include mogul-base porcelain sockets rated for 4KV for HPS and position oriented mogul-base porcelain sockets for Metal Halide. Sockets are factory wired with modular plugs for quick connection to ballast conductors.

Power Tray: All electrical components are mounted to a single rigid metal tray that may be quickly removed and replaced without the use of tools. Ballasts are copper wound using the highest grade grain oriented steel laminations. Ballasts are high power factor and rated for HPS lamp ignition down to –40°C or Metal Halide lamp ignition down to –20°C.

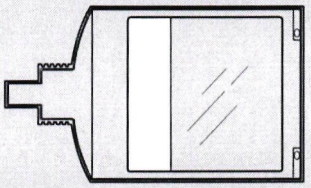


Mounting: Luminaire mounts to pole or wall plate using a unique block / receiver assembly. The block bolts to a pole (or wall plate; use template #9) and engages the receiver within the Aeris integral arm. A single threaded locking fastener secures the two. Assembly is rated to support 600 lb. load in either lens up or lens down orientation. Mounting kits are available for either round (RPA) or square (SPA (standard)) pole mounting.

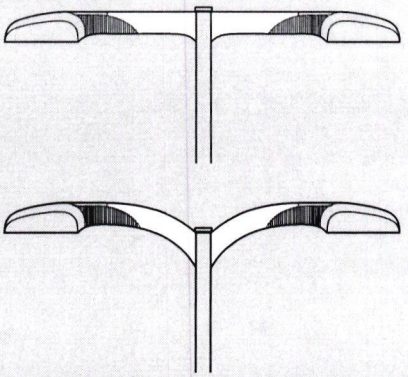
Vandal Guard: UV stabilized polycarbonate low profile sculptured lens. Lens seals to doorframe to prevent the intrusion of environmental containments.



Houseside Shield: Internal houseside shield attaches to reflector so that it rotates with the reflector. Houseside shield is standard with the SR4SC reflectors.



Decorative Arms: Cast 24" decorative arms. Choice of straight or curved design with 18" upsweep. Arms attach to pole using the standard square pole mounting (SPA). *(Available with square poles only.)*

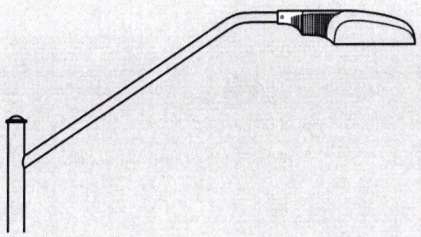


Pole Patterns: Aeris has a specific pole template for drill mounted poles. Aeris uses template #8. When ordering with Lithonia Lighting poles, the Aeris drilling pattern must be specified.

Drilling Patterns

DM19AS	1 fixture @ 90 degrees
DM28AS	2 fixtures @ 180 degrees
DM29AS	2 fixtures @ 90 degrees
DM39AS	3 fixtures @ 90 degrees
DM49AS	4 fixtures @ 90 degrees
DM32AS	3 fixtures @ 120 degrees *(round poles only)*

Mast Arm Adapters: One piece cast adapter mounts to 2-3/8" O.D. pipe with utility standard through bolt. Standard with square pole mounting kit *(SPA)*.



Slipfitters: Tenon slipfitters for arm mount fixtures are available with Aeris. Must order round pole mounting kit (RPA). Consult specification sheets for further ordering information.

ORDERING INFORMATION

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog number.

Example: **AS1 175M SR2 120 SPA SF DNA LPI**

Series

High Pressure Sodium
- **AS1 35S** [1]
- **AS1 50S**
- **AS1 70S**
- **AS1 100S**
- **AS1 150S**
- **AS2 200S**
- **AS2 250S**
- **AS2 400S**

Metal Halide
- **AS1 50M** [2]
- **AS1 70M** [2]
- **AS1 100M**
- **AS1 150M**
- **AS1 175M**
- **AS2 200M** [3]
- **AS2 250M**
- **AS2 320M** [3]
- **AS2 350M** [3]
- **AS2 400M**

Compact Fluorescent
- **AS1 42TRT** [4]

Distribution

- **SR2** Segmented Type II roadway
- **SR3** Segmented Type III asymmetric
- **SR4SC** Segmented Type IV forward throw, sharp cutoff
- **SR4W** Segmented Type IV wide, forward throw (size 2 only)
- **SR5S** Segmented Type V Square

NOTES:
1. 120V only.
2. Not available with 480V.
3. Must be ordered with SCWA option.
4. Not available with 208V, 240V, 480V, or TB.
5. Consult factory for availability in Canada.
6. Optional multi-tap ballast (120, 208, 240, 277V). 120, 277, 347V in Canada.
7. Optional multi-volt electronic ballast (for TRT lamp) capable of operating on any line voltage from 120V-277V.
8. Shipped separately.
9. SF, DF or QRS options cannot be ordered together (size 1 only).
10. Must specify voltage, not available with MVOLT or TB.
11. Consult factory for availability.
12. May be ordered as an accessory.
13. Additional architectural colors available; see www.lithonia.com for more information.

Voltage

- **120**
- **208** [5]
- **240** [5]
- **277**
- **347**
- **480** [5]
- **TB** [6]
- **MVOLT** [7]

Mounting

- **SPA** Square pole mounting (std.)
- **RPA** Round pole mounting
- **WBA** Wall bracket (up or down)
- **ASKMA1** Mast arm adapter (size 1) [8]
- **ASKMA2** Mast arm adapter (size 2) [8]
- **DSAS1** Decorative straight arm, square pole only (size 1) [8]
- **DSAS2** Decorative straight arm, square pole only (size 2) [8]
- **DCAS1** Decorative curved arm, square pole only (size 1) [8]
- **DCAS2** Decorative curved arm, square pole only (size 2) [8]

Options

Shipped Installed
- **SF** Single fuse (120, 277, 347V) [9,10]
- **DF** Double fuse (208, 240, 480V, n/a TRT) [9,10]
- **PER** NEMA twist-lock receptacle only (no photocontrol)
- **CR** Corrosion Resistant Finish
- **QRS** Quartz restrike system (100W max. AS1, 250W max. AS2, lamp not included) (n/a TRT) [9]
- **HS** Houseside shield (SR2, SR3; SR4W size 2 only)
- **EC** Emergency circuit [11]
- **TP** Tamper Proof
- **CSA** Listed and labeled to comply with Canadian Standards
- **NOM** Listed and labeled to comply with Mexican Standards [11]
- **SCWA** Super CWA Pulse Start Ballast (not available with 50M-100M & 175M, HPS or TRT)
- **LPI** Lamp included (standard)
- **L/LP** Less lamp

Shipped Separately [12]
- **PE1** NEMA twist-lock PE (120, 208, 240V)
- **PE3** NEMA twist-lock PE (347V)
- **PE4** NEMA twist-lock PE (480V) (n/a TRT)
- **PE7** NEMA twist-lock PE (277V)
- **AS1VG** Vandal guard (size 1)
- **AS2VG** Vandal guard (size 2)
- **SC** Shorting Cap for PER option

Architectural Colors [13]

Standard Colors
- **DDB** Dark bronze (standard)
- **DWH** White
- **DBL** Black

Classic Colors
- **DMB** Medium bronze
- **DNA** Natural aluminum
- **DSS** Sandstone
- **DGC** Charcoal gray
- **DTG** Tennis green
- **DBR** Bright red
- **DSB** Steel blue

Pole Ordering Note

Note: Aeris has a unique drilling template (#8) that requires an Aeris drilling pattern to be specified when ordering poles. See example below.

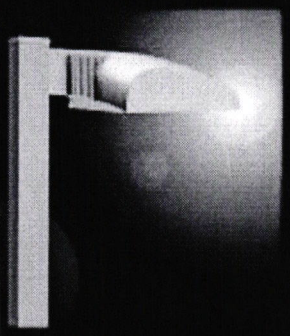
Example pole ordering nomenclature:
SSA 20 4C **DM19AS** DDB

Drilling Patterns
- **DM19AS** 1 fixture @ 90 degrees
- **DM28AS** 2 fixtures @ 180 degrees
- **DM29AS** 2 fixtures @ 90 degrees
- **DM39AS** 3 fixtures @ 90 degrees
- **DM49AS** 4 fixtures @ 90 degrees
- **DM32AS** 3 fixtures @ 120 degrees *(round poles only)*

Accessories: Tenon Mounting Slipfitter

Order as separate catalog number. Must be used with round pole mounting (RPA).

	Number of fixtures					
Tenon O.D.	One	Two@180°	Two@90°	Three@120°	Three@90°	Four@90°
2-3/8"	**AST20-190**	**AST20-280**	**AST20-290**	**AST20-320**	**AST20-390**	**AST20-490**
2-7/8"	**AST25-190**	**AST25-280**	**AST25-290**	**AST25-320**	**AST25-390**	**AST25-490**
4"	**AST35-190**	**AST35-280**	**AST35-290**	**AST35-320**	**AST35-390**	**AST35-490**



LITHONIA LIGHTING

An AcuityBrands Company

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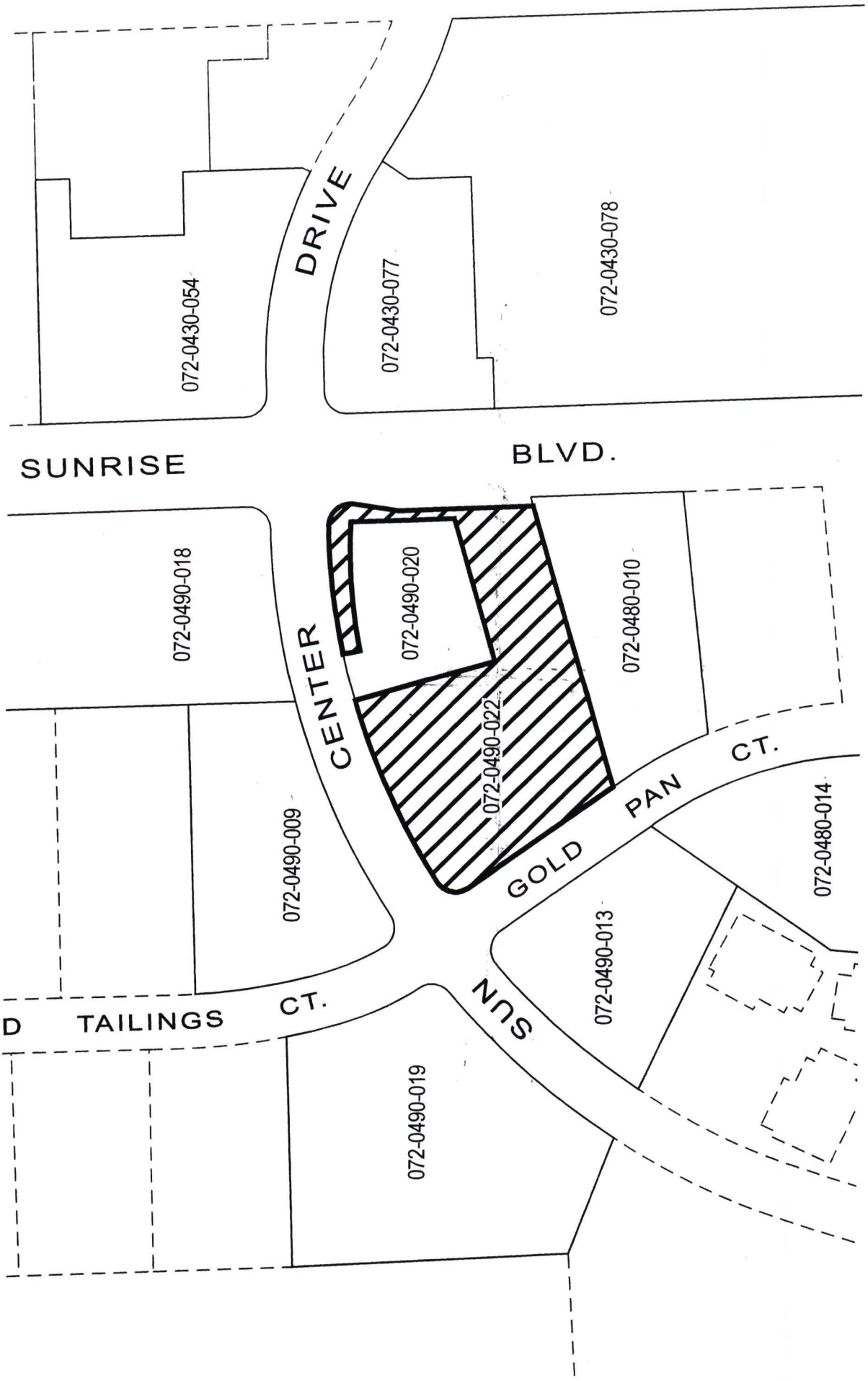
Form No. 807.9 OP5363.P65

Lithonia Lighting
Acuity Lighting Group, Inc.
Outdoor
One Lithonia Way, Conyers, GA 30012
Phone: 800-279-8041, Fax: 770-918-1209
In Canada: 1100 50th Ave., Lachine, Quebec H8T 2V3
www.lithonia.com


DRIVE
072-0430-054
072-0430-077
072-0430-078
SUNRISE
BLVD.
072-0490-018
CENTER
072-0490-020
072-0490-022
072-0480-010
072-0490-009
GOLD
PAN
CT.
072-0480-014
072-0490-013
D
TAILINGS
CT.
SUN
072-0490-019

072-0490-022
MOORE DARIN D
3935 RIDGE ST
FAIR OAKS CA 95628

072-0430-054
BLUMENFELD PROPS LLC
1401 SHORE ST
W SACRAMENTO CA 95691

072-0430-077
MUSTAFA ARPACI REVOCABLE TRUST
6275 LAGUNA CT
GRANITE BAY CA 95746

072-0430-078
MUSTAFA ARPACI REVOCABLE TRUST
6275 LAGUNA CT
GRANITE BAY CA 95746

072-0480-010
GILMAN C MCMILLAN LIVING TRUST
8748 BLUFF LN
FAIR OAKS CA 95628

072-0480-014
MALECH 1993 FAMILY LIVING TRUST
P O BOX 358
MORGAN HILL CA 95038

072-0490-009
PENSCO PENSION SERVICES INC F B O/ETAL
101 RUSSVILLE CT
FOLSOM CA 95630

072-0490-013
SAFOR CORPORATION
5172 DRAWER
CHICO CA 95927

072-0490-018
HNJ FARMS
P O BOX 4039
DAVIS CA 95617

072-0490-019
PINEBROOK VILLAGE LP
8022 FOLSOM-AUBURN RD
FOLSOM CA 95630

072-0490-020
PRB MANAGEMENT LLC
1400 SPRINGS RD
VALLEJO CA 94591

GBDH DESIGN GROUP INC
9806 OLD WINERY PLACE 1
SACRAMENTO CA 95827

Memorandum

Date: May 16, 2005

To: Mayor and City Council

From: Paul Junker, Planning Director
Pam Johns, AICP, Special Projects Manager

Subject: Adoption of interim Draft Land Use Map Book and Circulation Plan policies

RECOMMENDATION

Staff recommends that the City Council reconsider adoption of the Draft Land Use Map Book and Circulation Plan as the official interim land use and circulation diagrams and policies of the City while a Draft General Plan/Draft Environmental Impact Report is being prepared. The adoption of such interim policies will enable the City to continue to evaluate and take action on land use applications and other projects consistent with Government Code Section 65360. Government Code Section 65360 requires that a newly-incorporated City make certain findings prior to approving projects, issuing building permits and taking other actions, including a finding that:

> "There is a reasonable probability that the land use or action proposed will be consistent with the general plan proposal being considered or studied or which will be studied within a reasonable time." (Gov. Code Section 65360(b)(1)).

Staff therefore recommends that the City Council take the following action:

- Adopt Resolution No. 57-2005, establishing interim policies and diagrams that will guide land use and circulation within the City until the adoption of a General Plan.
- Adopt the Draft Land Use Map Book and Circulation Plan as part of the City's Vision Book and direct staff to continue work on the preparation of a Draft General Plan/Draft Environmental Impact Report which implements the conceptual statements and policies set forth in the Vision Book.
- Direct staff to begin using the Draft Land Use Map Book and Circulation Plan policies when evaluating all development proposals and applications.

Adoption of the Draft Land Use Map Book and Circulation Plan will allow City staff to immediately begin using these interim policies, which reflect the Council's vision for

AGENDA ITEM # 11

future land uses in the City, as well as enable such policies to be further studied and evaluated as part of the Draft General Plan/Draft Environmental Impact Report.

BACKGROUND

City Council considered the Draft Land Use Map Book on December 20, 2004, January 3 and January 18, 2005, and adopted the Map Book for analysis and environmental review purposes, but not for use as the City's interim land use policies. Additionally, City Council considered the Circulation Plan on January 31 and March 28, 2005.

ANALYSIS

At the City Council meeting on January 18, 2005, City Council members expressed some concern with the language describing existing and target uses within the Sunrise South Planning Area with regard to light and heavy industrial uses. Staff has amended the language describing future land uses in that area. Otherwise, the Draft Land Use Map Book has not changed.

USING INTERIM LAND USE AND CIRCULATION DIAGRAMS AND POLICIES TO MAKE CONSISTENCY FINDINGS UNDER STATE LAW

State law supports the use of interim policies and General Plan proposals when making decisions and processing development and other projects. Section 65360 of the Government Code provides as follows:

> ***65360.*** *The legislative body of a newly incorporated city or newly formed county shall adopt a general plan within 30 months following incorporation or formation. During that 30-month period of time, the city or county is not subject to the requirement that a general plan be adopted or the requirements of state law that its decisions be consistent with the general plan, if all of the following requirements are met:*
>
> *(a) The city or county is proceeding in a timely fashion with the preparation of the general plan.*
>
> *(b) The planning agency finds, in approving projects and taking other actions, including the issuance of building permits, pursuant to this title, each of the following:*
>
> *(1) There is a reasonable probability that the land use or action proposed will be consistent with the general plan proposal being considered or studied or which will be studied within a reasonable time.*
>
> *(2) There is little or no probability of substantial detriment to or interference with the future adopted general plan if the proposed use or action is ultimately inconsistent with the plan.*
>
> *(3) The proposed use or action complies with all other applicable requirements of state law and local ordinances.*

In summary, this section of the Government Code allows the Vision Book's interim policies and diagrams to be used when determining whether there is a reasonable probability that the land use or action proposed will be consistent with the general plan proposal that is, or will be, studied by the City. This has the benefit of providing direction to applicants and staff on the processing of both major and minor projects before the formal adoption of the General Plan next year.

Several large-scale development projects are currently being processed by the City, and staff is using the Vision Book as the basis for requesting changes and improvements to projects to conform to the overall vision for the community. Findings reflecting items b.1, b.2, and b.3 should be included in the approval of all discretionary projects until the adoption of the General Plan.

ENVIRONMENTAL ANALYSIS

The interim adoption of the Land Use Map Book and Circulation Plan diagrams and policies is exempt from the California Environmental Quality Act, as described in the attached Resolution No. 57-2005, paragraphs 4(a) through 4(e). A Final General Plan and Land Use Map will be adopted after the EIR is certified by the City Council.

NEXT STEPS

With the approval of the Draft Land Use Map Book and Circulation Plan interim policies, the preparation of the Draft Environmental Impact Report (DEIR) for the Draft General Plan can also proceed. The Draft Land Use Map will help City staff and our technical consultants prepare the various analyses (traffic, noise, etc.) which will be used in the Draft General Plan DEIR.

Attachments:

1. Resolution No. 57-2005
2. Draft Land Use Map Book
3. Circulation Plan

CITY OF RANCHO CORDOVA

RESOLUTION NO. 57 - 2005

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ADOPTING A DRAFT LAND USE MAP BOOK AND CIRCULATION PLAN TO SERVE AS INTERIM DIAGRAMS AND POLICIES TO GUIDE LAND USE AND CIRCULATION WITHIN THE CITY UNTIL THE ADOPTION OF A GENERAL PLAN

WHEREAS, the City of Rancho Cordova ("City") was incorporated on July 1, 2003;

WHEREAS, the City is now proceeding in a timely fashion to prepare a Draft General Plan/Draft Environmental Impact Report consistent with state planning and zoning law and the California Environmental Quality Act;

WHEREAS, the City desires to adopt a Draft Land Use Map Book and Circulation Plan to provide interim guidance to the City as it evaluates development applications pursuant to Government Code Section 65360, and prepares and implements Capital Improvement Plans and other Citywide land use and circulation programs;

WHEREAS, the Draft Land Use Map Book and Circulation Plan have been prepared to implement and advance those conceptual statements and policies set forth in the City's Vision Book, which was the result of extensive input from the public and community leaders;

WHEREAS, it is the intent of the City to include the Draft Land Use Map Book and Circulation Plan in the City's Draft General Plan/Draft Environmental Impact Report for further study and review;

WHEREAS, notice of the proposed adoption of the Draft Land Use Map Book and Circulation Plan diagram and policies was provided in accordance with Government Code Section 65090(a); and

WHEREAS, the City desires to make the Draft Land Use Map Book and Circulation Plan diagram and policies applicable to all development, including proposed subdivisions with tentative map applications that have not yet been deemed complete, in accordance with Government Code Section 66474.2(b);

NOW, THEREFORE, the City Council of the City of Rancho Cordova does hereby resolve as follows:

1. To adopt the Draft Land Use Map Book attached as Exhibit A, and described in the staff report from the Planning Director dated May 16th, as the official interim land use diagram and policies of the City of Rancho Cordova;

2. To adopt the Circulation Plan attached as Exhibit B, and described in the staff report from the Planning Director dated May 16th, as the official interim circulation diagram and policies of the City of Rancho Cordova;

3. To use the Draft Land Use Map Book and Circulation Plan diagram and policies in a manner that is consistent with Government Code Section 65360 for only so long as is required to complete and adopt a General Plan and certify a Final Environmental Impact Report, or until such time as the City Council adopts a subsequent enactment that amends or alters such diagrams or policies, whichever comes first;

4. To find that the interim adoption of the Draft Land Use Map Book and Circulation Plan diagram and policies is exempt from the California Environmental Quality Act because:

    a. The adoption of such interim diagrams and policies is supported by Government Code Section 65360(b) because they enable the City to make the required findings that there is a reasonable probability that a proposed land use or action will be consistent with the General Plan proposal being considered or studied, or a General Plan proposal "which will be studied within a reasonable time;"

    b. The interim diagram and policies only will be employed by the City on a short-term basis while the environmental effects of such policies are comprehensively studied and evaluated as part of the Draft General Plan/Draft Environmental Impact Report;

    c. The interim diagram and policies are expected to help minimize adverse impacts on the environment while the City prepares its General Plan by requiring development proposed in the City to be consistent with a comprehensive and integrated set of land use and circulation policies either in effect, or which the City expects eventually will be part of such General Plan;

    d. All land use proposals and actions that the City evaluates relative to the interim land use and circulation diagrams and policies will undergo program or project-level site specific environmental review under the California Environmental Quality Act, so that the physical implementation of the interim policies and diagrams will comply in all respects with the California Environmental Quality Act;

e. In light of all of the foregoing circumstances, the adoption of the interim land use and circulation diagrams and policies does not create the potential for causing a significant effect on the environment as described in CEQA Guidelines Section 15061(b)(3).

5. To make the Draft Land Use Map Book and Circulation Plan applicable to all development, including subdivisions with tentative map applications that have not yet been deemed complete, because the City has initiated proceedings by way of this resolution in accordance with Government Code Section 66474.2(b) and published notice in the manner prescribed by Government Code Section 65090(a);

6. To make all portions of this resolution severable from one another. Should any individual component or any portion of this Resolution be found invalid and unenforceable by a court of competent jurisdiction, it is the City Council's intent and desire that the remaining portions of the Resolution continue in full force and effect.

PASSED AND ADOPTED this _____ day of _____, 2005, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

APPROVED:

_____

KEN COOLEY, MAYOR OF THE
CITY OF RANCHO CORDOVA

ATTEST:

_____

LILLIAN HARE
CITY CLERK

The exhibit (s) or attachment (s) for this item is (are) on file in the City Clerk's Office for review by the public.

Attachment 2 - Draft Land Use Map Book
Attachment 3 – Circulation Plan

Council Members, please find above item(s) attached to your agenda packet.

Agenda Item: 11

MEMORANDUM

DATE: May 16, 2005

TO: Mayor and Council Members

FROM: Cyrus Abhar, Public Works Director

SUBJECT: **URGENCY RESOLUTION TO ESTABLISH NEW INTERIM TRAFFIC IMPACT MITIGATION FEE - PUBLIC HEARING**

RECOMMENDATION

Staff recommends the City Council adopt Urgency Resolution No. 58-2005 to implement a new Interim Traffic Impact Mitigation Fee. The new interim Traffic Impact Mitigation Fees shall be applied at the same rates as those adopted previously as part of Urgency Resolution 30- 2005.

BACKGROUND

On February 22, 2005 the City Council enacted Urgency Resolution No. 30-2005 which established an interim Traffic Impact Mitigation Fee applicable to new commercial and residential developments in the City. On March 21, 2005 and April 18, 2005, the Council held public hearings and adopted Resolution Nos. 40-2005 and 48-2005, respectively, continuing the interim fee in full force and effect for two consecutive 30-day extensions. Since the time the original Urgency Resolution was enacted, new information has been presented to Public Works staff.

Over the past two months, the City has been working with PSOMAS and Revenue & Cost Specialists to develop a Citywide Capital Improvement Program (CIP) and a corresponding Nexus Study to identify and evaluate the City's overall infrastructure needs for roadway and pedestrian improvements which will be used to establish a permanent Traffic Impact Mitigation Fee. On-going work on the new CIP clearly shows a fee significantly higher than the interim $4,400 fee is warranted. A review of updated cost estimates for the CIP for the Sunrise Douglas Community Plan submitted to Public Works on April 27, 2005 for review, clearly indicate continuation of the interim fee at the rates proposed is not unreasonable.

Resolution No. 58-2005 attached enacts a new Interim Traffic Impact Mitigation Fee, in the same amount as the original interim fee at the rates shown in Exhibit A, and under the same terms and conditions as the original interim fee.

Attachment(s): Resolution No. 58-2005 Urgency Resolution Establishing an Interim Traffic Mitigation Fee

AGENDA ITEM # 12

CITY OF RANCHO CORDOVA

RESOLUTION NO. 58-2005

AN URGENCY RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ESTABLISHING AN INTERIM TRAFFIC IMPACT MITIGATION FEE

WHEREAS, upon its incorporation, the City of Rancho Cordova ("City") enacted ordinances that continued in effect the Roadway and Transit Development Fees of Sacramento County (Sacramento County Code Chapter 16.87) as part of the Rancho Cordova Development Impact Fee program;

WHEREAS, the County Roadway and Transit Development Fees are based on outdated information, which has not been revised or updated since 1993;

WHEREAS, a preliminary evaluation of cost estimates, facility lists and development impact fee information from nearby jurisdictions led the City to conclude that the existing County Roadway and Transit Development Fees are insufficient to achieve the roadway, bicycle, and pedestrian improvements necessary to meet the demand generated by new development in the City;

WHEREAS, to rectify this situation which imposes an immediate threat to the public health, safety and welfare of the residents of the City of Rancho Cordova, the City Council has hired consultants to prepare a nexus study that will be used to establish a new citywide Traffic Impact Mitigation Fee pursuant to Government Code Section 66000 *et. seq.*;

WHEREAS, the City Council notified the public of its intent to initiate the nexus study and to adopt a permanent citywide Traffic Impact Mitigation Fee when it enacted Urgency Resolution No. 30-2005 on February 22, 2005;

WHEREAS, the progress made to date on the preparation of a citywide Capital Improvement Program (CIP) for use as part of the nexus study suggests that an increase in the current $4,400 interim Traffic Impact Mitigation Fee, adopted February 22, 2005, will be necessary in order to adequately fund construction of the required capital improvement projects;

WHEREAS, to give the City more time to complete the CIP and nexus study, and to seek input from affected parties, the City desires to establish and maintain a new interim Traffic Impact Mitigation Fee;

WHEREAS, the purpose of the new interim Traffic Impact Mitigation Fee is to protect the health, safety and welfare of the community by ensuring that

funds are collected to offset the impacts created by new development while the permanent Traffic Impact Mitigation Fee is being formulated;

WHEREAS, to maintain consistency and equity among all interim Traffic Fee Agreements between the City and project applicants, the new interim Traffic Impact Mitigation Fee amounts shall be the same as those adopted previously as part of Urgency Resolution No. 30-2005;

WHEREAS, the City published a public notice and held a hearing on May 16, 2005, to receive public comments on this Urgency Resolution;

NOW, THEREFORE, the City Council of the City of Rancho Cordova does hereby adopt, by at least a four-fifths vote of its members, the findings in Section 1 below, and establishes an interim Traffic Impact Mitigation Fee on certain new commercial and residential development built in the City as described in Section 2 below.

Section 1. Findings

1. Collection of the County Roadway and Transit Development Fees, which are based on cost estimates that are more than a decade old, has resulted in a critical shortfall of funding for roadway, bicycle and pedestrian improvements required to mitigate traffic impacts throughout the City. A preliminary analysis of the data used to establish the existing roadway development impact fee identifies extensive deficiencies in the City's roadway system, including a lack of funding for critical roadway, bicycle and pedestrian improvements to maintain effective circulation throughout the City.

2. The City of Rancho Cordova faces a current and immediate threat due to the number of new commercial and residential developments now planned for, or under review, in the City. If development is allowed to occur without increasing the fee intended to fund infrastructure needs to mitigate citywide traffic impacts from new development, the City's circulation system will further degrade without a source of critical funding to implement those improvements. As an example, a review of updated cost estimates for the CIP for the Sunrise Douglas Community Plan submitted to the Public Works Department on April 27, 2005, indicates that some planned improvements would be dramatically underfunded if the 1993 cost estimates and associated impact fees were not increased. Such improvements are necessary to offset the environmental impacts of new development, yet could not be constructed using the County's fee program unless and until substantial, supplemental funding sources were made available.

3. The interim authorization of a citywide Traffic Impact Mitigation Fee is necessary to immediately protect the public's health, welfare and safety. As the City continues to grow, demand on roads will increase. Based on this expected increase, the City will need to construct new, reconstruct and expand existing

roads to ease traffic congestion and improve public safety. The Institute of Traffic Engineers (ITE) has performed studies demonstrating the relationship between increased traffic congestion and the increase of vehicle and pedestrian accidents and air quality degradation. It is necessary for and in the interests of the public's health, welfare and safety that the interim fee proposed by this resolution be effective immediately upon adoption in order to provide the roadway, bicycle and pedestrian improvements needed as a result of growth due to new development, as well as to achieve a degree of certainty to allow for the orderly development in the City.

4. A failure to apply a Traffic Impact Mitigation Fee to new development while a permanent Traffic Impact Mitigation Fee is being studied will place the residents of new commercial projects and residential subdivisions or the immediate community, or both, in a condition dangerous to their health or safety.

5. The purpose of the interim Traffic Impact Mitigation Fee is to address the significant shortage of roadway improvements required to serve the residents of the City. Collection of the interim Traffic Impact Mitigation Fee will provide funding for the roadway improvements required to meet the demands of new development in the City.

6. There is a reasonable relationship between the use of the interim Traffic Impact Mitigation Fee and the type of development projects subject to the fee because commercial and residential development projects generate or contribute to the need for roadway, transit and pedestrian improvements.

7. There is a reasonable relationship between the amount of the interim Traffic Impact Mitigation Fee and the potential cost of the facilities attributable to the commercial and residential development projects subject to the fee. The permanent fee will ultimately be calculated based on the number of building permits generated by residential and commercial development, the anticipated demand for and total cost of roadway improvements within the City based on traffic impacts, and the percentage by which development within the City contributes to the need for the improvements.

8. The method of allocation of the interim Traffic Impact Mitigation Fee to a particular residential development bears a fair relationship, and is roughly proportional, to the development's burden on, and benefits from, roadway improvements to be funded by the interim Traffic Impact Mitigation Fee.

9. The City Council plans to replace the interim Traffic Impact Mitigation Fee with a permanent Traffic Impact Mitigation Fee Ordinance once the nexus study and associated CIP are complete. The permanent fee will apply to all pending and new commercial and residential development projects in the City, including tentative and vesting tentative map applications now deemed complete, because the application of such fees is necessary to avoid placing residents of new

residential subdivisions or the immediate community, or both, in a condition dangerous to their health or safety.

10. The adoption of an interim Traffic Impact Mitigation Fee is statutorily exempt from the California Environmental Quality Act under CEQA Guidelines Section 15273 because it involves the establishment of a public agency fee for the purpose of obtaining funds for capital projects that will offset traffic-related development impacts within the City's existing service area.

Section 2. Action

1. An Interim Traffic Impact Mitigation Fee as identified in the attached Exhibit A is hereby established.

2. Payment of the fee shall occur at the issuance of building permits and will be collected with an Interim Fee Agreement.

3. This urgency resolution and associated Interim Traffic Impact Mitigation Fee will go into effect immediately after passage, and remain in effect for 30 days, pursuant to Government Code Section 36937 and 66107(b), at which time it may be extended after notice and public hearing for a maximum of two, 30-day periods.

4. Should the amount of the interim Traffic Impact Mitigation Fee exceed the amount of the permanent Traffic Impact Mitigation Fee subsequently adopted, the City shall provide a timely refund of the excess to the project applicant pursuant to the terms of an Interim Fee Agreement. Should the amount of the interim Traffic Impact Mitigation Fee be less than the amount of the permanent Traffic Impact Mitigation Fee subsequently adopted, the applicant shall pay the difference to the City in a timely manner pursuant to the terms of the Interim Fee Agreement. Any claim that a violation of state or federal law has occurred as a result of the imposition of the interim Traffic Impact Mitigation Fee shall be subject to an administrative hearing; such hearing shall be held concurrently with the City's review of any request by the claimant for a refund.

Section 3. Severability

1. All portions of this Resolution are severable. Should any individual component or any portion of this Resolution be found invalid and unenforceable by a court of competent jurisdiction, it is the City Council's intent and desire that the remaining portions of the Resolution continue in full force and effect.

PASSED AND ADOPTED this 16th day of May, 2005, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

_____

Ken Cooley, Mayor

ATTEST:

_____

Lillian E. Hare, City Clerk

EXHIBIT A

CITY OF RANCHO CORDOVA

INTERIM TRAFFIC IMPACT MITIGATION FEE

	LAND USE TYPE															
	SFR Unit	**MFR Unit**	**COMM'L SF**	**BP-Office SF**	**Industrial SF**	**IND-OFF SF**	**Churches SF**	**Private Schools Student**	**Mini Storage SF**	**Gas Stations Pump**	**Convalesc. Hospitals Bed**	**Child Care Centers SF**	**Care Facilities Suite/Room**	**Stadiums Seat**	**Utility Buildings SF**	**Golf Courses Hole**
Roadway	$4,400.00	$3,328.00	$12.83	$10.26	$3.50	$7.43	$4.40	$772.00	$3.50	$20,077.00	$1,097.00	$2.22	$1,666.00	$142.00	$0.36	$26,675.00
Transit	$175.00	$356.00	$0.77	$0.70	$0.16	$0.45	$0.18	$33.00	$0.16	$0.00	$117.00	$0.09	$178.00	$6.59	$0.02	$1,318.00
Adm.(2%)	$91.50	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

Interim fees based on the rates established for District 3 and shall apply to all new development in the City of Rancho Cordova.

*** 2% of Roadway and Transit Fee

Memorandum

Date: May 11, 2005

To: RCFC Board of Directors

From: William J. Thomas, Finance Director

Subject: **RANCHO CORDOVA FINANCING AUTHORITY – RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF NOT TO EXCEED $21 MILLION CERTIFICATES OF PARTICIPATION, AUTHORIZATION AND DIRECTING EXECUTION OF RELATED LEASE FINANCING DOCUMENTS, APPROVING OFFICAL STATEMENT AND AUTHORIZING OFFICIAL ACTIONS**

RECOMMENDATION:

Adopt Resolution 2005-4 providing for the authorization to issue up to $21 million in Certificates of Participation

BACKGROUND AND DISCUSSION:

The City, through its Public Financing Authority will purchase real estate located at 2701 and 2729 Prospect Ave in the City of Rancho Cordova. The property will be used primarily as the City Hall for the City. The purchase price of this property is $12,880,000. Additional funds which include tenant improvements and the costs to issue the bond are expected not to exceed $21 million. City staff is currently assembling the various cost estimates required to determine the funds needed to complete the tenant improvements as well as reimburse the City's General Fund for costs incurred to date.

The Certificates of Participation (the "bonds") will be issued by the Financing Corporation and the City will then lease back the property from the Financing Corporation. Although staff has identified resources that will be used to cover the debt service, any deficiency in those resources would have to come from the General Fund. A thirty-year pro-forma income statement concerning this property has been prepared that provides a scenario as to how the City will cover the debt service requirements. It is anticipated that Community Facilities Fees (City Hall, Community Center and Police) will be sufficient to pay the ongoing debt service. Ongoing maintenance of buildings will be covered by tenant leases and/or out of General Fund operating budgets. Other potential revenue sources include funds that are currently being expended for rent expenses within the Sheriff's contract (approximately $300,000 per year).

The City received a "BBB" rating from Standard & Poor for its anticipated Kilgore site acquisition. The City anticipates that this rating will be assigned to this bond.

AGENDA ITEM # 13

Because of that bond rating, the City has obtained bond insurance for this issue that will result in a lowering of the interest rate by as much as 100 basis points (1.00%). It anticipated that the bonds will issued on June 16, 2005 and funds will be available to close escrow on the property on June 20, 2005. Anticipated move in is tentatively scheduled for early January 2006.

The following documents have been prepared in "draft" form. Due to the volume of these documents, no copies have been prepared for you. If you wish a copy of these documents please contact the Finance Director. The documents are available for review in the City Clerk's office or in the Finance Department. These documents are as follows:

1. Trust Agreement between the Rancho Cordova Financing Corporation and the City of Rancho Cordova.
2. Lease Agreement between the Rancho Cordova Financing Corporation and the City of Rancho Cordova.
3. Assignment Agreement between the Rancho Cordova Financing Corporation and a Trustee (to be named later).
4. Official Statement for the 2005 Certificates of Participation.

Attachment: RCFC Resolution 2005-04

RANCHO CORDOVA FINANCING CORPORATION

RESOLUTION NO. 2005-04

RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF NOT TO EXCEED $21 MILLION CERTIFICATES OF PARTICIPATION, AUTHORIZING AND DIRECTING EXECUTION OF RELATED LEASE FINANCING DOCUMENTS, APPROVING OFFICIAL STATEMENT AND AUTHORIZING OFFICIAL ACTIONS

RESOLVED, by the Rancho Cordova Financing Corporation (the "Corporation"), as follows:

WHEREAS, the Corporation has been formed to, among other things, assist the City of Rancho Cordova (the "City") in financing public property and public facilities necessary or desirable to meet the needs of the City and the citizens of the City;

WHEREAS, the City has determined that it is in the best financial interests of the City at this time to provide for the acquisition of real property located at 2701 and 2729 Prospect Drive in the City, including the two office buildings thereon (the "Project") to facilitate needs of the City for a City Hall and related facilities;

WHEREAS, in order to provide funds for such purpose, desires to lease the Project (also, the "Leased Premises"), to the Corporation as provided in a Site Lease, as defined herein, and has further agreed to sublease the Leased Premises back from the Corporation pursuant to a Lease Agreement, as defined herein, expected to be dated as of June 1, 2005, by and between the Corporation as sublessor and the City as sublessee (the "Lease Agreement"); and

WHEREAS, the City proposes to assign and transfer certain of its rights under the Lease Agreement to a financing trustee and, in consideration of such assignment and the execution of a Trust Agreement expected to be dated as of June 1, 2005 among the City, the Corporation and a trustee to be designated by the City (the "Trustee"), the City desires the Trustee to execute and deliver 2005 Certificates of Participation (City Hall Facility Acquisition Project) in the aggregate principal amount of not to exceed $21 MILLION (the "Certificates"), each evidencing a direct, undivided fractional interest in the lease payments to be paid by the City pursuant to the Lease Agreement;

NOW, THEREFORE, it is hereby ORDERED as follows:

Section 1. Execution and Delivery of Certificates. The Corporation hereby authorizes the execution and delivery of the Certificates, representing the right to receive lease payments under the Lease Agreement in the aggregate principal amount of not to exceed $21 MILLION, and the execution and delivery of the following agreements (collectively, the "Agreements") :

(a) the Site and Facility Lease expected to be dated as of June 1, 2005 (the "Site Lease") between the City, as lessor, and the Corporation, as lessee;

(b) the Lease Agreement;

(c) the Assignment Agreement expected to be dated as of June 1, 2005, by and between the Trustee and the Corporation; and

(d) the Trust Agreement.

The Corporation hereby approves and separately authorizes the Chairman, the Executive Director or the Treasurer to execute the Agreements, and the Secretary is hereby authorized and directed, if required, to attest to said Agreements, in substantially the forms on file with the Secretary, together with any changes therein or additions thereto deemed advisable by such officer, whose execution thereof shall be conclusive evidence of approval of any such additions and changes. Such changes or additions may include, but is not limited to, providing that payment of the Certificates be insured by a financial guaranty policy from a bond insurance company, if in the judgment of the Chairman, the Executive Director or the Treasurer such insurance is in the best interest of the City.

Section 2. Official Statement. The Corporation hereby approves, and hereby deems nearly final within the meaning of Rule 15c2-12 of the Securities Exchange Act of 1934, the preliminary Official Statement describing the Certificates, in the form on file with the Secretary. The Underwriter is hereby authorized to distribute the Official Statement in connection with the sale of the Certificates. The Chairman, the Executive Director or the Treasurer is hereby authorized and directed to (a) execute and deliver to the purchaser of the Certificates a certificate deeming the preliminary Official Statement to be nearly final as of its date, (b) approve any changes in or additions to cause such Preliminary Official Statement to be put in final form, and (c) execute said final Official Statement for and in the name and on behalf of the Corporation.

Section 3. Official Actions. The Chairman, the Executive Director, the Treasurer, the Secretary and other officials of the Corporation are hereby authorized and directed to execute such other agreements, documents and certificates as may be necessary to effect the purposes of this resolution and the transaction herein contemplated. Whenever in this resolution any officer of the Corporation is authorized to execute or countersign any document or take any action, such execution, countersigning or action may be taken on behalf of such officer by any person designated by such officer to act on his or her behalf in the case such officer shall be absent or unavailable.

Section 4. Effective Date. This resolution shall take effect from and after the date of approval and adoption thereof.

****

I hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of the Rancho Cordova Financing Corporation, at a regularly scheduled meeting thereof, held on the _____ day of May, 2005, by the following vote of the Board of Directors:

AYES: BOARDMEMBERS
NOES: BOARDMEMBERS
ABSENT: BOARDMEMBERS
ABSTAIN: BOARDMEMBERS

_____
Chair

ATTEST:

_____
Secretary of the Rancho Cordova Financing Corporation

Memorandum

Date: May 11, 2005

To: Mayor and Members of the City Council

From: William J. Thomas, Finance Director

Subject: **CITY OF RANCHO CORDOVA CITY COUNCIL – RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF NOT TO EXCEED $21 MILLION CERTIFICATES OF PARTICIPATION, AUTHORIZATION AND DIRECTING EXECUTION OF RELATED LEASE FINANCING DOCUMENTS, APPROVING OFFICAL STATEMENT AND AUTHORIZING OFFICIAL ACTIONS**

RECOMMENDATION:

Adopt Resolution No. 62-2005 providing for the authorization to issue up to $21 million in Certificates of Participation

BACKGROUND AND DISCUSSION:

The City, through its Public Financing Authority will purchase real estate located at 2701 and 2729 Prospect Ave in the City of Rancho Cordova. The property will be used primarily as the City Hall for the City. The purchase price of this property is $12,880,000. Additional funds which include tenant improvements and the costs to issue the bond are expected not to exceed $21 million. City staff is currently assembling the various cost estimates that will be required to determine the funds needed to complete the tenant improvements as well as reimburse the City's General Fund for costs incurred to date.

The Certificates of Participation (the "bonds") will be issued by the Financing Corporation and the City will then lease back the property from the Financing Corporation. Although staff has identified resources that will be used to cover the debt service, any deficiency in those resources would have to come from the General Fund. A thirty-year pro-forma income statement concerning this property has been prepared that provides a scenario as to how the City will cover the debt service requirements. It is anticipated that Community Facilities Fees (City Hall, Community Center and Police) will be sufficient to pay the ongoing debt service. Ongoing maintenance of buildings will be covered by tenant leases and/or out of General Fund operating budgets. Other potential revenue sources include funds that are currently being expended for rent expenses within the Sheriff's contract (approximately $300,000 per year).

The City received a "BBB" rating from Standard & Poor for its anticipated Kilgore site acquisition. The City anticipates that this rating will be assigned to this bond. Because of that bond rating, the City has obtained bond insurance for this issue that

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will result in a lowering of the interest rate by as much as 100 basis points (1.00%). It anticipated that the bonds will issued on June 16, 2005 and funds will be available to close escrow on the property on June 20, 2005. Anticipated move in is tentatively scheduled for early January 2006.

The following documents have been prepared in "draft" form. Due to the volume of these documents, no copies have been prepared for you. If you wish a copy of these documents please contact the Finance Director. The documents are available for review in the City Clerk's office or in the Finance Department. These documents are as follows:

1. Trust Agreement between the Rancho Cordova Financing Corporation and the City of Rancho Cordova.
2. Lease Agreement between the Rancho Cordova Financing Corporation and the City of Rancho Cordova.
3. Assignment Agreement between the Rancho Cordova Financing Corporation and a Trustee (to be named later).
4. Official Statement for the 2005 Certificates of Participation.

Attachment: Resolution No. 62-2005

CITY OF RANCHO CORDOVA, CALIFORNIA

RESOLUTION NO. 62-2005

RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF NOT TO EXCEED $21 MILLION CERTIFICATES OF PARTICIPATION, AUTHORIZING AND DIRECTING EXECUTION OF RELATED LEASE FINANCING DOCUMENTS, TRUST AGREEMENT, AND CERTIFICATE PURCHASE AGREEMENT, APPROVING OFFICIAL STATEMENT AND AUTHORIZING OFFICIAL ACTIONS

RESOLVED, by the City of Rancho Cordova, California (the "City"), as follows:

WHEREAS, the City has determined that it is in the best financial interests of the City at this time to provide for the acquisition of real property located at 2701 and 2729 Prospect Drive in the City, including the two office buildings thereon (the "Project") to facilitate needs of the City for a City Hall and related facilities;

WHEREAS, in order to provide funds for such purpose, the City desires to lease the Project (also, the "Leased Premises"), to the Rancho Cordova Financing Corporation as provided in a Site Lease, as defined herein, and has further agreed to sublease the Leased Premises back from the Corporation pursuant to a Lease Agreement, as defined herein, expected to be dated as of June 1, 2005, by and between the Corporation as sublessor and the City as sublessee (the "Lease Agreement"); and

WHEREAS, the City proposes to assign and transfer certain of its rights under the Lease Agreement to a financing trustee and, in consideration of such assignment and the execution of a Trust Agreement expected to be dated as of June 1, 2005 among the City, the Corporation and a trustee to be designated by the City (the "Trustee"), the City desires the Trustee to execute and deliver 2005 Certificates of Participation (City Hall Facility Acquisition Project) in the aggregate principal amount of not to exceed $21 MILLION (the "Certificates"), each evidencing a direct, undivided fractional interest in the lease payments to be paid by the City pursuant to the Lease Agreement; and

WHEREAS, for purposes of the sale of the Certificates, Disclosure Counsel, as hereinafter defined, has caused to be prepared an Official Statement describing the Certificates, the preliminary form of which is on file with the City Clerk and the Members of the City Council, with the aid of their staff, have undertaken such review of the Official Statement as hereinafter described as is necessary to assure proper disclosure of all material facts relating to the Certificates that are within the personal knowledge of Council members and the staff;

NOW, THEREFORE, it is hereby ORDERED as follows:

Section 1. Execution and Delivery of Certificates. The City hereby authorizes the execution and delivery of the Certificates, representing the right to receive lease payments under the Lease Agreement (as described below), in the aggregate principal amount of not to exceed $21 MILLION, and the execution and delivery of the following agreements (collectively, the "Agreements"):

(a) the Site and Facility Lease expected to be dated as of June 1, 2005 (the "Site Lease") between the City, as lessor, and the Corporation, as lessee;

(b) the Lease Agreement; and

(c) the Trust Agreement.

The City hereby approves and separately authorizes the City Manager or the Finance Director (each, an "Authorized Officer") to execute the Agreements, and the City Clerk is hereby authorized and directed, if required, to attest and affix the seal of the City to said Agreements, in substantially the forms on file with the City Clerk, together with any changes therein or additions thereto deemed advisable by the Authorized Officers, whose execution thereof shall be conclusive evidence of approval of any such additions and changes. Such changes or additions may include, but is not limited to, providing that payment of the Certificates be insured by a financial guaranty policy from a bond insurance company, if in the judgment of the City Manager or the Finance Director such insurance is in the best interest of the City.

Section 2. Sale of Certificates. The Council hereby approves the sale of the Certificates by negotiation with Brandis Tallman LLC, as Underwriter (the "Underwriter"), pursuant to the Purchase Contract, by and between the City and the Underwriter, in substantially the form on file with the City Clerk, together with any changes therein or additions thereto approved by the Authorized Officers, whose execution thereof shall be conclusive evidence of approval of any such additions and changes. The Purchase Contract shall be executed in the name and on behalf of the City by an Authorized Officer, each of whom are hereby separately authorized and directed to execute and deliver said form of Purchase Contract on behalf of the City upon submission of a proposal by the Underwriter to purchase the Certificates, which proposal is acceptable to the Authorized Officers. The purchase price received by the City for the Certificates from the Underwriter shall be not less than ninety-eight and three-quarters percent (98.75%) of the par amount thereof, exclusive of any original issue discount and bond insurance premium, and the interest rate on the Certificates shall not exceed six and one-half percent (6.5%).

Section 3. Official Statement. The City hereby approves, and hereby deems nearly final within the meaning of Rule 15c2-12 of the Securities Exchange Act of 1934, the preliminary Official Statement describing the Certificates, in the form on file with the Finance Director. The Underwriter is hereby authorized to distribute the Official Statement in connection with the sale of the Certificates. The Authorized Officers, each acting alone, are hereby authorized and directed to (a) execute and deliver to the purchaser of the Certificates a certificate deeming the preliminary Official Statement to be nearly final as of its date, (b) approve any changes in or additions to cause such Preliminary Official Statement to be put in final form, and (c) execute said final Official Statement for and in the name and on behalf of the City.

Section 4. Appointment of Special Counsel and Disclosure Counsel. Jones Hall, A Professional Law Corporation, is hereby appointed special counsel and disclosure counsel in connection with issuance of the Certificates and the Authorized Officers, each acting alone, are hereby authorized to execute agreements for services with said firm relating to the Certificates.

Section 5. Official Actions. The Mayor, the City Manager, the Finance Director, the Administrative Services Director, the City Clerk and all other officers of the City are each authorized and directed in the name and on behalf of the City to make any and all assignments, certificates, requisitions, agreements, notices, consents, instruments of conveyance, warrants and other documents (including specifically a continuing disclosure undertaking), which they or any of them might deem necessary or appropriate in order to consummate any of the transactions contemplated by the documents approved pursuant to this Resolution. Whenever in this resolution any officer of the City is authorized to execute or countersign any document or take any action, such execution, countersigning or action may be taken on behalf of such officer

by any person designated by such officer to act on his or her behalf in the case such officer shall be absent or unavailable.

Section 6. Effective Date. This resolution shall take effect from and after the date of approval and adoption thereof.

****

I hereby certify that the foregoing Resolution was duly adopted by the City Council of the City of Rancho Cordova, California, at a regularly scheduled meeting thereof, held on the _____ day of May, 2005, by the following vote of the City Council:

AYES:	COUNCILMEMBERS
NOES:	COUNCILMEMBERS
ABSENT:	COUNCILMEMBERS
ABSTAIN:	COUNCILMEMBERS

_____
Mayor

ATTEST:

_____
City Clerk of the City of Rancho Cordova