

## **Appendix G: Public Involvement, Part 1**

### Stakeholder Situational Assessment

# Stakeholder Situational Assessment Folsom Dam Water Control Manual Update

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# **Stakeholder Situational Assessment Folsom Dam Water Control Manual Update**

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Note Regarding Appendices 3 and 4: The information in these presentations was current as of the date listed. As the project progresses, information may evolve and change over time. For more current information, see <http://www.spk.usace.army.mil/Missions/CivilWorks/FolsomDamAuxiliarySpillway.aspx>. Readers can access material on Folsom Dam Water Control Manual Update on the lower right side of the page.



## **Stakeholder Situational Assessment**

### **Folsom Dam Water Control Manual Update**

#### **Introduction**

Situated at the confluence of two large rivers - the American and Sacramento - the populated areas in and near the City of Sacramento have lived with the realities of floods and flood risk since the 1850's. Of course, tribal populations lived with the sometimes fierce rhythms of these rivers long before the settlers arrived. In recent history, the record flood of 1986 exposed the area's vulnerability when Folsom Reservoir exceeded its normal flood control storage capacity and several levees nearly collapsed under the strain of the storm.

The 1986 flood raised concerns over the adequacy of the existing flood management system and the safety of Folsom Dam, leading to a series of important actions over the past 25 years on the part of Congress and local, regional, state and federal agencies. The U.S. Army Corps of Engineers (USACE), U.S. Bureau of Reclamation (Reclamation), Sacramento Area Flood Control Agency (SAFCA), and the Central Valley Flood Protection Board through the California Department of Water Resources (CVFPB/DWR) have worked in partnership on these actions.

In addition to levee strengthening, one of the most important actions to reduce Sacramento area's flood risk will be the completion of the Folsom Dam Joint Federal Project (JFP). The JFP, authorized by Congress, is currently under construction and is anticipated to be built by the fall of 2017. One of the current limitations of Folsom Dam is that sufficient flood waters cannot be released at lower elevations due to the positioning of the dam gates, thus preventing the earlier and safe evacuation of flood waters. The JFP, consisting of a six submerged tainter gate structure and an auxiliary spillway, will address that problem by allowing more flood water to be safely released at a lower elevation and earlier in a storm event. This increased release efficiency effectively creates more storage capacity in Folsom Reservoir to hold flood waters throughout a storm.

In order to realize the full benefits of this new auxiliary spillway and gate structure, an updated Water Control Manual (Manual Update) needs to be developed. The Water Control Manual is the document that stipulates the flood control operations of Folsom Dam, and has provided the rules and criteria for operating the Dam since 1956.

The Manual Update effort, led by USACE with Reclamation as its federal partner, and assisted by its state and local cost-sharing partners (CVFPB/ DWR; SAFCA) will develop, evaluate, and recommend changes to the flood management operations of Folsom Dam and Reservoir in order to reduce flood risk to the Sacramento area.

In addition to the new spillway and gate structure, this ongoing effort will also evaluate other operational considerations to achieve an improved level of flood risk reduction while decreasing the volume of flood control space required in Folsom Reservoir at any one time. These additional considerations include various upstream watershed conditions (incidental upstream storage and degree of basin saturation); storm forecasting technologies; the status of the downstream levees; and aspects of the proposed Dam raise project, which is scheduled to be constructed by 2019.

Important factors in the development of the Manual Update include dam safety requirements; Endangered Species Act (ESA); fish and wildlife needs; water quality requirements; water supply and water rights permit terms; power generation and recreational needs.

For more background information on the Manual Update, see Appendix 1 for USACE's July 2012 Briefing Memorandum on Folsom Dam Water Control Manual Update.

## **Why Do a Stakeholder Situational Assessment?**

In addition to its critical flood control function, Folsom Dam and Reservoir serve a number of other purposes including municipal and industrial water supply, agricultural irrigation supply, hydropower generation, fish and wildlife protection, water quality, and recreation at Folsom Lake. Thus, any changes in the operation of Folsom Dam to increase flood protection could also have the possibility of affecting the other purposes of the Dam as well as the stakeholders who have a "stake" in those purposes.

This Stakeholder Situation Assessment, and more importantly the foundational conversations held among stakeholders and the four government agencies developing the Manual Update, provide an important starting point to:

- Improve the Manual Update through stakeholder feedback;
- Anticipate and collaboratively resolve stakeholder concerns and problems;
- Develop information that could lead to mutual gain for the stakeholder groups as well as the government agencies working on the Manual Update; and
- Create the conditions for a timely and smooth federal approval of the proposed Manual Update modifications.

To lay the foundation for future stakeholder engagement in the Manual Update, this Stakeholder Situation Assessment will:

1. Identify organizations, groups, government entities and other interested parties who believe they could be adversely or positively affected by a revised Folsom Dam Water Control Manual;
2. Provide a summary of stakeholders' views, perspectives, concerns and needs;
3. Describe common interests as well as potential tensions among the stakeholders groups to better inform the Update; and
4. Recommend a process for meaningfully engaging stakeholder groups with the work of USACE, its partner and cost-sharing sponsors throughout the Manual Update process.

## Who are the Stakeholders?

The first step in any stakeholder situation assessment is the identification of those groups and organizations - external to the responsible government entities - that have an active interest in a project and / or believe they could be adversely affected by a project.

Given the multi-purpose nature of Folsom Dam and the considerable attention given to the flood risk reduction issues in Sacramento, the major stakeholder groupings listed in the box below were easy to identify. What took more attention was the identification of the multiple organizations within each stakeholder grouping along with the individuals who could best represent those organizations in the Manual Update discussions. The six major stakeholder groupings in the box represent a total of 67 organizations/ sub-divisions /user groups and 100 individuals representing these interests. For a listing of the organizations and user groups associated with each of the following interest groups, see Appendix 2.

### **Major Stakeholder Groupings for Stakeholder Situation Assessment**

*(The notation following each grouping represents the number of organizations or user groups associated with that grouping. Some organizations are dual purpose and are included in more than one grouping.)*

Regional Flood Management Entities (9)

Folsom Lake, Lake Natoma, and Lower American River Recreation Interests (15)

Regional Environmental Interests (14)

In-Basin Water Purveyors/ Suppliers (18)

Central Valley Project (CVP) and State Water Project (SWP) Contractors (15)

Electric Power Utilities and their Associations (5)

The other stakeholder groupings identified as having an interest in the operation of Folsom Dam include the metropolitan business community, the regional emergency response agencies, the downstream interests in the lower Sacramento River and North Delta region, and the regional tribes. USACE has its own separate process for engaging tribes and tribal governments. The other four groups have important concerns about and perspectives on flood risks in Sacramento, but not necessarily relating the fine points of how the Dam is operated. As described later in this report, these groups will be invited to participate in the quarterly all-stakeholder discussion sessions throughout the Manual Update Process.

## How was the Stakeholder Situational Assessment Done?

The information for this Assessment came from a series of meetings, conversations and other communications with the stakeholders from the six major categories -- Regional Flood Management Organizations; Folsom Lake, Lake Natoma, and Lower American River Recreation Interests; Regional Environmental Interests; In-Basin Water Purveyors; Central Valley Project (CVP) and State Water Project (SWP) Contractors; and Electric Power Utilities and their Associations.

In September 2012, USACE, in concert with Reclamation, SAFCA and CVFPB/DWR, convened a series of facilitated conversation with each of the six groups identified above. The purpose of these separate discussions was to engage the stakeholders in the policy and technical work of the Manual Update; understand stakeholders' interests, views and concerns; and ask the stakeholders how best to involve them in the future work of the Manual Update. This effort consisted of five (three-hour) discussions. The Central Valley Project (CVP), State Water Project (SWP) Contractors, and Electric Power Utilities and their Associations were combined into one meeting.

The September 2012 series of meetings produced two products:

- The identification of each group's interests and issues, which was then sent to all the individuals in each grouping multiple times for corrections, additions and approvals.
- The development of a draft stakeholder engagement plan based on the level of involvement requested by the stakeholders.

Then, in February 2013 and again in March, USACE, in concert with Reclamation, CVFPB/DWR and SAFCA, convened facilitated sessions so that the stakeholders in all the interest groupings could come together to continue the discussions begun in September.

The purpose of the February and March 2013 sessions was to provide a forum for the four government agencies and the stakeholders to jointly review and discuss three documents: the Interests and Issues Statements of the stakeholder groupings; the Draft Stakeholder Engagement Plan; and the Project Schedule that would inform the timing of stakeholder involvement. As requested by the stakeholders, another key part of the session was a presentation and discussion on the technical work being done for the Manual Update.

Based on stakeholder feedback at the February and March 2013 sessions, the Draft Stakeholder Engagement Plan was modified. The Stakeholder Engagement Plan will be discussed later in this report.

See Appendices 3 and 4 for the power point presentations from the September 2012 and February/ March 2013 stakeholder sessions.

## Stakeholder Interests and Issues

The identification of stakeholder interests and issues is one of the most important aspects of an assessment. The following tables capture each group's concerns, questions and observations. As mentioned above, the stakeholders reviewed and approved their respective statements.

These Interest and Issue Statements come directly from each of the interest groups. The inclusion of these statements in this Assessment does not imply that the four government agencies working on the Manual Update necessarily agree with these statements. However, these four agencies do recognize and respect the concerns expressed.

Each of the statements is organized into three columns, respectively providing Interests, Issues, and Questions / Observations. The Interests (first column) are the overarching needs. The Issues (second column) are the more specific policy, technical, operational, physical, procedural concerns and requests related to each Interest. The Interest and Issues Statement from the Central Valley Project (CVP), State Water Project (SWP) Contractors and Electric Power Utilities and their Associations are combined into one statement. See notations after each entry in that joint statement to identify the associated interest.

The Interest and Issues Statements for each of the groups can be found on the following pages:

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Combined Central Valley Project (CVP), State Water Project (SWP) Contractors and Electric Power Utilities and their Associations.....	14



## Regional Flood Management Organizations' Interests and Issues

Interest	Issues	Questions/ Observations
Reducing and understanding impacts on systems so can plan and prepare for needed maintenance, restoration and improvements.	<ol style="list-style-type: none"> <li>1. Concern with bank erosion on Sacramento River: <ol style="list-style-type: none"> <li>i. Prolonged medium-sized flows. (70,000 – 80,000 cfs) can be more damaging than less frequent higher flows. Can tolerate higher flows if medium flows are managed.</li> <li>ii. Concerned with high/ peak flows if duration is long.</li> </ol> </li> <li>2. Concerns regarding exceeding the capacity of the Yolo Bypass. Bypass not designed for concurrent flood events on American, Sacramento, Yuba and Feather Rivers. Once weir gates are open, flows go into Bypass, not Sacramento River.</li> <li>3. Need a detailed understanding of routing – where and when do flows hit the Sacramento River?</li> </ol>	<ol style="list-style-type: none"> <li>1. Explore possibility of waiting to release flows/ stretching out Reservoir evacuation over time to make sure capacity of Yolo Bypass is not exceeded.</li> <li>2. What are the impacts of various Folsom operations under a range of storms?</li> </ol>
Financing of maintenance / restoration/ improvements to their systems due to WCM operation of Folsom	<ol style="list-style-type: none"> <li>1. Will there be a change to the trigger for PL 84-99 based on WCM operations? Do not want to be ineligible for funding support.</li> <li>2. Who pays for maintenance costs?</li> <li>3. Study should evaluate need for compensation for floodway damages associated with WCM.</li> </ol>	
Update triggers for population evacuations in flood situations	Involvement of emergency response agencies in the WCM process	

## Recreationists' Interest and Issues

Folsom Lake and Lake Natoma Recreation		
Interests	Issues	Questions/ Observations
Maintain Lake levels for recreation use; particularly from May to September, with June – August being most important.	<ol style="list-style-type: none"> <li>Impacts of low Folsom Lake shorelines: <ul style="list-style-type: none"> <li>Boat ramp access/ availability</li> <li>Distance of parking area to swimming beaches and marina</li> <li>Loss of Park revenue due to reduced day usage</li> <li>Loss of revenue to private marinas and concession operations</li> </ul> </li> <li>WCM modeling effort needs to take advantage of existing data that correlates recreation use by reservoir level by month to conduct a sophisticated analysis.</li> <li>Interested in review of impacts to/ thresholds of significance for Folsom Lake, especially in advance of issuance of draft EIS/EIR</li> </ol>	Will PCWA's or SMUD's FERC new license requirements have an effect on Lake Folsom?
State Parks, private marinas and Sac State Aquatic Center need continued advance notification of high release rates from Folsom Reservoir for safety and informational purposes.	Lake Natoma and downstream: Rowing event safety and equipment impacts with high flows	

## Recreationists' Interest and Issues

Lower American River (LAR) Recreation		
Interests	Issues	Questions/ Observations
Boating recreational and safety impacts related to flow levels and timing, especially on weekends from May - September. Flows over 6000 cfs can present boating safety issues.	<ol style="list-style-type: none"> <li>1. Adequate flows for recreational boating in LAR are 1750 -6000 cfs, although can boat at 1500 cfs. Some locations are safe up to 8000 cfs, but 6,000 cfs is best safety threshold to use. Above 6,000 cfs, the danger can increase due to water flows through trees. Below 1750, the chance of puncturing a tube increases.</li> <li>2. Continued advance notification of higher flows (above 6000 cfs) for boater safety reasons (routinely done now; some organizations want to be added to notification list).</li> </ol>	Instances of increased releases catching wading fisherman by surprise
Loss of Sacramento County Park's recreational infrastructure in the American River Parkway with very high flows	<ol style="list-style-type: none"> <li>1. High flows in the LAR Parkway can cause: <ul style="list-style-type: none"> <li>• Submerged trails and bike paths</li> <li>• Bank damage</li> <li>• Submerged bathrooms</li> <li>• Damages to electrical equipment at Discovery Park</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. County Parks has good data correlating river stage with impacts to park land and infrastructure. Should be used in effects evaluation</li> <li>2. Models should determine which American River Parkway infrastructure is submerged at what LAR flow levels. This will provide information to help County prepare for damages.</li> </ol>
Recreational fishing interests concerned with health of fisheries, particularly temperature control issues.		

## Regional Environmentalists' Interests and Issues

Interests	Issues	Questions/ Observations
Successful WCM operation of Folsom such that upstream detention dams are not necessary to reduce flood risks.	<p>1. Need WCM that not only meets but exceeds the CA Standard (200 yr. flood). Through spillway and new tools, a larger number of hypothetical floods can be accommodated.</p> <p>2. Support conditional storage (water stored in flood reserve space), when warranted, in exchange for draw down of conservation space when warranted.</p> <p style="margin-left: 40px;">i. Confirm that USACE has fed authorities to do above.</p> <p style="margin-left: 40px;">ii. Above "exchange" written into WCM rules so can count on it.</p> <p>3. Need to create rules in WCM for early and aggressive releases/ forecasting for big storms (i.e. Pineapple Expresses don't sneak up on us). Need rules that do not constrict forecasting, and allow for outflows at beginning of a storm larger than in-flows.</p> <p>4. Want rules optimized, but do want rules rather than open-ended flexibility so that the intended flood control benefits are realized.</p> <p>5. Fed Authorities: 2 views</p> <p style="margin-left: 40px;">i. Concern that USACE and its partners do not have a common understanding of the range of federal authorities that can be used.</p> <p style="margin-left: 40px;">ii. May be better to engage in problem-solving on how to optimize operations rather than focus on authorities.</p>	<p>1. Primary risks with developing WCM: Releasing water "too early" that cannot be recovered; and risk of maintaining conditional storage leading to damaging high releases and possible flooding.</p> <p>2. Need to review stream flow frequency curves to determine if WCM can meet and exceed 200 year CA Flood Standard.</p> <p>3. What are assumptions for / characteristics of 200 year flood?</p> <p>4. Want to discuss how to leverage different authorities, if needed for a robust WCM.</p> <p>5. What is the magnitude of what can be done with forecasting? What operational flexibility is gained through using forecasting?</p> <p>6. What would be the rules regarding conditional storage?</p>

### Regional Environmentalists' Interests and Issues, Continued

Interests	Issues	Questions/ Observations
<p>The health of the downstream fisheries related to temperature/ cold water pool and flow regimens. Of particular concern is protecting, restoring and meeting the various life stage needs of the Chinook salmon and steelhead.</p>	<ol style="list-style-type: none"> <li>1. Cold water pool: <ul style="list-style-type: none"> <li>• Use the WCM Project as an opportunity / obligation to improve the cold water pool</li> <li>• Cannot wait for Dam Raise Temperature Control Device (TCD) to improve cold water pool</li> </ul> </li> <li>2. Support of Conditional Storage (water stored in flood reserve space), when warranted, if: <ol style="list-style-type: none"> <li>i. Potential new water is also available for Reclamation's revised water right for Folsom (Water Forum LAR Flow Standard), including storage targets for end of September. ii. Pulse releases provided during Jan.-May as conditional storage is associated with lost out-flow, effecting out-migration of young salmonoids.</li> <li>ii. Understanding that fish stranding occurs if sudden short duration, high releases are necessary.</li> </ol> </li> <li>3. Shutter Configuration: Congress authorized automated configuration. Needs to be implemented unless demonstrate that same effect can be achieved through other means (e.g. current lifting and blending of shutters).</li> <li>4. Need Elephant Trunk</li> </ol>	<ol style="list-style-type: none"> <li>1. When is the strategic thinking for the cold water pool going to get done? There is \$2 Million set aside now for cold water pool.</li> <li>2. WCM Modeling analysis needs to provide opportunity for close review regarding what helps and hurts the cold water pool.</li> <li>3. Need analysis of what out-flow levels are needed for young salmonoids in Jan – May period, especially Jan – March.</li> <li>4. As part of WCM analysis: <ol style="list-style-type: none"> <li>i. Identify biological needs of Chinook salmon and steelhead, including temperature information at selected downstream points.</li> <li>ii. Identify operational alternatives that are protective of Chinook salmon and steelhead.</li> </ol> </li> <li>5. Need effects analysis of high flows in the Lower American River (LAR).</li> <li>6. Studies have shown that there is significant flow of water through the current shutters, which reduces the ability to conserve and manage the cold water pool. Potential fixes should be investigated, including rehabilitation and replacement.</li> </ol>



## In-Basin Purveyors' Interests and Issues

Interests	Issues	Questions/ Observations
<p>Enhanced management of water supplies for the protection of in-basin municipal/industrial and environmental uses, particularly through a proactive approach to the acquisition and use of high quality data.</p>	<p>1. Concern that Folsom Reservoir could be drawn down below the intakes of several purveyors that do not have alternative sources of supply.</p> <p>2. Modeling of the Bureau of Reclamation's current operating plan, under future level of demands, indicates that Folsom Reservoir will be drawn down to dead pool in back to back critically dry years.</p> <p>2. Because Folsom Reservoir is relatively small compared to the size of potential flood events and in-basin municipal and environmental water needs, there is a natural conflict between water supply and flood control interests. It is the water purveyors' desire to investigate the ability to temporarily increase the amount of water allowed to be held in storage in Folsom Reservoir, while carefully monitoring water content within the watershed and projected precipitation, until either the probability of significant near term precipitation reaches a level of concern for possible flooding or the level of water content reaches a level needed to diminish concern for drought.</p> <p>3. We believe that everyone involved in this effort would benefit from a thorough understanding of the risks (loss of stored water; flooding) and benefits (reduced drought impacts; reduced flood risks) associated with differing levels of flood and water storage, especially with the operation of</p>	<p>1. Does the Corps have the authority to be flexible in WCM operation of Folsom?</p> <p>2. Upstream in-basin purveyors want to make a contribution to identifying and collecting quality data for modeling as well as real-time guidance during possible flood event.</p> <p>3. How do we make sure we incorporate our additional data with data that is currently collected?</p> <p>4. If we need more tools, where are they needed?</p> <p>5. Request for model to address South Fork unimpaired flow as it is difficult to measure due to granite topography.</p>

	<p><b>In-Basin Purveyors' Interests and Issues, Continued</b></p> <p>the new flood outlet gates at Folsom.</p> <p>4. Need more instrumentation monitoring, collection and use of accurate data for watershed modeling as well as for real-time guidance during possible flood event</p> <p>5. Better understanding of level of confidence in technology tools (e.g. basin wetness parameters; conditions of upstream reservoirs; forecasting)</p> <p>6. As related to outcome of WCM effort, USACE and USBR should engage in SWRCB process for establishing new Delta flow standards.</p>	
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## CVP/SWP Contractors' and Electric Utilities' Interests and Issues

Interests	Issues	Questions/ Observations
<p>Maximizing water resources for all purposes (CVP/SWP/Power)</p>	<ol style="list-style-type: none"> <li>1. Take advantage of opportunities to optimize end of May storage for additional and colder water than current condition. In particular, examine potential for higher carryover storage for critically dry years, made possible by better flood control capacity. Also enhances power generation and recreation. (CVP/SWP/Power)</li> <li>2. Flexibility built into WCM to maximize water resources for all purposes. Specifically, need flexible rule curve for Folsom flood control depending upon basin moisture conditions, and the incorporation of forecast-based operations into the flood control guidelines. (CVP/SWP/Power)</li> <li>3. Minimize operations/ conditions that would require releases to by-pass penstocks. (Power)</li> <li>4. Update Folsom Dam shutters to improve control of water temperatures releases from Folsom Reservoir. (CVP/SWP/Power)</li> </ol>	<ol style="list-style-type: none"> <li>1. What are the confidence levels associated with forecasts?</li> <li>2. What is the duration of peak downstream releases?</li> <li>3. Who pays the operations and maintenance (O&amp;M) costs on Folsom shutters, if updated?</li> </ol>

	<p><b>CVP/SWP Contractors' and Electric Utilities' Interest and Issues, Continued</b></p> <p>5. Important to track Delta flow standard discussions at SWRCB as related to WCM Project. Particularly interested in salinity quality for Delta and sensitivity analysis regarding X-2 Standard. (CVP/SWP)</p>	
Cost allocation related to WCM Operations (CVP/Power)	How will the revised WCM Operations affect authorized project purposes in the existing cost allocation for Folsom Dam/Reservoir and the ongoing CVP Cost Reallocation Study which is scheduled to be completed by 2016/2017? (CVP/Power)	
WCM assumptions (hydrological; environmental, etc.) should be carried forward in other studies (CVP/SWP/Power)	Downstream environmental regulatory baseline for Folsom Dam WCM should be coordinated with CVP Cost Reallocation Study (CVP/Power).	
Ensuring informed decision making processes exist by having access to integrated input from all other interests (CVP/SWP/Power)	Want to understand how all impacts fit together, especially environmental impacts. Do not want to get to the end of this effort and not be aware of integrated input and impacts. (CVP/SWP/Power)	

## Shared Perspectives among the Six Stakeholder Groupings

This part of the Stakeholder Situational Assessment compares the interests and issues of the six major stakeholder groups to identify where their various perspectives align. (See box insert on page 4 for a list of the stakeholder groups.) Where interests align, there can be opportunities for approaches and solutions that meet the needs of multiple, and possibly, all constituencies.

For the Manual Update process, it is fortunate that many of the stakeholders' needs and concern are similar, or at least not contradictory. This provides a path for potential mutual gains, which are usually elusive in other water and flood endeavors.

There are nine key shared perspectives among the stakeholder groupings:

1. **Reduced Flood Risks for the Sacramento Area:** All stakeholders understand and support the reduction of flood risks for the Sacramento area.
2. **Use of Conditional Storage:** There is a potential, but not a guarantee, for all interests to benefit from a revised Manual Update that enhances conditional storage in Folsom Reservoir. This means that when there are no expectations of moderately high or severe precipitation and relatively dry conditions upstream, there is little risk in storing water in what otherwise would be dedicated to flood space in Folsom Reservoir. This could enhance water supplies, hydro-power, fishery, and recreational opportunities through higher seasonal water storage at Folsom Reservoir. And, in turn, conditional storage also means that when severe storms or high precipitation are anticipated, water can be evacuated from the Reservoir beyond what would otherwise be retained in the conservation space for water supply, thus reducing flood risks.
3. **Balancing Risks and Benefits:** Regarding conditional storage, stakeholders agree that the risks (loss of stored water; flooding; potentially damaging releases during flood situations) and benefits (reduced flood risks; increased water availability; lower volume of releases during potential flood situations) need to be carefully assessed. The challenge is to develop a Manual Update that neither releases water "too late" resulting in damaging high releases and possible flooding, nor releases water "too early" so that water cannot be recovered for water supply, hydropower, fishery and recreational needs.
4. **Use of All of the Tools:** Stakeholders want to maximize the combined use of conditional storage within Folsom Reservoir, the auxiliary spillway, basin wetness information, weather forecasting, and incidental storage in upstream reservoirs to reduce flood risks as well as have the opportunity to store more water in Folsom Reservoir. Stakeholders also want a better understanding of the magnitude of what can be accomplished with the use of these tools as well as the levels of uncertainty with such use.



5. **Basin Wetness and Weather Forecasting:** The stakeholders agree that basin wetness and forecasting information can be powerful assets to reduce flood risks. But they also realize that there can be uncertainties in the use of this data. They would like to explore the level of confidence in technology tools related to basin wetness and forecasting.
6. **Folsom Dam Raise:** Stakeholders agree that, when built, the Folsom Dam raise will be another asset with which to reduce flood risks and store water. They would like to better understand how the Folsom Dam raise and associated flood control surcharge space would potentially effect Folsom's operations and impacts. Stakeholders acknowledge that the Dam raise is not a part of this Manual Update. However, Dam raise assumptions will be addressed as part of the CEQA and NEPA cumulative impacts. When the Dam raise is constructed (2019), the Water Control Manual will be updated again to reflect the raise.
7. **Access to Information by Stakeholders:** Stakeholders expressed a need for access to information on technical issues, integrated impacts, and the perspectives of other stakeholder interests.
8. **Cold Water Pool:** Although not central to all interests, stakeholders believe that there may be an opportunity to improve the cold water pool for the fisheries through conditional storage, assuming that that flood risks are appropriately managed. Stakeholders understand (but may not all necessarily agree with) the government agencies' determination that opportunities for improving the cold water pool are incidental to the main purpose of the Water Control Manual Update. Stakeholders would like to know what operations help and hurt the cold water pool.
9. **Downstream Releases in a Flood Situation:** Although not central to all interests, stakeholders share a need to understand and reduce the effects of medium and high flows as well as peak downstream releases on the American and Sacramento Rivers.

## Potential Challenges

For the most part, stakeholders see much more commonality among their interests than differences. Yet, challenges do remain, but most believe that these challenges can be managed. The six challenges below reflect not only potential differing perspectives among the stakeholders but also possible differences between the government agencies working on the Manual Update and the various stakeholder groups. There are sure to be other challenges, but these are the ones that stand out at this point.

1. **Flood Risk Reduction and Water Supply:** Given the relatively small size of Folsom Reservoir, there has been a historic tension between flood risk reduction and water availability for municipal, environmental, agricultural, hydropower and recreational purposes. Among those concerned with water availability, there is not enough water even under optimal conditions to satisfy all the needs.

In the context of the Manual Update, the balancing act of neither releasing water “too late” nor “too early” from Folsom Reservoir is not an easy one. Even when more is learned about accurately predicting such parameters as precipitation and basin wetness, there will always be uncertainties. Although the Manual Update rules will be the decision of USACE in consultation with its partner (Reclamation), and its state and local cost-sharing sponsors (CVFPB/DWR and SAFCA), exactly how to balance these uncertainties in the Manual Update could be an area of tension among stakeholders.

2. **Water from Conditional Storage:** If conditional storage results in additional water yield from increased seasonal storage, there are likely to be differences of opinion among the stakeholders on “when” (timing) and “how much of” (amount) this water is used. The recreational, environmental, in-basin purveyors, electric power utilities and CVP/SWP contractors are the groups with an interest in this issue. Any additional water yield gained from conditional storage is the responsibility of Reclamation to manage under its CVP water rights authority.
3. **Flexibility of Manual Update:** Achieving the appropriate balance between operational flexibility and fixed operational rules is a challenge that is likely to be viewed differently by the various stakeholder groups.
4. **Use of Basin Wetness Information:** The In-Basin Water Purveyors have expressed a strong interest in monitoring, collecting and using basin wetness data as part of the guidance parameters in this Manual Update. Their concern is that the government agencies working on the Manual Update may be more cautionary in their use of basin wetness data than they (In-Basin Water Purveyors) believe is warranted.
5. **Use of Weather Forecasting Information:** Based on weather forecasts for big storms, the Environmental stakeholders have expressed a strong interest in early and aggressive Folsom Dam releases, including releases that could exceed in-flows into the Reservoir. Their concern is that the government agencies working on the Water Control Manual and possibly the water suppliers may be more cautionary in their use of weather forecasts than they (Environmentalists) believe is warranted. The National Weather Service will provide consultation to the government agencies producing the Manual Update, thereby possibly reducing the level of this challenge.
6. **Cold Water Pool:** Although the government agencies responsible for the Manual Update have determined that improvements to the cold water pool are incidental to the main purpose of the Manual Update, the Environmental stakeholders would like more consideration given to the cold water pool issues due to the important role cold releases play in the health of the fisheries. Reclamation and SAFCA have offered to convene side conversations on this issue, apart from the discussions on the Manual Update. What can be done now to improve Folsom’s cold water pool is a challenge unto itself. The Temperature Control Device for Folsom is part of the future Dam raise, which is not scheduled to be constructed until 2019.

# Stakeholder Engagement Plan

## Overview

The following Stakeholder Engagement Plan is based on the seven discussion sessions that USACE, in partnership with the Reclamation, SAFCA, and CVFPB/DWR, convened with the stakeholders. (See previous section, “How was the Stakeholder Situational Assessment Done?” for a description of these sessions.)

Various stakeholder groups desire different levels of engagement in the Manual Update. The Regional Flood Management Organizations and the Recreational Representatives want occasional meetings tied to their interests and the overall project schedule.

The Environmental Group and In-Basin Purveyors desire more frequent, in-depth, technical, and policy-related sessions. Some CVP Contractors, SWP Contractors, and Electric Power Utilities and their Associations preferred occasional meetings, while others wanted more involvement. Stakeholder desiring more frequent and in-depth discussions expressed interest in such topics as modeling results, development of and criteria for NEPA and CEQA alternatives, impacts, and risk/benefit analyses.

Lastly, some groups asked for in-depth discussions on a particular topic. The In- Basin Purveyors, especially San Juan Water District, the City of Folsom and the City of Roseville, want more direct involvement in how basin wetness parameters will be incorporated into the Manual Update. The Environmental Interest Group requested more concentrated focus on weather forecasting as well as improvements to the cold water pool through the Manual Update process.

Almost all stakeholders want opportunities to provide feedback in advance of decisions and releases of the public draft and final Manual Update documents, particularly ones involving NEPA and CEQA. Most stakeholders also desire that relevant documents and analyses be sent to them in advance of meetings designed to get their feedback. Stakeholders expect that technical information will be shared with them at meetings. Meetings that include stakeholder feedback will be consistent with the Federal Advisory Committee Act (FACA).

There was an understanding among all the stakeholders that USACE, in concert with Reclamation, CVFPB/DWR and SAFCA, makes all final decisions, and that stakeholder input is seriously considered in their decisions-making.

## The Stakeholder Engagement Plan

The Stakeholder Engagement Plan consists of four venues for stakeholders to provide feedback on the Water Control Manual Update:

- 1. All-Stakeholder Policy Discussions on a Quarterly Basis:** Starting in Fall of 2013 and continuing throughout the Project Alternative Models period (October 2013 – August 2014), USACE will convene all-stakeholder sessions quarterly. These meetings will provide the venue for periodic policy and technical discussions on the Manual Update. The current project milestone calendar will be distributed and discussed at each of these meetings. The sessions will be publicly noticed, including invitations to the regional business community, emergency management and response agencies, Lower Sacramento River and North Delta Interests and other interested parties.

After August 2014, USACE and its federal and non-federal partners will discuss with stakeholders the need for and frequency of similar sessions for the next phase of the Manual Update.

- 2. More In-Depth Sessions for Governmental Stakeholders:** Government stakeholders are invited to attend USACE's Technical Working Group and Environmental Effects Working Group on the Manual Update. Starting in June 2013, each of the Working Groups will meet quarterly. For the In-Basin Purveyors, the Technical Working Group will be the forum within which to address basin wetness parameters.
- 3. Non-Governmental Stakeholders:** SAFCA will provide two venues for non-governmental stakeholders, which are described below in (a) and (b). SAFCA has the responsibility to fully convey the perspectives, needs, and issues expressed in these meetings to USACE, Reclamation, and CVFPB/ DWR through official meetings on the Manual Update as well as through informal discussions with their project partners. The quarterly all-stakeholders meetings will provide a venue for the non-governmental stakeholders to have direct discussions with USACE, Reclamation and CVFPB/DWR.
  - a. Lower American River (LAR) Task Force:** SAFCA will provide briefings and discussions on the Manual Update at each of the Task Force meetings. The LAR Task Force meets quarterly.
  - b. More In-Depth Sessions for Non-Governmental Stakeholders:** SAFCA will hold discussions to provide more extensive information on the Manual Update to interested non-government stakeholders. The type of detailed information available to the governmental stakeholders through the USACE's Technical and Environmental Working Groups can be made available.

**4. Other Conversations:** If government or non-governmental stakeholders have questions or issues that are not addressed in the above venues, they are invited to contact USACE to set up a meeting through Mr. Art Ceballos at [Arturo.Ceballos@usace.army.mil](mailto:Arturo.Ceballos@usace.army.mil)

Separate from the Manual Update process, Reclamation and SAFCA will jointly sponsor meetings for interested stakeholders on how to improve the cold-water pool. (The four government agencies working on the Manual Update believe improvements to the cold water pool are incidental to the main purpose of the Water Control Manual Update. However, all recognize the importance of this issue.)

## Final Comments

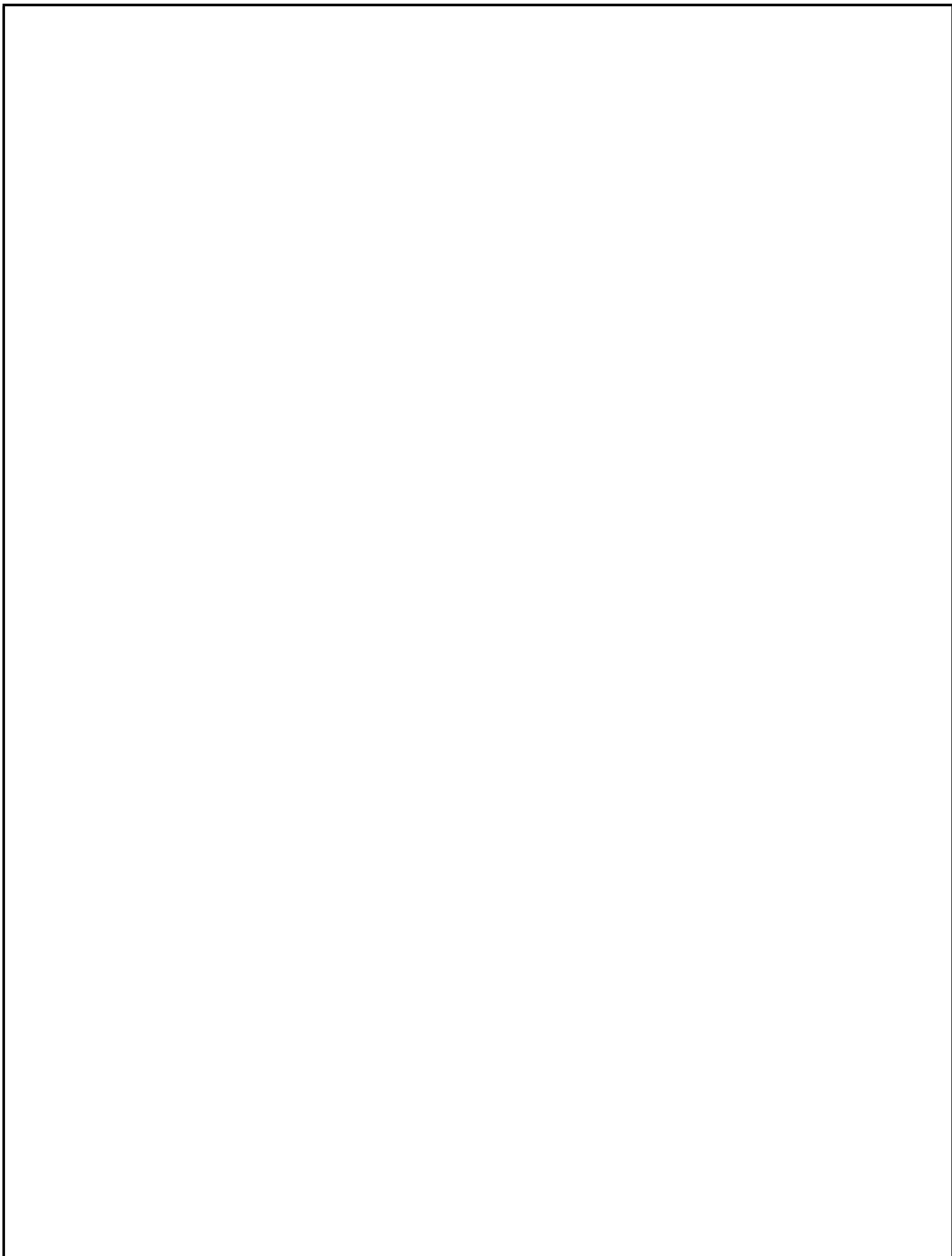
This Assessment provides an overall framework for stakeholder participation in the Folsom Dam Water Control Manual Update. It identifies the organizations, groups and individuals with a direct interest in the Manual Update and provides stakeholder-approved Interest and Issues Statements for the six major stakeholder groupings. The discussion on common perspectives and potential tensions among the stakeholder groups can help to anticipate and resolve challenges that may arise. And finally, based on stakeholder feedback, the Assessment provides a specific Stakeholder Engagement Plan.

The Assessment and the framework it puts forward are “living documents.” This means that as the stakeholders as well as the government agencies producing the Manual Update learn more, their needs might change. For example, stakeholders may want to refine their Interests and Issues Statements, or the Stakeholder Engagement Plan may need to be revised. Now there is a solid foundation from which to have those discussions and a point of departure for future changes.

As previously mentioned, it is fortunate that many of the underlying interests of the stakeholders and those agencies developing the Manual Update are similar – or at least not contradictory. These commonalities place the Manual Update on a course to substantially reduce flood risks in Sacramento while at the same time doing a better job than current operation at conserving Folsom Reservoir water for other purposes, including municipal and industrial water supply, agricultural irrigation supply, hydropower generation, fish and wildlife protection, water quality, and recreation.

*The “Stakeholder Situational Assessment for Folsom Dam Water Control Manual Update” was developed and written by Susan Sherry, Executive Director, Center for Collaborative Policy, California State University Sacramento under contract to HDR Engineering, Inc. Ms. Sherry would like to thank all of the many stakeholders, USACE, Reclamation, CVFPB/DWR, SAFCA and HDR Engineering, Inc. for their thoughtful contributions to this effort.*





## Appendices

1. USACE Briefing Memorandum on Folsom Dam Water Control Manual Update, July 2012
2. Stakeholder Organizations and User Groups
3. Power Point Presentations from September 2012 Stakeholder Meetings
4. Power Point Presentation from February and March 2013 Stakeholder Meetings

Note Regarding Appendices 3 and 4: The information in these presentations was current as of the date listed. As the project progresses, information may evolve and change over time. For more current information, see <http://www.spk.usace.army.mil/Missions/CivilWorks/FolsomDamAuxiliarySpillway.aspx>. Readers can access material on Folsom Dam Water Control Manual Update on the lower right side of the page.





**Appendix 1**

**USACE Briefing Memorandum on**

**Folsom Dam Water Control Manual Update**

**July 2012**



# FOLSOM DAM WATER CONTROL MANUAL UPDATE July 18, 2012

## Briefing Memorandum

### Overview of the Folsom Dam Water Control Manual Update

#### **Introduction**

As directed by Congress, the U.S. Army Corps of Engineers (USACE), in collaboration with the U.S. Department of Interior Bureau of Reclamation (Reclamation), the State of California Central Valley Flood Protection Board (CVFPB), and the Sacramento Area Flood Control Agency (SAFCA) are taking steps to reduce flood risk to the Sacramento area through a variety of authorized facilities (including existing, those under construction and those yet to be constructed). These steps also include the revision of operation rules and criteria for Folsom Dam and Reservoir.

A key component to improved flood risk management for the Sacramento area is the Folsom Dam Joint Federal Project (JFP), currently under construction. The JFP will improve the ability of Folsom Dam to manage large flood events by allowing more water to be safely released earlier in a storm event, resulting in more storage capacity remaining in the reservoir to hold back the peak inflow when it arrives. The JFP has twin goals that simultaneously serve the specific missions of two Federal agencies. The flood risk management goal of USACE and their non-Federal partners, CVFPB and SAFCA, is to reduce flood risk in the Sacramento area in conjunction with other elements of the regional flood control system. The safety of dams goal of Reclamation is to pass the probable maximum flood (PMF) without causing failure of Folsom Dam. The PMF peak inflow is 906,000 cfs, of which, up to 314,000 cubic feet per second (cfs) will pass through the auxiliary spillway. These goals will be accomplished through construction of a gated auxiliary spillway, with a spillway crest elevation 50 feet lower in elevation than the current gated spillways on the main dam. In order to fully realize the benefits of the new auxiliary spillway, the existing water control manual (*Water Control Manual, Folsom Dam and Lake, American River, California*; USACE 1987) must be updated.

USACE is responsible for prescribing operations for flood risk management at Folsom Dam. The dam's water control manual, which includes the water control diagram and emergency spillway release diagram, is the document that stipulates the flood control operations of the dam. The water control diagram has been modified several times since Folsom Dam was constructed in 1956.

USACE, Reclamation, CVFPB, and SAFCA are seeking to minimize the risk that flood operations have been imposing on other authorized Folsom Dam project purposes since 1995, due to the 670,000 ac-ft variable operation. Congress has directed USACE to utilize a variable operation of up to 600,000 ac-ft for flood risk management purposes. An important goal of the Water Control Manual Update is to identify the use of that space in a way that conserves as much water as possible and maximizes all other project functions to the extent practicable, consistent with the flood risk management objectives of the Water Control Manual Update.



# FOLSOM DAM WATER CONTROL MANUAL UPDATE

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## **Background and Congressional Authorities**

Folsom Dam and Reservoir form a multipurpose water project, constructed by USACE in 1956 and operated by Reclamation as an integrated part of the Central Valley Project (CVP). The dam and reservoir reduces flood risk for the Sacramento area while serving other project purposes including water supply (agricultural, domestic, municipal, and industrial), hydropower, fish and wildlife protection, water quality (including water temperature), recreation, and navigation.

As directed by Congress in the Flood Control Act of 1944, USACE is responsible for prescribing regulations for the use of storage allocated for flood control at Folsom Dam and Reservoir. USACE maintains a flood operations plan and Water Control Manual, last updated in 1986, that utilizes a flood control storage space of 400,000 acre-feet (ac-ft).

The 1986 flood raised concerns over the adequacy of the existing flood risk management system of the Sacramento area. These concerns led to a series of investigations and subsequent study authorizations (beginning with the 1991 American River Watershed Investigation Feasibility Report) to reduce the level of flood risk in the Sacramento area, and address the dam safety issues (safe passage of Probable Maximum Flood) at Folsom Dam. This report was followed by the American River Watershed Project, Supplemental Information Report in 1996. Although both reports recommended construction of a flood detention dam on the North Fork of the American River, Congress chose not to authorize the flood detention dam, but instead chose to rely on a series of modifications to the Folsom Dam and Reservoir along with levee improvements downstream of Folsom Dam to provide additional flood risk reduction for the Sacramento area, and to address the safety issues at Folsom Dam.

In 1995, SAFCA entered into an agreement with Reclamation to provide additional flood risk reduction for the Sacramento area. In accordance with the 1995 agreement, Reclamation operates Folsom Dam and Reservoir to provide additional flood storage space in the reservoir on an as-needed basis. This operations plan, commonly referred to as a 400,000 - 670,000 ac-ft creditable space plan, states that beyond the 400,000 ac-ft (regulated by the USACE) up to an additional 270,000 ac-ft, for a total storage of 670,000 ac-ft, may be used for flood control in Folsom Reservoir based on creditable storage from upstream reservoirs. According to the 1995 agreement, SAFCA would purchase water to replace any water storage shortage caused by the creditable storage operation. SAFCA also agreed to fund several physical improvements to Folsom Dam and the downstream river channel to offset the risk of reduced reservoir storage levels. These included modifications to the temperature control shutters on the intakes to Folsom Dam's power penstocks; boat ramp extensions; and shallow floodplain habitat improvements in the lower portion of the American River.

In the Water Resources Development Act of 1996 (WRDA 1996) Congress directed Reclamation to continue the creditable 400,000 - 670,000 ac-ft operation and to extend the 1995 agreement with SAFCA until such time as a comprehensive flood damage reduction plan for the American River watershed has been implemented. WRDA 1996 and the Energy and Water Development Appropriations Act of 2002 established a new cost-sharing formula for the creditable flood control option; SAFCA shall be responsible for 25 percent of any costs incurred and Reclamation is responsible for the remaining 75 percent.

The Water Resources Development Act of 1999 (WRDA 99), Section 101, states that, upon completion of what is now the JFP, the variable space allocated to flood control within the reservoir shall be reduced



## FOLSOM DAM WATER CONTROL MANUAL UPDATE

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from the current operating range of 400,000-670,000 ac-ft to 400,000-600,000 ac-ft. Additionally, WRDA 99 states that USACE, in cooperation with Reclamation, shall update the flood management plan for Folsom Dam to reflect the operational capabilities created by authorized improvements and improved weather forecasts based on the Advanced Hydrologic Prediction System of the National Weather Service. In addition, WRDA 99, Section 556 states that USACE, in consultation with the State of California and local water resources agencies, shall undertake a study of increasing surcharge flood control storage and there is to be no increase in conservation storage at the Folsom Dam Reservoir. This section also authorized the American River Watershed, Long Term Study 2002, which recommended the Folsom Dam raise.

The Energy and Water Development Appropriations Act of 2004 authorized raising Folsom Dam by seven feet for flood risk management purposes (Dam Raise) as well as construction of a permanent bridge to replace Folsom Dam Road, which was closed to public access in 2001.

Shortly thereafter, the Energy and Water Development Appropriations Act of 2006 (2006 EWDAA) directed USACE and Reclamation to collaborate to maximize flood damage reduction and address dam safety at Folsom Dam. The 2006 EWDAA directed the USACE and Reclamation to consider reasonable modifications to the existing authorized activities, including an auxiliary spillway. This collaboration resulted in the JFP at Folsom Dam.

In March of 2007, the Folsom Dam Modification and Dam Raise, Post Authorization Change Report (2007 PACR) was completed and recommended the JFP (which addressed both USACE flood damage reduction project and Reclamation's dam safety issues) and the 3.5-foot Dam Raise (which addresses USACE's flood damage reduction only). The JFP includes a six submerged tainter gate structure and an auxiliary spillway. The 3.5-foot Dam Raise includes upgrades to the three emergency spillway tainter gates at the dam, and various dam safety features at and around Folsom Dam. The results of the 2007 PACR are anticipated to reduce flood risk downstream generally equivalent to the flood risk reduction intended to be provided by the Folsom Modification Project and the 7 foot Dam Raise. The new auxiliary spillway is now effectively the plan referred to in WRDA 99 subsection (A). Authorization to construct the auxiliary spillway and dam safety features were included in the Water Resources Development Act of 2007 (WRDA 2007).

### **Water Control Manual Update Purpose**

The purpose of the analysis is to develop the technical information required to update the existing WCM, namely, *Water Control Manual, Folsom Dam and Lake, American River, California* (USACE 1987).

SPK will use the findings from the analysis to:

- Revise operation rules for Folsom Dam to reduce flood risk, and
- Integrate NWS forecasts into flood operation rules.

The new operation rules will be developed to, at a minimum, meet the following three (3) primary dam safety and flood risk management objectives of the Manual Update partners:

1. Pass the Probable Maximum Flood (PMF) while maintaining 3 feet of freeboard below the top of dam to stay within the Dam Safety constraints of Reclamation.





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2. Control a 1/100 annual chance flow (i.e. "the 100-year flood") to a maximum release of 115,000 cubic feet per second (cfs) to support Federal Emergency Management Agency (FEMA) levee accreditation along the American River, by SAFCA.
3. Control a 1/200 annual chance flow (i.e. "the 200-year flood"), as defined by criteria set by the State of California Department of Water Resources (DWR), to a maximum release of 160,000 cfs, when taking into account all the authorized modifications within the American River Watershed.

Key considerations in the development of the water control plan include dam safety requirements; Endangered Species Act (ESA) requirements; other fish and wildlife needs; water quality requirements; and water supply, water rights permit terms and conditions, power generation, and recreational needs. In its development, the Manual Update will conform as equitably as possible with other authorized Folsom Dam Project purposes and operational criteria, including seasonal downstream flow and temperature requirements specified by National Marine Fisheries Service (NMFS) Biological Opinion. The Manual Update will also consider fishery requirements for ramping rates for releases from Folsom Dam.

The findings of the Water Control Manual Update will be used to define the dam's new operational rules. USACE will then update the existing water control manual, namely, *Water Control Manual, Folsom Dam and Lake, American River, California* (USACE 1987). This update will include a new water control diagram and emergency spillway release diagram. The Water Control Manual Update will be completed prior to completion of the auxiliary spillway, and will be accompanied by appropriate environmental documentation that will describe the decision-making process that was followed to arrive at the recommended changes to flood control operations.

Future updates to the water control manual are expected as additional modifications are completed. Future modifications would include the authorized 3.5-foot dam raise which will provide additional space for flood operations, and future downstream levee improvements (erosion protection) allowing for increased releases.

### Partner Roles and Responsibilities

There are four partnering agencies on this Water Control Manual Update:

- U.S. Army Corps of Engineers: USACE is the lead Federal agency for the Water Control Manual Update, as well as the National Environmental Policy Act (NEPA) lead agency. USACE will prepare all necessary documents and update the water control manual in collaboration with the other partners.
- U.S. Department of Interior Bureau of Reclamation: Reclamation is the Federal partner responsible for operation and maintenance of Folsom Dam and Reservoir. Reclamation is also a cosignatory of the interim agreement with SAFCA and provides technical and policy support to the Manual Update. As operator of Folsom Dam, Reclamation will also be the cosignatory on the updated water control manual.
- Central Valley Flood Protection Board: The State legal entity for the JFP is the Central Valley Flood Protection Board (CVFPB). CVFPB is a non-Federal cost sharing partner with USACE for the JFP and the Water Control Manual Update. The project operational portion of the CVFPB for the JFP is represented by the State of California Department of Water Resources (DWR). CVFPB is



# FOLSOM DAM WATER CONTROL MANUAL UPDATE

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also the lead agency responsible for the California Environmental Quality Act (CEQA) and signatory of the decision document for the State. DWR provides policy and technical expertise and staff to support the CVFPB's activities associated with the Manual Update.

For JFP, DWR collaborates State's interest in Oversight Management Group, Change Management Board, Project Management Group, Integration Team and Project Delivery Team (PDT). For the Water Control Manual Update, DWR collaborates the State's interest in Project Alternative Solutions Study (PASS), Mid-level Management Group and PDT. Other roles and responsibilities for the State (CVFPB/DWR) are described in the Project Cooperation Agreement and the subsequent amendments between USACE, the State of California and SAFCA for Construction of the American River Watershed, California (Folsom Dam Modifications)

- Sacramento Area Flood Control Agency: SAFCA is the local cost sharing partner with CVFPB for the JFP and the Water Control Manual Update, a CEQA responsible agency, and cosignatory of the interim agreement with Reclamation.

## Overview of the Engineering Modeling Process

The USACE engineering modeling process has three primary goals:

- To produce an updated water control manual for Folsom Dam that includes an updated Water Control Diagram and Emergency Spillway Release Diagram.
- To produce data that supports the decision making process for identifying the recommended plan.
- To produce data that supports fulfillment of the Water Control Manual Update partners' policy and legal requirements, such as compliance with NEPA, CEQA, and other laws and regulations.

Operators must be able to rely on the updated water control manual in flood situations. Each point of the manual must be studied and developed in detail, to ensure successful operation of the Dam for flood risk management and dam safety purposes.

Considerations in this modeling effort include the non-federal sponsors' flood management goals of successful operation of the dam and reservoir, to route both a one percent chance event (1/100 inflow design event) sustaining a release of 115,000 cubic feet per second (cfs), and a 0.5% chance event (1/200 inflow design event), sustaining releases at 160,000 cfs. The engineering models are being used to simulate hydrologic and hydraulic conditions on the American River as they relate to the Dam and Reservoir only. The analysis of risk and uncertainty, as related to inflow hydrology, operational variation, and geotechnical issues are not considered in these models, but will be addressed elsewhere.

The emergency spillway release diagram's purpose is operational consideration of dam safety. Reclamation is assisting USACE with an operations plan that will pass a Probable Maximum Flood (PMF) within 3' of freeboard of the top of dam.

USACE uses HEC-ResSim, developed by USACE's Hydraulic Engineering Center, for reservoir routing applications and development of the Reservoir Operation Sets (ROSs) to be evaluated as part of the Water Control Manual Update. HEC-RAS and FLO-2D will be used to perform floodplain analyses.



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Reclamation and the DWR use CalSim II to evaluate CVP and SWP contract deliveries. Comparisons of period of record (1921 – 2002) model output from HEC-ResSim and CalSim II will be used to determine how a particular ROS could be modified to better meet CVP/SWP beneficial use criteria. These comparisons are referred to as Tier 1 analyses.

Fundamental engineering questions for USACE and partners to answer include:

- How will the JFP be operated in a flood event?
- What does the guide curve look like, including both the fall drawdown and spring refill components?
- How will the operation plan incorporate the use of forecasts from National Weather Service?
- How will the new plan include creditable storage considerations and the upstream reservoirs' capability for capturing inflow?
- How will accumulated precipitation in the basin and other basin wetness indices be incorporated into the updated plan?

### Environmental Analyses Summary

The evaluation of environmental effects will be focused on changes that flood management operation alternatives would have on other authorized Folsom Dam Project purposes, including water supply, hydropower, water quality, fish and wildlife protection, recreation, and navigation.

USACE has prepared a Water Resources Modeling Work Plan describing the modeling strategy for integrating output data between HEC-ResSim and CalSim II. The Water Resources Modeling Work Plan identifies the approach for evaluating the potential project impacts to power generation, temperature, and other environmental considerations. As outlined within that plan, the following evaluations, in addition to the Tier 1 analyses noted above, will be conducted:

- Tier 2 Analysis – An assessment of metrics related to SWP/CVP beneficial water uses as reflected in output from CalSim II. The Tier 2 analysis will only be completed on selected operational alternatives that have been screened and brought forward as potential with-project conditions.
- Tier 3 – Analysis of temperature, water quality, fish mortality, sediment transport, power generation, and recreation. As with the Tier 2 assessment, the Tier 3 analysis will only be completed on selected operational alternatives that have been screened and brought forward as potential with-project conditions.

The environmental effects analyses will be based on comparisons between computer model simulations of the alternatives, including the No Action/Future Without-Project Condition (FWOP), and baseline/existing conditions. The existing condition baseline flood management operation will reflect the current 400,000 – 670,000 ac-ft water control plan without the auxiliary spillway in place. The No Action/FWOP will reflect a 400,000 – 670,000 ac-ft operation similar to the current plan, but with the auxiliary spillway in place.

There is interest from certain stakeholders to compare project alternatives to a historic reference condition that reflects flood management operations prior to the implementation of creditable space storage operations. This reference condition would reflect operations utilizing the USACE 1986 WCD with a maximum flood storage capacity of 400,000 ac-ft at Folsom Dam. The need for carrying out full



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environmental effects analyses against this reference condition will be determined during the scoping process.

Effects, both adverse and beneficial, will be identified and quantified to the appropriate extent. Adverse effects will be avoided, minimized, or mitigated to the extent practicable.

Depending on results of the environmental effects analyses, formal consultation with U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA) may be necessary if adverse effects to federally protected species could occur as a result of implementation of the selected flood management operations alternative. Likewise, consultation with California Department of Fish and Game (CDFG) would be necessary if the selected alternative could have adverse effects on state-protected species. Along with NEPA, CEQA, ESA, and the California Endangered Species Act, all other applicable Federal, state, and local laws will be complied with.

NEPA and CEQA public involvement efforts will include hosting public scoping meetings, providing study information and status updates on a study website and through periodic workshops, and soliciting comments on the Draft and Final NEPA and CEQA documents through public meetings, mailings, and email.

## **Appendix 2**

### **Stakeholder Organizations and User Groups Folsom Dam Water Control Manual Update**

## Stakeholder Organizations and User Groups

<b>Regional Flood Management Organizations</b>	<b>In-Basin Purveyors/ Water Suppliers</b>
Reclamation District 1000	County of Sacramento - Water Agency
City of West Sacramento	City of Folsom - Utilities Dept.
DWR Maintenance Area 4	Placer County Water Agency
Yolo Basin Foundation	El Dorado Irrigation District
Central Valley Flood Control Association	El Dorado Water and Power Authority
American River Flood Control District	Sacramento Suburban Water District
DWR Maintenance Area 9	City of Sacramento - Utilities Dept.
Extreme Precipitation Symposium	County of Sacramento - Engineering & Admin.
County of Sacramento	City of Roseville - Utilities Dept.
	San Juan Water District
<b>Regional Environmental Interests</b>	El Dorado County Water Agency
Save the American River Association (SARA)	Carmichael Water District
The Nature Conservancy	Sacramento Municipal Utility District
California Waterfowl Association	Carmichael Water District
League Women Voters	Sacramento Municipal Utility District
Fish User Group (5 Individuals)	Carmichael Water District
CA Fly Fishers Unlimited	Sacramento Municipal Utility District
Sacramento Water Forum	
Friends of the River (FOR)	<b>CVP / SWP Contractors</b>
Sierra Club	Central Valley Project Water Association
Planning and Conservation League	Westlands Water District
Ducks Unlimited	Kern County Water Agency
Environmental Council of Sacramento	Metropolitan Water District
Federation of Fly Fishers	San Joaquin River Exchange Contractors
Audubon Society	State Water Project Contractors Association
California - American Water Company	State & Federal Contractors Water Agency
Golden State Water Company	San Luis Delta Mendota Water Authority
Sacramento Regional Water Authority	Santa Clara Valley Water District
	Contra Costa Water District
<b>Regional Recreation Interests</b>	Northern California Water Association
State Department of Parks and Recreation	Santa Clara Valley Water District
Folsom Lake Marina	East Bay Municipal Utilities District
River Rat Rentals	
Sac State Aquatic Center	<b>Electric Power Utilities and Their Associations</b>
Adventure Sports	Western Area Power Administration
California Canoe and Kayak	Sacramento Municipal Utility District
Current Adventures	Northern California Power Agency
Sacramento Area Bicycle Advocates	El Dorado Water and Power Authority
Gold Fields District, State Parks	
Larson Marine	
El Dorado Co. River Recreation Department	
Sacramento County Parks	
River City Paddlers, Inc.	
American Raft Rental	
Adventure Connections	

# **Appendix 3**

## **Power Point Presentation**

### **September 2012 Stakeholder Meetings**

Note Regarding Appendix 3: The information in this presentation was current as of the date listed. As the project progresses, information may evolve and change over time. For more current information, see <http://www.spk.usace.army.mil/Missions/CivilWorks/FolsomDamAuxiliarySpillway.aspx>. Readers can access material on Folsom Dam Water Control Manual Update on the lower right side of the page.





# Folsom Dam Water Control Manual Update

## Stakeholder Discussion

September 26, 2012

*Tsakopoulos Library, Downtown Sacramento*



US Army Corps of Engineers  
**BUILDING STRONG®**



# WELCOME AND INTRODUCTIONS



# **PURPOSE OF WATER CONTROL MANUAL UPDATE (Manual Update)**



# PURPOSE OF MANUAL UPDATE

- Revise operation rules for Folsom Dam to reduce flood risk based on the capabilities of the Folsom Joint Federal Project (JFP)
- Reflect operational capabilities created by improved weather forecasts
- Potentially reduce the volume of flood control reservation in Folsom Reservoir at any particular time by comparison to the operations that have been in effect since 1995





# DISCUSSION OVERVIEW

- \* Purpose of discussion
- \* Flood Risk Reduction for Sacramento Area
- \* Folsom Dam Background
- \* Current Project Activities
- \* Current Project Status
- \* Next Steps
- \* Questions and Discussion



# PURPOSE OF DISCUSSION

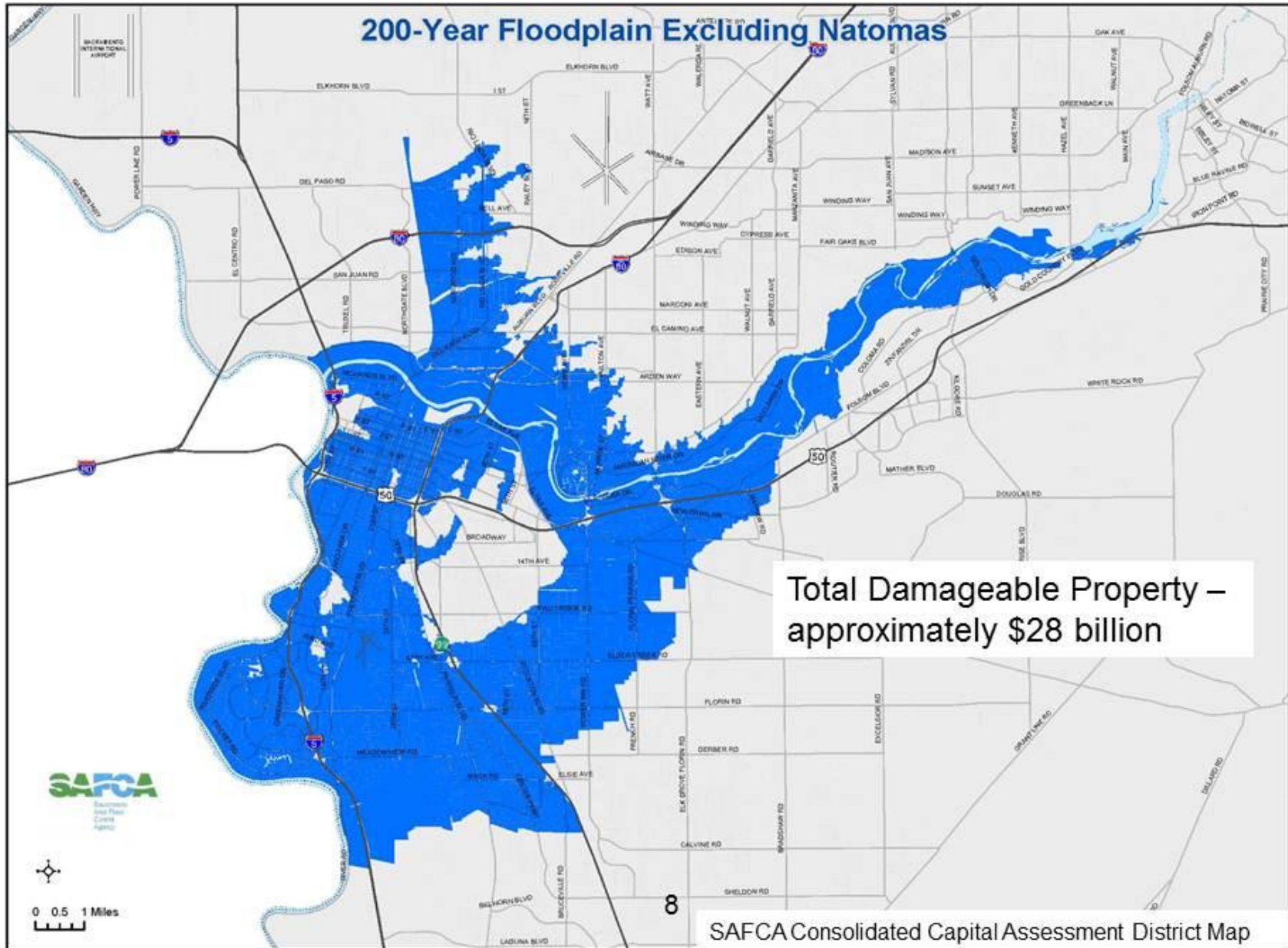
- \* Engage key stakeholders in the policy and technical work of the Manual Update.
- \* Understand stakeholders' interests, concerns and suggestions
- \* Discuss how best to involve stakeholders in future



# **FLOOD RISK REDUCTION IN SACRAMENTO AREA**

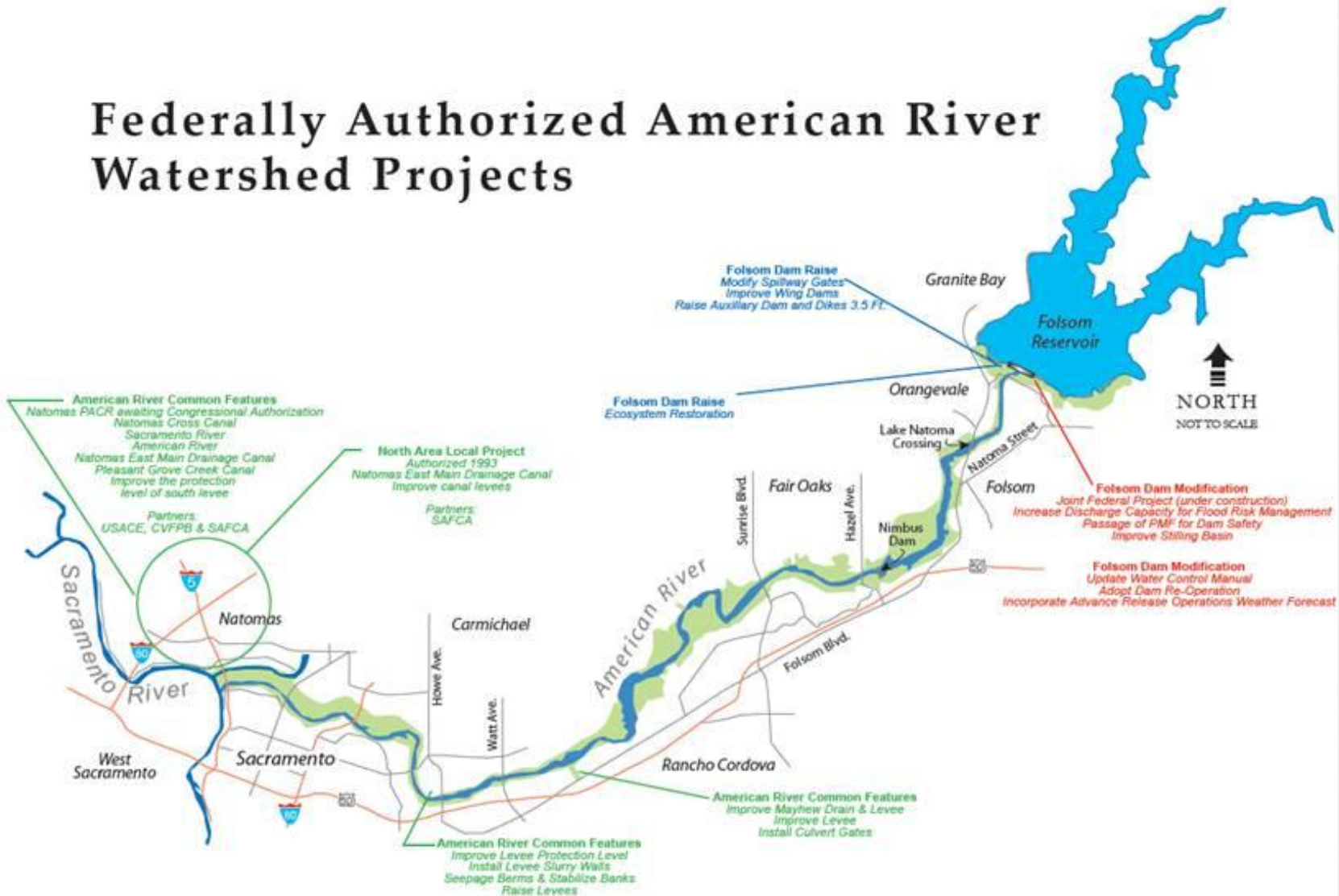


## 200-Year Floodplain Excluding Natomas





# Federally Authorized American River Watershed Projects



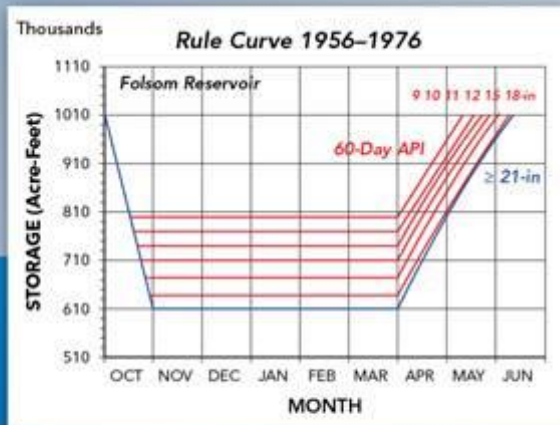
# **FOLSOM DAM BACKGROUND**

## **Past and Present**

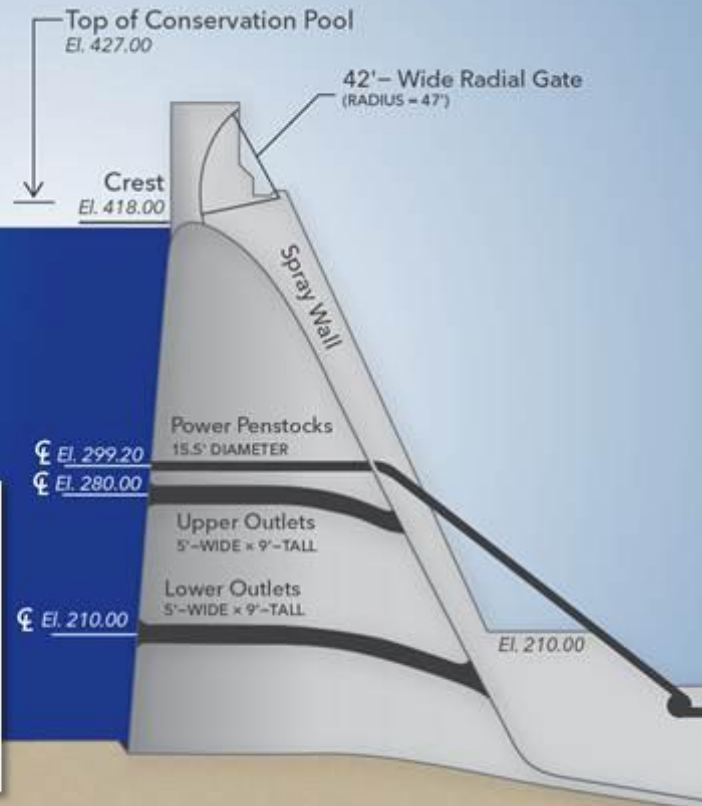
- Construction
- Modifications – Past, Present, Future
- Rule Curve – Past, Present, Future



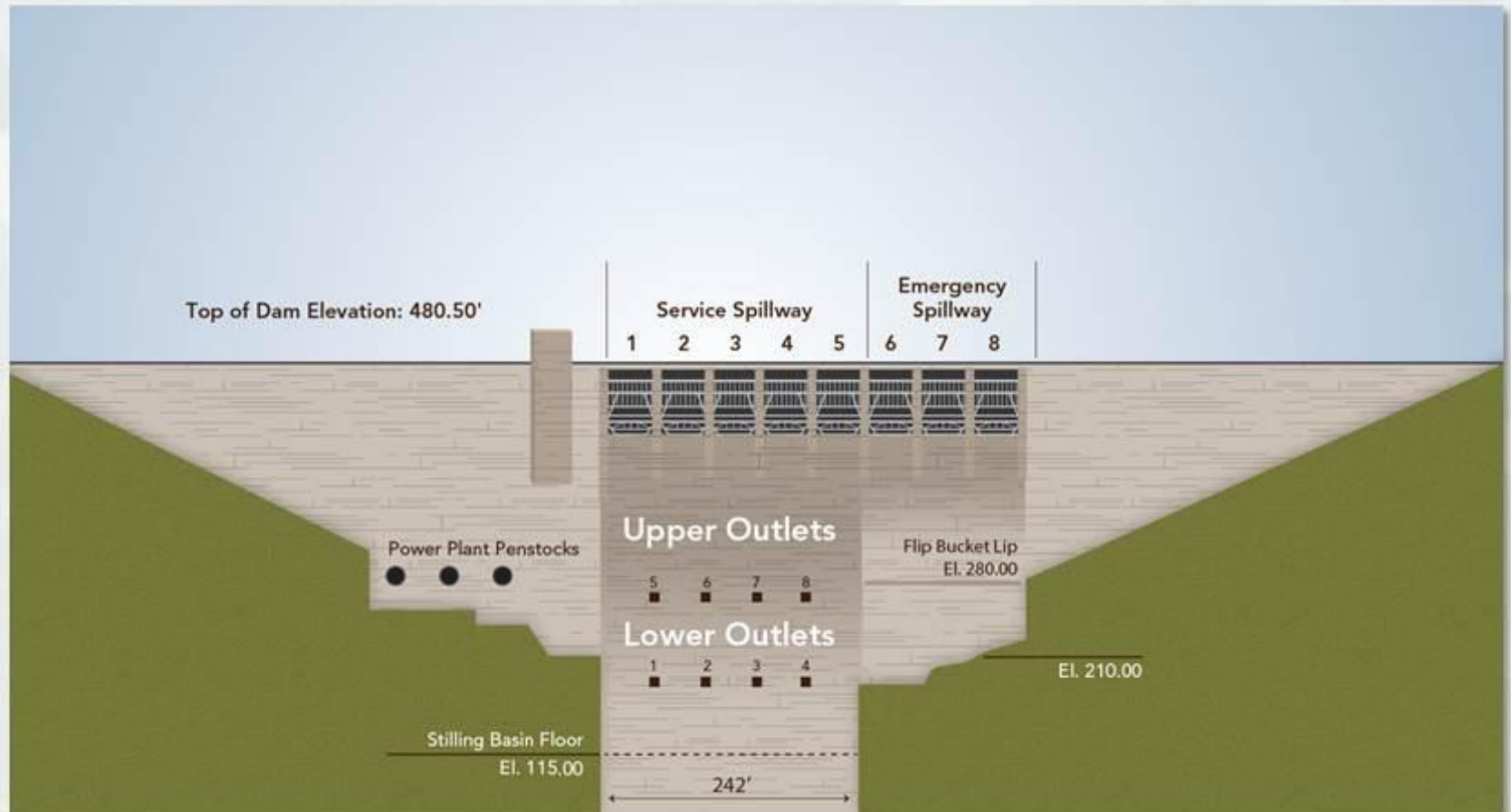
# Folsom Dam, As Built - 1956



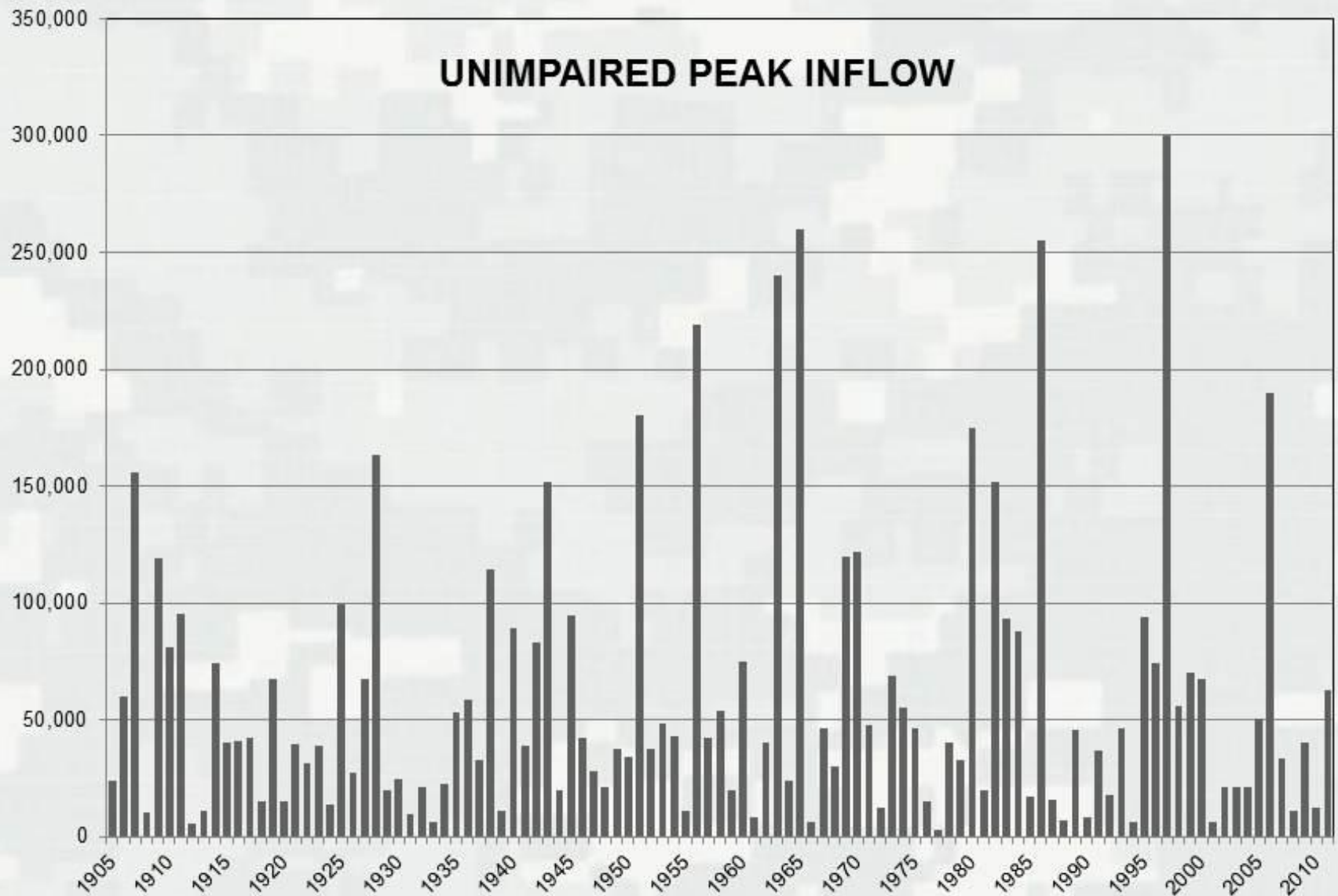
Construction of Folsom Dam began in 1948 and was completed in 1956. The original Rule Curve was developed utilizing a 60-day annual precipitation index.



# Folsom Dam, As Built - 1956



## UNIMPAIRED PEAK INFLOW



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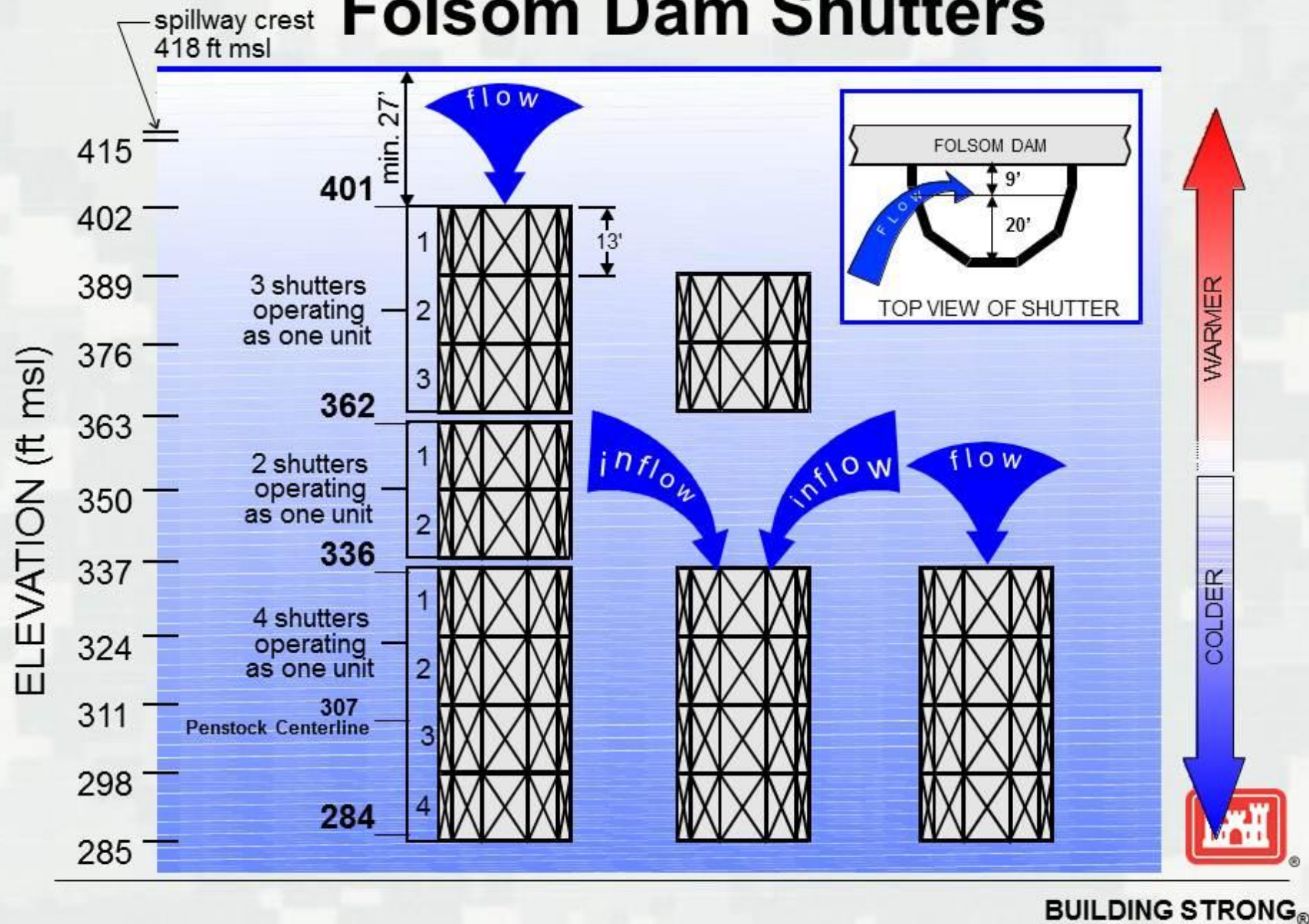


# Temperature Shutters on Penstocks for Selective Withdrawal



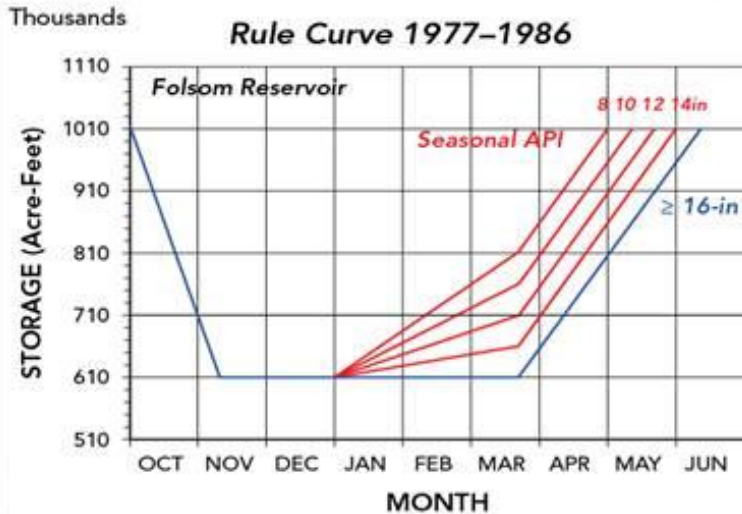
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# Folsom Dam Shutters



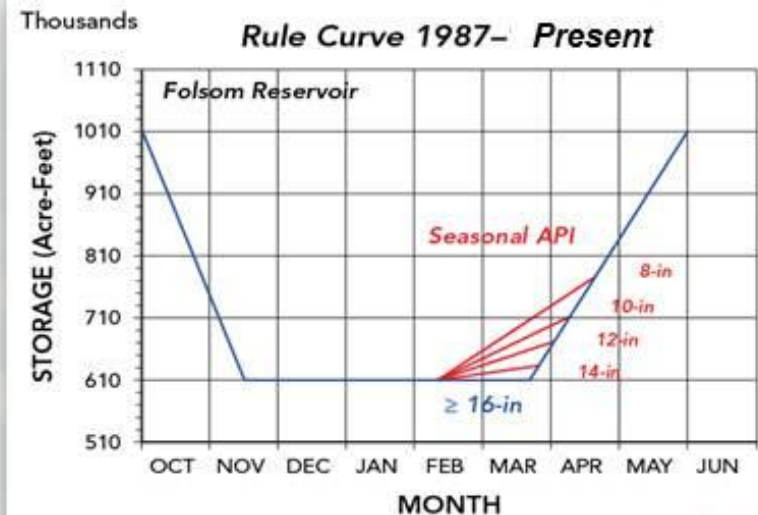


# Water Control Manual Updates



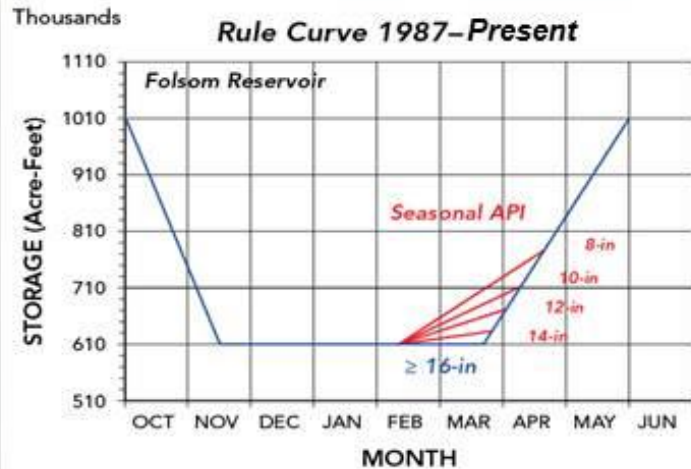
The Water Control Manual has been updated twice since construction. 1977 Rule Curve changes include reduction of the Seasonal API and initiation of reservoir filling based on seasonal hydrologic conditions.

1986 Rule Curve changes include modification to reservoir filling curves starting on February, again based on seasonal precipitation and hydrologic conditions.





# Current Operations



Sacramento Area  
Flood Control Agency

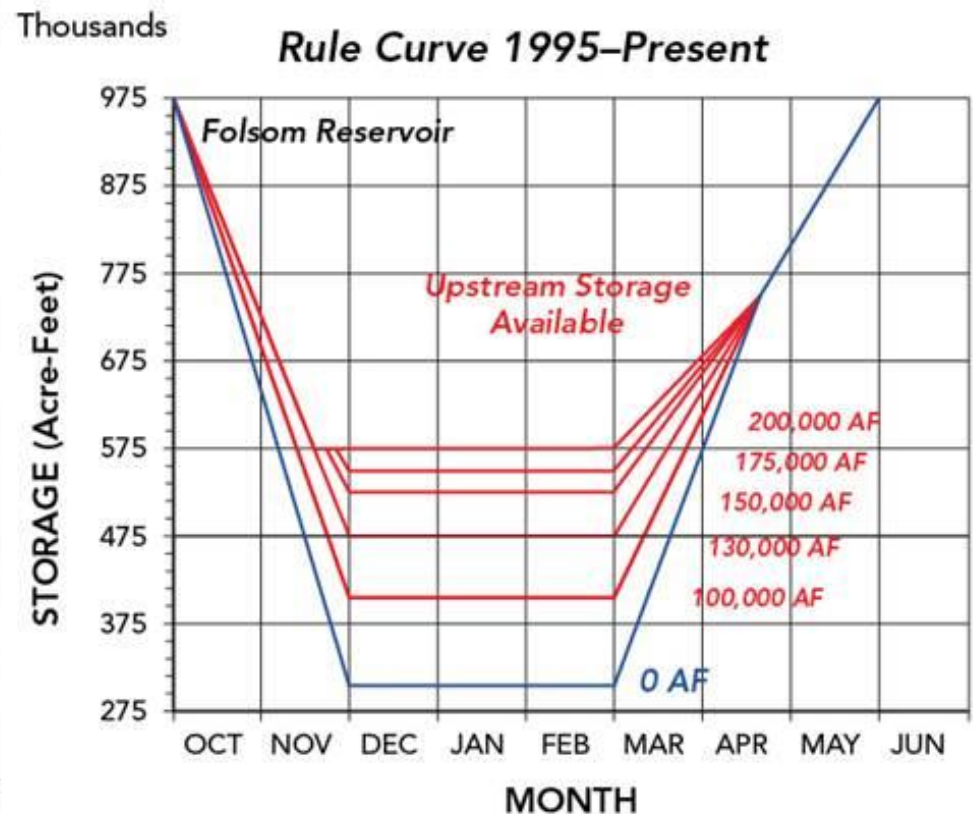


Reclamation  
Mid-Pacific Region  
Sacramento, CA

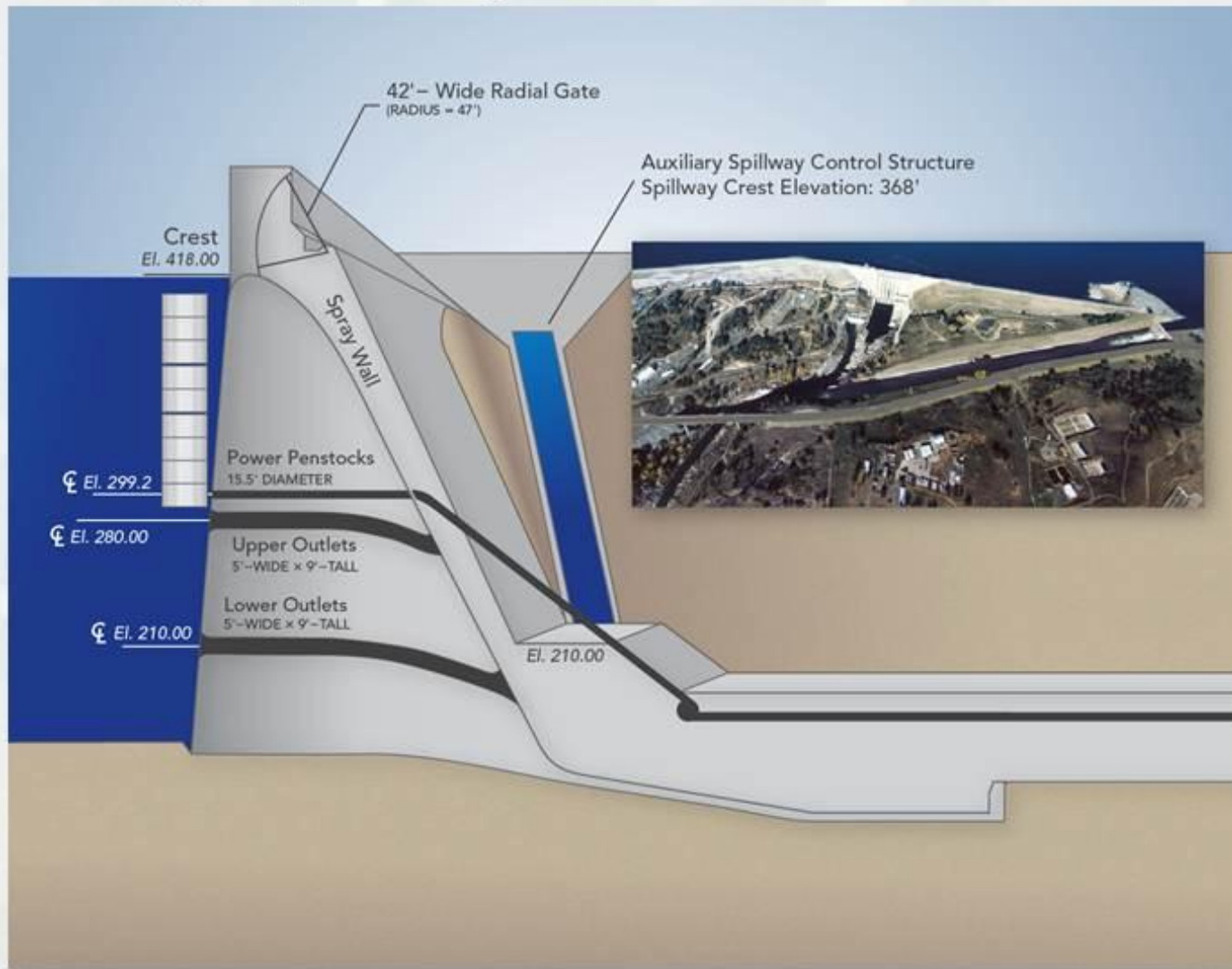


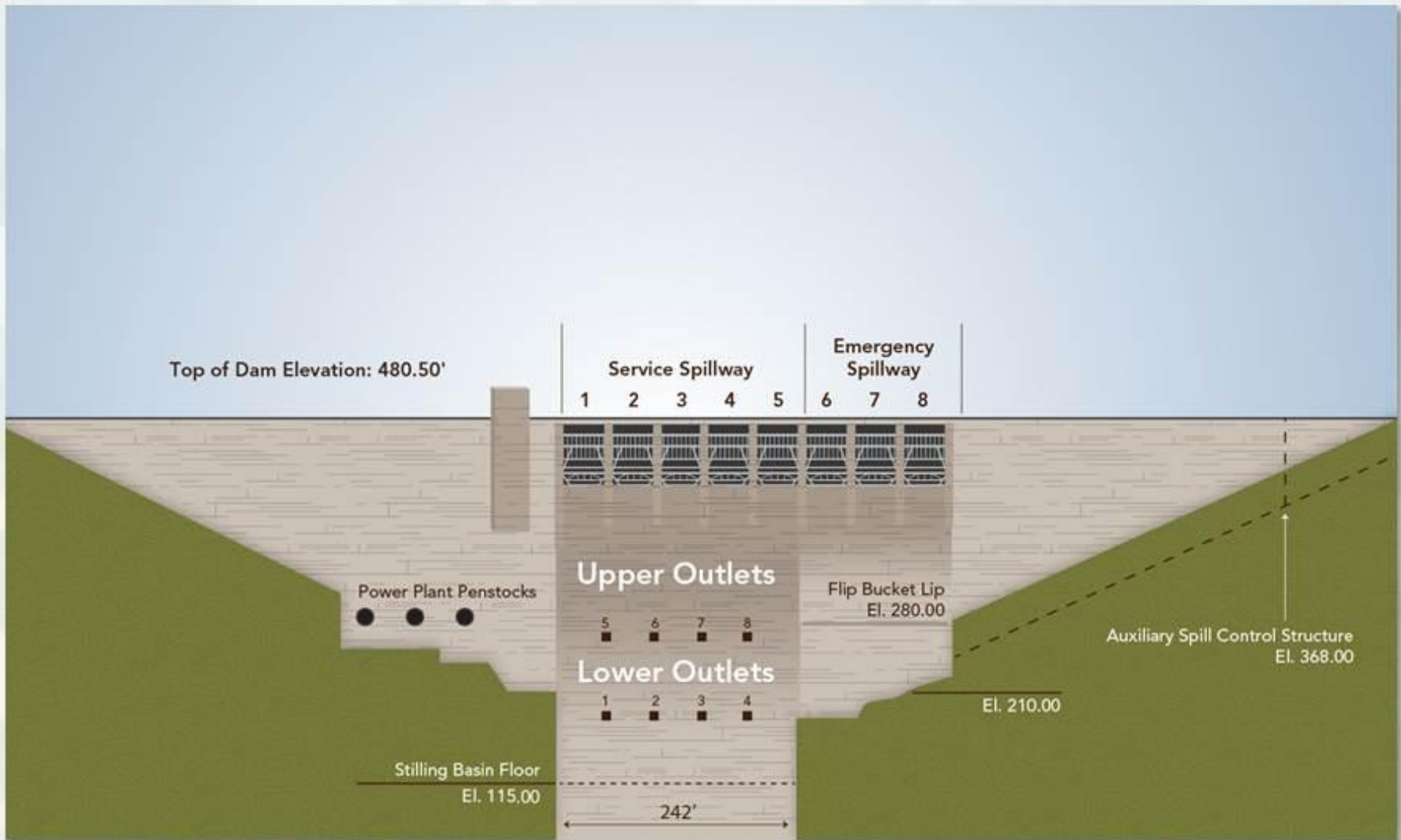
US Army Corps  
of Engineers  
Sacramento District

\*Requirements of both rule curves are met as part of current operations



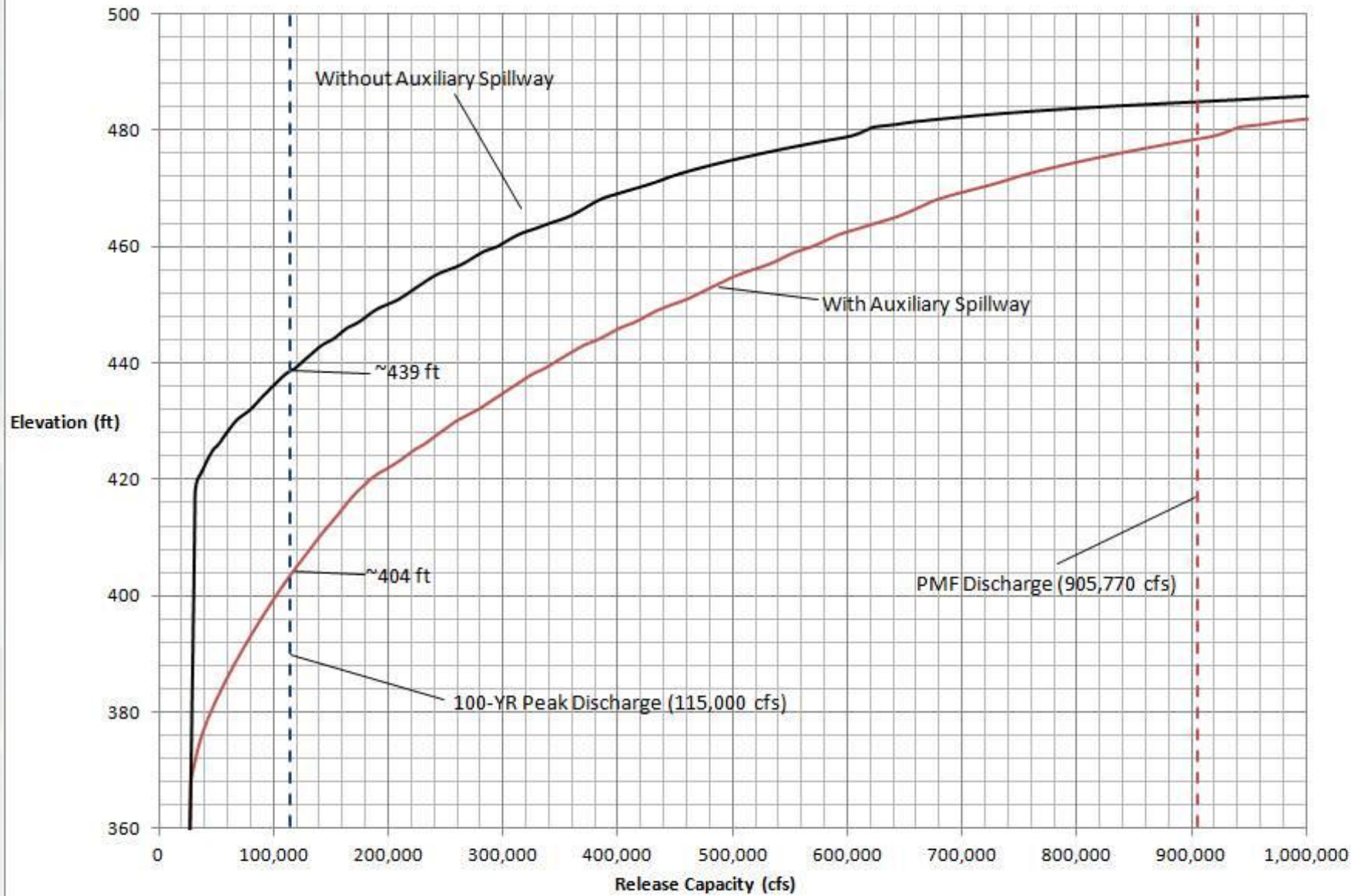
# Auxiliary Spillway – Current Construction





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## Total Release Capacity - With and Without Auxiliary Spillway



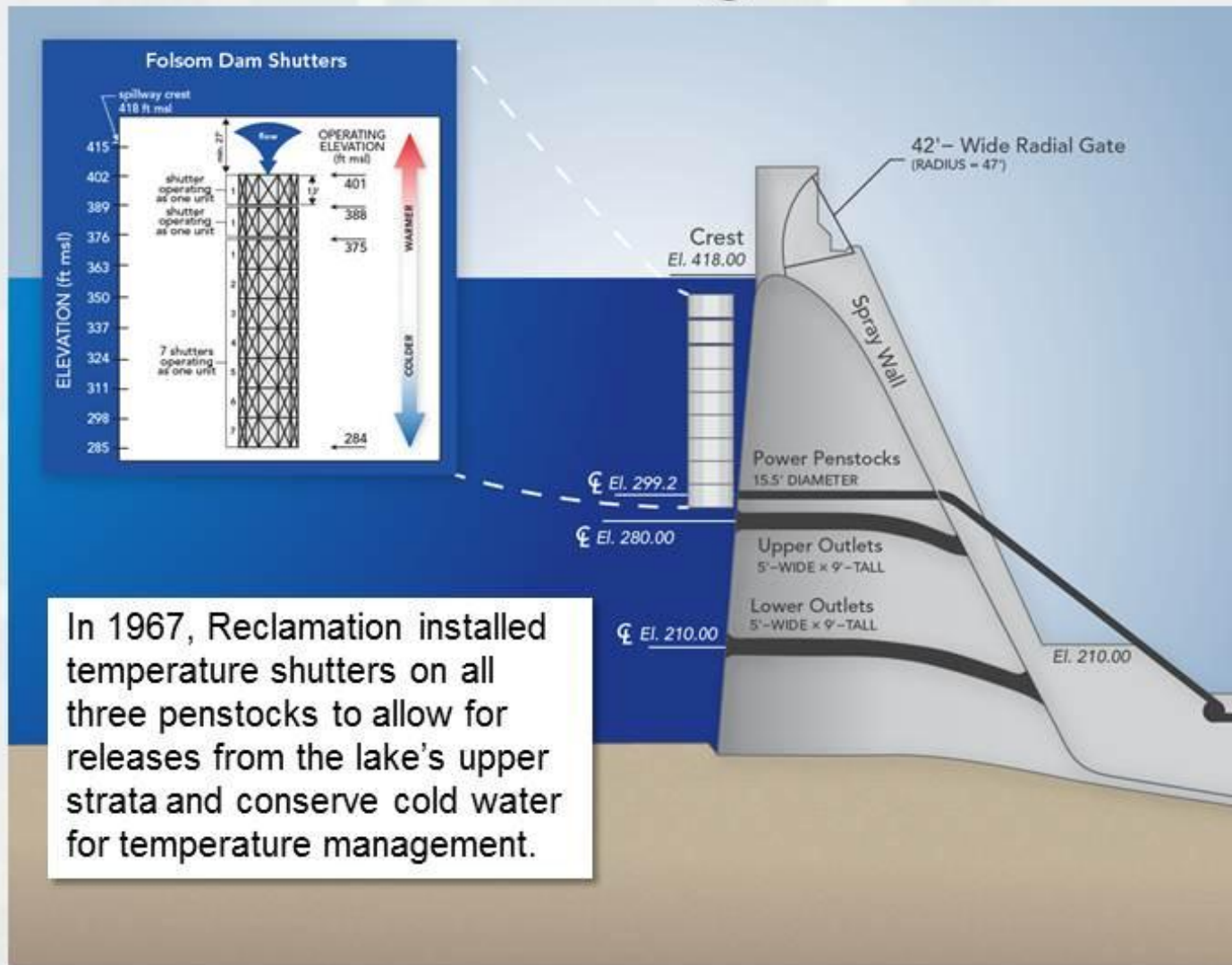


# Dam Raise – Future Construction

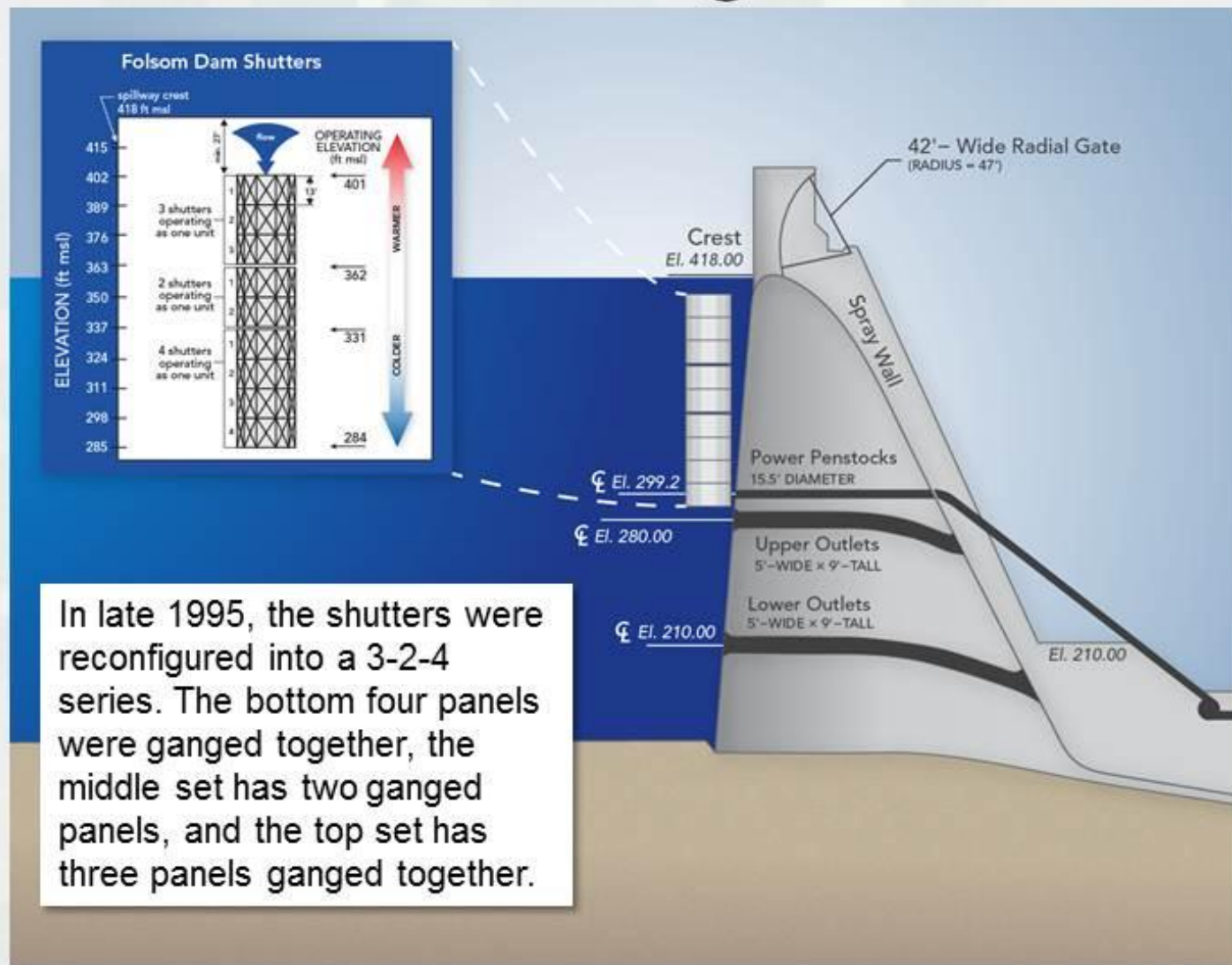


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# 1-1-7 Shutter Configuration - 1967



# 3-2-4 Shutter Configuration - 1995





# CURRENT PROJECT STATUS

- Hydrology
- Flood Routing Models
- Basin Wetness and Forecasts
- Manual Update Objectives
- Alternatives Development
- Collaboration





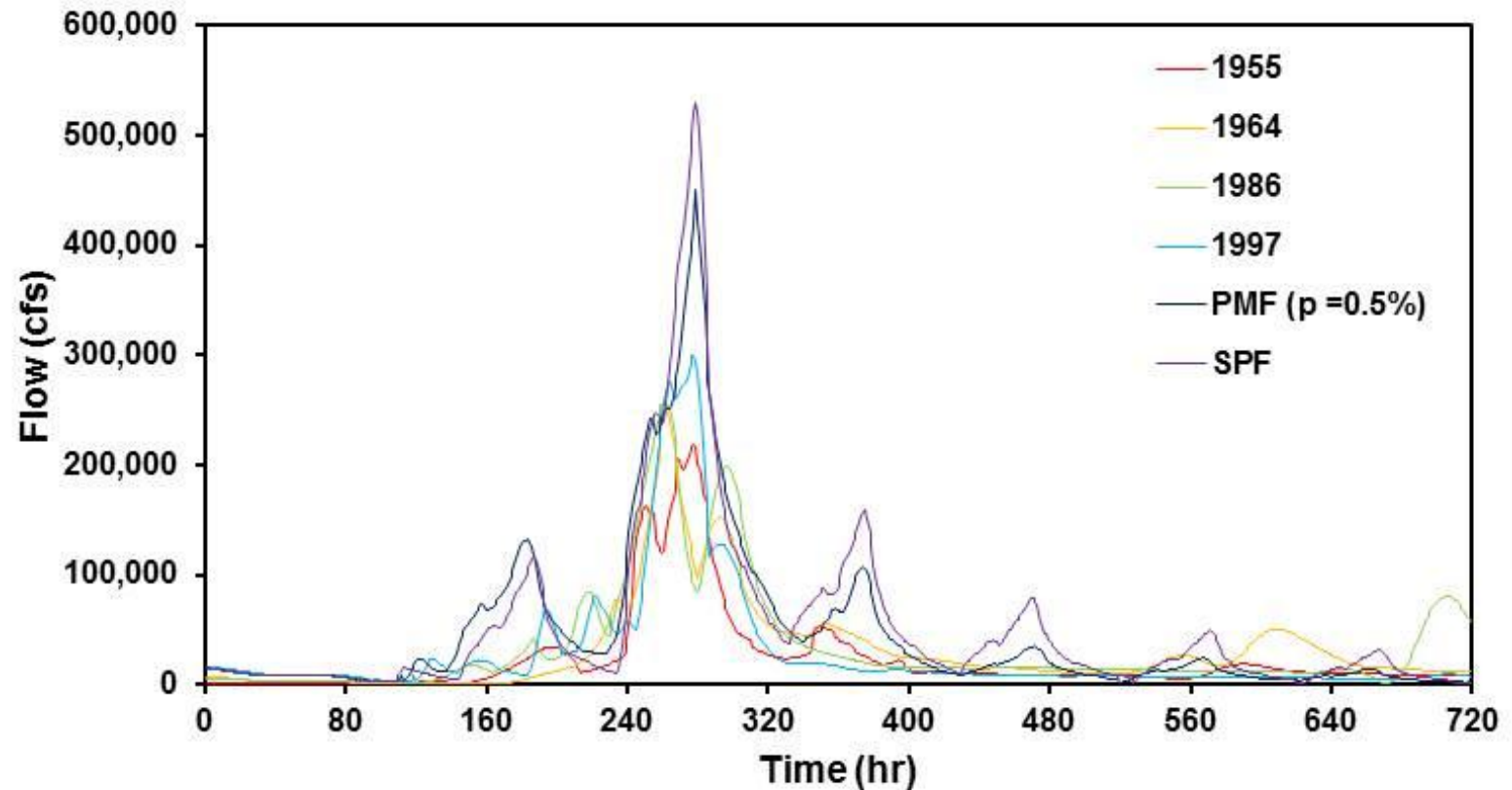
# Hydrology

- Models simulate an 86 year period of record (1922 – 2002)
- Models simulate 43 exceedence events ( $< 1\text{yr} \rightarrow \text{PMF}$ )
- Inflow hydrology is structured around historical patterns:  
'55, '64, '86, '97, SPF, PMF

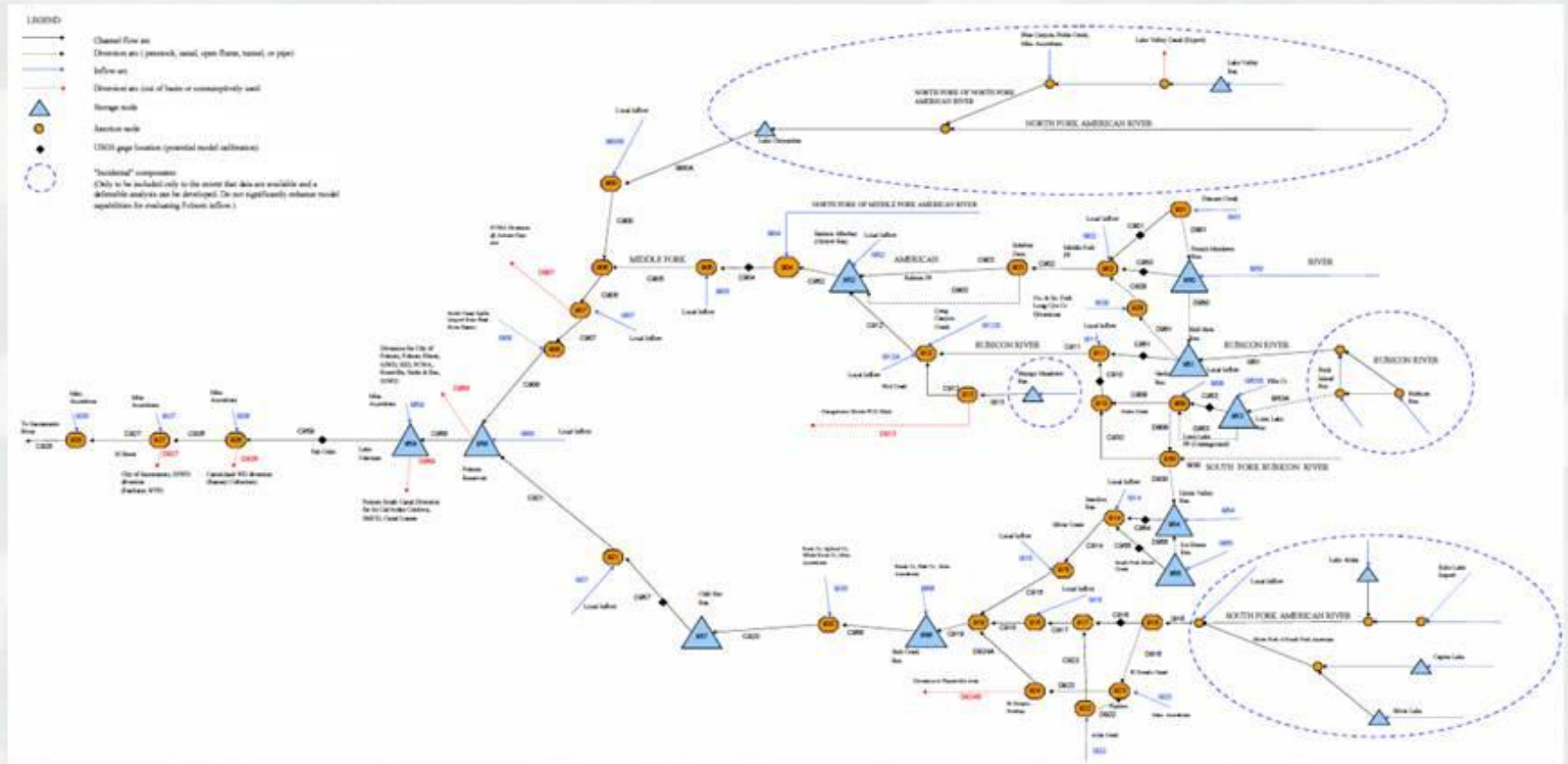


# Hydrology

## Unregulated Events, Unscaled



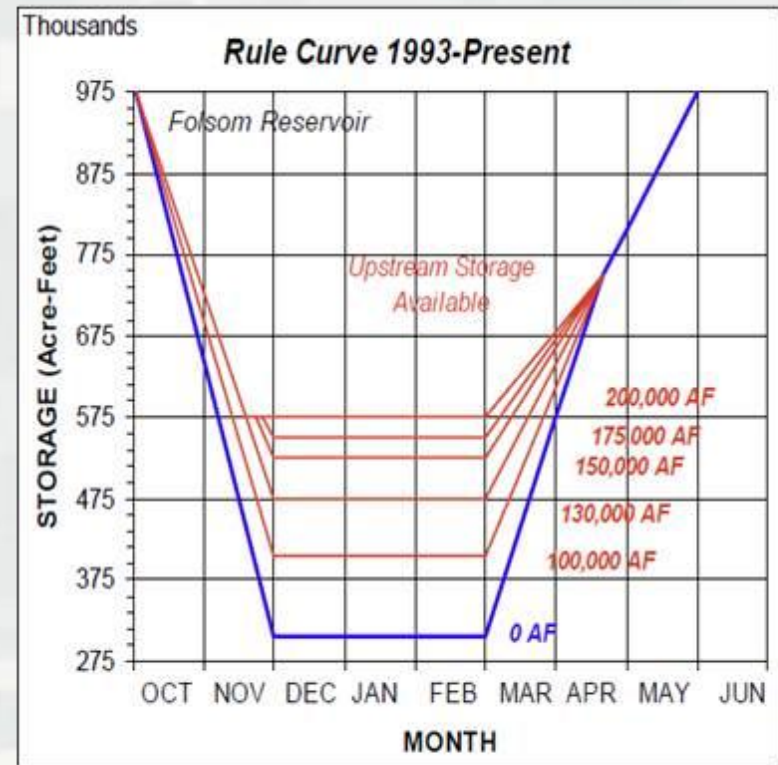
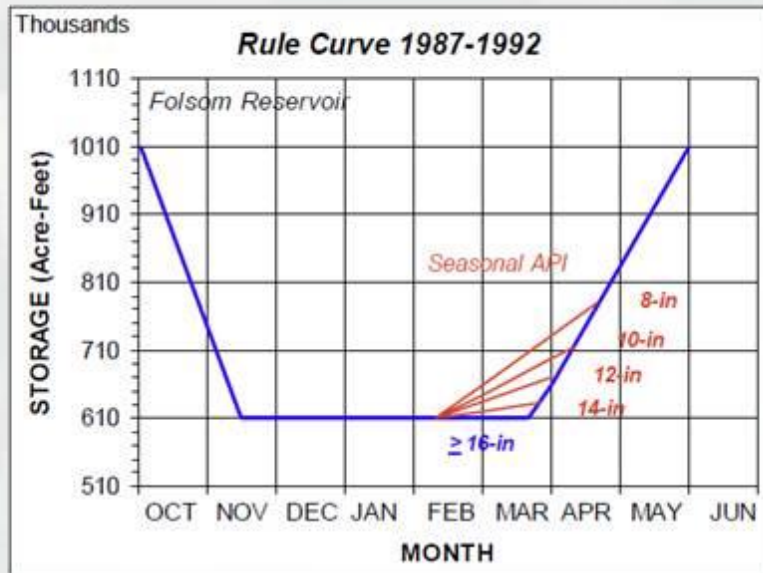
# Flood Routing Models



Loon Lake, Ice House, Union Valley – Hell Hole, French Meadows



# Basin Wetness & Forecasts





# Manual Update Objectives

- Pass the Probable Maximum Flood (PMF) while maintaining 3 feet of freeboard below the top of dam.
  - ▶ Meets Reclamation's Dam Safety Requirements.



# Manual Update Objectives

- Control a 1/100 annual chance flow (i.e. “the 100-year flood”) to a maximum release of 115,000 cubic feet per second (cfs).
  - ▶ Supports FEMA levee accreditation along the American River.



# Manual Update Objectives

- Control a 1/200 annual chance flow (i.e. “the 200-year flood”) to a maximum release of 160,000 cfs.
  - ▶ Supports California urban area flood protection standards.



# BASIS OF ALTERNATIVE DEVELOPMENT

- Flood Storage: As authorized by Congress, 400/600 TAF
- Outlet Configuration: Existing outlets and auxiliary spillway
- TCD Configuration: 3-2-4 shutter configuration
- Operating Rules: Rule curves that derive flood storage reserve requirements from some combination of the following:
  - ▶ Storage Reserve in Folsom Reservoir
  - ▶ Basin Wetness
  - ▶ Forecast Information





# **ENVIRONMENTAL EFFECTS ANALYSIS**



# NEPA and CEQA

*Corps of Engineers*

**NEPA Lead Agency**

*Central Valley Flood Protection Board*

**CEQA Lead Agency**

*Bureau of Reclamation*

**NEPA Cooperating Agency**

*Department of Water Resources*

**CEQA Responsible Agency**

*Sacramento Area Flood Control Agency*

**CEQA Responsible Agency**



# Effects Analysis Overview

- Environmental effects analyses will be centered around effects flood management operations alternatives would have on the other Folsom Dam Project purposes:



# Effects Analysis Overview

- Based on previous environmental analysis approach for past flood management operation changes (e.g., Long-term Reop)
- Key resources: water supply, power supply, fisheries, water quality, terrestrial resources, and recreation



# Effects Analysis

- Based primarily on output from the CalSim II model, but will include other models, such as:
  - ▶ Water temperature models (Reclamation and Water Forum)
  - ▶ Fish mortality models (Reclamation)
  - ▶ Delta Simulation Model 2 (DSM 2)
  - ▶ Economic models (SWAP, LCPSim, OMWEM)
  - ▶ Power Generation (LTGen and SWPGen)
  - ▶ Others





# Water Resource Management Conditions for Effects Evaluation

- CalSim II Build from 2011 DWR Delivery Reliability Report subject to concurrence between USACE, Reclamation and DWR
  - ▶ Base model concurrence in October 2012
- Any minor modifications to base model assumptions will be further discussed by the partner agencies



# Folsom Reservoir

## Flood Operation and Configuration

### Baseline Conditions- Pre-Existing Condition

- Flood Storage: 400 TAF (Fixed)
- Outlet Configuration: Existing (No Auxiliary Spillway)
- TCDs: 1-1-7 Shutter configuration
- Operations: 1987 Water Control Manual





# Folsom Reservoir

## Flood Operation and Configuration

### Baseline Conditions- CEQA Existing Conditions

- Flood Storage: 400/670 TAF
- Outlet Configuration: Existing (No Auxiliary Spillway)
- TCDs: 3-2-4 shutter configuration
- Operations: Current



# Folsom Reservoir

## Flood Operation and Configuration

### Baseline Conditions- NEPA Future No Action/No Project

- Flood Storage: 400/670 TAF
- Outlet Configuration: Existing plus Auxiliary Spillway (JFP)
- TCDs: 3-2-4 shutter configuration
- Operations: Current

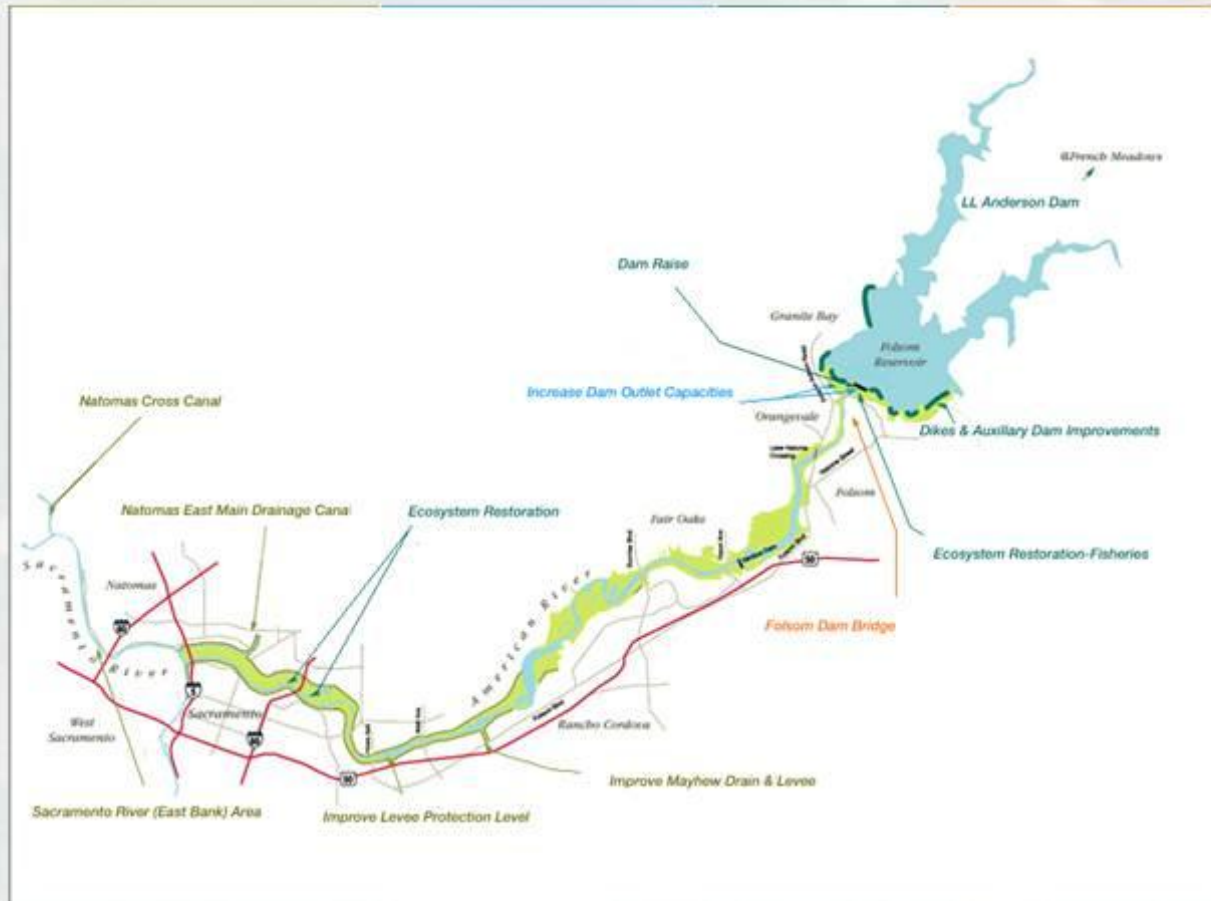


# Approach to Effects Analysis

- Comparison of alternatives to baseline conditions
  - ▶ Long-term average values (period of record) and sorted by water year type
- Closer evaluation of effects in Lower American River
- Screening level evaluation for more distant parts of CVP/SWP system followed by detailed evaluation, as needed



# Local Project Area





# Regional Project Area



# Tier 3 Work Plan

- Roadmap for effects analysis
- Developed with input from partners, NMFS, FWS, NCPA, DFG, and State Parks at Tier 3 Working Group Meetings



# Ag, M&I Water Supply

Model Parameter	Index Location
Central Valley Project (CVP) deliveries (TAF)	Refuges north and south of Delta (NOD, SOD, respectively) Lower American River Water Purveyors City of Folsom Sacramento Suburban Water District Placer County Water Agency City of Roseville San Juan Water District and Consortium In Sacramento San Juan Water District South Sacramento County Agriculture Sacramento Municipal Utility District Carmichael Water District City of Sacramento Municipal and Industrial (M&I) Contractors (NOD) Agricultural (Ag) Contractors (NOD) Settlement Contractors (NOD) M&I Contractors south of Delta (SOD) Ag Contractors (SOD) Exchange Contractors (SOD)
State Water Project (SWP) deliveries (TAF)	Upper Feather River Delta Exports
End-of- May Storage (TAF)	Shasta, Oroville, and Folsom Reservoirs
End-of-September Storage (TAF)	Shasta, Oroville, and Folsom Reservoirs





# Power

- CalSim II reservoir storages and releases applied to LTGen and SWPGen models
- Evaluation of:
  - ▶ Total capacity, quantity and timing of energy production
  - ▶ Any changes in Project use
  - ▶ Net capacity and energy at load center
  - ▶ Effects to peaking operations at Folsom Dam



# Fisheries Resources

- Effects analysis based on river flows, lake levels and water temperature modeling.
- Focus on special-status and recreationally important fish species.

## *Lower American River*

Species	Status
Central Valley spring-run Chinook salmon (non-natal rearing only)	Federally and state threatened
Central Valley fall-/late fall-run Chinook salmon	Federal species of concern State species of special concern Recreational and/or commercial importance
Central Valley steelhead	Federally threatened Recreational and/or commercial importance
Southern DPS of North American green sturgeon	Federally threatened State species of special concern
Hardhead	State species of special concern
River lamprey	State species of special concern
Pacific lamprey	Federal species of concern
Sacramento splittail	State species of special concern
Sacramento-San Joaquin roach	State species of special concern
American shad	Recreational and/or commercial importance
Striped bass	Recreational and/or commercial importance
Warmwater game fish*	Recreational and/or commercial importance



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# Fisheries Resources

Tool	Parameter Evaluated	Location
CalSim II	End-of-month reservoir water surface elevation End-of-month reservoir storage Average monthly flow	American River watershed CVP/SWP region
CalSim II	Delta Outflow X2 Old and Middle Rivers (OMR) Flows	Delta
Upper Sacramento River Daily Operations Model (USRDOM)	Daily average flows	Upper Sacramento River
Reclamation Water Temperature	Average monthly water temperature	American River watershed CVP/SWP region
Upper Sacramento River Water Quality Model (USRWQM)	Daily average water temperature	Upper Sacramento River
DSM 2	Hourly electrical conductivity ([EC], indicative of salinity) Hourly water temperature	Delta
HEC-RAS	Daily average hydraulics Daily average and hourly temperature	Lower American River
Flow-Habitat Relationships	Average monthly Chinook salmon and steelhead spawning habitat availability (Weighted Useable Area [WUA])	Lower American River Lower Feather River Upper Sacramento River
Flow-Habitat Relationships	Useable Flooded Area (UFA) – splittail spawning habitat	Lower American River Lower Feather River
Reclamation Salmon Mortality Model	Water temperature-related early life stage mortality of all runs of Chinook salmon	Lower American River Lower Feather River Upper Sacramento River Trinity River
Export-Salvage Density Relationships	Estimated salvage of fish	CVP and SWP south Delta pumping facilities
Interactive Object-Oriented Simulation (IOS)/Delta Passage Model (DPM)	Winter-run Chinook salmon life cycle	Sacramento River and Delta
Sacramento River Ecological Flow Tool (SacEFT)	Steelhead spawning habitat availability, redd dewatering, redd scour, juvenile habitat availability, juvenile stranding, and egg-to-fry survival Green sturgeon water temperature-related egg mortality	Upper Sacramento River
SALMOD	Juvenile Chinook salmon production	Sacramento River





# Water Quality

- Parameters evaluated as part of the Fisheries analysis:
  - Water temperature in the Lower American River
  - Salinity dynamics in the Delta
- Salinity dynamics in the Delta
  - addressed at a screening level (changes in X2, total Delta inflow/outflow, and the E/I ratio).
  - Substantial changes may warrant more detailed evaluation using DSM2
- Salinity quality at key in-Delta points for local Ag and M&I supplies



# Terrestrial Resources

- Shoreline understory and wooded areas.
- Reservoir parameters:
  - ▶ water surface elevations
- Riverine parameters:
  - ▶ Flow





# Recreation

- Primary focus is Folsom Lake and Lower American River

- Folsom Lake

Water surface elevation as it relates to access, inundation, aesthetics, and time of year

- Lower American River  
Flows and timing





# Recreation

Reductions in water surface elevations for accessibility and safety thresholds evaluated to identify significant effects to recreation

Model Parameter	Index Location
Reservoir Water Surface Elevations	Trinity Shasta Keswick <u>Whiskeytown</u> Oroville Folsom
Flow	Lower American River at Nimbus Lower American River below H Street Sacramento River below Keswick Sacramento River below Freeport Feather River below <u>Thermalito Afterbay</u>



# Next Steps



# Questions and Comments



## **Appendix 4**

### **Power Point Presentation February and March 2013 Stakeholder Meetings**

Note Regarding Appendix 4: The information in this presentation was current as of the date listed. As the project progresses, information may evolve and change over time. For more current information, see <http://www.spk.usace.army.mil/Missions/CivilWorks/FolsomDamAuxiliarySpillway.aspx>. Readers can access material on Folsom Dam Water Control Manual Update on the lower right side of the page.





# Folsom Dam Water Control Manual Update

## Stakeholder Discussion

March 28, 2013

*Location: Tsakopoulos Library Galleria,  
East Room, 828 I Street, Sacramento*



Reclamation  
Mid-Pacific Region  
Sacramento, CA



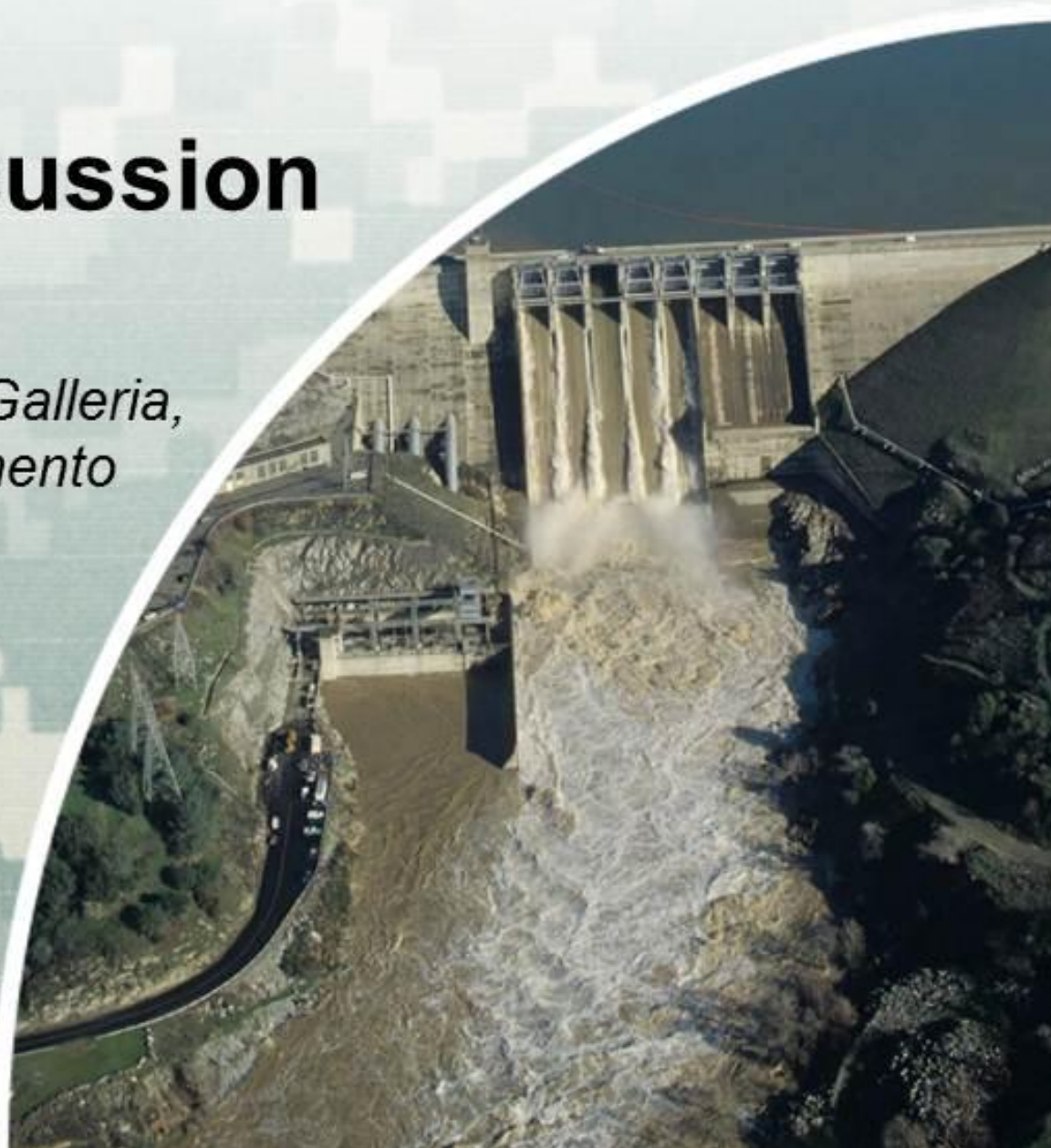
Sacramento Area  
Flood Control Agency



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US Army Corps of Engineers  
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# WELCOME AND INTRODUCTIONS



# PURPOSE OF MANUAL UPDATE

- Revise operation rules for Folsom Dam to reduce flood risk based on the capabilities of the Folsom Joint Federal Project (JFP).
- Reflect operational capabilities created by improved weather forecasts.
- Potentially reduce the volume of flood control reservation in Folsom Reservoir at any particular time by comparison to the operations that have been in effect since 1995.



# PURPOSE OF TODAY'S SESSION

- Review project schedule
- Present/discuss stakeholder assessment
- Discuss stakeholder engagement plan
- Present/discuss technical update
- Discuss next steps



# PROJECT MILESTONE SCHEDULE





<i>Oct 2012</i>	<i>NEPA/CEQA Initial Public Scoping</i>
Apr 2012–Aug 2013	Develop and Run Existing Condition Reservoir Routing Models
<i>Apr 2012–Jul 2013</i>	<i>Stakeholder Input for Existing Condition Models</i>
Jun 2013–Dec 2013	Develop and Run Future without Project Conditions Models
<i>Nov 2013–Oct 2014</i>	<i>Stakeholder Input for Future without Project Conditions</i>
Sept 2013–Sept 2014	Establish Existing System Water Operations Conditions
<i>Jun 2013–Apr 2014</i>	<i>Stakeholder Input for Existing Conditions</i>
Oct 2013–Sept 2014	Develop and Run With Project Alternative Models
<i>Oct 2013–Aug 2014</i>	<i>Stakeholder Input for Project Alternative Models</i>
Jan 2014–May 2014	Establish Future without Project Environmental Condition
May 2014	In Progress Review Conference- SPD/USACE HQ
Jan 2014–Feb 2015	Establish with Project Environmental Conditions and carry out Environmental Effects Analysis for With-Project Alternatives
<i>Jan 2014–Dec 2014</i>	<i>Stakeholder Input for with Project Environmental Conditions and Effects Analysis for With Project Alternatives</i>
Jan 2015–Mar 2015	Identification of Recommended Plan with Input from Stakeholders
Jul 2015	In Progress Review Conference- SPD/USACE HQ
Nov 2015	In Progress Review Conference- SPD/USACE HQ
<i>Jan 2016</i>	<i>Public Review of Draft EIS/EIR</i>
Mar 2016	Response to Public Comment of Draft EIS/EIR
<i>Aug - Sep 2016</i>	<i>Public Review of Final EIS/EIR</i>
Oct 2016	CEQA Notice of Determination
Oct 2016	NEPA Record of Decision
Nov 2016	Final Approval of Water Control Manual Update

# **STAKEHOLDER ASSESSMENT & ENGAGEMENT PLAN**





# STAKEHOLDER ASSESSMENT

- Introduction
- Stakeholder Issues and Interests
- Assessment Findings



# ASSESSMENT INTRODUCTION

- Why do an Assessment?
- What Stakeholders were part of the Assessment?
- How was the Assessment done?
- What about other stakeholders?



# STAKEHOLDERS

- Regional Flood Management Entities
- Folsom Lake, Lake Natoma and Lower American River Recreational Interests
- Regional Environmental Organizations
- In-Basin Purveyors
- CVP and SWP Contractors
- Electric Power Utilities and their Associations



# HOW WAS ASSESSMENT DONE?

- Rigorous identification of stakeholders
- Five stakeholder-specific discussions in Sept.
- Significant outreach for stakeholder attendance
- Focus of September Discussions:
  - Engage stakeholders in policy & technical info
  - Understand stakeholders' interests & issues
  - Ask stakeholders how best to involve them





# WHAT ABOUT OTHER STAKEHOLDERS?

- Business Community
- Emergency Response Agencies
- Lower Sac/ North Delta
- Tribal
- Agencies/ parties w/ infrastructure in floodway (e.g. Caltrans)





# **STAKEHOLDER ISSUES & INTERESTS**

**What is an Interest?  
What is an Issue?**



# REGIONAL FLOOD ORGANIZATIONS INTERESTS

- Understanding/reducing impacts related to:
  - Planning and preparation
  - Financing maintenance & improvements
- Updating of population evacuation triggers (working with emergency management agencies)



# REGIONAL FLOOD ORGANIZATIONS ISSUES

- Bank erosion of channels downstream of Dam
  - Medium-sized flows more damaging over time
  - High flows are damaging if prolonged
- Increased Flows in the By-Pass
- Costs
  - Changes to PL 84-99 trigger?
  - Maintenance costs
  - Study to evaluate need for floodway compensation for damages



# **RECREATION FOLSOM LAKE/LAKE NATOMA INTERESTS**

- Lake levels to support recreation, especially May – September
- Continued advanced notification of high releases for informational and safety purposes





# RECREATION FOLSOM LAKE/LAKE NATOMA ISSUES

- Low Folsom Lake Levels
  - Boat ramp access
  - Distance from parking area
  - Loss of daily use revenue
  - Loss of revenue for marinas and concessions
- Safety of rowing events with high flows
- Modeling Analysis: Recreation use by lake levels, by month





# LAR RECREATION INTERESTS

- Recreational and safety impacts of flow levels and timing of flows, especially weekends  
May- September
- Effects to Sac County infrastructure with high flows
- Recreation Fishing: Health of Fisheries



# LAR RECREATION ISSUES

- Adequate Flows: 1750 – 6,000 cfs. Over 6000 cfs is a safety threshold
- LAR Infrastructure
  - Submerged trails, bike paths, bathrooms
  - Bank damage
  - Electrical equipment damage - Discovery Park
- Continued and expanded advance notification of high flows



# REGIONAL ENVIRONMENTAL ORGANIZATIONS INTERESTS

- Successful WCM Operations – Avoid need for new upstream dams to reduce flood risks
- Healthy fisheries, especially for salmon and steelhead, related to temperature/ cold water pool & flow regimens.





# REGIONAL ENVIRONMENTAL ORGANIZATIONS RESERVOIR OPERATIONS ISSUES

- Once all authorized improvements done to Folsom Dam, WCM ops control floods exceeding 1/200 frequency
- Water stored in flood space, in exchange for draw down of conservation space when warranted (Conditional Storage)
- WCM rules for early & aggressive release and forecasting for big storms
- Rules optimized, but not open flexibility



# REGIONAL ENVIRONMENTAL ORGANIZATIONS

## HEALTHY FISHERIES ISSUES

- Use WCM to improve cold water pool
- Con'd storage if “additional” water also used for:
  - USBR revised water right - LAR Flow Standard
  - Pulse releases provided Jan – May
- Understand fish stranding issue
- Authorized automatic shutters – Implement, unless effect achieved through other means
- Need Elephant Trunk





# IN-BASIN PURVEYORS INTERESTS

- Enhanced water supplies for the protection of in-basin M&I and environmental uses, particularly through a proactive approach to the acquisition and use of high quality basin wetness data



# IN-BASIN PURVEYORS ISSUES

- Folsom drawn down below M&I intake in back-to-back critically dry years.
- Investigate: Temporarily increase water held in storage, while carefully monitoring basin wetness & forecasts, until either the probability of significant near term precip. reaches level of concern for possible flooding, or water reaches level needed to diminish concern for drought.



# IN-BASIN PURVEYORS

## ISSUES (cont.)

- Thorough understanding of risks & benefits associated with different levels of flood and water storage
- More instrumentation for and monitoring, collection & use of watershed wetness data
- USACE/ USBR engage in process for establishing new Delta flow standards, as relates to WCM Update





# **CVP/SWP/ELECTRIC UTILITIES INTERESTS**

- Maximize water resources for all purposes
- CVP cost allocation implications related to WCM operations
- Informed decision-making on WCM through access to integrated input from other interests



# CVP/SWP/ELECTRIC UTILITIES ISSUES

- Optimize end of May storage for cold water pool & higher carry-over for critically dry years
- Flexible rule curve depending on basin wetness & forecasting
- Minimize releases that by-pass penstocks
- Update shutters to improve cold water pool





# **CVP/SWP/ELECTRIC UTILITIES ISSUES (cont.)**

- Track Delta standards discussion as relates to WCM, esp. as related to X-2 sensitivity analysis
- WCM affect on existing cost allocation & CVP Cost Reallocation Study
- Assumptions (e.g. hydrology; environmental) carried forward in other studies
  - Downstream environ. regulatory baseline coordination w/ CVP Cost Reallocation Study



# **ASSESSMENT FINDINGS**

## **Shared Perspectives & Potential Tensions among Stakeholders**



# SHARED PERSPECTIVES AMONG ALL

- WCM Update potential (not guarantee) to benefit all, particularly through Con'd Storage (increased end-of-May storage), increased Folsom Lake levels, and managed flood releases.
- Need for understanding risks and benefits associated with combined use of:
  - Auxiliary spillway
  - Increased basin wetness data
  - NWS forecasting application
  - Incidental storage in upstream Reservoirs





# SHARED PERSPECTIVES AMONG ALL

- Want better understanding:
  - What can be accomplished through basin wetness & forecasting tools
  - Effect of Folsom Dam raise and associated surcharge space on operations and impacts
- Informed decisions-making on WCM through access to integrated input from all interests
- WCM as opportunity to improve cold water pool



# POTENTIAL TENSIONS

- Historic tension between flood management & water supply: Balance of neither releasing water “too late” nor “too early” in face of uncertainties.
- “Additional” water potentially gained from conditional storage is CVP Project water. Although outside the scope of the WCM, this raises issues/ tensions re: use of that water.





# **STAKEHOLDER ENGAGEMENT PLAN**



# STAKEHOLDER ENGAGEMENT PLAN

## Three Different Needs Expressed

1. Periodic progress meetings and updates
2. More in-depth and frequent discussions
3. Focus on special topics - examples:
  - Basin wetness data: instrumentation, monitoring, collections and use
  - Improvement to cold water pool



# STAKEHOLDER ENGAGEMENT PLAN

1. Two – Three “Progress Meetings” a Year: All stakeholders invited
2. Three venues for in-depth and frequent discussions, designed to comply with FACA:
  - USACE Work Groups for governmental agencies (Water, power, other gov’t agencies)
  - SAFCA work groups and discussions for NGO’s (environmental and recreation organizations; others)
  - For Flood Organizations, SAFCA to integrate discussion of WCM into regional planning effort



# STAKEHOLDER ENGAGEMENT PLAN

## USACE Work Groups for Governmental Agencies

1. Technical Working Group: Discusses technical topics, including basin wetness  
Staff: Kyle Keer
2. Environmental Effects Working Group:  
Staff: Dan Artho





# STAKEHOLDER ENGAGEMENT PLAN

## SAFCA Forums for NGOs

(Environmental; Recreation Interests; Others)

1. SAFCA reconvening Lower American River Task Force. Will be co-sponsored by Water Forum. Half of meeting dedicated to WCM; half to LAR Flow Standard
2. SAFCA available for more in-depth discussions for topics not fully covered at LAR TF





## **SAFCA's Role with Environmental, Recreation, Regional Flood, other NGOs**

SAFCA has the responsibility to provide in-depth information on WCM to these groups and to share stakeholder perspectives with PASS Task Force, USACE Technical Working Group, USACE Environmental Effects Working Group, and other WCM meetings with USACE, USBR and DWR, and to advocate for the perspectives with which they agree.



# COLD WATER POOL ISSUE

- Perspective of WCM Update Agencies:  
Other than incidental gains, WCM does not have responsibility for improving cold water pool.
- USBR and SAFCA will work with stakeholder group on cold water pool issues. Interested stakeholders invited. Stay tuned for specifics.



# **QUESTIONS & DISCUSSION**

## **Stakeholder Assessment & Engagement Plan**





# CURRENT PROJECT ACTIVITIES

- Development of ResSim models to evaluate existing conditions, future without project conditions, and with project conditions.
- Development of methods for:
  - Developing a basin wetness index.
  - Incorporating forecasts in the operational decision process.
  - Integrating HEC-ResSim and CalSim II output for water supply assessments.





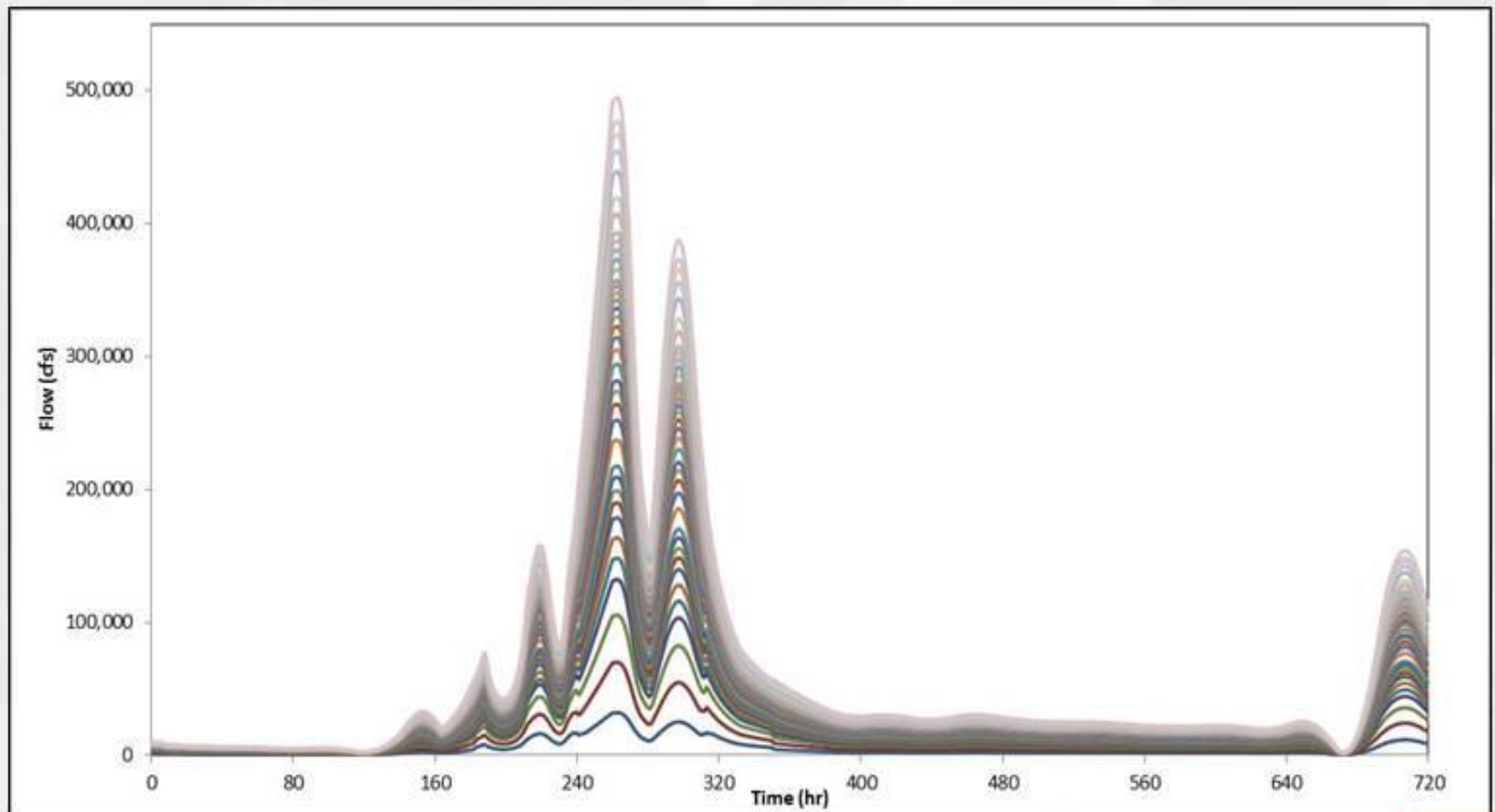
# RESSIM MODEL DEVELOPMENT PROCESS

- Build model with a reservoir operation set (ROS)(i.e., existing conditions and future auxiliary spillway).
- Test model to confirm that it meets project flood protection objectives (1%, 0.5%, and PMF).
- District Quality Control (DQC) Review.
- Revise model, as needed, until objectives are met (iterative).



# HYDROLOGY UPDATE

Unregulated Events, 1986 Pattern



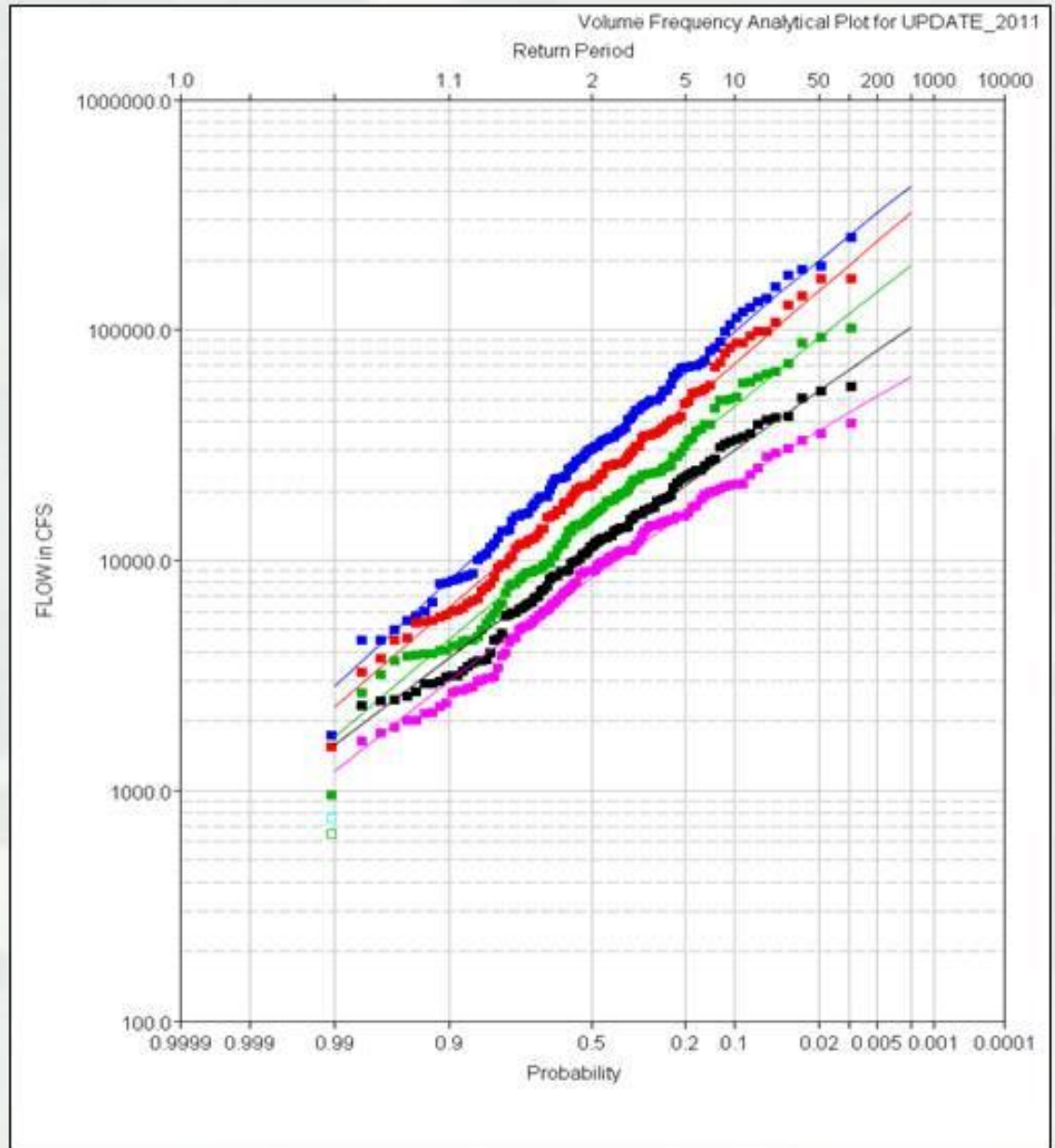
# HYDROLOGY UPDATE

## 1.0% Chance Exceedence Event

	1 Day cfs	3 Day cfs	7 Day cfs
1997	276,000	196,000	113,000
2006	267,000	188,000	112,000
2011	257,000	191,000	117,000
$\Delta\%$	-3.4	1.6	4.5

## 0.5% Chance Exceedence Event

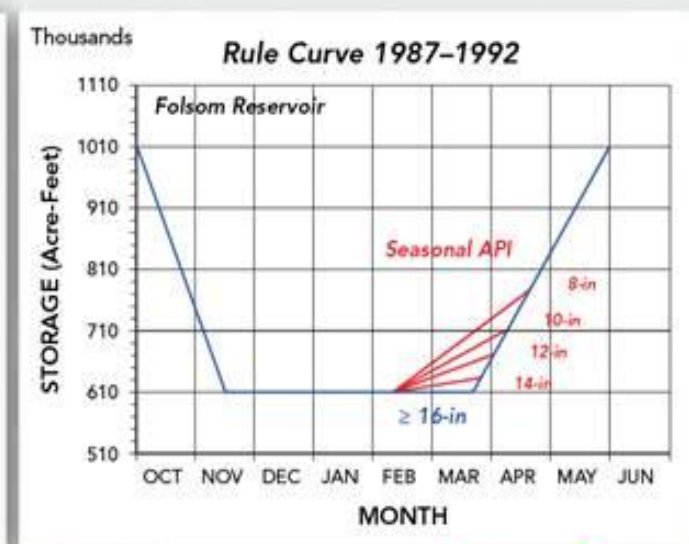
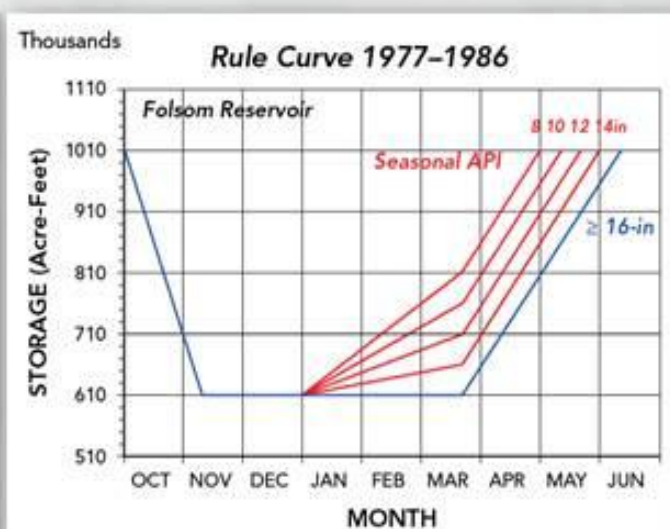
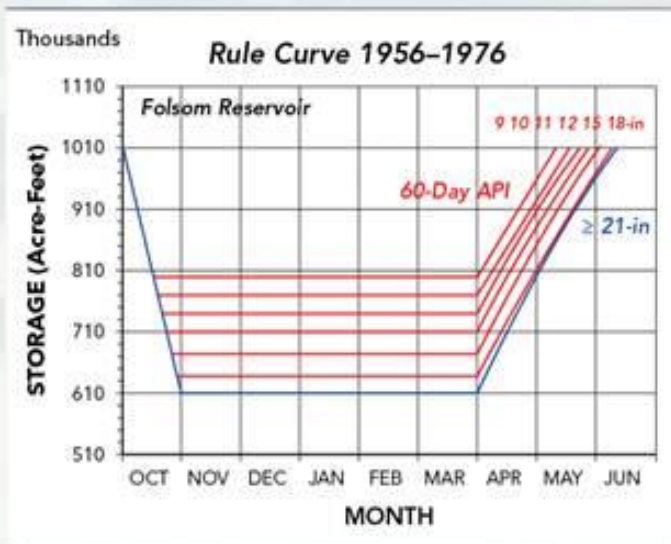
	1 Day cfs	3 Day cfs	7 Day cfs
1997	349,000	247,000	137,000
2006	337,000	237,000	138,000
2011	322,000	242,000	146,000
$\Delta\%$	-4.5	2.1	5.8





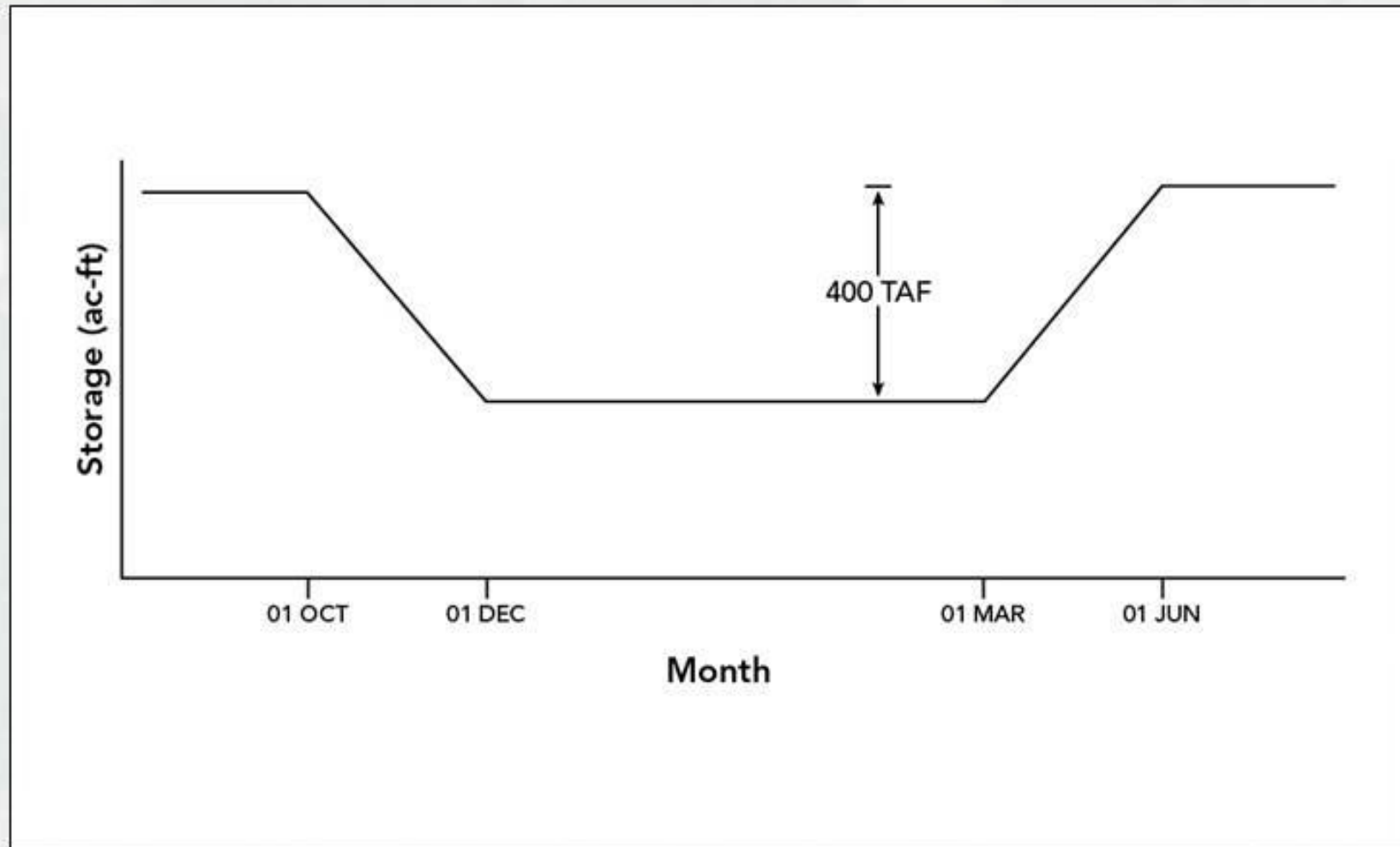
# INCORPORATING BASIN WETNESS & FORECASTS IN RESSIM MODELS

- Index could be based on basin precipitation, reservoir inflow, or projected snowmelt runoff.
- Index had been utilized in the past:

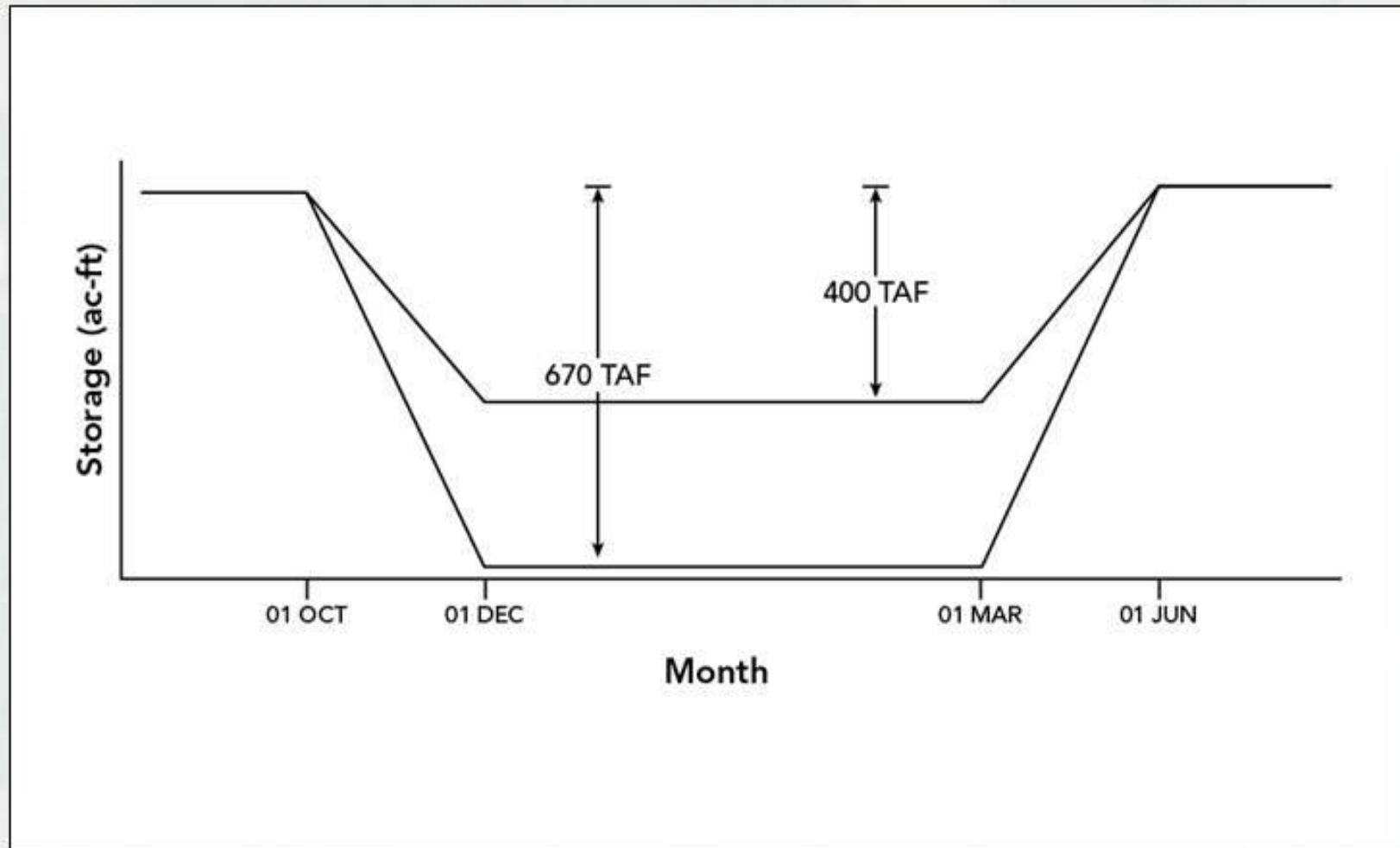




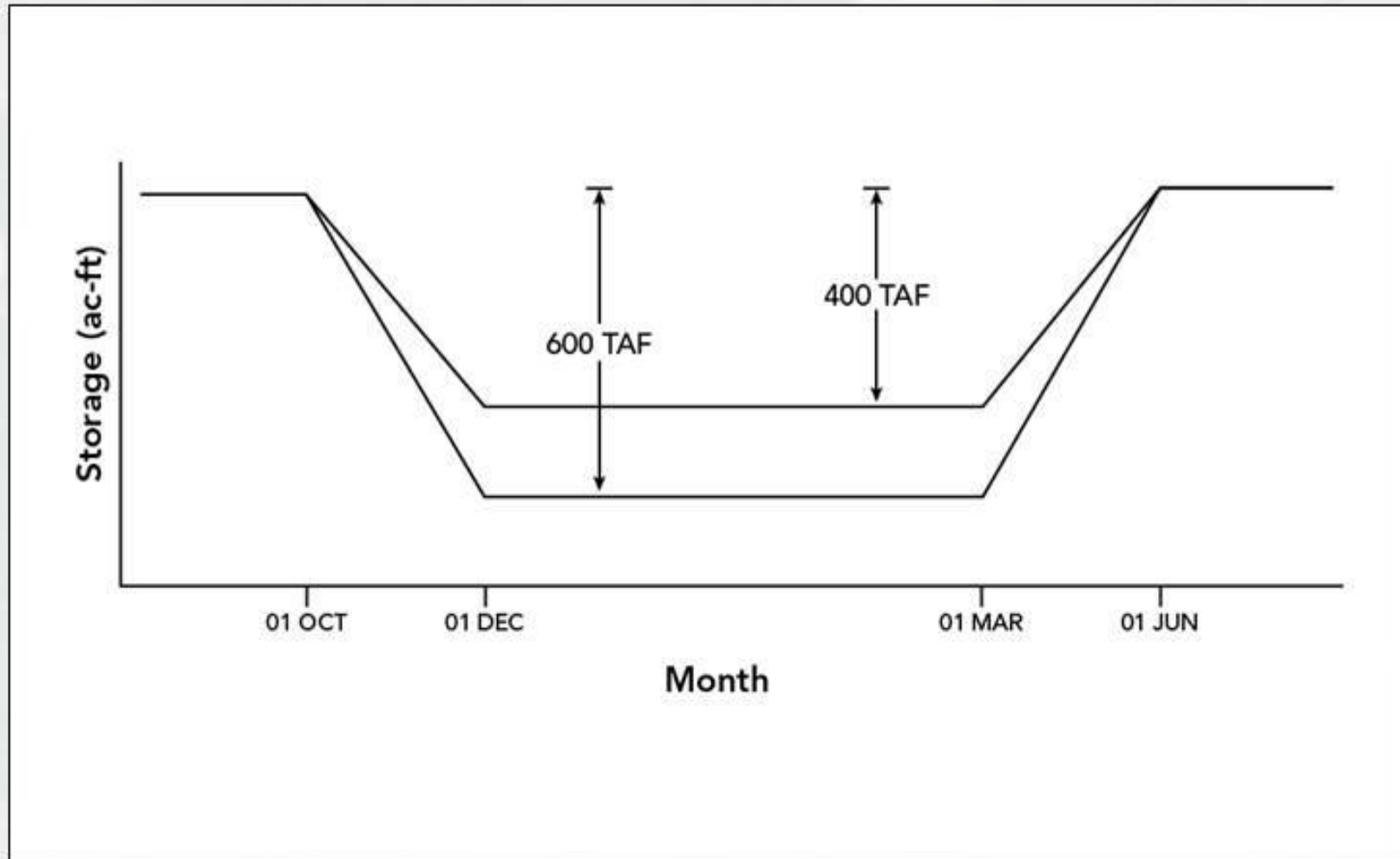
# 400-FIXED WCD



# 400/670 WCD

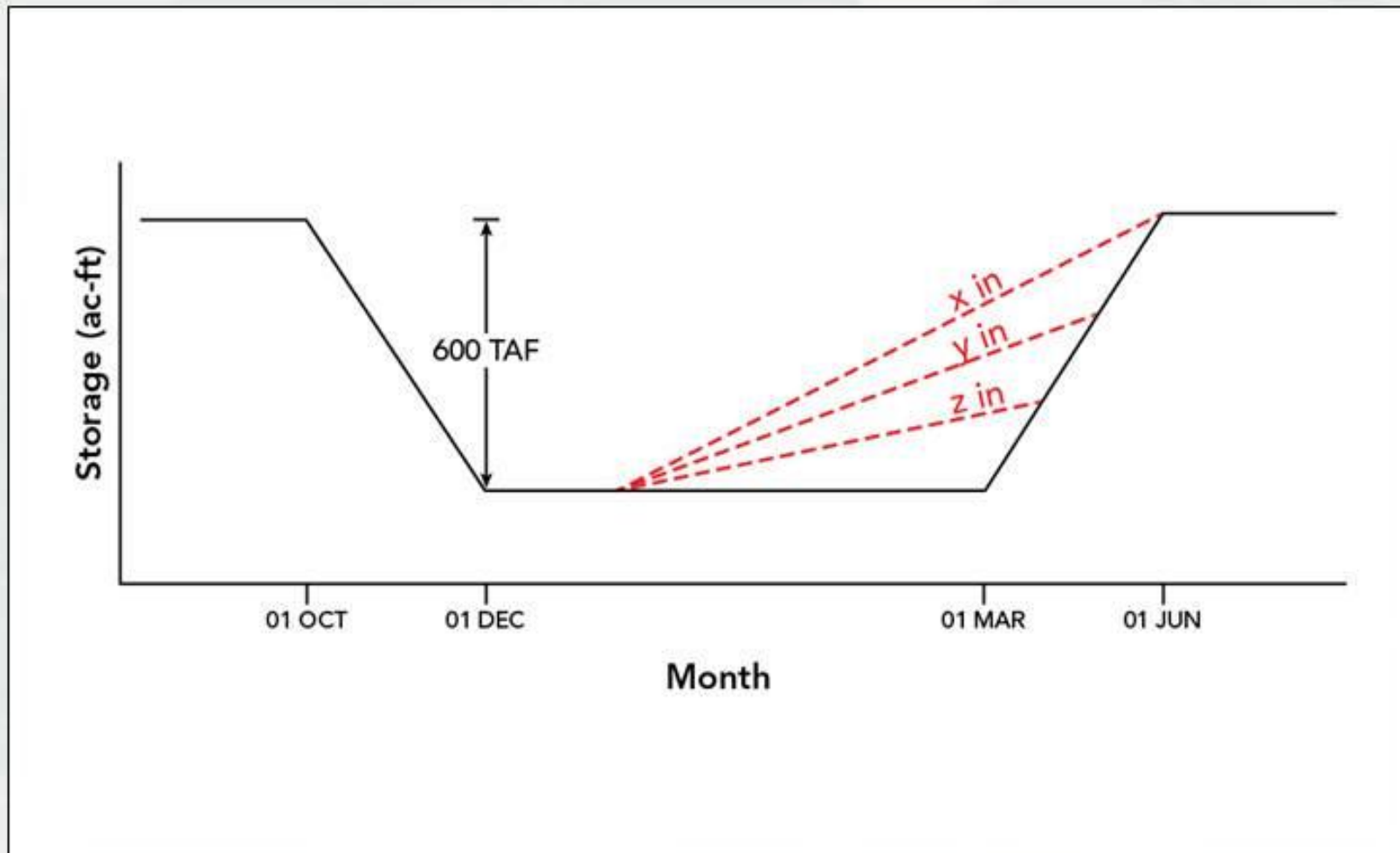


# 400/600 WCD



# BASIN WETNESS INDEX

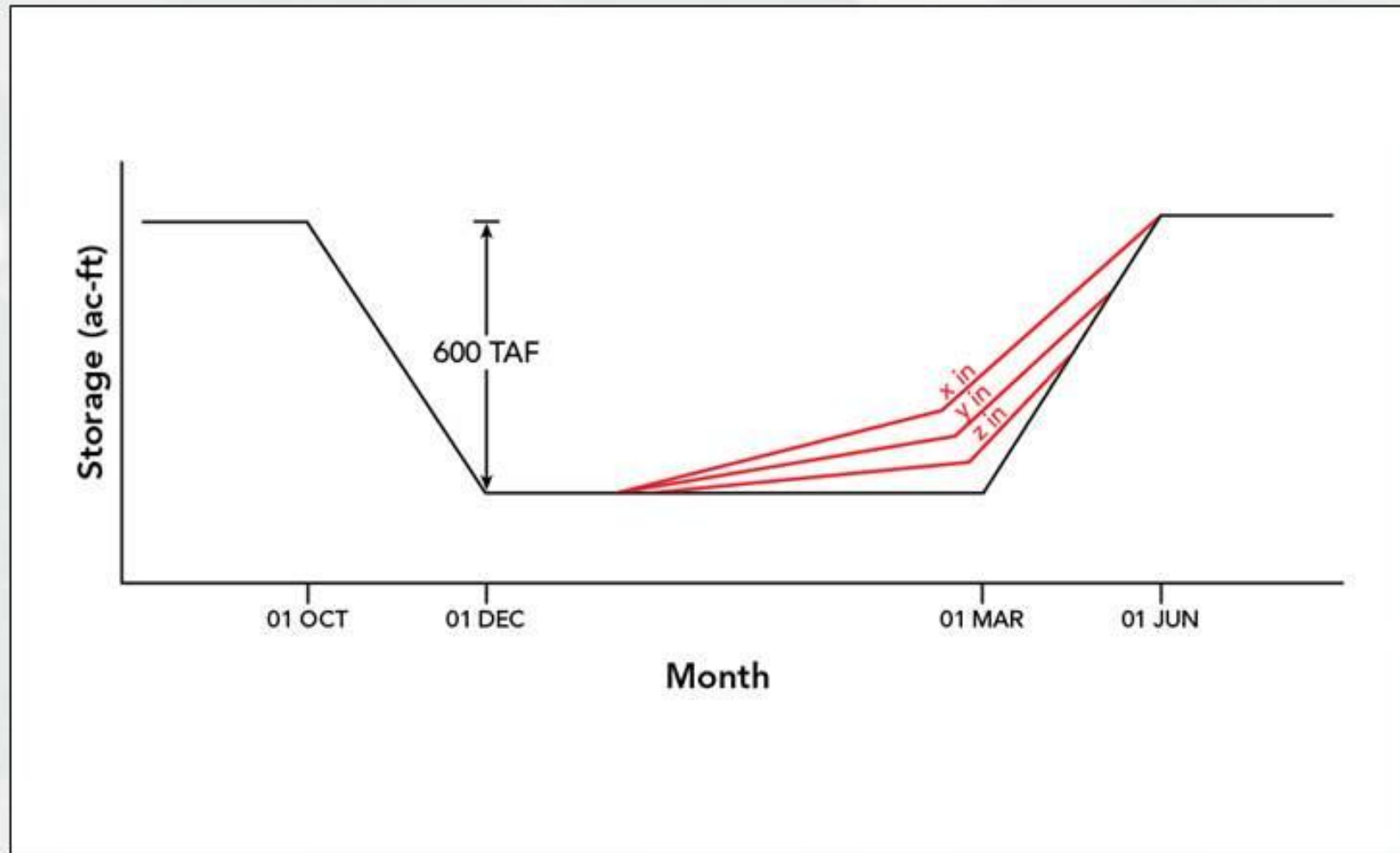
## TOP OF CONSERVATION ADJUSTMENT





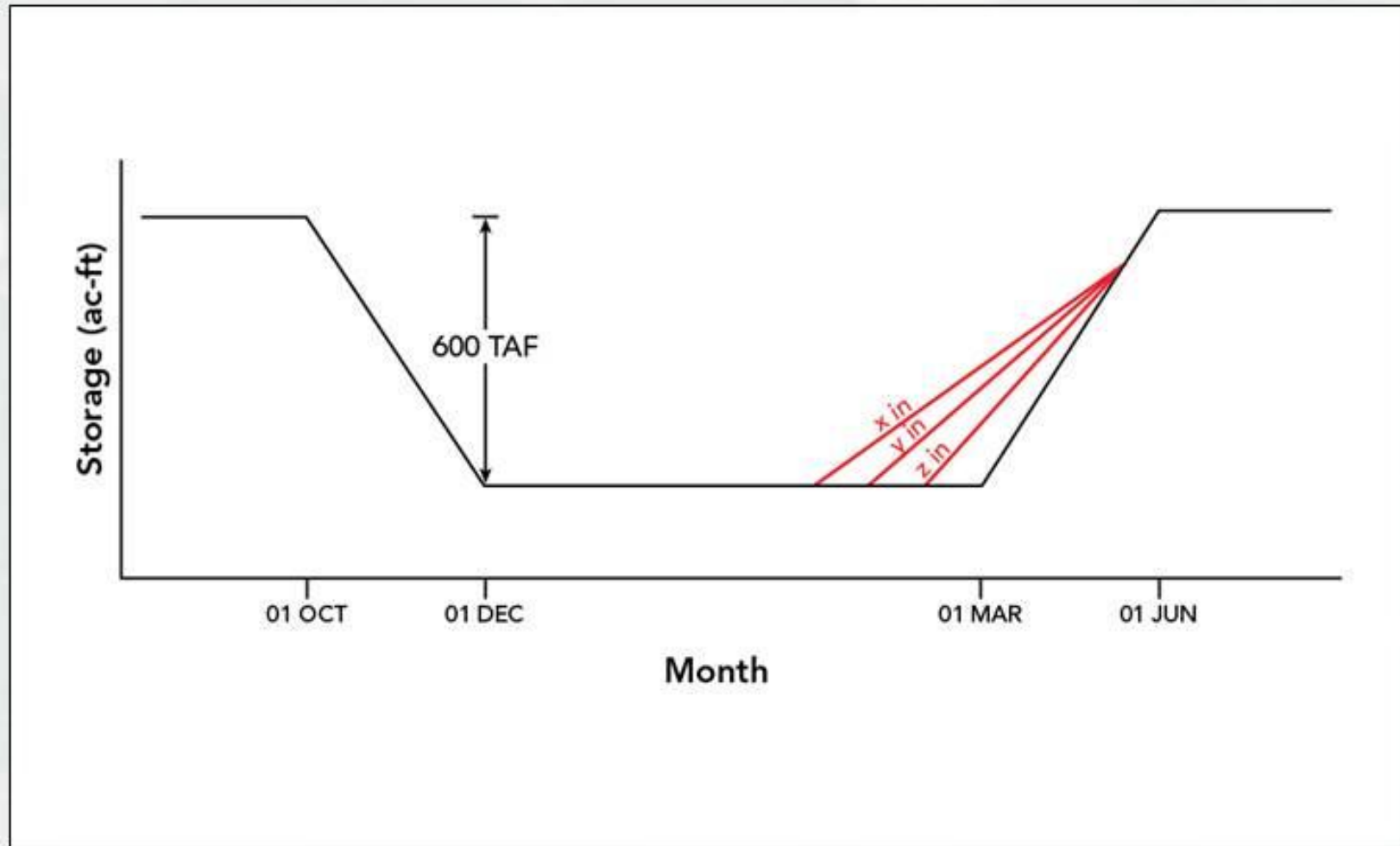
# BASIN WETNESS INDEX

## TOP OF CONSERVATION ADJUSTMENT



# BASIN WETNESS INDEX

## TOP OF CONSERVATION ADJUSTMENT



# CREDITABLE FLOOD CONTROL TRANSFER SPACE

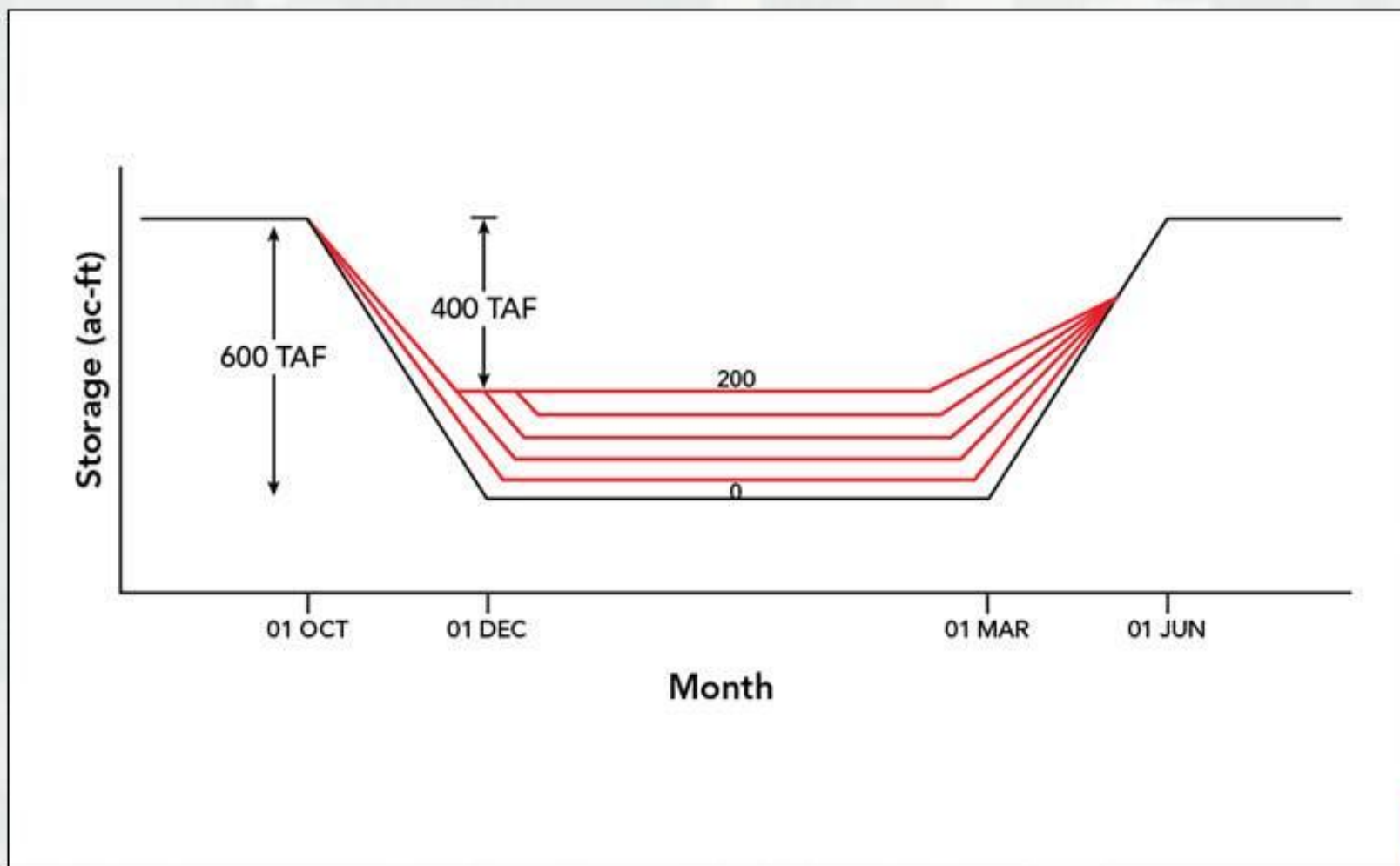
## TOP OF CONSERVATION ADJUSTMENT

	CURRENT STORAGE	STORAGE AT SPILLWAY CREST	AVAILABLE STORAGE (y-x)	MAXIMUM CREDITABLE SPACE	ACTUAL CREDITABLE SPACE, LESSER OF A, B, C, OR Z
FRENCH MEADOWS	x	y	z	a	z
HELL HOLE	x	y	z	b	b
UNION VALLEY	x	y	z	c	z
				$\Sigma=200$	$z+a+z$



# CREDITABLE FLOOD CONTROL TRANSFER SPACE

## TOP OF CONSERVATION ADJUSTMENT

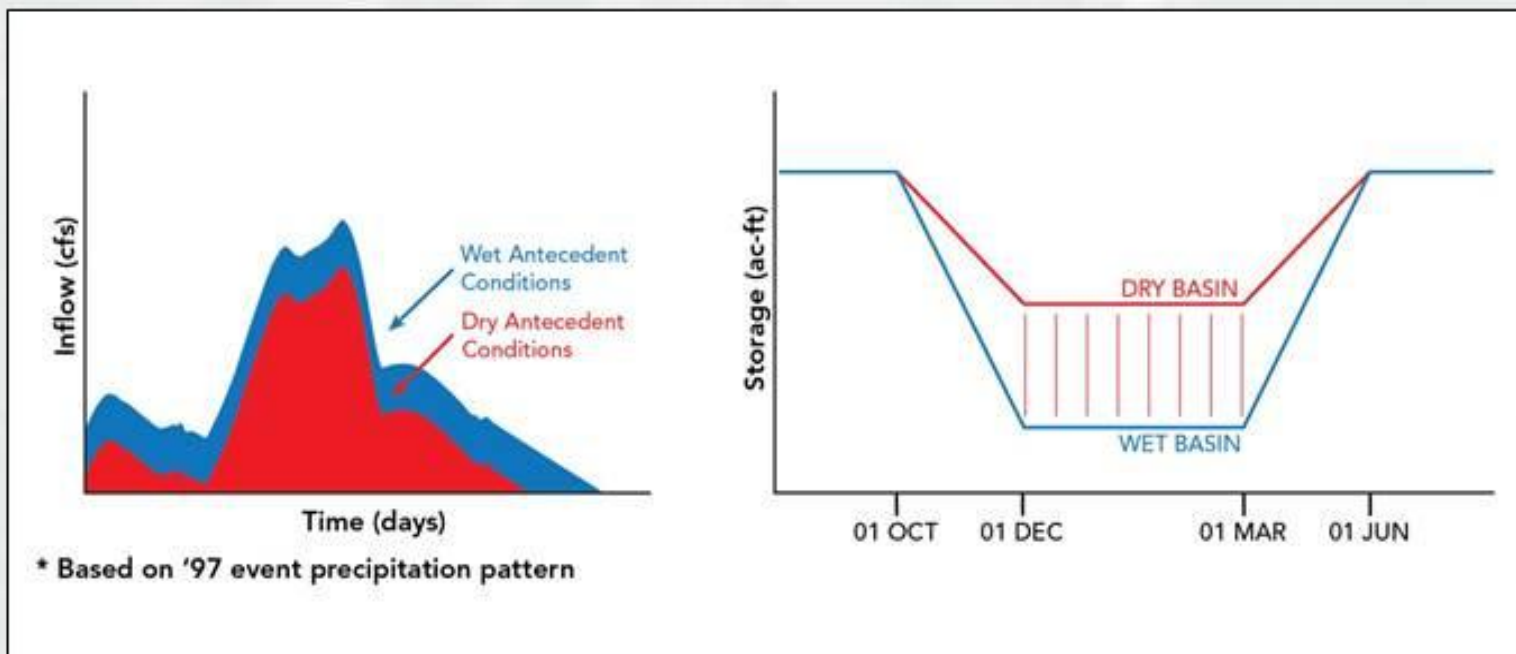




# CREDITABLE FLOOD CONTROL TRANSFER SPACE

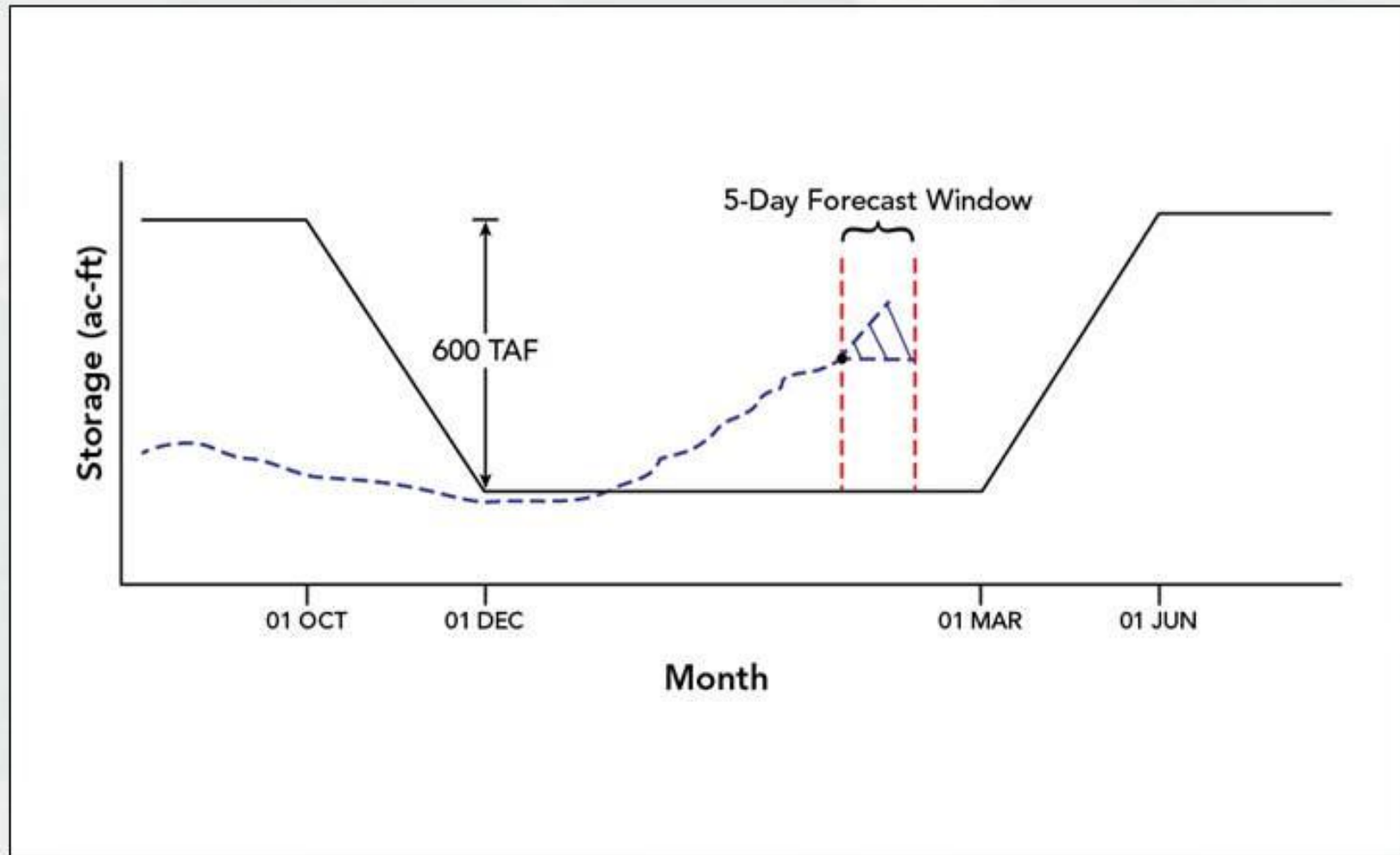
## TOP OF CONSERVATION ADJUSTMENT

200-Yr Inflow Hydrograph Sensitivity Analysis Dry vs. Wet Condition



# FORECASTS

## TOP OF CONSERVATION POOL ADJUSTMENT



# WATER SUPPLY EVALUATION

## TIER 1

- Will operation set be likely to change water supply for system-wide beneficial uses?
- Approach includes comparison of HEC ResSim and CalSim II Period of Record Runs (WY 1921 – WY 2002).



# **WATER SUPPLY EVALUATION**

## **TIER 1 (cont.)**

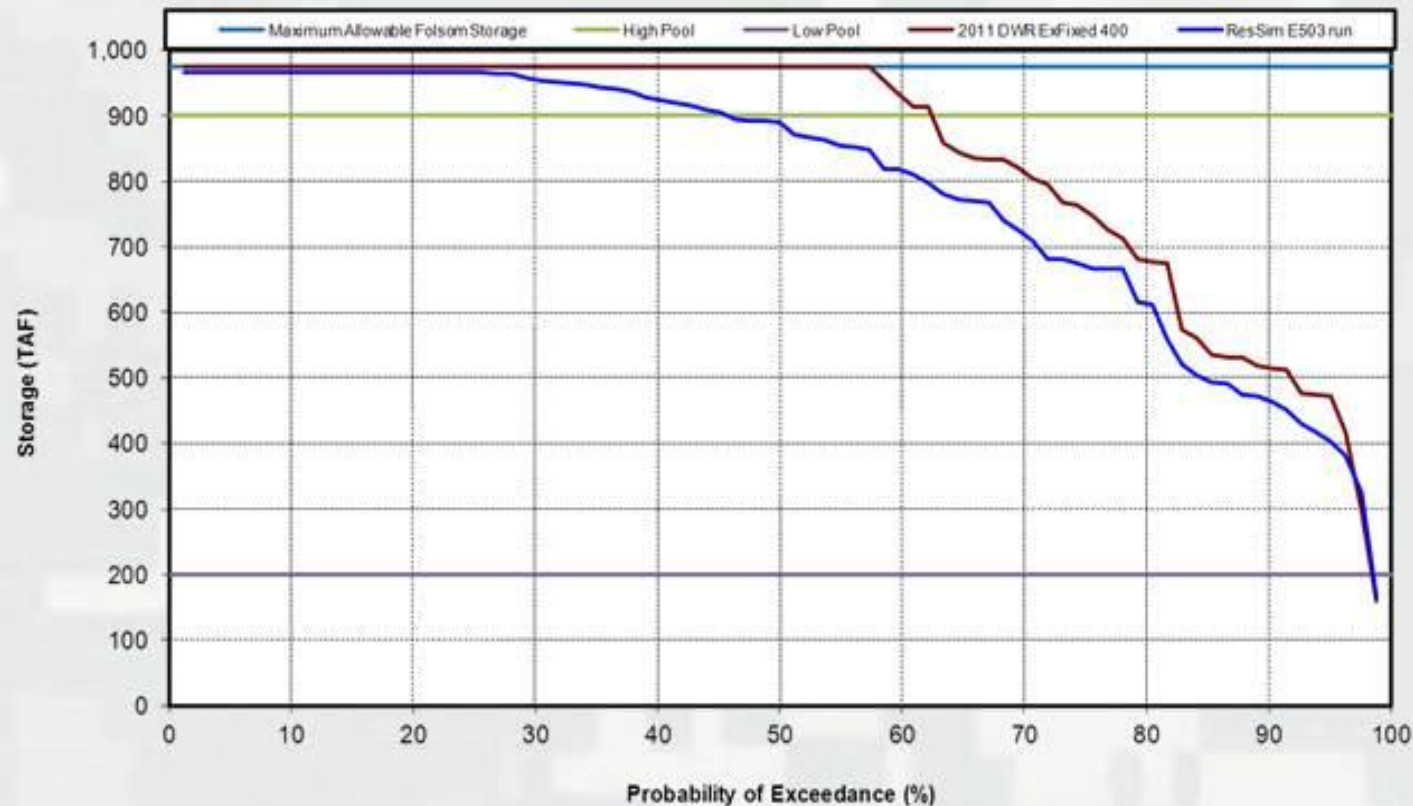
- Data products for Key System Metrics are compared (end of May Storage and Lower American River Flows).
- Assumption is that CalSim II output reflects prioritization of CVP and SWP beneficial uses.
- Similar output implies operation set reasonably able to satisfy water supply for project beneficial uses.





# TIER 1 DATA COMPARISONS

Folsom Reservoir End-of-month Storage during May under 2011 DWR ExFixed 400 and ResSim E503 run



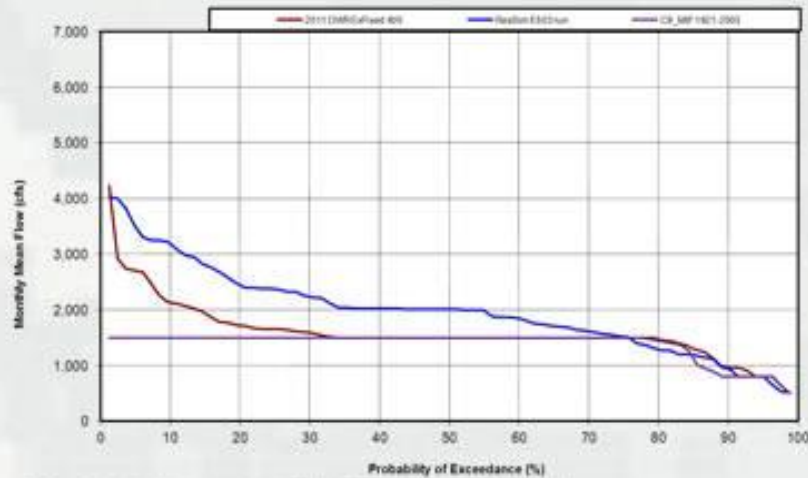
Data Source: 2011\_Fixed\_400; CALSIM modeling performed by HDR (2011DRR\_EX\_Fixed400), Simulation period: Oct 1921 - Sep 2003  
USACE ResSim E503ResSim (2012-12-19/E503/E503/IssE503-POR/simulation.dss), Simulation period: 6 Oct 1921 - 30 Sep 2002  
Minimum Release Requirement from DWR SWP Delivery Reliability Study Existing conditions Scenario

Originator: DK 1/22/13  
QC: JF 1/23/13



# TIER 1 DATA COMPARISONS

Lower American River Flow below Nimbus Dam during October under 2011 DWR ExFixed 400 and ResSim E503 run

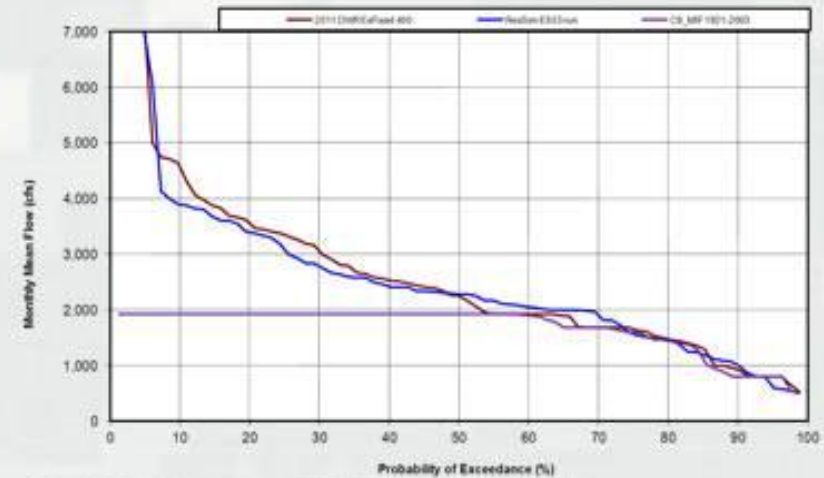


Data Source: 2011, Fleet, RSE, CA, 500-mile testing performed by NHTSA (2011GRRR\_EX\_FleetRSE); Simulation period: Oct 1921 - Sep 2003  
USACE Review (2003) Review 2012; Q-10 (2012) 100-hour (2012) PO (2012) Review; Simulation period: Oct 1921 - Sep 2003  
Minimum Release Requirement from OAR (2012) VMP Delivery Reliability Study Existing conditions scenario

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[illegible]

Lower American River Flow below Nimbus Dam during November under 2011 DWR ExFixed 400 and ResSim E503 run

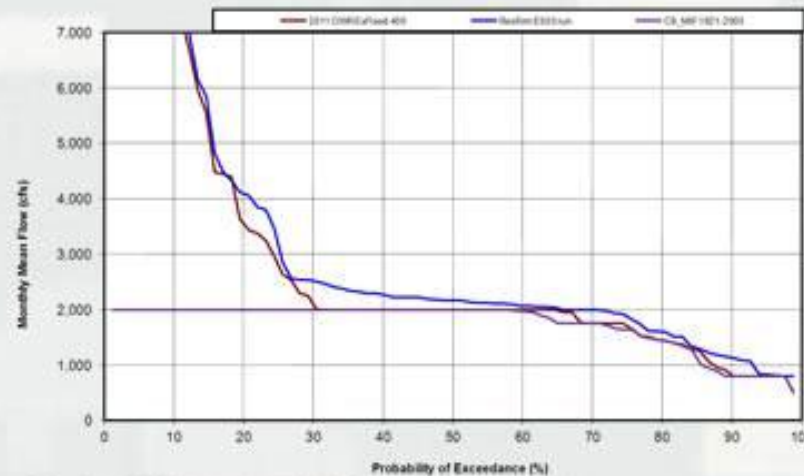


Data Source: 2011 Fleet Air CALSTARs being performed by ONR (2011) ORN\_EA\_FleetDB; Simulation period: Oct 1921 - Sep 2002  
USACE Reconn-330/FleetAir-2010; C-18/EIS/ES/EA/ES/EA/POR/Information.doc; Simulation period: Oct 1921 - 30 Sep 2002  
Minimum Release Requirement from OWS SWP Delivery Reliability Study (existing conditions scenario)

Original (2012/2013)

QC 9 02318

Lower American River Flow below Nimbus Dam during December under 2011 DWR ExFixed 400 and ResSim E503 run



Data Source: 2011\_Fuel\_402 CALSIR modeling performed by CCR/2011\_CRR\_EX\_Fuel402; Simulation period Oct1921 - Sep 2003  
 USACE Region 132/Region 212; 12 H203000033 Fuel 402 FOR simulation; etc. Simulation period Oct1921 - 30 Sep 2003  
 Minimum Release Required from CRR SWP Delivery Relatively Study Existing conditions Transport

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QC # 12345



# NEXT STEPS

- Continue with details and model iterations-refinement.
- Real-time review and quality control of model builds and output data sets.
- Outreach and Coordination.





# QUESTIONS & COMMENTS





## **Appendix G: Public Involvement, Part 2**

### Notice of Intent



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**U.S. ARMY ENGINEER DISTRICT, SACRAMENTO**  
**CORPS OF ENGINEERS**  
**1325 J STREET**  
**SACRAMENTO, CALIFORNIA, 95814-2922**

OCT - 3 2012

CESPK-PD-R (1110-2-1150a)

MEMORANDUM FOR Commander, U.S. Army Records and Declassification Agency,  
ATTN: AHRC-PDD-RP, Army Federal Register Liaison (Ms. Brenda Bowen),  
Casey Building Room 102, 7701 Telegraph Road, Alexandria, VA 22315-3860

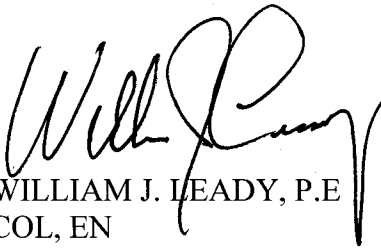
SUBJECT: Notice of Intent, Folsom Dam Water Control Manual Update, Folsom, California

The enclosed Notice of Intent is submitted to your office for publication in the Federal Register in compliance with the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act of 1969, 42 U.S.C. §4321-4370(f), as amended. The project schedule identifies Friday, October 12, 2012, for publication in the Federal Register.

The U.S. Army Corps of Engineers, Sacramento District is submitting three original signed copies of the Notice of Intent to Prepare a Joint Environmental Impact Statement/Environmental Impact Report for the Folsom Dam Water Control Manual Update, Folsom, California. An electronic copy of the Notice of Intent is included on the enclosed CD-ROM.

Point of contact for this Memorandum is Ms. Lisa Eckert at (916) 557-6688 or Mr. Dan Artho at (916) 557-7723.

3 Encls

  
WILLIAM J. LEADY, P.E.  
COL, EN  
Commanding

CF:

Commander, U.S. Army Corps of Engineers South Pacific Division, 333 Market Street, San Francisco, CA 94105 (w/encl)

**BILLING CODE: 3720-58**

**DEPARTMENT OF DEFENSE**

**Department of the Army; Army Corps of Engineers**

**Notice of Intent to Prepare a Joint Environmental Impact Statement/Environmental Impact Report for the Folsom Dam Water Control Manual Update**

**AGENCY:** Department of the Army, U.S. Army Corps of Engineers; DOD.

**ACTION:** Notice of Intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Sacramento District (USACE) intends to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (Folsom WCM Update). USACE will serve as lead agency and the Bureau of Reclamation will be a cooperating agency for compliance with the National Environmental Policy Act (NEPA), and the Central Valley Flood Protection Board (CVFPB) will serve as lead agency for compliance with the California Environmental Quality Act (CEQA). The Folsom WCM Update is intended to improve the ability of Folsom Dam to utilize the new physical features to manage large flood events and meet dam safety requirements.

**DATES:** Written comments regarding the scope of the environmental analysis should be received by November 11, 2012.

**ADDRESSES:** Written comments and suggestions concerning this project and requests to be included on the project mailing list may be submitted to Tyler Stalker, U.S. Army Corps of Engineers, Sacramento District, Attn: Public Affairs Office (CESPK-PAO), 1325 J Street, Sacramento, CA 95814.

**FOR FURTHER INFORMATION CONTACT:** Tyler Stalker via telephone at (916)

557-5107, e-mail at Tyler.M.Stalker@usace.army.mil, or mail at (see **ADDRESSES**).

Study information will also be posted periodically on the internet at

<http://www.spk.usace.army.mil/Missions/CivilWorks/JointFederalProject.aspx>

**SUPPLEMENTARY INFORMATION:**

1. *Proposed Action.* The Folsom WCM Update will identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir to reduce flood risk to the Sacramento area by utilizing the auxiliary spillway currently under construction and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives and dam safety requirements in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

2. *Alternatives.* The EIS/EIR will develop new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction to reduce Folsom Reservoir variable space allocation from the current operating range of 400,000-670,000 acre-feet (ac-ft) to 400,000-600,000 ac-ft. In addition, the incorporation of improved forecasting capabilities and basin wetness parameters as part of flood management operations will be evaluated. A number of flood management operation alternatives are expected to be developed and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes will be analyzed in the EIS/EIR.

3. *Scoping Process.*



a. Two public scoping meetings will be held to present an overview of the Folsom WCM Update and the EIS/EIR process, and to afford all interested parties with an opportunity to provide comments regarding the scope of analysis and potential alternatives. The public scoping meetings will be held at the following locations, dates, and times:

Sacramento Library Galleria	Folsom Community Center
828 I Street, Sacramento, CA	52 Natoma Street, Folsom, CA
October 15 <sup>th</sup> , 2012	October 22 <sup>nd</sup> , 2012
4pm to 7pm	4pm to 7pm

b. Potentially significant issues to be analyzed in depth in the EIS/EIR include project-specific, system-wide, and cumulative effects on authorized purposes of the Folsom Dam project and the environmental resources associated with those purposes. Effects analyzed will include: water supply for irrigation, municipal, and industrial uses; fish and wildlife resources; power generation; water quality; recreation; special status species; soils and levee safety; and cultural resources.


c. USACE will consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act, the Fish and Wildlife Coordination Act, and the requirements of the current Biological Opinions that affect the operations of Folsom Dam. USACE will consult with the State Historic Preservation Officer to comply with the National Historic Preservation Act. USACE will coordinate with the U.S. Bureau of Indian Affairs to establish consultation requirements with tribes having trust assets and tribal interests that could be affected by the WCM Update's outcome.

d. A 45-day public review period will be provided for individuals, interested parties, and agencies to review and comment on the draft EIS/EIR. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS/EIR circulation.

4. *Availability.* The draft EIS/EIR is scheduled to be available for public review and comment in 2015.

3 OCT 12

Date:

for   
\_\_\_\_\_  
William J. Leady, P.E.  
Colonel, U.S. Army  
District Engineer  
LTJ EN  
Duty con

## **Appendix G: Public Involvement, Part 3**

### Scoping Meeting Summary Report

# **Folsom Dam Water Control Manual Update**



## **Public Scoping Meetings Summary Report**

**March 2013**



**US Army Corps  
of Engineers** ®  
Sacramento District





# **General Information About This Document**

## ***What's in this document?***

This document is a summary report of the stakeholder engagement process and subsequent public scoping meetings held for the Folsom Dam Water Control Manual Update. The report describes the communications program that was implemented to engage interested stakeholders, partners, and the general public into the environmental process.

If there are any further questions regarding either this summary report or the project, please contact the U.S. Army Corps of Engineers, Sacramento District.

Submit concerns or questions to:

**Tyler Stalker**

**USACE Public Affairs Office**

1325 J Street

Sacramento, CA 95814

Phone: 916-557-5107

Fax: 916-557-7853

[Tyler.M.Stalker@usace.army.mil](mailto:Tyler.M.Stalker@usace.army.mil)

**David Martasian**

**DWR Division of Flood Management**

3464 El Camino Avenue, Room 200

Sacramento, CA 95821

Phone: 916-574-1448

Fax: 916-574-1478

[Folsom\\_scoping@water.ca.gov](mailto:Folsom_scoping@water.ca.gov)



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## List of Abbreviations

ac-ft	Acre-Feet
CEQA	California Environmental Quality Act
cfs	Cubic Feet Per Second
Corps	U.S. Army Corps of Engineers
CVFPB	Central Valley Flood Protection Board
CVP	Central Valley Project
CVRWQCB	Central Valley Regional Water Quality Control Board
DFG	Department of Fish and Game
DWR	Department of Water Resources
EIS/EIR	Environmental Impact Statement/ Environmental Impact Report
FEMA	Federal Emergency Management Agency
JFP	Joint Federal Project
NEPA	National Environmental Policy Act
PMF	Probable Maximum Flood
Reclamation	U.S. Bureau of Reclamation (USBR)
ROS	Reservoir Operating Scenarios
SAFCA	Sacramento Area Flood Control Agency
SWP	State Water Project
SWRCB	State Water Resources Control Board
USEPA	U.S. Environmental Protection Agency
WCM Update	Folsom Dam Water Control Manual Update



# **Chapter 1**      Public Scoping Meetings

---

## **1.1      Public Scoping Meetings Introduction**

Two public scoping meetings with identical formats and materials for the WCM Update were held from 4:00 p.m. to 7:00 p.m. on Monday, October 15, 2012 at the Sacramento Library Galleria (828 I Street, Sacramento) and on Monday, October 22, 2012 at the Folsom Community Center (52 Natoma Street, Folsom). Roles of the participating agencies are as follows:

- Corps Sacramento District—as the lead National Environmental Policy Act (NEPA) agency;
- Reclamation – as a Federally-participating agency
- DWR on behalf of the Central Valley Flood Protection Board (CVFPB)—as the lead California Environmental Quality Act (CEQA) agency; and,
- SAFCA—as a responsible CEQA agency

## **1.2      Promotion of the Public Scoping Meetings**

The public scoping meetings were advertised in the *Sacramento Bee's* Friday, October 5 edition, as well as the *Folsom Telegraph's* Wednesday, October 10 edition. Mail and e-mail announcements were also sent to stakeholders and Folsom residents. In addition, a Notice of Preparation (NOP) was submitted to the State Clearinghouse on October 12 and a Notice of Intent was filed with the Federal Register on October 16. A copy of the newspaper advertisements, notices, e-mail announcements, and mailing lists are included in Appendix A.

## **1.3      Purpose and Goals of the Public Scoping Meetings**

The purpose of the scoping meetings was to present an overview of the WCM Update, the basis of alternative development, the involved agencies' decisionmaking processes, and to solicit information from the public on the range of issues relevant to the scope and content of the Joint Environment Impact Statement/Environmental Impact Report (EIS/EIR). The purpose of the WCM Update effort is to develop, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir that would reduce flood risk to the Sacramento area by utilizing its existing and authorized physical features, specifically after completion of the Joint Federal Project (JFP) new auxiliary spillway. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention

of meeting flood risk management objectives in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

The public scoping meetings were scheduled to take place during the public scoping process and comment period for the joint EIS/EIR that will be prepared for the WCM Update. The meetings provided the public the opportunity to ask questions about the WCM Update and provide comments as part of the formal record. All public scoping comments will be included in the Draft EIS/EIR.

## **1.4 Format of the Public Scoping Meetings**

The scoping meetings format allowed the attendees to arrive, view displays, and talk with project staff members and record comments, all at their convenience. This format afforded a comfortable, low-conflict context for imparting and receiving information. At the meetings, attendees had the opportunity to view WCM Update information boards along with display boards describing the history of Folsom Dam and Reservoir. Aerial photography and graphics depicting the federally authorized projects in the American River Watershed were also on display. Display boards were positioned throughout the room to allow attendees to peruse the material at their discretion.

As a result of the public outreach employed to promote the scoping meetings, 17 community members attended, including representatives from Assemblywoman Alyson Huber's office and Assemblywoman Beth Gaines's office. Each attendee was welcomed at the sign-in table where they were asked to sign-in and was provided a comment card.

The formal comment period concluded on November 15 and all interested commenters were able to provide comments at the meetings and/or in writing during the comment period. However, as indicated in the Scoping Guidance provided by the Council on Environmental Quality (1981), scoping is a process, not an event or a meeting. It continues throughout the planning for an EIS. The scope of an EIS occasionally may need to be modified later if a new issue surfaces; and the lead agency has the responsibility to assess each significant effect even if one is found after scoping. In order to provide opportunities for new issues to be identified as early as possible, a robust public outreach effort is being pursued through the duration of the WCM Update process to address these issues to the extent feasible.

# **Chapter 2**

## **Public Scoping Meetings Proceedings**

---

### **2.1 Welcome**

A number of key staff members were present at each scoping meeting to address any questions or concerns raised by attendees. Each participant was asked to sign-in and encouraged to submit a comment card either that evening, via US mail, or via e-mail before the closing date of the comment period, November 15, 2012. See Appendix D for a list of the scoping meeting attendees.

### **2.2 Displays**

The display boards and exhibits presented at the scoping meeting are described below (copies of the display boards and other graphics can be found in Appendix B). All meeting displays facilitated a good understanding of the WCM Update and all of its elements.

#### **2.2.1 Local Study Area Board**

This board provided a map of the local study area. The Folsom Dam and Reservoir is located in Folsom, California, with the local area of analysis focusing on the Lower American River watershed which includes the Folsom Reservoir. The EIS/EIR will evaluate proposed updates to the WCM for Folsom Dam from a local and regional perspective.

#### **2.2.2 Regional Study Area Board**

This board provided a map of the regional study area. The regional area of analysis reflects the Central Valley Project (CVP) and State Water Project (SWP) facilities and service areas as Folsom Dam and Reservoir are operated by Reclamation as part of the CVP system.

#### **2.2.3 Folsom Dam and Reservoir Board**

This board described the Folsom Dam and Reservoir as a multiuse facility for flood damage reduction, fish and wildlife, water quality, water supply, hydroelectricity, recreation, and navigation. The Dam and Reservoir are primarily operated to maximize flood control and water supply storage benefits.

#### **2.2.4 Flood Risk Management Board**

This board provided a map of Sacramento's 200-year floodplain (excluding Natomas). It further described Sacramento as one of the most at risk communities in the nation for flooding; therefore, there is a need for reduction of the flood risk through interim and permanent flood damage reduction measures. The board also described future structural improvements planned to address dam safety issues that could result from hydrologic (flood), seismic (earthquake), and static (seepage) events and explained the non-federal sponsor's goal; to increase the level of protection at Folsom Dam to safely pass the 200-year flood event with the incorporation of all authorized modifications within the American River Watershed.

#### **2.2.5 Purpose of the Update Board**

This board described the purpose of the WCM Update, which is to develop, evaluate, and recommend changes to the flood management operations of Folsom Dam and Reservoir in order to reduce flood risk to the Sacramento area by utilizing its existing and authorized physical features, specifically the JFP auxiliary spillway, which is currently under construction. Therefore, the WCM Update will need to be completed before the spillway is constructed to take advantage of the additional capabilities that the spillway will provide. In addition, the update analyzed operational alternatives and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes (water supply, power generation, fish and wildlife protection, water quality, recreation, and navigation). Lastly, it defined Folsom Dam's new flood operations plan, intended to meet the flood risk management objectives in a manner that conserves as much water as possible and maximizes all project functions to the extent practicable.

#### **2.2.6 Safety and Flood Risk Management Objectives Board**

This board described objectives of the safety and flood risk management, including:

- Passing the Probable Maximum Flood (PMF) while maintaining 3 feet of freeboard below the top of Dam to stay within the Dam Safety constraints of the U.S. Department of Interior, Bureau of Reclamation.
- Managing a 1/100 annual chance flow (i.e. "the 100-year flood") to a maximum release of 115,000 cubic feet per second (cfs) as criteria set by SAFCA to support Federal Emergency Management Agency (FEMA) levee accreditation along the American River.
- Managing a 1/200 annual chance flow (i.e. "the 200-year flood"), as defined by criteria set by DWR locally preferred criteria, to a maximum release of 160,000 cfs, when taking

into account all of the authorized modifications within the American River Watershed (including future Folsom Dam Raise Project and Common Features Project).

### **2.2.7 Joint Federal Project Overview Board**

This board explained the Folsom Dam JFP, an auxiliary spillway currently under construction to be implemented jointly by Reclamation and the Corps to address hydrologic Dam Safety and Flood Damage Reduction concerns related to the controlled release of water from Folsom Dam. The JFP will improve the ability of Folsom Dam to manage large flood events by allowing more water to be safely released earlier in a storm event, resulting in more storage capacity remaining in the Reservoir to hold back the peak inflow when it arrives. The JFP has dual goals that simultaneously serve the specific missions of the Corps and Reclamation:

- The Flood Damage Reduction goal of the Corps and their non-Federal partners, CVFPB and SAFCA, is to reduce flood risk in the Sacramento area in conjunction with other elements of the regional flood control system
- The Safety of Dams goal of Reclamation is to pass a PMF of up to 314,000 cfs through the auxiliary spillway without causing failure of Folsom Dam.

This board noted that in order to fully realize the benefits of the new auxiliary spillway, the current Folsom Dam and Reservoir WCM must be updated.

### **2.2.8 Basis of Alternative Development Board**

This board described alternatives that will be developed for new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction.

Alternatives will consist of the following components:

- Reduce the flood risk in the Sacramento area in conjunction with other elements of the regional flood control system as per the flood damage reduction goal of the Corps and their non-Federal partners, CVFPB and SAFCA;
- Reduce Folsom Reservoir variable space from the current operating range of 400,000-670,000 acre-feet (ac-ft) to 400,000-600,000 ac-ft. for flood storage purposes;
- Update existing outlets and utilize the JFP;
- Maintain the 3-2-4 shutter temperature control shutter configuration; and,
- Operation Rules: Rule curves that derive flood storage reserve requirements from some combination of the following:



- Storage reserve in Folsom Reservoir
- Basin Wetness
- Weather Forecasting

A number of flood management operation alternatives are expected to be developed and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes will be analyzed in the EIS/EIR.

### **2.2.9 EIS/EIR Effects Assessment Board**

This board explained that the environmental effects analyses will be centered around the effects that the flood management operations alternatives would have on the Folsom Dam and Reservoir's authorized purposes, including (but not limited to):

- Flood control
- Water supply (Irrigation and M&I)
- Fish and wildlife
- Power generation
- Water Quality
- Navigation
- Recreation

The EIS/EIR effects analysis approach would include:

- Comparison of alternatives to baseline conditions
- Closer evaluations of effects in the Lower American River
- Screening level evaluations for more distant parts of the CVP and SWP followed by detailed evaluations as needed.

### **2.2.10 Agency Roles and Responsibilities Board**

This board explained the relationship, roles, and responsibilities between the Corps, Reclamation, DWR, and SAFCA as they relate to the WCM Update. The Corps is responsible for preparing and submitting the Folsom Dam WCM Update and the NEPA Record of Decision that identifies the Study's recommended flood management operation alternative. Reclamation is a Federally-involved agency and a NEPA Cooperating Agency. The DWR on behalf of the CVFPB is responsible for signing the WCM Update for the State and will be the CEQA lead agency.

The four agencies will work together to provide oversight for the Folsom Dam WCM Update through a number of mutual arrangements, including participation on the Project Management Group, Technical Working Group, and Project Delivery Team.

#### **2.2.11 EIS/EIR Process Board**

This board explained that a joint EIS/EIR will be prepared in compliance with NEPA and CEQA and that the document will disclose to the public potential environmental effects and proposed measures to avoid or reduce significant environmental effects of all feasible alternatives considered. All public comments received will be considered prior to making a final decision on the action to be taken.

#### **2.2.12 Study Tools Board**

Preliminary reservoir operating scenarios (ROS) will be developed in direct coordination with the partner agencies using existing and future-without project conditions as parameters formulated that have the potential to accomplish the Study purpose. This preliminary array of ROS's will be simulated using the Corps' HEC-ResSim software. Each ROS will then be screened through as many as three tiers of acceptance criteria to arrive at an array of ROS's, or alternatives.

#### **2.2.13 Modeling Goals and Process Board**

This board explained the modeling goals from which reservoir operation alternatives will be developed and evaluated from a flood risk management performance and environmental effects analysis perspective:

- To develop Water Control and Emergency Spillway Release Diagrams for a comprehensive Water Control Plan
- To produce data to support the planning process and NEPA, CEQA, California Endangered Species Act, and Federal Endangered Species Act Requirements.

This board also explained the step-by-step modeling process:

- Identify alternatives
- Formulate operation rules for each model
- Simulate hypothetical and period of record hydrology to assess flood operations
- Use models to perform floodplain analysis (HEC-RAS and FLO-2D)

- Use CALSIM II Model to simulate CVP and SWP operations with each alternative
- Assess and refine

#### **2.2.14 Scoping and Comment Process Board**

This board explained the scoping and comment process. Scoping is done to gather public comments, insights and local information for the environmental document. Potential comments include:

- Any options that should be considered and evaluated
- Potential environmental issues and impacts
- Any local knowledge or information to assist with the environmental review that we may not be aware of
- When and how you would like to be informed of the project.

The board reiterated that comments are due by November 15, 2012 and that comments will be compiled in a scoping document (this document) and will be considered in the development of the EIS/EIR. Contact information for comment submittal was listed on the board.

### **2.3 Personnel on Hand**

The following personnel (listed in alphabetical order by last name) helped set-up, conduct the meetings, and were available to answer questions from the public. Lisa Eckert, Corps Environmental Staff, was in charge of the scoping meetings.

#### **2.3.1 Corps Staff**

Dan Artho  
Art Ceballos  
Lisa Eckert  
Hunter Merritt  
Scott Parker  
Tyler Stalker

#### **2.3.2 Staff from Other Agencies and Consultants**

##### **Bureau of Reclamation**

Mark Curney

**Department of Water Resources/ Central Valley Flood Protection Board (DWR/CVFPB)**

Vincent Heim

David Martasian

Boone Lek

**SAFCA**

Pete Ghelfi

Rick Johnson

**HDR Engineering, Inc.**

Linda Fisher

Kimberly Pallari

Michael Vecchio





## Chapter 3 Public Input

### 3.1 Written Comments Submitted

The Corps and DWR received 9 written comments during the public scoping comment period. See Appendix C for copies of the actual comments submitted. Comments were submitted at the scoping meetings, via e-mail transmission, and by US mail. Requests were also received by e-mail and phone to be added to the WCM Update mailing list.

### 3.2 Summary of Comments Received

Listed below is a summary of the comments received during the public comment period.

Date	Commenter	Comment Submission	Comment Summary	Path Forward
Levee Stability				
October 15, 2012	Renee Acosta, citizen	Public Scoping Meeting	Would like the surrounding levees to be fixed to prevent flooding.	This will be further addressed in the Soils and Levee Stability section of the Draft EIS/EIR
Permits and Approvals				
October 19, 2012	Trevor Cleak, Central Valley Regional Water Quality Control Board (CVRWQCB)	Via US Mail	Provided information regarding the permits and approvals that the project may need and that the CVRWQCB oversees.	The Folsom WCM Update will be in compliance with all Federal, state, and local policies and procedures.
Fisheries and Forecasting				
October 22, 2012	Erin Aquino-Carhart, Department of Fish and Game	Public Scoping Meeting	Requested that information regarding how water temperature and velocities from the	A complete analysis to address these comments will be included in the Fisheries, Special Status

	(DFG)		spillway will affect salmonids be included in the Joint EIS/EIR. Also asked if the WCM Update would look at fish passage and affects to the Delta.	Species, and Water Quality sections of the Draft EIS/EIR
October 22, 2012	Gary Estes, citizen	Public Scoping Meeting	Stated the benefits of conditional storage based on forecast. Asked if water releases from Folsom Dam would be restricted due to potential fish stranding.	Forecasting technology will be considered in Study alternatives. The potential for fish habitat alteration will be addressed in the Hydrology and Hydraulics, Fisheries, and Special Status Species sections of the Draft EIS/EIR.
Distribution List				
October 29, 2012	Arthur Murray, Caltrans District 3	Via e-mail	No specific comments but requested to be kept apprised of the project in the future.	Add to distribution list
Water Quality				
November 8, 2012	Patrick Morris, CVRWQCB	Via e-mail and US mail	Stated that adjustments to water management in Folsom Lake may influence mercury transport, methylmercury production, and methylmercury bioaccumulation in areas affected by Folsom Lake	Mercury concerns will be addressed in the Water Quality section of the Draft EIS/EIR.

			operations. Therefore, the CVRWQCB would like the WCM Update to evaluate the project's impacts on fish mercury levels, mercury transport, and methylmercury production and transport in Folsom Lake and adjacent water bodies.	
November 20, 2012	Tom Kelly, U.S. Environmental Protection Agency (USEPA)	Via e-mail and US mail	USEPA asked that the Corps work with the State Water Resources Control Board (SWRCB) and the CVRWQCB to develop a WCM Update and Joint EIS/EIR that incorporates reservoir management actions to reduce mercury methylation and reflects the applicable portions of the Total Maximum Daily Loads that is being developed by the SWRCB.	Mercury concerns will be addressed in the Water Quality section of the Draft EIS/EIR.
Water Supply				
November 9, 2012	Dan Corcoran, El Dorado Irrigation District	Via e-mail and US mail	EID asked that the WCM Update analysis consider not only the CVP and SWP service areas but each water purveyor's full service area.	Potential impacts to all water purveyors associated with Folsom Reservoir water supplies will be evaluated.

Cultural Resources and Tribal Coordination				
November 13, 2012	Marcos Guerrero, RPA, Auburn Rancheria	Via e-mail	Asked whether the WCM Update would include a comprehensive agreement for any unanticipated or inadvertent discoveries of Native American human remains.	A records search to determine existing conditions will be completed. Coordination with Tribes will occur to determine if a comprehensive agreement is necessary.

# **Chapter 4**      Stakeholder Situational Assessment

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## **4.1      Stakeholder Situation Assessment Introduction**

As an additional part of the outreach effort for this WCM Update, in September 2012, the Corps, in conjunction with Reclamation, DWR, and SAFCA, sponsored a series of five discussions with stakeholders who have expressed an ongoing interest in the WCM Update. The discussions were facilitated by Susan Sherry with the Center for Collaborative Policy, Sacramento Chapter. The stakeholder meetings were focused into five categories of stakeholders: 1) flood management-organizations, 2) recreational users, 3) regional environmental organizations, 4) in-basin purveyors, and 5) electric power utilities/agencies as well as key CVP/SWP contractors and associations.

## **4.2      Goals of the Stakeholder Situational Assessment**

The stakeholder discussions had three important goals:

- To engage the stakeholders in the policy and technical work of the Folsom Dam WCM Update;
- To understand the stakeholders' interests and concerns; and
- To receive comment from the stakeholders regarding how they might like to be involved in the project in the future.

## **4.3      Relationship of Situational Assessment to Public Scoping Efforts**

The Stakeholder Situational Assessment and the Public Scoping Meetings are part of the public outreach efforts for the WCM Update. The Corps and its partners are engaging the public in the WCM Update process by not only providing information about the WCM Update but also by soliciting valuable information from interested members of the public. Information from the Stakeholder Situational Assessment and the Public Scoping Meetings are being considered and incorporated into the WCM Update and the Draft EIS/EIR. Discussions with interested members of the public during the Stakeholder Situational Assessment and the Public Scoping Meetings, along with comments received during the public scoping period, have identified interests and concerns regarding the WCM Update. The Corps and its partners plan to continue their public outreach efforts through the duration of the WCM Update process to address these issues as much as possible.





## **Appendix A** Letters and Notices

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Following are copies of the Stakeholder Discussion Invitation, Notice of Intent, Federal Register listing of the Notice of Intent, Notice of Preparation, Notice of Completion and Environmental Document Transmittal, public notices that were advertised in the *Sacramento Bee* and *Folsom Telegraph*, articles relating to the scoping meetings, and the scoping meetings invitation to all interested parties.

**Date:** <Month> <Day>, <Year>  
**To:** <First Name> <Last Name>, <Organization>  
**From:** Alicia Kirchner, Chief of Planning, US Army Corps of Engineers, Sacramento District  
**Subject:** Invitation to Participate in the Stakeholder Situational Assessment for the  
Flood Management Operations Study for Folsom Dam

Dear <First Name>,

On August 18, the US Army Corps of Engineers hosted its first stakeholder workshop on the Flood Management Operation Study for Folsom Dam (Study). To follow up on the workshop and formally launch the stakeholder engagement process, I would like to invite you to participate in the Study's Stakeholder Situational Assessment. The Corps' has asked the Sacramento State's Center for Collaborative Policy (CCP) to conduct this assessment.

The assessment seeks to define the array of stakeholder interests, concerns and questions. CCP will interview a range of stakeholders representing local, regional, tribal and out-of region interests. After the interviews are complete, CCP will analyze the results, offer their findings and develop a series of recommendations, including recommendations on the most effective means for future stakeholder engagement in the Study. When the assessment is complete, we will be sharing the assessment findings and recommendations with the stakeholders.

Between now and October 24, a scheduler from CCP will contact you directly to set up an interview and provide you with the name of the person who will be interviewing you. The interviews will last approximately 1 – 1.5 hours. CCP's preference is to conduct in-person interviews, but can do telephone interviews if necessary. In some cases, CCP will be doing in-person group interviews if the interviewees have identical or very similar interests.

Attached for your information is a Project Summary and Questions and Answers on the project you may find of value in preparing for the interview.

For specific questions on the assessment or the Study effort to date, please contact Angela De Paoli at 916-557-6782 or [angela.depaoli@usace.army.mil](mailto:angela.depaoli@usace.army.mil). Thank you for your time; we look forward to working with you in the future.

Sincerely,

Alicia E Kirchner  
Chief of Planning  
US Army Corps of Engineers, Sacramento District



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO, CALIFORNIA, 95814-2922

CESPK-PD-R (1110-2-1150a)

OCT - 3 2012

MEMORANDUM FOR Commander, U.S. Army Records and Declassification Agency,  
ATTN: AHRC-PDD-RP, Army Federal Register Liaison (Ms. Brenda Bowen),  
Casey Building Room 102, 7701 Telegraph Road, Alexandria, VA 22315-3860

SUBJECT: Notice of Intent, Folsom Dam Water Control Manual Update, Folsom, California

The enclosed Notice of Intent is submitted to your office for publication in the Federal Register in compliance with the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act of 1969, 42 U.S.C. §4321-4370(f), as amended. The project schedule identifies Friday, October 12, 2012, for publication in the Federal Register.

The U.S. Army Corps of Engineers, Sacramento District is submitting three original signed copies of the Notice of Intent to Prepare a Joint Environmental Impact Statement/Environmental Impact Report for the Folsom Dam Water Control Manual Update, Folsom, California. An electronic copy of the Notice of Intent is included on the enclosed CD-ROM.

Point of contact for this Memorandum is Ms. Lisa Eckert at (916) 557-6688 or Mr. Dan Artho at (916) 557-7723.

3 Encls

  
WILLIAM J. LEADY, P.E.  
COL, EN  
Commanding

CF:  
Commander, U.S. Army Corps of Engineers South Pacific Division, 333 Market Street, San Francisco, CA 94105 (w/encl)

**BILLING CODE:** 3720-58

**DEPARTMENT OF DEFENSE**

**Department of the Army; Army Corps of Engineers**

**Notice of Intent to Prepare a Joint Environmental Impact Statement/Environmental  
Impact Report for the Folsom Dam Water Control Manual Update**

**AGENCY:** Department of the Army, U.S. Army Corps of Engineers; DOD.

**ACTION:** Notice of Intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Sacramento District (USACE) intends to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (Folsom WCM Update). USACE will serve as lead agency and the Bureau of Reclamation will be a cooperating agency for compliance with the National Environmental Policy Act (NEPA), and the Central Valley Flood Protection Board (CVFPB) will serve as lead agency for compliance with the California Environmental Quality Act (CEQA). The Folsom WCM Update is intended to improve the ability of Folsom Dam to utilize the new physical features to manage large flood events and meet dam safety requirements.

**DATES:** Written comments regarding the scope of the environmental analysis should be received by November 11, 2012.

**ADDRESSES:** Written comments and suggestions concerning this project and requests to be included on the project mailing list may be submitted to Tyler Stalker, U.S. Army Corps of Engineers, Sacramento District, Attn: Public Affairs Office (CESPK-PAO), 1325 J Street, Sacramento, CA 95814.



**FOR FURTHER INFORMATION CONTACT:** Tyler Stalker via telephone at (916) 557-5107, e-mail at [Tyler.M.Stalker@usace.army.mil](mailto:Tyler.M.Stalker@usace.army.mil), or mail at (see **ADDRESSES**).

Study information will also be posted periodically on the internet at <http://www.spk.usace.army.mil/Missions/CivilWorks/JointFederalProject.aspx>

**SUPPLEMENTARY INFORMATION:**

1. *Proposed Action.* The Folsom WCM Update will identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir to reduce flood risk to the Sacramento area by utilizing the auxiliary spillway currently under construction and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives and dam safety requirements in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.
2. *Alternatives.* The EIS/EIR will develop new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction to reduce Folsom Reservoir variable space allocation from the current operating range of 400,000-670,000 acre-feet (ac-ft) to 400,000-600,000 ac-ft. In addition, the incorporation of improved forecasting capabilities and basin wetness parameters as part of flood management operations will be evaluated. A number of flood management operation alternatives are expected to be developed and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes will be analyzed in the EIS/EIR.
3. *Scoping Process.*

a. Two public scoping meetings will be held to present an overview of the Folsom WCM Update and the EIS/EIR process, and to afford all interested parties with an opportunity to provide comments regarding the scope of analysis and potential alternatives. The public scoping meetings will be held at the following locations, dates, and times:

Sacramento Library Galleria	Folsom Community Center
828 I Street, Sacramento, CA	52 Natoma Street, Folsom, CA
October 15 <sup>th</sup> , 2012	October 22 <sup>nd</sup> , 2012
4pm to 7pm	4pm to 7pm


b. Potentially significant issues to be analyzed in depth in the EIS/EIR include project-specific, system-wide, and cumulative effects on authorized purposes of the Folsom Dam project and the environmental resources associated with those purposes. Effects analyzed will include: water supply for irrigation, municipal, and industrial uses; fish and wildlife resources; power generation; water quality; recreation; special status species; soils and levee safety; and cultural resources.

c. USACE will consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act, the Fish and Wildlife Coordination Act, and the requirements of the current Biological Opinions that affect the operations of Folsom Dam. USACE will consult with the State Historic Preservation Officer to comply with the National Historic Preservation Act. USACE will coordinate with the U.S. Bureau of Indian Affairs to establish consultation requirements with tribes having trust assets and tribal interests that could be affected by the WCM Update's outcome.

d. A 45-day public review period will be provided for individuals, interested parties, and agencies to review and comment on the draft EIS/EIR. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS/EIR circulation.

4. *Availability.* The draft EIS/EIR is scheduled to be available for public review and comment in 2015.

3 OCT 12  
Date: \_\_\_\_\_

for   
William J. Leady, P.E.  
Colonel, U.S. Army  
District Engineer  
LJL EN  
Duty con



In accordance with the one-year temporary policy established in the OMB Memorandum, DoD has taken steps to make payments under the contract as soon as practicable, with the goal of paying its contractors within 15 days. DoD strongly encourages all prime contractors to accelerate payments to small business subcontractors under existing contracts to the maximum extent practicable.

The Federal Acquisition Regulatory Council (FAR Council) has recommended that Federal agencies issue deviations to the FAR, which permit immediate incorporation of the policy outlined in OMB Memorandum M-12-16 in solicitations and resultant contracts. In accordance with this recommendation, DoD has begun using a new contract clause, pursuant to Class Deviation 2012-00014, "Providing Accelerated Payment to Small Business Subcontractors." This class deviation requires prime contractors, upon receipt of accelerated payments from the Government, to make accelerated payments to small business subcontractors to the maximum extent practicable after receipt of a proper invoice and all proper documentation from the small business subcontractor, while also maintaining necessary DoD internal controls. The FAR Council has opened FAR case 2012-031 to undertake rulemaking and obtain public comments to further implement OMB's policy.

Manuel Quinones,

Editor, Defense Acquisition Regulations System.

[FR Doc. 2012-25367 Filed 10-15-12; 8:45 am]

BILLING CODE 5001-06-P

## DEPARTMENT OF DEFENSE

### Department of the Army; Army Corps of Engineers

#### Notice of Intent To Prepare a Joint Environmental Impact Statement/Environmental Impact Report for the Folsom Dam Water Control Manual Update

**AGENCY:** Department of the Army, U.S. Army Corps of Engineers; DOD.

**ACTION:** Notice of Intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Sacramento District (USACE) intends to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (Folsom WCM Update). USACE will serve as lead agency and the Bureau of Reclamation will be a cooperating

agency for compliance with the National Environmental Policy Act (NEPA), and the Central Valley Flood Protection Board (CVFPB) will serve as lead agency for compliance with the California Environmental Quality Act (CEQA). The Folsom WCM Update is intended to improve the ability of Folsom Dam to utilize the new physical features to manage large flood events and meet dam safety requirements.

**DATES:** Written comments regarding the scope of the environmental analysis should be received by November 11, 2012.

**ADDRESSES:** Written comments and suggestions concerning this project and requests to be included on the project mailing list may be submitted to Tyler Stalker, U.S. Army Corps of Engineers, Sacramento District, Attn: Public Affairs Office (CESPK-PAO), 1325 J Street, Sacramento, CA 95814.

**FOR FURTHER INFORMATION CONTACT:** Tyler Stalker via telephone at (916) 557-5107, email at [Tyler.M.Stalker@usace.army.mil](mailto:Tyler.M.Stalker@usace.army.mil), or mail at (see **ADDRESSES**). Study information will also be posted periodically on the Internet at <http://www.spk.usace.army.mil/Missions/CivilWorks/JointFederalProject.aspx>

#### SUPPLEMENTARY INFORMATION:

1. *Proposed Action.* The Folsom WCM Update will identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir to reduce flood risk to the Sacramento area by utilizing the auxiliary spillway currently under construction and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives and dam safety requirements in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

2. *Alternatives.* The EIS/EIR will develop new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction to reduce Folsom Reservoir variable space allocation from the current operating range of 400,000–670,000 acre-feet (ac-ft) to 400,000–600,000 ac-ft. In addition, the incorporation of improved forecasting capabilities and basin wetness parameters as part of flood management operations will be evaluated. A number of flood management operation alternatives are expected to be developed and the effect

of those alternatives on Folsom Dam and Reservoir's other authorized purposes will be analyzed in the EIS/EIR.

#### 3. Scoping Process.

a. Two public scoping meetings will be held to present an overview of the Folsom WCM Update and the EIS/EIR process, and to afford all interested parties with an opportunity to provide comments regarding the scope of analysis and potential alternatives. The public scoping meetings will be held at the following locations, dates, and times: Sacramento Library Galleria, 828 I Street, Sacramento, CA, October 15th, 2012, 4 p.m. to 7 p.m. and Folsom Community Center, 52 Natoma Street, Folsom, CA, October 22nd, 2012, 4 p.m. to 7 p.m.

b. Potentially significant issues to be analyzed in depth in the EIS/EIR include project-specific, system-wide, and cumulative effects on authorized purposes of the Folsom Dam project and the environmental resources associated with those purposes. Effects analyzed will include: Water supply for irrigation, municipal, and industrial uses; fish and wildlife resources; power generation; water quality; recreation; special status species; soils and levee safety; and cultural resources.

c. USACE will consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act, the Fish and Wildlife Coordination Act, and the requirements of the current Biological Opinions that affect the operations of Folsom Dam. USACE will consult with the State Historic Preservation Officer to comply with the National Historic Preservation Act. USACE will coordinate with the U.S. Bureau of Indian Affairs to establish consultation requirements with tribes having trust assets and tribal interests that could be affected by the WCM Update's outcome.

d. A 45-day public review period will be provided for individuals, interested parties, and agencies to review and comment on the draft EIS/EIR. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS/EIR circulation.

4. *Availability.* The draft EIS/EIR is scheduled to be available for public review and comment in 2015.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2012-25307 Filed 10-15-12; 8:45 am]

BILLING CODE 3720-56-P

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

**CENTRAL VALLEY FLOOD PROTECTION BOARD**

3310 El Camino Ave., Rm. 151  
SACRAMENTO, CA 95821  
(916) 574-0609 FAX: (916) 574-0682  
PERMITS: (916) 574-0685 FAX: (916) 574-0682



**NOTICE OF PREPARATION  
AND NOTICE OF PUBLIC SCOPING MEETING  
FOR THE  
FOLSOM DAM WATER CONTROL MANUAL UPDATE ENVIRONMENTAL IMPACT  
STATEMENT/ENVIRONMENTAL IMPACT REPORT**

**Date:** October 12, 2012  
**To:** Public Agencies and Interested Parties  
**Project:** The Folsom Dam Water Control Manual Update

The U.S. Army Corps of Engineers, Sacramento District (USACE) and the Central Valley Flood Protection Board (CVFPB) are preparing a Joint Environment Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update. The USACE will serve as the lead agency under the National Environmental Policy Act (NEPA), and the CVFPB will serve as the lead agency under the California Environmental Quality Act (CEQA).

The Folsom Dam Joint Federal Project (JFP), consisting of a new auxiliary spillway currently under construction, will improve the ability of Folsom Dam to manage large flood events. In order to fully realize the benefits of the new auxiliary spillway, the current Folsom Dam and Reservoir Water Control Manual must be updated.

**Background**

Folsom Dam and Reservoir is a multipurpose project (flood risk management, water supply, hydroelectricity, water quality, fish and wildlife preservation, and recreation) operated by the U.S. Bureau of Reclamation (Reclamation) as a part of the Central Valley Project (CVP). The USACE is responsible for prescribing operations pertaining to use of the storage allocated for flood risk management. The dam provides flood risk management benefits to the city of Sacramento and its surrounding areas by regulating runoff from approximately 1,860 square miles of drainage area. It has an authorized total storage capacity of 1,000,000 acre-feet, of which 400,000 acre-feet is allocated for flood storage. An interim agreement between Reclamation and the Sacramento Area Flood Control Agency (SAFCA) authorizes flood management operations at Folsom Reservoir through 2018 to use a variable space allocation with a current operating range of 400,000-670,000 acre-feet, dependent upon incidental storage availability in three upstream reservoirs.



### **Purpose**

The purpose of the Water Control Manual Update effort is to identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir that would reduce flood risk to the Sacramento area by utilizing the new auxiliary spillway and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam. The findings of the evaluation will be used to help define the dam's new flood operations plan, with the intention of meeting flood risk management objectives in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

### **Area of Analysis**

The Folsom Dam and Reservoir is located in Folsom, California. The EIS/EIR will evaluate proposed updates to the water control manual for Folsom Dam from a local and regional perspective. The local area of analysis focuses on the Lower American River watershed, including Folsom Reservoir. The regional area of analysis reflects the Central Valley Project (CVP) and State Water Project (SWP) facilities and service areas because Folsom Dam and Reservoir is part of the CVP system.

### **Proposed Action and Alternatives**

Through the Water Control Manual Update effort, USACE, in partnership with Reclamation, CVFPB, and SAFCA, will, at a minimum, develop new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction to reduce Folsom Reservoir variable space allocation from the current operating range of 400,000-670,000 acre-feet (ac-ft) to 400,000-600,000 ac-ft. In addition, the incorporation of improved forecasting capabilities and basin wetness parameters as part of flood management operations will be evaluated.

A number of flood management operation alternatives are expected to be developed and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes (water supply, power generation, fish and wildlife protection, water quality, recreation, and navigation) will be analyzed in the EIS/EIR. The EIS/EIR will describe the project-specific, system-wide, and cumulative effects on the other authorized purposes of the Folsom Dam project (water supply for irrigation, municipal, and industrial uses; fish and wildlife preservation; power generation; water quality; and recreation). The EIS/EIR will also evaluate cumulative effects of the proposed action and alternatives when considered in conjunction with other related past, present, and reasonably foreseeable future projects, including other USACE, CVFPB, and Department of Water Resources projects.

On the basis of preliminary evaluation, the CVFPB has determined that the proposed alternatives that will be evaluated in the EIS/EIR could have potentially significant environmental effects on the following resources areas:

- Special Status Species
- Fisheries and Aquatic Resources
- Vegetation and Wildlife
- Hydropower
- Hydrology/Water Quality
- Recreation
- Cultural Resources
- Mandatory Findings of Significance

The USACE and the CVFPB will consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act, the Fish and Wildlife Coordination Act, and the requirements of the current Biological Opinions that affect the operations of Folsom Dam. The USACE and the CVFPB will consult with the State Historic Preservation Officer to comply with the National Historic Preservation Act. The USACE and the CVFPB will coordinate with the U.S. Bureau of Indian Affairs to establish consultation requirements with tribes having trust assets and tribal interests that could be affected by the Water Control Manual Update's outcome. The CVFPB will also consult with the California Department of Fish and Game to comply with the California Endangered Species Act.

#### **Scoping and Public Involvement Process**

Pursuant to Section 15083, Title 14, Chapter 3, California Code of Regulations, public scoping meetings will be conducted on October 15<sup>th</sup> and 22<sup>nd</sup>, 2012 to solicit public input.

The purpose of the scoping meetings is to present information about the proposed action and alternatives, the USACE and CVFPB's decision-making processes, and to listen to the views of the public on the range of issues relevant to the scope and content of the EIS/EIR. The scoping meeting locations, dates, and times are as follows:

Sacramento Library Galleria  
828 I Street, Sacramento, CA  
October 15<sup>th</sup>, 2012  
4pm to 7pm

Folsom Communities Center  
52 Natoma Street, Folsom, CA  
October 22<sup>nd</sup>, 2012  
4pm to 7pm

For questions about the proposed action, alternatives, and the EIS/EIR or to receive a copy of the notice, please contact Mr. David Martasian at 916-574-1442. This notice is also available to view and download on the CVFPB's website at <http://www.cvfpb.ca.gov/PublicNotices/>

Due to the time limits mandated by state law, written comments and suggestions concerning the proposed action and alternatives must be received or postmarked by November 12, 2012. Please submit comments at the earliest possible date to:

Attn: David Martasian  
Central Valley Flood Protection Board  
3464 El Camino Ave, Room 200, Sacramento CA 95821  
Or by email to [Folsom\\_Scoping@water.ca.gov](mailto:Folsom_Scoping@water.ca.gov)

The draft EIS/EIR is scheduled to be available for public review and comment in 2015. A 45-day public review period will be provided for individuals, interested parties, and agencies to review and comment on the draft EIS/EIR. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS/EIR circulation.

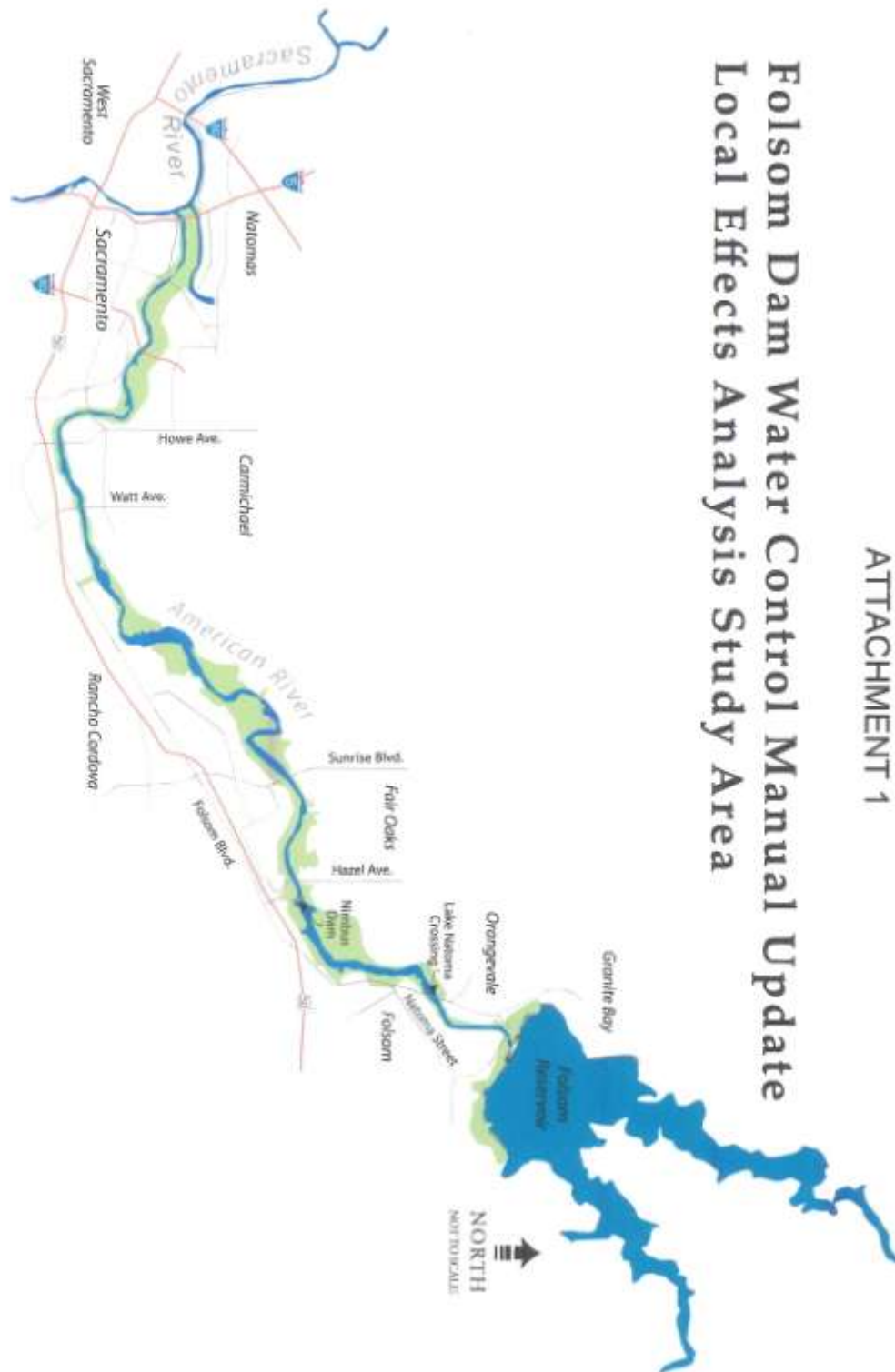
  
\_\_\_\_\_  
Jay S. Punia  
Executive Officer  
Central Valley Flood Protection Board

Date: 10/11/2012

Attachment 1 – Local Study Area of Analysis  
Attachment 2 – Regional Study Area of Analysis

ATTACHMENT 1

**Folsom Dam Water Control Manual Update  
Local Effects Analysis Study Area**







Print Form

Appendix C

**Notice of Completion & Environmental Document Transmittal**

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613  
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2012102034

**Project Title:** Folsom Dam Water Control Manual Update  
**Lead Agency:** Central Valley Flood Protection Board **Contact Person:** Vincent Heim  
**Mailing Address:** 3464 El Camino Avenue **Phone:** 916-574-2310  
**City:** Sacramento **Zip:** 95821 **County:** Sacramento

**Project Location:** County: Sacramento City/Nearest Community: Folsom  
**Cross Streets:** Folsom-Auburn Blvd & Folsom Lake Crossing **Zip Code:** 95630  
**Longitude/Latitude (degrees, minutes and seconds):** " " ' " N / " " ' " W **Total Acres:** \_\_\_\_\_  
**Assessor's Parcel No.:** \_\_\_\_\_ **Section:** \_\_\_\_\_ **Twp.:** \_\_\_\_\_ **Range:** \_\_\_\_\_ **Base:** \_\_\_\_\_  
**Within 2 Miles:** State Hwy #: \_\_\_\_\_ **Waterways:** \_\_\_\_\_  
**Airports:** \_\_\_\_\_ **Railways:** \_\_\_\_\_ **Schools:** \_\_\_\_\_

**Document Type:**  
 CEQA: ☒ NOP ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Mit Neg Dec ☐ Other: \_\_\_\_\_  
 NEPA: ☒ NOI ☐ EA ☐ Draft EIS ☐ FONSI ☐ Other: ☒ Joint Document ☐ Final Document ☐ Other: \_\_\_\_\_

**Local Action Type:**  
☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation  
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment  
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit  
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other: \_\_\_\_\_

**Development Type:**  
☐ Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_  
☐ Office: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Commercial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Industrial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Educational: \_\_\_\_\_  
☐ Recreational: \_\_\_\_\_  
☐ Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Transportation: Type \_\_\_\_\_  
☐ Mining: Mineral \_\_\_\_\_  
☐ Power: Type \_\_\_\_\_ MW \_\_\_\_\_  
☐ Waste Treatment: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Hazardous Waste: Type \_\_\_\_\_  
☐ Other: \_\_\_\_\_

**Project Issues Discussed in Document:**  
☐ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation  
☐ Agricultural Land ☒ Flood Plain/Flooding ☐ Schools/Universities ☒ Water Quality  
☐ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☒ Water Supply/Groundwater  
☒ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian  
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement  
☐ Coastal Zone ☐ Noise ☐ Solid Waste ☐ Land Use  
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☒ Cumulative Effects  
☐ Economic/Jobs ☐ Public Services/Facilities ☐ Traffic/Circulation ☒ Other: Climate Change & Hydropower

**Present Land Use/Zoning/General Plan Designation:**

**Project Description:** (please use a separate page if necessary)

The US Army Corps of Engineers (USACE) and the Central Valley Flood Protection Board (Board) intend to prepare a Joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update and will be hold 2 public scoping meetings to gain public feedback and comments. This document will evaluate the potential significant effects of developing new operational rules to the existing water control manual for Folsom Dam to meet dam safety and flood risk management objectives when the new auxiliary spillway is completed.

*Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft documents) please fill in.*

Revised 2010

**Reviewing Agencies Checklist**

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".  
If you have already sent your document to the agency please denote that with an "S".

<u>S</u> Air Resources Board	<u>S</u> Office of Historic Preservation
<u>S</u> Boating & Waterways, Department of	<u>S</u> Office of Public School Construction
<u>S</u> California Emergency Management Agency	<u>S</u> Parks & Recreation, Department of
<u>S</u> California Highway Patrol	<u>S</u> Pesticide Regulation, Department of
<u>S</u> Caltrans District # <u>3</u>	<u>S</u> Public Utilities Commission
<u>S</u> Caltrans Division of Aeronautics	<u>S</u> Regional WQCB # <u>5</u>
<u>S</u> Caltrans Planning	<u>S</u> Resources Agency
<u>S</u> Central Valley Flood Protection Board	<u>S</u> Resources Recycling and Recovery, Department of
<u>S</u> Coachella Valley Mtns. Conservancy	<u>S</u> S.F. Bay Conservation & Development Comm.
<u>S</u> Coastal Commission	<u>S</u> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
<u>S</u> Colorado River Board	<u>S</u> San Joaquin River Conservancy
<u>S</u> Conservation, Department of	<u>S</u> Santa Monica Mtns. Conservancy
<u>S</u> Corrections, Department of	<u>S</u> State Lands Commission
<u>X</u> Delta Protection Commission	<u>S</u> SWRCB: Clean Water Grants
<u>S</u> Education, Department of	<u>S</u> SWRCB: Water Quality
<u>S</u> Energy Commission	<u>S</u> SWRCB: Water Rights
<u>S</u> Fish & Game Region # <u>2</u>	<u>S</u> Tahoe Regional Planning Agency
<u>S</u> Food & Agriculture, Department of	<u>S</u> Toxic Substances Control, Department of
<u>S</u> Forestry and Fire Protection, Department of	<u>S</u> Water Resources, Department of
<u>S</u> General Services, Department of	
<u>S</u> Health Services, Department of	
<u>S</u> Housing & Community Development	
<u>S</u> Native American Heritage Commission	
	Other: _____
	Other: _____

**Local Public Review Period (to be filled in by lead agency)**

Starting Date October 12, 2012 Ending Date November 12, 2012

**Lead Agency (Complete if applicable):**

Consulting Firm: \_\_\_\_\_ Applicant: \_\_\_\_\_  
 Address: \_\_\_\_\_ Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Signature of Lead Agency Representative: [Signature] Date: 10/12/2012

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Revised 2010

## Sacramento Bee Advertisement

### NO578 PUBLIC NOTICE

#### Notice of Preparation and Intent to Prepare an Environmental Impact Statement and Environmental Impact Report for the Folsom Dam Water Control Manual Update

The U.S. Army Corps of Engineers, Sacramento District (USACE) and the Central Valley Flood Protection Board (CVFPB) are preparing a Joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (WCM Update). The USACE will serve as the lead agency under the National Environmental Policy Act (NEPA), and the CVFPB will serve as the lead agency under the California Environmental Quality Act (CEQA). The Bureau of Reclamation (Reclamation) is acting as a NEPA cooperating agency and the Sacramento Area Flood Control Agency (SAFCA) is acting as a CEQA responsible agency.

Folsom Dam and Reservoir is a multipurpose project operated by the Reclamation as a part of the Central Valley Project (CVP). The USACE is responsible for prescribing operations pertaining to use of the storage allocated for flood risk management. The dam provides flood risk management benefits to the City of Sacramento and its surrounding areas by regulating runoff from approximately 1,860 square miles of drainage area.

The Folsom Dam Joint Federal Project (JFP), currently under construction, consists of a new auxiliary spillway with a spillway crest elevation 50 feet lower in elevation than the current gated spillways on the main dam. The JFP will improve the ability of Folsom Dam to manage large flood events by allowing more water to be safely released earlier in a storm event. In order to fully realize the benefits of the new auxiliary spillway, the current Folsom Dam and Reservoir Water Control Manual must be updated.

The purpose of the WCM Update effort is to identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir that would reduce flood risk to the Sacramento area by utilizing the new auxiliary spillway and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam and by developing the technical information required to update the existing WCM. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

The USACE and the CVFPB will be holding two scoping meetings to provide the public with information on the array of measures currently being considered for the WCM Update and EIS/EIR. Staff from USACE, CVFPB, the Department of Water Resources (DWR), Reclamation, SAFCA, and other members of the project team will be on hand to address questions regarding the WCM Update. The public will be given the opportunity to provide written and verbal comments at the scoping meetings.

Scoping meetings will be held at the following locations:

Sacramento Library Galleria  
828 I Street, Sacramento, CA  
October 15th, 2012  
4pm to 7pm

Folsom Community Center  
52 Natoma Street, Folsom, CA  
October 22nd, 2012  
4pm to 7pm

A Notice of Intent (NOI) to prepare an EIS/EIR pursuant to NEPA will be published in the Federal Register and a Notice of Preparation (NOP) to prepare an EIS/EIR pursuant to CEQA will be submitted to the State Clearinghouse. The notices are available online at the Federal Register website (<https://www.federalregister.gov/>) and on the CVFPB's website at (<http://www.cvfpb.ca.gov/PublicNotices/>).

Written comments and suggestions about the WCM Update may be submitted by November 11th, 2012 to Tyler Stalker, USACE Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address. Questions about the WCM Update and the EIS/EIR should be addressed to:

**Tyler Stalker,**  
USACE Public Affairs Office  
1325 J St, Sacramento,  
CA 95814  
Phone - 916-557-5107  
Fax - 916-557-7853  
Tyler.M.Stalker@usace.army.mil

**David Martasian,**  
DWR Division of Flood Mngmnt  
3464 El Camino Ave, Room 200,  
Sacramento, CA 95821  
Phone - 916-574-1448  
Fax - 916-574-1478  
Folsom\_scoping@water.ca.gov

For more information about the Folsom Dam WCM Update please visit the following website <http://www.spk.usace.army.mil/Missions/CiviWorks/JointFederalProject.aspx>



## Folsom Telegraph Advertisement

### Notice of Preparation and Intent to Prepare an Environmental Impact Statement and Environmental Impact Report for the Folsom Dam Water Control Manual Update

The U.S. Army Corps of Engineers, Sacramento District (USACE) and the Central Valley Flood Protection Board (CVFPB) are preparing a Joint Environment Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (WCM Update). The USACE will serve as the lead agency under the National Environmental Policy Act (NEPA), and the CVFPB will serve as the lead agency under the California Environmental Quality Act (CEQA). The Bureau of Reclamation (Reclamation) is acting as a NEPA cooperating agency and the Sacramento Area Flood Control Agency (SAFCA) is acting as a CEQA responsible agency.

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The Folsom Dam Joint Federal Project (JFP), currently under construction, consists of a new auxiliary spillway with a spillway crest elevation 50 feet lower in elevation than the current gated spillways on the main dam. The JFP will improve the ability of Folsom Dam to manage large flood events by allowing more water to be safely released earlier in a storm event. In order to fully realize the benefits of the new auxiliary spillway, the current Folsom Dam and Reservoir Water Control Manual must be updated.

The purpose of the WCM Update effort is to identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir that would reduce flood risk to the Sacramento area by utilizing the new auxiliary spillway and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam and by developing the technical information required to update the existing WCM. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

The USACE and the CVFPB will be holding two scoping meetings to provide the public with information on the array of measures currently being considered for the WCM Update and EIS/EIR. Staff from USACE, CVFPB, the Department of Water Resources (DWR), Reclamation, SAFCA, and other members of the project team will be on hand to address questions regarding the WCM Update. The public will be given the opportunity to provide written and verbal comments at the scoping meetings.

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828 I Street, Sacramento, CA  
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4pm to 7pm

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4pm to 7pm

A Notice of Intent (NOI) to prepare an EIS/EIR pursuant to NEPA will be published in the Federal Register and a Notice of Preparation (NOP) to prepare an EIS/EIR pursuant to CEQA will be submitted to the State Clearinghouse. The notices are available online at the Federal Register website (<https://www.federalregister.gov/>) and on the CVFPB's website at (<http://www.cvfpb.ca.gov/PublicNotices/>).

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**Tyler Stalker,**  
**USACE Public Affairs Office**  
1325 J St, Sacramento,  
CA 95814  
Phone - 916-557-5107  
Fax - 916-557-7853  
e-mail - [Tyler.M.Stalker@usace.army.mil](mailto:Tyler.M.Stalker@usace.army.mil)

**David Martasian,**  
**DWR Division of Flood Management**  
3464 El Camino Ave, Room 200,  
Sacramento, CA 95821  
Phone - 916-574-1448  
Fax - 916-574-1478  
e-mail - [Folsom\\_scoping@water.ca.gov](mailto:Folsom_scoping@water.ca.gov)

For more information about the Folsom Dam WCM Update please visit the following website  
<http://www.spk.usace.army.mil/Missions/CivilWorks/JointFederalProject.aspx>

THE SACRAMENTO BEE [sacbee.com](http://sacbee.com)

## Comments sought about dam's operating rules

[mweiser@sacbee.com](mailto:mweiser@sacbee.com)

Published Thursday, Oct. 18, 2012

State and federal officials are looking for public input as they draft new operating rules for Folsom Dam, a vital flood-control structure for the Sacramento region.

A new billion-dollar spillway under construction at the dam is intended to boost the reservoir's flood control capacity. But to maximize the new spillway's capabilities, new operating rules are required.

Known as the dam's "water control manual," the rules govern how much water can be held behind the dam and how much can be released under different scenarios.

The U.S. Army Corps of Engineers and the Central Valley Flood Protection Board are updating the manual to account for the spillway and to consider new weather forecasting capabilities that may be incorporated into the manual for the first time.

The manual also has effects on river recreation, fisheries and water quality in the Sacramento region and beyond.

The agencies have scheduled a meeting from 4 to 7 p.m. Monday at the Folsom Community Center, 52 Natoma St., to present information on the project and hear public comments.

The meeting will help the agencies prepare an environmental impact study that will be released for further public comment later.

For more information, call David Martasian at (916) 574-1442 or visit <http://ht.ly/eytDP>.

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 Order Reprint

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Call The Bee's Matt Weiser, (916) 321-1264.

- Read more articles by Matt Weiser



---

**Subject:** RE: Folsom Water Control Manual Update - Public Meeting Invitations, Oct. 15  
(UNCLASSIFIED)

**From:** Plain, Todd SPK  
**Sent:** Tuesday, October 09, 2012 9:58 AM  
**Cc:** Stalker, Tyler M SPK  
**Subject:** Folsom Water Control Manual Update - Public Meeting Invitations, Oct. 15

Hello, All

The U.S. Army Corps of Engineers Sacramento District and the state's Central Valley  
Protection Board will be holding two public scoping meetings to provide information on the  
Folsom Dam Water Control Manual Update and to solicit input from the public.

The scoping meetings will be held at the following locations:

Sacramento Library Galleria	Folsom Community Center
828 I Street, Sacramento, CA	52 Natoma Street, Folsom, CA
October 15th, 2012	October 22nd, 2012
4pm to 7pm	4pm to 7pm

\* Please see attached document for more information.

Public Affairs Office  
U.S. Army Corps of Engineers Sacramento District  
(916) 557-5100 Main  
[spk-pao@usace.army.mil](mailto:spk-pao@usace.army.mil)

Classification: UNCLASSIFIED  
Caveats: NONE



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO, CALIFORNIA, 95814-2922



Environmental Resources Branch

TO ALL INTERESTED PARTIES:

The U.S. Army Corps of Engineers, Sacramento District (Corps) and the Central Valley Flood Protection Board (CVFPB) will be holding two public meetings to provide information on the Folsom Dam Water Control Manual Update (WCM Update) and to solicit input from the public. The Corps and the CVFPB intend to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to evaluate proposed changes to operations of Folsom Dam as a result of the WCM Update. The Corps will serve as lead agency for compliance with the National Environmental Policy Act (NEPA), and the CVFPB, with support from the State of California Department of Water Resources (DWR), will serve as lead agency for compliance with the California Environmental Quality Act (CEQA). The Bureau of Reclamation (Reclamation) is acting as a NEPA cooperating agency and the Sacramento Area Flood Control Agency (SAFCA) is acting as a CEQA responsible agency.

Folsom Dam and Reservoir is a multipurpose project operated by Reclamation as a part of the Central Valley Project (CVP). The Corps is responsible for prescribing operations pertaining to use of the storage allocated for flood risk management. The dam provides flood risk management benefits to the City of Sacramento and its surrounding areas by regulating runoff from approximately 1,860 square miles of drainage area.

The Folsom Dam Joint Federal Project (JFP), currently under construction, consists of a new auxiliary spillway with a crest elevation 50 feet lower in elevation than the current gated spillways on the main dam. The JFP will improve the ability of Folsom Dam to manage large flood events by allowing more water to be safely released earlier in a storm event, resulting in more storage capacity remaining in the reservoir to hold back the peak inflow when it arrives. The JFP will also meet Reclamation's dam safety goal to pass the probable maximum flood (the most severe possible flood in this drainage area) without causing failure of Folsom Dam. In order to fully realize the benefits of the new auxiliary spillway, the current Folsom Dam and Reservoir Water Control Manual must be updated.

The WCM Update will identify, evaluate, and recommend changes to the flood management operation rules of Folsom Dam and Reservoir to reduce flood risk to the Sacramento area by utilizing the new auxiliary spillway and by incorporating an improved understanding of the American River watershed upstream of Folsom Dam. The findings of the evaluation will be used to help define the Dam's new flood operations plan, with the intention of meeting flood risk management objectives and dam safety requirements in a manner that conserves as much water as possible and maximizes all authorized Folsom Dam project uses to the extent practicable.

Your input on the above topics and any associated items that are important to you will be used to:

- Further determine the scope of the analysis in the EIS/EIR.
- Refine the range of alternatives to be evaluated in the EIS/EIR.



- Obtain local knowledge or information to assist in the environmental analysis.

Staff from the Corps, CVFPB, DWR, Reclamation, SAFCA, and other members of the project team will be on hand to accept comments and address questions regarding the WCM Update. The public will be given the opportunity to provide written and verbal comments at the scoping meetings.

A Notice of Intent (NOI) to prepare an EIS/EIR pursuant to NEPA will be published in the Federal Register and a Notice of Preparation (NOP) to prepare an EIS/EIR pursuant to CEQA will be submitted to the State Clearinghouse. The notices will be available online at the Federal Register website (<https://www.federalregister.gov/>) and on the CVFPB's website at (<http://www.cvfpb.ca.gov/PublicNotices/>).

Written comments and suggestions about the WCM Update may be submitted to Tyler Stalker, Corps Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address. Questions about the WCM Update and the EIS/EIR should be addressed to:

Tyler Stalker,  
Corps Public Affairs Office  
1325 J St, Sacramento,  
CA 95814  
Phone - 916-557-5107  
Fax - 916-557-7853  
e-mail - [Tyler.M.Stalker@usace.army.mil](mailto:Tyler.M.Stalker@usace.army.mil)

David Martasian,  
DWR Division of Flood Management  
3464 El Camino Ave, Room 200,  
Sacramento, CA 95821  
Phone - 916-574-1448  
Fax - 916-574-1478  
e-mail - [Folsom\\_scoping@water.ca.gov](mailto:Folsom_scoping@water.ca.gov)

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52 Natoma Street, Folsom, CA  
October 22nd, 2012  
4pm to 7pm

For more information please visit the Folsom Dam WCM Update website at <http://www.spk.usace.army.mil/Missions/CivilWorks/JointFederalProject.aspx>

Sincerely,

Alicia E. Kirchner  
Chief, Planning Division

## Mailing Lists

Jim Michaelaels	7806 Folsom-Auburn Road Folsom, CA 95630
Howard Brown	650 Capitol Mall, Sacramento, CA 95814
Douglas Weinrich	2800 Cottage Way, Sacramento, CA 95825
Dawn Richmond	75 Hawthorne Street, San Francisco, CA 94105-3901
Jeff Wehling	75 Hawthorne Street, San Francisco, CA 94105-3901
John Ungvarsky	75 Hawthorne Street, San Francisco, CA 94105-3901
Mike Deis	P.O. Box 15830 Sacramento, CA 95852
Western Area Power Agency	114 Parkshore Drive, Folsom, CA 95630
Placer County - Planning	3091 County Center Drive, Auburn, CA 95603
Supervisor District 4	175 Fulweiler Avenue, Auburn, CA 95603
Keith B. Durkin	Peter J. Shields Library 100 NW Quad, Davis, CA 95616
Raynor Tsuneyoshi	2000 Evergreen Street, Suite 100, Sacramento, CA 95815
Sylvia Oey	P.O. Box 2815, Sacramento, CA 95812
Scott King	P.O. Box 2815, Sacramento, CA 95812
California Department of Transportation, District 3	P.O. Box 942874, Sacramento, CA 94274-0001
Honorable Roger Dickinson	915 L Street, Suite 110, Sacramento, CA 95814
Honorable Tom McClintock	428 Cannon HOB, Washington, DC 20515
	8700 Auburn-Folsom Road, Suite 100, Granite Bay, CA 95746
Honorable Tom McClintock	State Capitol, Room 3070, Sacramento, CA 95814
Honorable Doug LaMalfa	State Capitol, Room 205, Sacramento, CA 95814
Honorable Darrell Steinberg	2729 Prospect Park Drive, Suite 130, Rancho Cordova, CA 95670
	State Capitol, Room 3056, Sacramento, CA 95814
Honorable Alyson Huber	State Capitol, Room 4009, Sacramento, CA 95814
Honorable Ted Gaines	State Capitol, PO Box 942849, Sacramento, CA 94249-0005
Honorable Beth Gaines	State Capitol, Sacramento, CA 95814
	112 Hart Senate Office Building, Washington, DC 20510
Honorable Richard Pan	501 I Street, Suite 7-600, Sacramento, CA 95814
Honorable Dan Logue	331 Hart Senate Office Building, Washington, DC 20510
Honorable Barbara Boxer	One Post Street, Suite 2450, San Francisco, CA 95814
Honorable Barbara Boxer	2313 Rayburn HOB, Washington, DC 20515
Honorable Diane Feinstein	
Honorable Diane Feinstein	
Honorable Dan Lungren	
Honorable Dan Lungren	2339 Gold Meadow Way, Suite 220 Gold River, CA 95670
Honorable Dorris Matsui	222 Cannon Building, Washington, DC 20515
Honorable Dorris Matsui	501 I Street, Suite 12-600, Sacramento, CA 95814
Honorable Jerry Brown	Sacramento, CA 95814
Honorable Lois Wolk	State Capitol, Room 4032 Sacramento, CA 95814
Roger Niello	One Capitol Mall, Suite 300 Sacramento, CA 95814

Jill Ernst	P.O. Box 2451, Granite Bay, CA 95746
Mark Rackovan	50 Natoma Street, Folsom, CA 95630
Rich Lorenz	50 Natoma Street, Folsom, CA 95630
LIBRARY	300 Persifer Street, Folsom, CA 95630
Mayor Kerri Howell	50 Natoma Street, Folsom, CA 95630
County Sanitation District 1 CSD-1/Sacramento Regional	
County Sanitation District	10545 Armstrong Avenue, Mather, CA 95655
Russ Harrington	1521 I Street, Sacramento, CA 95814
Robert F. Stackhouse	1521 I Street, Sacramento, CA 95814
Elizabeth Torrez	827 7th Street Room 220, Sacramento, CA 95814
Department of Fish & Game	1416 9th Street, Sacramento, CA 95814
Kevin Thomas	1701 Nimbus Road, Rancho Cordova, CA 95670
Jay Rowan	1701 Nimbus Road, Rancho Cordova, CA 95670
Kenneth Kundargi	1701 Nimbus Road, Rancho Cordova, CA 95670
Department of Parks & Recreation	3149 16th Street, NW Washington, D.C. 20010
	2000 State University Drive East, Sacramento, CA 95819-6039
Nancy Opsahl	7455 Silva Valley Parkway, El Dorado Hills, CA 95762
El Dorado County	330 Fair Lane, Placerville, CA 95667
El Dorado County	2850 Fairlane Court, Building C, Placerville, CA 95667
El Dorado County	2890 Mosquito Road, Placerville, CA 95667
El Dorado Irrigation District	1204 Forrest Street, Folsom, CA 95630
Folsom Area Bicycle Advocates	P.O. Box 6356 Auburn, CA 95604-6356
Folsom Auburn Trail Riders Action Coalition	200 Wool Street, Folsom, CA 95630
Joseph P. Gagliardi	200 Wool Street, Folsom, CA 95630
Bill Watson	1418 20th Street, Suite A Sacramento, CA 95811
Friends of the River	3650 Schriever Ave, Mather, CA 95655
Govenor's Office of Emergency Services	P.O. Box 1877, San Leandro, CA 94577
Northern California Marine Association	180 Cirby Way, Roseville, CA 95678
Northern California Power Agency	PO Box 5900, Room 118, University of California, Riverside, CA 92517-5900
	11020 Sun Center Dr, Suite 200 Rancho Cordova, CA 95670
Water Resources Collections and Archives	225 Taylor Street, Roseville, CA 95678
Regional Water Quality Control Board, Central Valley Region	909 12th Street, Suite 116, Sacramento, CA 95814
Roseville Public Library	828 I Street, Sacramento, CA 95814
Sacramento Area Bicycle Advocates	700 H Street, Sacramento, CA 95814
Sacramento Central Library	P.O. Box 2157, Los Banos, CA 93635
Board of Supervisors	777 12th Street, 3rd Floor, Sacramento, CA 95814
San Luis & Delta Mendota Water Authority	P.O. Box 100, Sacramento, CA 95812
SMAQMD	1416 Ninth Street, Suite 1311, Sacramento, CA 95814
State Water Resources Control Board	1849 C Street NW, Main Interior Bldg, Washington, D.C. 20240
The Resources Agency	
U.S. Department of Interior	



Water Forum Office	600 J Street, Suite 260 Sacramento, CA 95814
Daniel Fonseca	P.O. Box 1340 Shingle Springs, CA 95682
Angela Rivera	P.O. Box 1340 Shingle Springs, CA 95682
Eileen Moon	1239 East Main Street, Grass Valley, CA 95945
David Keyser	10720 Indian Hill Road, Auburn, CA 95603
Marcos Guererro	10720 Indian Hill Road, Auburn, CA 95603
	9838 Old Placerville Road, Suite B, Sacramento, CA 95827
California Department of Corrections and Rehabilitation	
Jim Bennet	130 Marion Way, Auburn, CA 95603
Rick Copeland	1604 Broder Circle, Folsom, CA 95603
Gary Estes	4135 Eagles Nest, Auburn, CA 95603
Anthony Huggins	146 Rebecca Way, Folsom, CA 95630
Chris Jennings	126 Chambersburg Way, Folsom, CA 95630
James Morgan	9459 Alcosta Way, Sacramento, CA 95827
George Qualley	6327 Merton Way, Sacramento, CA 95842
Neil Taylor	6345 Reservoir Drive, Granite Bay, CA 95746
David G. Waterhouse	640 Cambrian Ct., Sacramento, CA 95814
Folsom Church of Christ	P.O. Box 492, Folsom, CA 95630

Nicholas Fonseca	Shingle Springs Band of Miwok Indians, P.O. Box 1340, Shingle Springs CA 95682
Daniel Fonseca	Shingle Springs Band of Miwok Indians, P.O. Box 1340, Shingle Springs CA 95682
David Keyser	United Auburn Indian Community of the Auburn Rancheria, 10720 Indian Hill Road, Auburn, CA 95603
Marcos Guerrero	United Auburn Indian Community of the Auburn Rancheria, 10720 Indian Hill Road, Auburn, CA 95603
Eileen Moon	Tsi-Akim Maidu, 1239 East Main Street, Grass Valley, CA 95945
Grayson Coney	Tsi-Akim Maidu, 1239 East Main Street, Grass Valley, CA 95945

CURRENT RESIDENT	355 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	357 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	359 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	361 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	363 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	364 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	365 MOUNTAIN VIEW DR	FOLSOM, CA 95630
CURRENT RESIDENT	170 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	175 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	195 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	245 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	295 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	350 ELVIES LN	FOLSOM, CA 95630
CURRENT RESIDENT	365 ELVIES LN	FOLSOM, CA 95630

CURRENT RESIDENT	850 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	856 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	862 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	868 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	874 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	880 NATURE WAY	FOLSOM, CA 95630
CURRENT RESIDENT	765 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	766 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	769 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	773 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	777 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	781 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	782 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	787 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	791 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	795 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	800 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	801 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	804 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	805 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	809 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	810 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	813 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	814 CRISTINA CT	FOLSOM, CA 95630
CURRENT RESIDENT	1500 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1501 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1505 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1509 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1510 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1514 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1518 GIONATA WAY	FOLSOM, CA 95630
CURRENT RESIDENT	753 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	756 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	757 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	760 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	761 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	764 LORENA LN	FOLSOM, CA 95630
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CURRENT RESIDENT	768 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	771 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	772 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	775 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	776 LORENA LN	FOLSOM, CA 95630

CURRENT RESIDENT	779 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	780 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	783 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	784 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	788 LORENA LN	FOLSOM, CA 95630
CURRENT RESIDENT	1535 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1536 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1539 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1540 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1543 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1544 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1547 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1551 BALLOU CIR	FOLSOM, CA 95630
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CURRENT RESIDENT	1582 BALLOU CIR	FOLSOM, CA 95630
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CURRENT RESIDENT	1603 BALLOU CIR	FOLSOM, CA 95630
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CURRENT RESIDENT	1708 BALLOU CIR	FOLSOM, CA 95630
CURRENT RESIDENT	1475 LEWIS WAY	FOLSOM, CA 95630
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CURRENT RESIDENT	1492 LEWIS WAY	FOLSOM, CA 95630
CURRENT RESIDENT	1525 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1526 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1529 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1530 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1533 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1537 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1541 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1545 BORRASCA DR	FOLSOM, CA 95630

CURRENT RESIDENT	1549 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1553 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1557 BORRASCA DR	FOLSOM, CA 95630
CURRENT RESIDENT	1503 GUZZETTI WAY	FOLSOM, CA 95630
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CURRENT RESIDENT	103 BRIGGS RANCH DR	FOLSOM, CA 95630
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CURRENT RESIDENT	201 BRIGGS RANCH DR	FOLSOM, CA 95630
CURRENT RESIDENT	203 BRIGGS RANCH DR	FOLSOM, CA 95630
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CURRENT RESIDENT	225 BRIGGS RANCH DR	FOLSOM, CA 95630
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CURRENT RESIDENT	243 BRIGGS RANCH DR	FOLSOM, CA 95630
CURRENT RESIDENT	245 BRIGGS RANCH DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 SINGER LN	FOLSOM, CA 95630

CURRENT RESIDENT	103 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	104 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	107 SINGER LN	FOLSOM, CA 95630
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CURRENT RESIDENT	195 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	196 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	200 SINGER LN	FOLSOM, CA 95630

CURRENT RESIDENT	203 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	204 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	207 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	208 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	211 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	212 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	215 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	216 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	220 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	225 SINGER LN	FOLSOM, CA 95630
CURRENT RESIDENT	100 SHOWERS CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 SHOWERS CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 SHOWERS CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 SHOWERS CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 SKIDMORE CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	107 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	110 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	111 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	114 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	115 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	118 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	119 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	122 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	126 WOODARD LN	FOLSOM, CA 95630
CURRENT RESIDENT	100 BOLI CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 BOLI CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 BOLI CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 BOLI CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 BOLI CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 YOST CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 MANSEAU DR	FOLSOM, CA 95630

CURRENT RESIDENT	110 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	111 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	112 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	113 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	114 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	115 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	116 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	117 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	118 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	119 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	120 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	122 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	124 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	125 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	126 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	128 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	130 MANSEAU DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 MARVIN CT	FOLSOM, CA 95630
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CURRENT RESIDENT	113 MARVIN CT	FOLSOM, CA 95630
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CURRENT RESIDENT	115 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	116 MARVIN CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 HENSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 HENSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 HENSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 HENSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 HENSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 MCCORMICK CT	FOLSOM, CA 95630



CURRENT RESIDENT	106 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	111 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	112 MCCORMICK CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	104 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	106 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	108 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	110 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	112 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	114 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	115 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	116 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	119 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	120 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	121 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	122 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	124 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	125 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	126 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	128 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	130 LANDRUM CIR	FOLSOM, CA 95630
CURRENT RESIDENT	100 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 JUMPER CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 COBB CT	FOLSOM, CA 95630

CURRENT RESIDENT	109 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	111 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	112 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	113 COBB CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 FATH CT	FOLSOM, CA 95630
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CURRENT RESIDENT	108 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 FATH CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 DENURE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	102 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 DENURE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	105 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 DENURE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	108 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	111 DENURE CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 BATHURST CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 BATHURST CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 BATHURST CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 BATHURST CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 BRUGLER CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 BRUGLER CT	FOLSOM, CA 95630

CURRENT RESIDENT	100 BRUM CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 BRUM CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 BRUM CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 BRUM CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 BRUM CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	103 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	104 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	105 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	106 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	108 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	110 BLODGETT DR	FOLSOM, CA 95630
CURRENT RESIDENT	100 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	101 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	103 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	104 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	105 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	106 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	107 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	108 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	109 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	110 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	111 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	112 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	113 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	115 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	116 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	117 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	118 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	119 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	120 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	121 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	122 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	124 DARRINGTON DR	FOLSOM, CA 95630
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CURRENT RESIDENT	126 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	127 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	129 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	131 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	132 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	133 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	134 DARRINGTON DR	FOLSOM, CA 95630

CURRENT RESIDENT	135 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	136 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	137 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	139 DARRINGTON DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 MC DERBY CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 FLOOD CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 FLOOD CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 FLOOD CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 FLOOD CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 MORELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 MORELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 MORELAND CT	FOLSOM, CA 95630
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CURRENT RESIDENT	101 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 METZ CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 EVELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 EVELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 EVELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 EVELAND CT	FOLSOM, CA 95630
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CURRENT RESIDENT	108 EVELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 EVELAND CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 EVELAND CT	FOLSOM, CA 95630

CURRENT RESIDENT	100 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	103 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	105 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	107 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	109 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	110 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	111 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	112 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	113 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	114 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	115 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	116 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	117 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	118 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	119 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	120 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	121 BURRILL DR	FOLSOM, CA 95630
CURRENT RESIDENT	122 BURRILL DR	FOLSOM, CA 95630
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CURRENT RESIDENT	132 BURRILL DR	FOLSOM, CA 95630
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CURRENT RESIDENT	100 FRICKE CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 FRICKE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	109 ZANETTA CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 POMINE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 POMINE CT	FOLSOM, CA 95630



CURRENT RESIDENT	104 POMINE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	101 DEELEY CT	FOLSOM, CA 95630
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CURRENT RESIDENT	104 DEELEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 DEELEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 MC HUGH CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 MC HUGH CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 MC HUGH CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 LUTTREL CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 LUTTREL CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 LUTTREL CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 SANBORN CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 SANBORN CT	FOLSOM, CA 95630
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CURRENT RESIDENT	101 GUERNSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 GUERNSEY CT	FOLSOM, CA 95630
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CURRENT RESIDENT	104 GUERNSEY CT	FOLSOM, CA 95630
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CURRENT RESIDENT	107 GUERNSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 GUERNSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 GUERNSEY CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 GUERNSEY CT	FOLSOM, CA 95630

CURRENT RESIDENT	100 WHELAN CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 WHELAN CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 WHELAN CT	FOLSOM, CA 95630
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CURRENT RESIDENT	105 WHELAN CT	FOLSOM, CA 95630
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CURRENT RESIDENT	109 WHELAN CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 WHELAN CT	FOLSOM, CA 95630
CURRENT RESIDENT	111 WHELAN CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 STROUSE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	106 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	107 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	108 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	109 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	110 STROUSE CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 PORTO DR	FOLSOM, CA 95630
CURRENT RESIDENT	102 PORTO DR	FOLSOM, CA 95630
CURRENT RESIDENT	101 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	104 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	105 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	106 HARGROVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	100 ROCKY COVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	101 ROCKY COVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	102 ROCKY COVE CT	FOLSOM, CA 95630
CURRENT RESIDENT	103 ROCKY COVE CT	FOLSOM, CA 95630
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CURRENT RESIDENT	107 ROCKY COVE CT	FOLSOM, CA 95630
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## **Appendix B**   Display Materials

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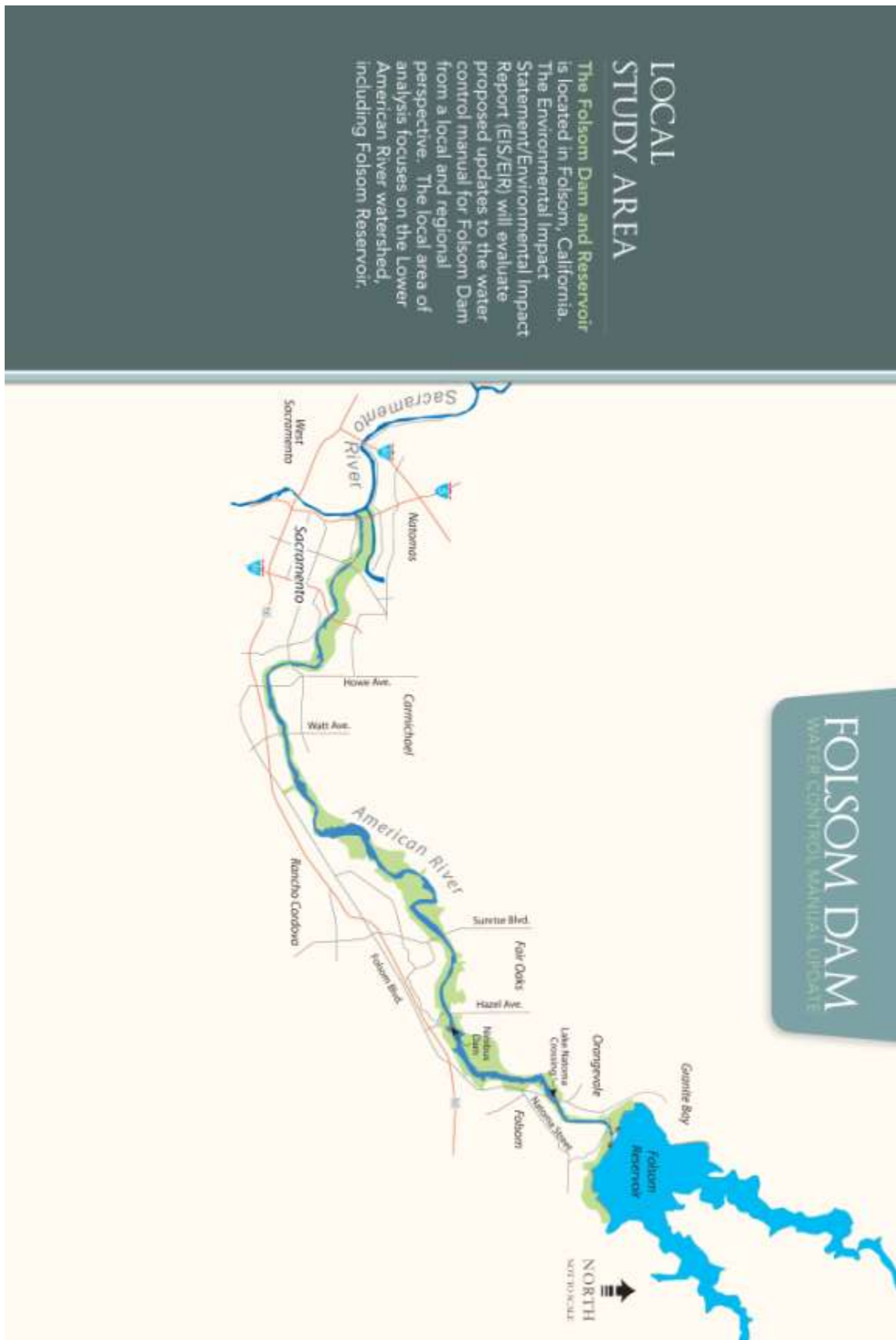
The following materials were on display or available for reading at the scoping meeting. The first two pages are copies (front and back) of a comment form that was given out as attendees entered the meeting room. The rest of the pages contain reduced copies of the boards and exhibits that were displayed at the scoping meetings.

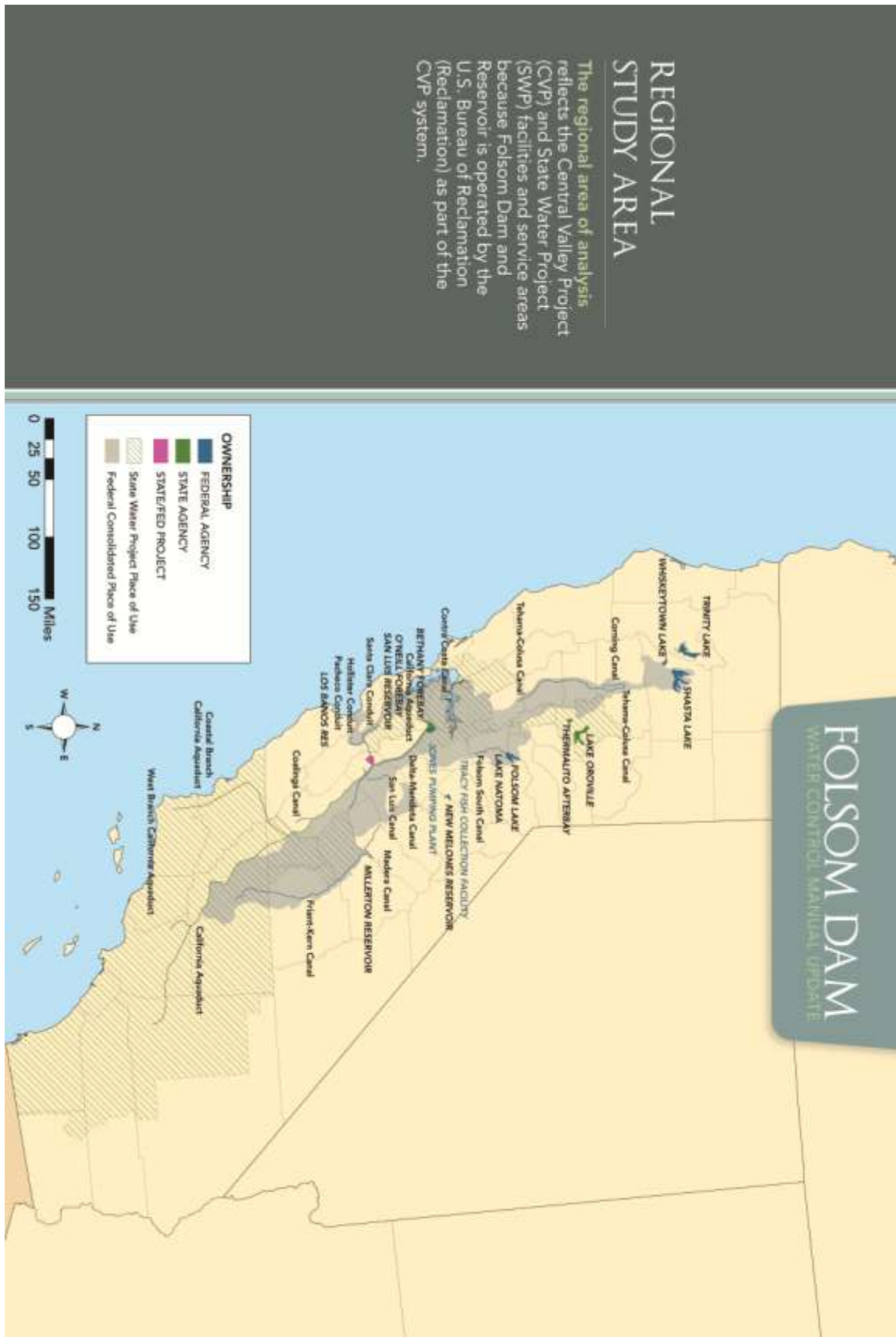


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<table border="0" style="width: 100%;"><tr><td style="width: 60%;">NAME - PLEASE PRINT <input style="width: 90%;" type="text"/></td><td style="width: 40%;">DATE <input style="width: 80%;" type="text"/></td></tr><tr><td colspan="2">MAILING ADDRESS <input style="width: 95%;" type="text"/></td></tr></table>		NAME - PLEASE PRINT <input style="width: 90%;" type="text"/>	DATE <input style="width: 80%;" type="text"/>	MAILING ADDRESS <input style="width: 95%;" type="text"/>	
NAME - PLEASE PRINT <input style="width: 90%;" type="text"/>	DATE <input style="width: 80%;" type="text"/>				
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<p>I would like the following comments to be filed in the record (please print): _____</p> <div style="background-color: #E0F0E0; border: 1px solid #A0C0A0; padding: 5px; min-height: 300px;"></div>					
<p>Written comments and suggestions about the Water Control Manual (WCM) Update may be submitted by November 11th, 2012 to Tyler Stalker, USACE Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.</p>					
<p><b>Questions about the WCM Update and the EIS/EIR should be addressed to:</b></p> <table border="0" style="width: 100%;"><tr><td style="width: 50%; vertical-align: top;"><p><b>Tyler Stalker</b> USACE Public Affairs Office 1325 J Street Sacramento, CA 95814 P: 916.557.5107 F: 916.557.7853 E: Tyler.M.Stalker@usace.army.mil</p></td><td style="width: 50%; vertical-align: top;"><p><b>David Martasian</b> DWR Division of Flood Management 3464 El Camino Ave, Room 200 Sacramento, CA 95821 P: 916.574.1448 F: 916.574.1478 E: Folsom_scoping@water.ca.gov</p></td></tr></table>		<p><b>Tyler Stalker</b> USACE Public Affairs Office 1325 J Street Sacramento, CA 95814 P: 916.557.5107 F: 916.557.7853 E: Tyler.M.Stalker@usace.army.mil</p>	<p><b>David Martasian</b> DWR Division of Flood Management 3464 El Camino Ave, Room 200 Sacramento, CA 95821 P: 916.574.1448 F: 916.574.1478 E: Folsom_scoping@water.ca.gov</p>		
<p><b>Tyler Stalker</b> USACE Public Affairs Office 1325 J Street Sacramento, CA 95814 P: 916.557.5107 F: 916.557.7853 E: Tyler.M.Stalker@usace.army.mil</p>	<p><b>David Martasian</b> DWR Division of Flood Management 3464 El Camino Ave, Room 200 Sacramento, CA 95821 P: 916.574.1448 F: 916.574.1478 E: Folsom_scoping@water.ca.gov</p>				

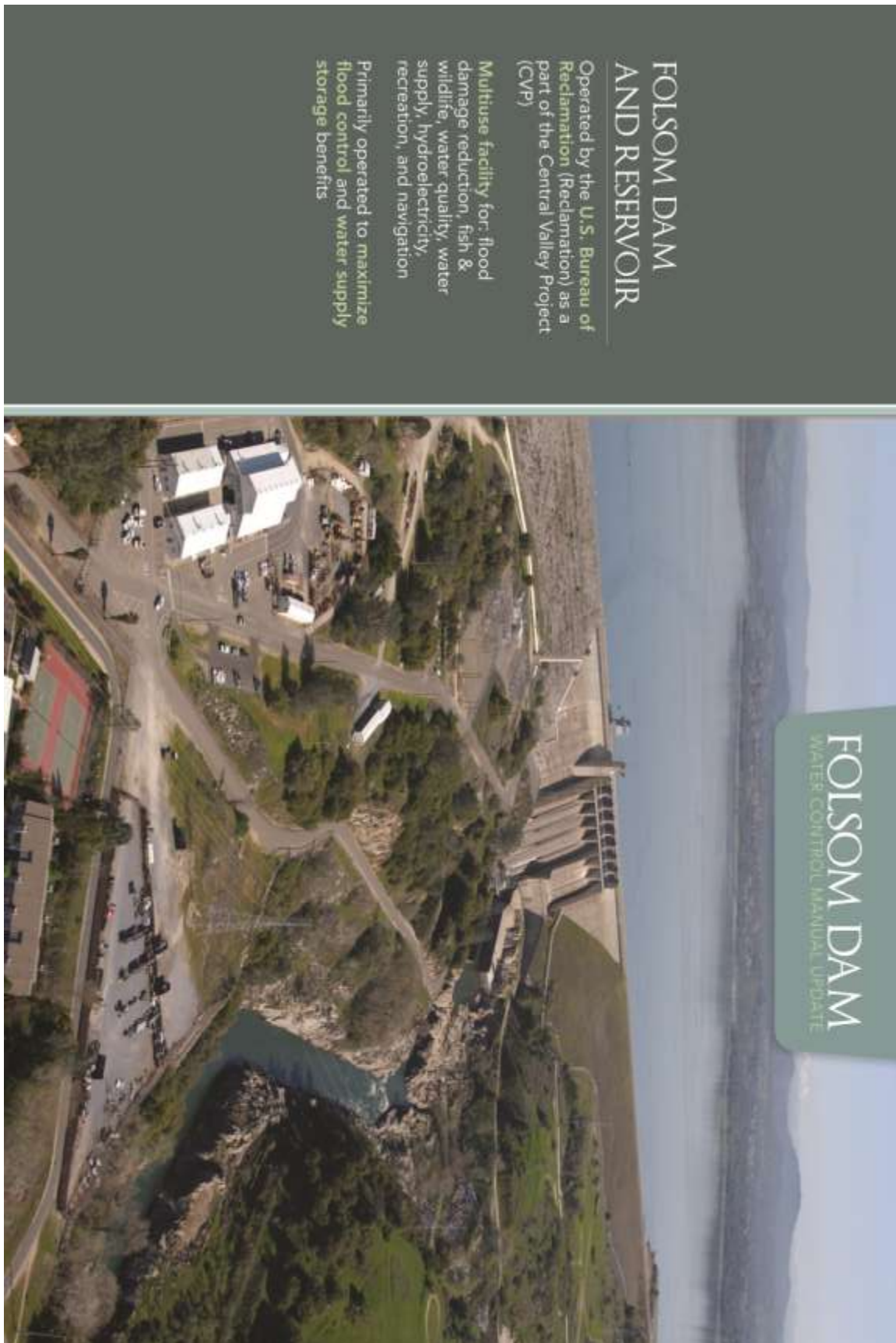


# WELCOME TO THE FOLSOM DAM WATER CONTROL MANUAL UPDATE PUBLIC SCOPING MEETING

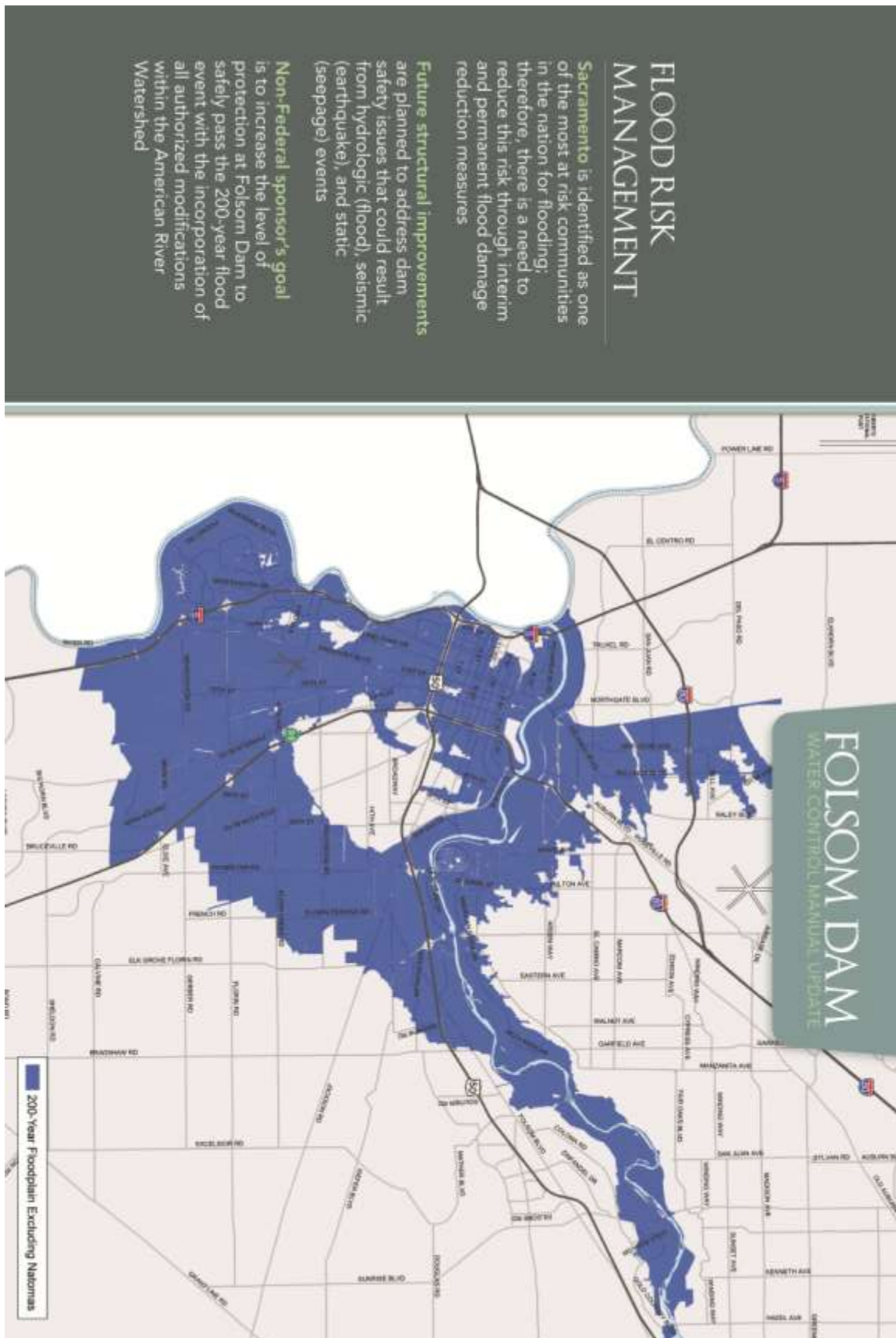










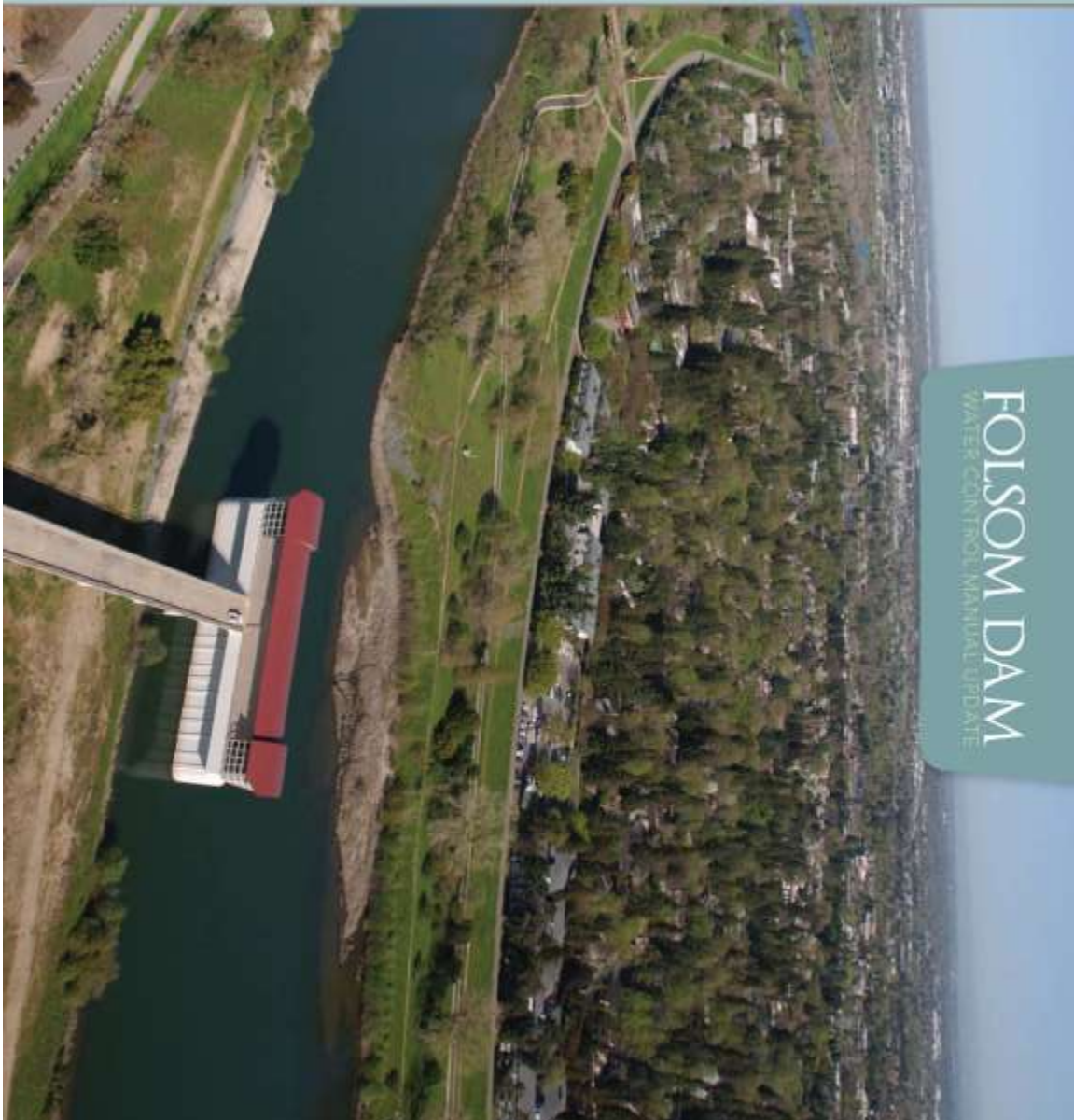


## PURPOSE OF THE UPDATE

**Develop, evaluate, and recommend** changes to the flood management operations of Folsom Dam and Reservoir in order to reduce flood risk to the Sacramento area by utilizing its existing and authorized physical features, specifically after completion of the Joint Federal Project (JFP) new auxiliary spillway

**Analyze operational alternatives and the effect** of those alternatives on Folsom Dam and Reservoir's other authorized purposes (water supply, power generation, fish and wildlife protection, water quality, recreation, and navigation)

**Define Folsom Dam's new flood operations plan**, intended to meet the flood risk management objectives in a manner that conserves as much water as possible and maximizes all project functions to the extent practicable



FOLSOM DAM  
WATER CONTROL MANUAL UPDATE




## SAFETY & FLOOD RISK MANAGEMENT OBJECTIVES

**Pass the Probable Maximum Flood**  
(PMF) while maintaining 3 feet of freeboard below the top of Dam to stay within the Dam Safety constraints of the U.S. Department of Interior, Bureau of Reclamation

**Manage a 1/100 annual chance flow**  
(i.e., "the 100-year flood") to a maximum release of 115,000 cubic feet per second (cfs) as criteria set by the Sacramento Area Flood Control Agency (SAFCA) to support Federal Emergency Management Agency (FEMA) levee accreditation along the American River

**Manage a 1/200 annual chance flow**  
(i.e., "the 200-year flood"), as defined by criteria set by the State of California Department of Water Resources (DWR) locally preferred criteria, to a maximum release of 160,000 cfs, when taking into account all of the authorized modifications within the American River Watershed (including future Folsom Dam Raise Project and Common Features Project)



**FOLSOM DAM**  
WATER CONTROL MANUAL UPDATE

An aerial photograph showing the Folsom Dam structure, which is a large concrete dam with a spillway. The dam is situated in a valley with green hillsides. A river flows through the valley, and there are some buildings and infrastructure near the dam. The image is part of a presentation slide for the Folsom Dam Water Control Manual Update.



## JOINT FEDERAL PROJECT OVERVIEW

The Folsom Dam Joint Federal Project (JFP) is an **auxiliary spillway** currently under construction to be implemented jointly by Reclamation and the U.S. Army Corps of Engineers (Corps) to address hydrologic Dam Safety and Flood Damage Reduction concerns related to the controlled release of water from Folsom Dam.

The JFP will **improve the ability of Folsom Dam to manage large flood events** by allowing more water to be safely released earlier in a storm event, resulting in more storage capacity remaining in the Reservoir to hold back the peak inflow when it arrives

The JFP has **dual goals** that simultaneously serve the specific missions of the Corps and Reclamation:

- The Flood Damage Reduction goal of the Corps and their non-Federal partners, CVPFB and SAFCA, is to reduce flood risk in the Sacramento area in conjunction with other elements of the regional flood control system
- The Safety of Dams goal of Reclamation is to pass a PMF of up to 314,000 cfs through the auxiliary spillway without causing failure of Folsom Dam

**IN ORDER TO FULLY REALIZE THE BENEFITS OF THE NEW AUXILIARY SPILLWAY, THE CURRENT FOLSOM DAM AND RESERVOIR WATER CONTROL MANUAL MUST BE UPDATED.**

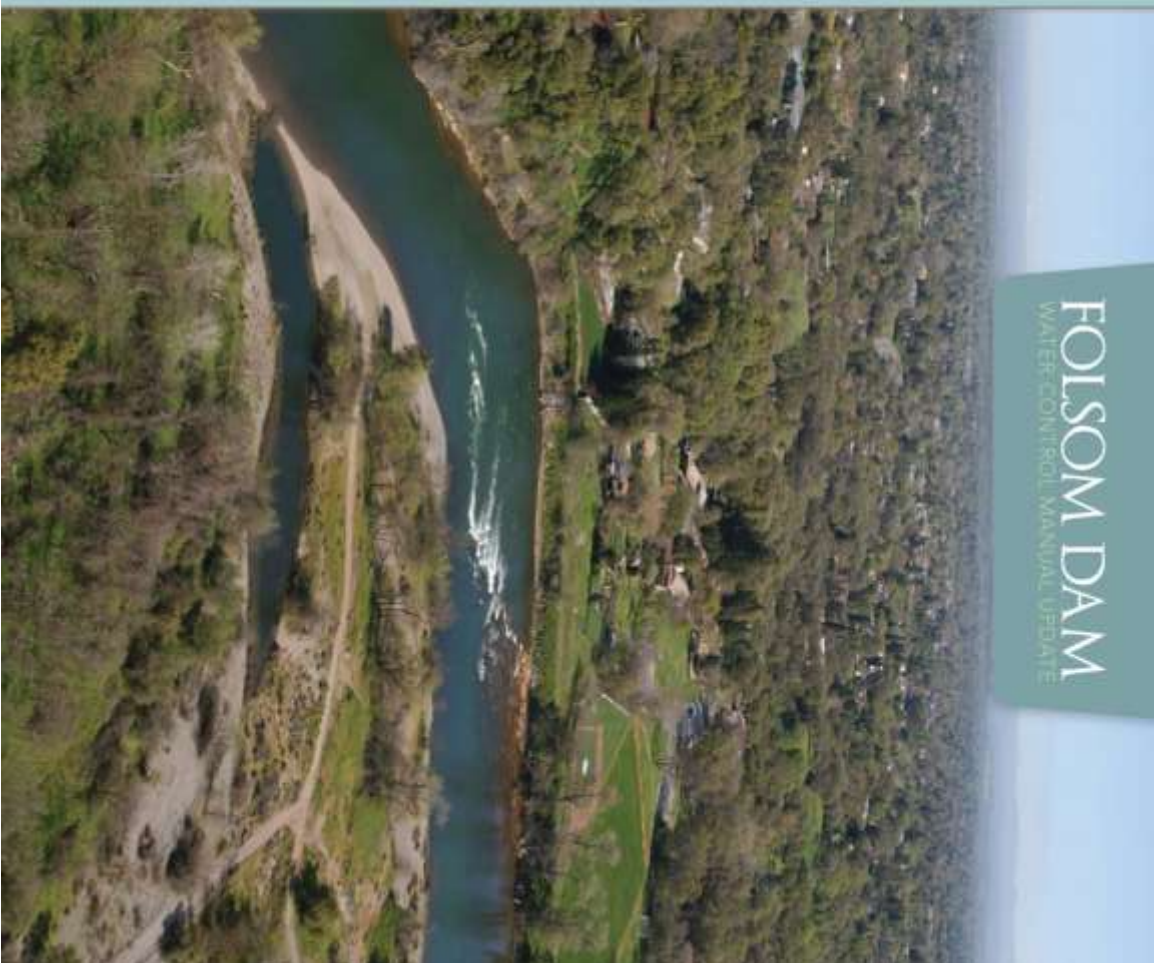
## BASIS OF ALTERNATIVE DEVELOPMENT

Alternatives will be developed for new operational rules to meet dam safety and flood risk management objectives that comply with Congressional direction.

Alternatives will consist of the following components:

- The Flood Damage Reduction goal of the Corps and their non-Federal partners, CVPFB and SAFCA, is to reduce flood risk in the Sacramento area in conjunction with other elements of the regional flood control system
- Flood Storage: Folsom Reservoir variable space will be reduced from the current operating range of 400,000-670,000 acre-feet (ac-ft) to 400,000-600,000 ac-ft.
- Outlet Configuration: Existing outlets and the JFP will be utilized in the updated Water Control Manual
- Temperature Control Diagram Configuration: 3-2-4 shutter configuration
- Operation Rules: Rule curves that derive flood storage reserve requirements from some combination of the following:
  - Storage reserve in Folsom Reservoir
  - Basin Wetness
  - Weather Forecasting

A number of flood management operation alternatives are expected to be developed and the effect of those alternatives on Folsom Dam and Reservoir's other authorized purposes will be analyzed in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR)



### FOLSOM DAM

WATER CONTROL MANUAL UPDATE




## EIS/EIR EFFECTS ASSESSMENT

Environmental effects analyses will be **centered around the effects** that the flood management operations alternatives would have on the Folsom Dam and Reservoir's authorized purposes, including:

- Flood control
- Water supply (irrigation and M&I)
- Fish and wildlife
- Power generation
- Water Quality
- Navigation
- Recreation

The **EIS/EIR effects analysis** approach would include:

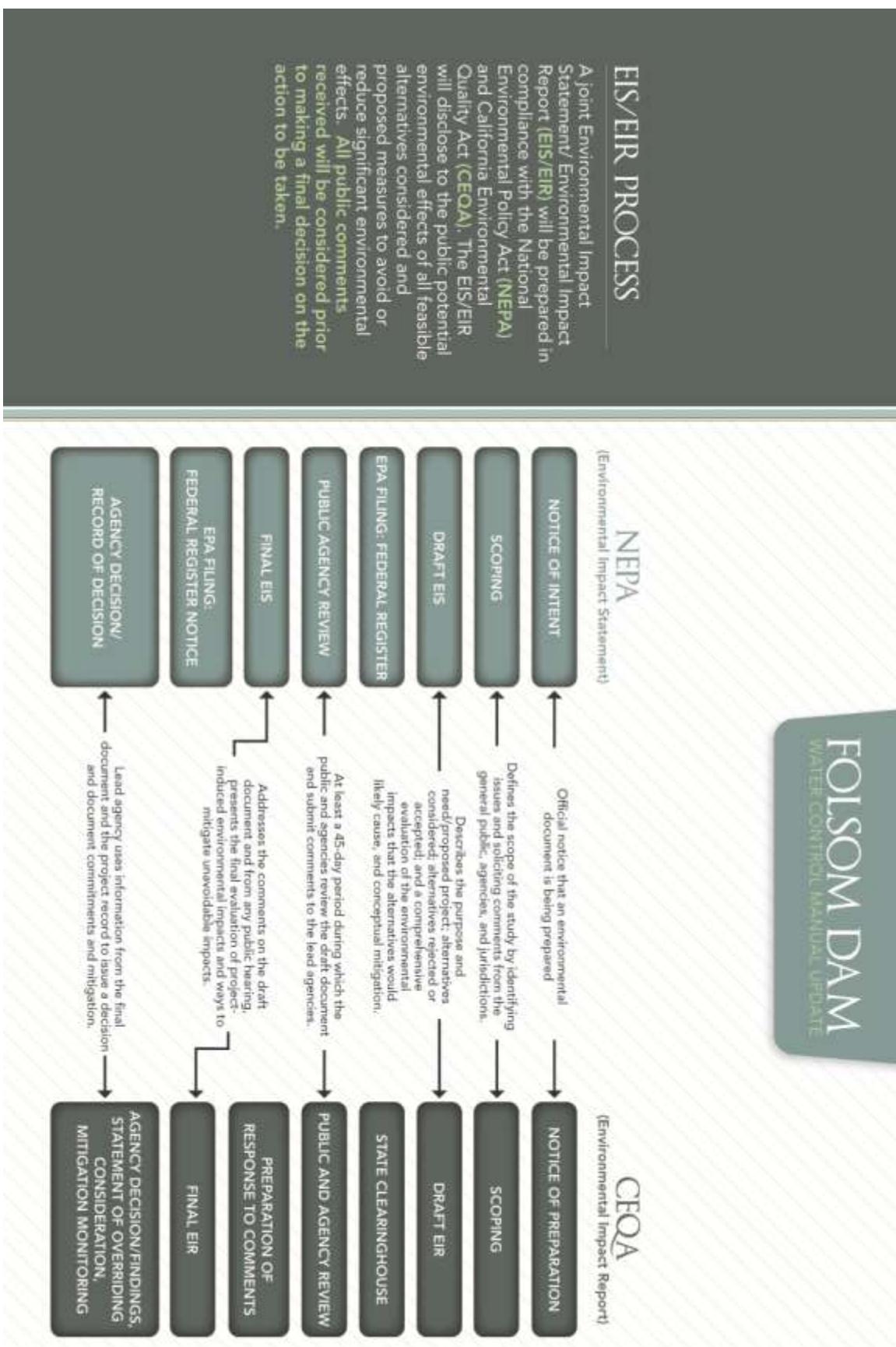
- Comparison of alternatives to baseline conditions
- Closer evaluations of effects in the Lower American River
- Screening level evaluations for more distant parts of the CVP and SWP followed by detailed evaluations as needed



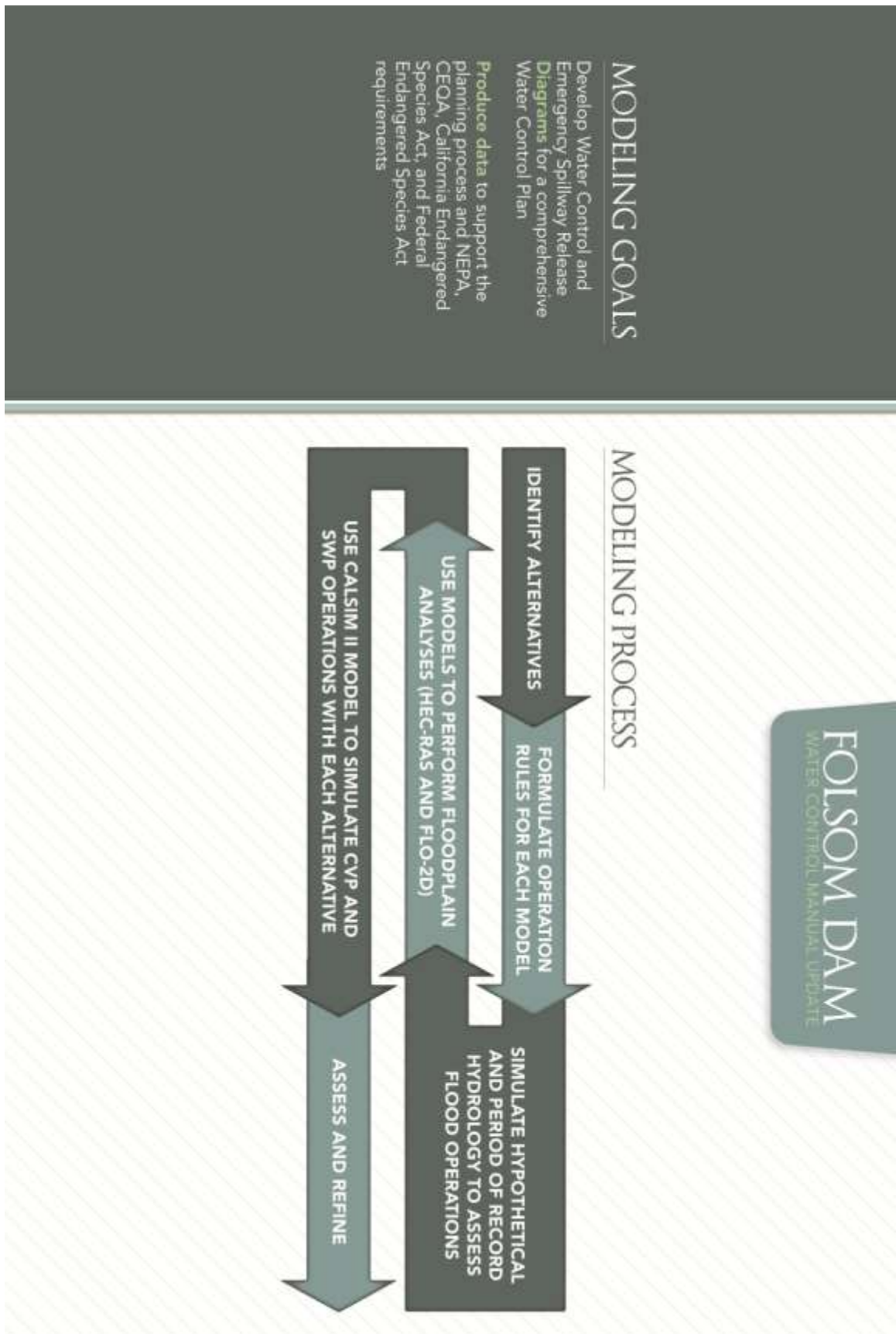
## FOLSOM DAM

WATER CONTROL MANUAL UPDATE

<div>  </div>				
<div> <h2>AGENCY ROLES &amp; RESPONSIBILITIES</h2> <p>The U.S. Army Corps of Engineers is responsible for preparing and submitting the Folsom Dam WCM Update and the NEPA Record of Decision that identifies the Study's recommended flood management operation alternative.</p> <p>The four agencies will work together to provide oversight for the Folsom Dam WCM Update through a number of mutual arrangements, including participation on the Project Management Group, Technical Working Group, and Project Delivery Team.</p> </div>				
AGENCY	ROLE	RESPONSIBILITIES	SIGNATORY	
 U.S. Army Corps of Engineers (Corps)	Federal Lead Agency and NEPA Lead Agency	Prescribes regulation of allocated space for flood control of Federally funded Reservoirs	Prepares Decision Document in consultation/coordination with Partners and signs Folsom WCM Update	
 U.S. Department of Interior, Bureau of Reclamation (Reclamation)	Federal Participating Agency and NEPA Cooperating Agency	Owner and Operator of Folsom Dam	Co-signatory of the existing Long-term Reoperation Agreement with SAFCA	
 Department of Water Resources, working on behalf of the Central Valley Flood Protection Board (CVFPB)	Non-Federal Cost-Sharing Sponsor and State Lead Agency (CEQA)	Provides policy/technical expertise and staff	Signs Folsom WCM Update for the State	
 Sacramento Area Flood Control Agency (SAFCA)	Local Cost-Sharing Sponsor and CEQA Responsible Agency	Provides policy/technical expertise and staff	Co-signatory of the existing Long-term Reoperation Agreement with Reclamation	







		
MODEL NAME/SOFTWARE	MODEL APPLICATION	DEVELOPED BY
<b>ENGINEERING MODELS</b>		
HEC-ResSim	Reservoir System Simulation	Corps
CALSIM II	CVP/SWP	DWR/Reclamation
HEC-RAS	Flow Hydraulics (water surface profiles)	Corps
FLO-2D	Flow Hydraulics (floodplains)	FLO-2D Software Inc.
CHPS-FEWS	Forecasting (6-hour inflows)	NWS
LTGEN	Hydropower	Reclamation/WAPA
<b>ENVIRONMENTAL MODELS</b>		
DSM 2	Delta Simulation Model	DWR
Water Temperature Models	Water Temperature	Reclamation
Fish Mortality Models	Fish Mortality	Reclamation
<b>ECONOMIC MODELS</b>		
HEC-FDA	Flood Risk Management	Corps
SWAP	Agricultural Water Supply	UC Davis/DWR
LCPSIM	Municipal and Industrial Water Supply	DWR

## STUDY TOOLS

**Preliminary reservoir operating scenarios (ROS)** will be developed in direct coordination with the partner agencies using existing and future-without project conditions as parameters formulated that have the potential to accomplish the Study purpose. This preliminary array of ROSs will be simulated using the Corps' HEC-ResSim software. Each ROS will then be screened through as many as three tiers of acceptance criteria to arrive at a final array of ROSs, or alternatives



# FOLSOM DAM

## WATER CONTROL MANUAL UPDATE

### SCOPING PROCESS

Scoping is done to **gather public comments**, insights and local information for the environmental document.

We want to hear your comments about:

- Any options that should be considered and evaluated
- Potential environmental issues and impacts
- Any local knowledge or information to assist with the environmental review that we may not be aware of
- When and how you would like to be informed of the project

### COMMENT PROCESS

#### WHEN?

Comments are due by November 11th 2012

#### WHAT HAPPENS TO COMMENTS?

Comments will be compiled in a scoping document and will be considered in the development of the EIS/EIR

#### HOW CAN I COMMENT?

Comment today on a comment card, or directly to:

**USACE Representative: Tyler Stalker**  
Tyler.M.Stalker@usace.army.mil  
US Army Corps of Engineers, Sacramento.  
Attn: Public Affairs Office  
1325 J Street, Sacramento, CA 95814

**CVEPB Representative: David Martasian**  
David.Martasian@water.ca.gov  
Central Valley Flood Protection Board  
Attn: David Martasian  
3310 El Camino Avenue, Room 151  
Sacramento, CA 95821



## **Appendix C** Public Comments

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The following are scanned copies of the comment cards and written correspondence received by the public between October 12, 2012 and November 15, 2012, at or following the public scoping meetings for the Folsom Dam WCM Update. Comments are sorted in chronological order.

<b>FOLSOM DAM</b> WATER CONTROL MANUAL UPDATE	<b>PUBLIC SCOPING MEETINGS</b> October 15, 2012 & October 22, 2012
NAME - PLEASE PRINT <span style="border: 1px solid black; padding: 0 20px;">Renee Acosta</span>	DATE <span style="border: 1px solid black; padding: 0 20px;">10-15-12</span>
MAILING ADDRESS <span style="border: 1px solid black; padding: 0 50px;">614 15<sup>th</sup> St, Sacramento CA 95814</span>	

I would like the following comments to be filed in the record (please print): I think that  
the surrounding levees should also be tented to and fix in  
the surrounding cities to prevent inner city flooding.

Written comments and suggestions about the Water Control Manual (WCM) Update may be submitted by November 11th, 2012 to Tyler Stalker, USACE Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

**Questions about the WCM Update and the EIS/EIR should be addressed to:**

**Tyler Stalker**

USACE Public Affairs Office  
 1325 J Street  
 Sacramento, CA 95814  
 P: 916.557.5107  
 F: 916.557.7853  
 E: Tyler.M.Stalker@usace.army.mil

**David Martasian**

DWR Division of Flood Management  
 3464 El Camino Ave, Room 200  
 Sacramento, CA 95821  
 P: 916.574.1448  
 F: 916.574.1478  
 E: Folsom\_scoping@water.ca.gov

Water Control Manual Update - General Information Query  
From: Stalker, Tyler M SPK  
Sent: Tuesday, October 16, 2012 3:32 PM  
To: Eckert, Lisa E SPK  
Subject: Water Control Manual Update - General Information Query  
Lisa:

Tom Kelley from Urban Partnership Agreement in San Francisco called looking for some general information about the Joint EIS/EIR being conducted as part of the project.

Tom's phone number is (415) 972-3856.

Thanks.

Respectfully,  
Tyler

Tyler M. Stalker  
U.S. Army Corps of Engineers, Sacramento District  
Public Affairs Office  
Office: 916-557-5107  
Blackberry: 916-396-2831  
Fax: 916-557-7853

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**Central Valley Regional Water Quality Control Board**

19 October 2012

Vincent Heim  
Central Valley Flood Protection Board  
3464 El Camino Avenue  
Sacramento, CA 95821

CERTIFIED MAIL  
7011 2970 0003 8939 6007

**COMMENTS TO NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, FOLSOM DAM WATER CONTROL MANUAL UPDATE PROJECT, SCH NO. 2012102034, SACRAMENTO COUNTY**

Pursuant to the State Clearinghouse's 12 October 2012 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Notice of Preparation for Environmental Impact Report* for the Folsom Dam Water Control Manual Update Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml).

KARL E. LONGBLEY BCD, P.E., CHAIR | PAMELA C. CREEDON P.E., SCCE, EXECUTIVE OFFICER  
11500 Sun Center Drive #200, Rancho Cordova, CA 95670 | [www.waterboards.ca.gov/samr/rancho](http://www.waterboards.ca.gov/samr/rancho)

RECEIVED DATE

**Phase I and II Municipal Separate Storm Sewer System (MS4) Permits<sup>1</sup>**

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:  
[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/municipal\\_permits/](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/)

**Industrial Storm Water General Permit**

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:  
[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/industrial\\_general\\_permits/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml).

**Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

---

<sup>1</sup> Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Folsom Dam Water Control  
Manual Update Project  
Sacramento County

- 3 -

19 October 2012

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

**Waste Discharge Requirements**

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/help/business\\_help/permit2.shtml](http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml).

If you have questions regarding these comments, please contact me at (916) 464-4684 or [tcleak@waterboards.ca.gov](mailto:tcleak@waterboards.ca.gov).



Trevor Cleak  
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

<b>FOLSOM DAM</b> WATER CONTROL MANUAL UPDATE		<b>PUBLIC SCOPING MEETINGS</b> October 15, 2012 & October 22, 2012	
NAME - PLEASE PRINT	ERIN ADVINO-CARHART		DATE
MAILING ADDRESS	830 S STREET, SACRAMENTO 95811 / 4017 QUARTER DONE CIR RANCHO CORDOBA		

I would like the following comments to be filed in the record (please print):

~~PROPOSED~~ PLEASE CONSIDER THESE ~~AND~~ QUESTIONS FOR YOUR UPCOMING EFFECTS ANALYSIS:

- 1) <sup>HOW</sup> ~~WILL~~ WILL THE SPILLWAY RELEASES AFFECT WATER TEMPERATURE FOR MIGRATING ~~REDDING~~ SALMONIDS?
- 2) WHAT FLOW VELOCITIES IS THE SPILLWAY EXPECTED TO RELEASE <sup>OF</sup> ~~AND~~ HOW WILL THEY AFFECT CHINOOK REDDS?
- 3) WILL THIS PLAN LOOK AT FISH PASSAGE?
- 4) IN WHAT WAYS WILL THIS PLAN AFFECT THE FRESHWATER CUTFLOW TO THE SACRAMENTO - SAN JOAQUIN DELTA?

Written comments and suggestions about the Water Control Manual (WCM) Update may be submitted by November 11th, 2012 to Tyler Stalker, USACE Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

Questions about the WCM Update and the EIS/EIR should be addressed to:

**Tyler Stalker**  
 USACE Public Affairs Office  
 1325 J Street  
 Sacramento, CA 95814  
 P: 916.557.5107  
 F: 916.557.7853  
 E: Tyler.M.Stalker@usace.army.mil

**David Martasian**  
 DWR Division of Flood Management  
 3464 El Camino Ave, Room 200  
 Sacramento, CA 95821  
 P: 916.574.1448  
 F: 916.574.1478  
 E: Folsom\_scoping@water.ca.gov



<b>FOLSOM DAM</b> WATER CONTROL MANUAL UPDATE		<b>PUBLIC SCOPING MEETINGS</b> October 15, 2012 & October 22, 2012	
NAME - PLEASE PRINT	GARY ESTES	DATE	22 Oct 2012
MAILING ADDRESS	4135 EAGLES NEST, AUBURN, CA 95603 (530) 889-9025		

I would like the following comments to be filed in the record (please print): <sup>(A)</sup> ENVIRONMENTAL BENEFITS OF WATER CONTROL MANUAL ALLOWING STORAGE OF WATER IN THE ~~WATER~~ FLOOD CONTROL STORAGE SPACE AND BEING ABLE TO RELEASE THIS STORED WATER BASED UPON FORECAST OF A LARGE FLOOD EVENT CAN BENEFIT OTHER USERS BY: (1) INCREASING COLD WATER POOL FOR AT-RISK FISH DOWNSTREAM; (2) INCREASING WATER LEVEL FOR INCREASED HYDROPOWER GENERATION; (3) INCREASING WATER LEVEL TO EXTEND WATER-BASED RECREATION; (4) MORE ASSURED WATER SUPPLY FOR WATER SUPPLY CONTRACTORS FROM CVP, ~~SEVER~~ THIS APPROACH IS KNOWN AS CONDITIONAL STORAGE. STORAGE IS ALLOWED AND <sup>WATER</sup> WILL BE RELEASED BASED ON CONDITION OF FORECAST.

<sup>(B)</sup> LIMITATIONS OF RELEASES DUE TO AT-RISK FISH STRANDING NEEDS ANALYSIS. WILL RELEASES BE RESTRICTED DUE TO ~~POTENTIAL~~ POTENTIAL FISH STRANDING? IN LOWER AMERICAN RIVER? THIS NEEDS TO BE ANSWERED AS PART OF EIS/EIR PROCESS.

Written comments and suggestions about the Water Control Manual (WCM) Update may be submitted by November 11th, 2012 to Tyler Stalker, USACE Public Affairs Office, or David Martasian, DWR Division of Flood Management. For e-mailed comments, please include "WCM Update" in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

**Questions about the WCM Update and the EIS/EIR should be addressed to:**

**Tyler Stalker**  
 USACE Public Affairs Office  
 1325 J Street  
 Sacramento, CA 95814  
 P: 916.557.5107  
 F: 916.557.7853  
 E: Tyler.M.Stalker@usace.army.mil

**David Martasian**  
 DWR Division of Flood Management  
 3464 El Camino Ave, Room 200  
 Sacramento, CA 95821  
 P: 916.574.1448  
 F: 916.574.1478  
 E: Folsom\_scoping@water.ca.gov



Folsom Dam Water Control Manual Mailing List  
From: Stalker, Tyler M SPK  
Sent: Monday, October 22, 2012 8:36 AM  
To: Eckert, Lisa E SPK  
Subject: Folsom Dam Water Control Manual Mailing List

Lisa: Can you add the two names below to any mailing lists we have concerning the Folsom Dam Water Control Manual? Thank you.

Erin Aquino-Carhart, erinaquino@gmail.com, 4017 Quarter Dome Cir, Rancho Cordova, CA 95742

Rafael G. Fernando, Jr., rfernando@mw dh2o.com, Metropolitan Water District of Southern CA

Respectfully,

Tyler

Tyler M. Stalker  
U.S. Army Corps of Engineers, Sacramento District

Public Affairs Office  
Office: 916-557-5107

Blackberry: 916-396-2831

Fax: 916-557-7853

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<<http://www.flickr.com/photos/sacramentodistrict>>

**From:** [Arthur Murray](#)  
**To:** [Heim, Vincent@DWR](#); [folsom\\_scoping@water.ca.gov](#)  
**Cc:** [Eric Fredericks](#)  
**Subject:** Folsom Dam Water Control Manual Update (NOP) - SCH# 201202034  
**Date:** Monday, October 29, 2012 7:49:41 AM

---

Vincent Heim/David Martasian,

We appreciate the opportunity to review and comment in the CEQA review process for the project referenced above. The review request is for the Notice of Preparation of a Joint EIS/EIR. The US Army Corps of Engineers (USACE) and the Central Valley Flood Protection Board (Board) will evaluate the effects of developing new operational rules to the existing water control manual for Folsom Dam to meet dam safety and flood risk management objectives when the new auxillary spillway is completed. The project's nearest major cross streets are Folsom-Auburn Blvd at Folsom Lake Crossings approximately 5 miles north of US Highway 50.

At this time Caltrans has no further comments. However, the District 3 Office of Transportation Planning - South would appreciate being kept apprised of the above mentioned project. We look forward to working with the USACE and the Board on this project, and future developments as well. If you have any questions please give me a call.

ARTHUR MURRAY  
Desk: (916) 274-0616  
Fax: (916) 274-0602

Caltrans - District 3  
Division of Planning and Local Assistance  
Office of Transportation Planning-South  
2379 Gateway Oaks Drive Ste. 150  
Sacramento, CA 95833



## Central Valley Regional Water Quality Control Board

8 November 2012

Mr. Tyler Stalker, Public Affairs Office (CESPK-PAO)  
U.S. Army Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, CA 95814

### COMMENTS ON FOLSOM DAM WATER CONTROL MANUAL UPDATE

Central Valley Regional Water Quality Control Board staff (Board staff) appreciates the opportunity to comment on the proposed modification to the Folsom Dam and Reservoir Water Control Manual. Folsom Lake is listed on the Clean Water Act Section 303(d) list of impaired waters because of elevated levels of mercury in fish tissue. In addition, downstream Lake Natoma and the lower American River, as well as the contiguous portions of the North Fork and South Fork American River upstream of Folsom Lake are listed as impaired due to elevated levels of mercury. Elevated levels of mercury in fish tissue pose health risks to human and wildlife consumers of those fish. Because of these impairments, the Regional Board is required to develop regulatory programs (known as total maximum daily loads or TMDLs) to reduce mercury levels in fish. In 2010, USEPA approved the Sacramento-San Joaquin Delta Methylmercury Control Program (Wood et al. 2010), which requires mercury reductions from the American River watershed.

Adjustments to water management in Folsom Lake may influence mercury transport, methylmercury production, and methylmercury bioaccumulation in areas affected by Folsom Lake operations. Reservoir creation and operation has been shown to create local hotspots of mercury methylation and bioaccumulation. Some of the factors that have been found to likely influence methylmercury production or fish methylmercury bioaccumulation in California reservoirs include: reservoir depth, temperature, thermal stratification and hypolimnetic anoxia, water level fluctuations, aqueous and sediment inorganic mercury and methylmercury concentrations, chlorophyll-a concentrations, and specific conductivity (Louie et al. 2012; Negrey et al. 2012). Fish mercury levels have been found to be statistically proportional to the amount of land flooded and the ratio of surface area to volume flooded in reservoirs in the United States and Canada (Bodaly et al. 2007; Johnston et al. 1991; Selch et al. 2007). Adjustments to flood management operations have the potential to affect these factors and may impact the mercury contamination problem in Folsom Lake and the American River watershed.

The update to the Folsom Dam and Reservoir Water Control Manual proposes to increase the volume of water released downstream in preparation for a storm event. This could highly influence mercury transport, methylmercury production, and subsequent bioaccumulation in Lake Natoma, the lower American River, and the Sacramento-San Joaquin Delta. Inorganic mercury concentrations are statistically correlated to flow in the lower American River and other Central Valley rivers (Louie et al. 2008). This is, in part, due to the association between mercury and sediment. Increasing the magnitude of storm flows below Folsom Dam will likely increase the amount of sediment erosion and subsequent mercury transport to the lower American River and Delta where it can be methylated. Increasing the magnitude of flow during storm events will

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

51020 Sun Center Drive 4200, Rancho Cordova, CA 95670 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)



Mr. Tyler Stalker

- 2 -

8 November 2012

likely result in larger areas of terrestrial and floodplain inundation. Up to 4-fold increases in aqueous and fish methylmercury concentrations have been linked to the seasonal flooding (managed and natural) of Central Valley river floodplains (CVRWQCB 2010; Foe et al. 2008; SFEI 2007; Slotton 2008). Increasing the amount and duration of floodplain inundation in Lake Natoma and the lower American River may result in increased methylmercury production and bioaccumulation.

Central Valley Project operations are coordinated with the State Water Project operations based on the Coordinated Operating Agreement, the Bay-Delta Plan Accord, and other agreements. Changes to Folsom Lake operations have the potential to affect reservoir operations in northern California. Likewise, changes in water management operations of Folsom Lake will likely directly affect the timing, duration, and magnitude of upstream American River watershed reservoir releases. Any change in the operations of Folsom Dam and Lake may have the potential to impact mercury cycling in upstream and other water bodies.

The State Water Resources Control Board is currently developing a Statewide Mercury Control Program for Reservoirs. One of the actions that is being evaluated as a possible means to reduce mercury contamination in reservoirs is water management. The magnitude of reservoir water level fluctuations have been identified worldwide as an important factor in determining fish mercury levels (Evers et al. 2007; Roulet et al. 2001; Sorensen et al. 2005). A similar relationship has been found in California reservoirs, where a statistically significant positive correlation has been observed between California reservoir fish mercury concentrations and annual mean reservoir fluctuations (Louie et al. 2012). The Folsom Dam Joint Federal Project will allow for more flexibility in how the water is managed in Folsom Lake.

For more information regarding the California Statewide Mercury Program please see: [http://www.waterboards.ca.gov/water\\_issues/programs/mercury/](http://www.waterboards.ca.gov/water_issues/programs/mercury/). For more information regarding the American River Watershed Methylmercury TMDL please see: [http://www.waterboards.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/american\\_river\\_hg/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/american_river_hg/index.shtml)

Because of these mercury issues, Board staff recommends that the environmental analysis for the Folsom Dam and Reservoir Water Control Manual update evaluate the project's impacts on fish mercury levels, mercury transport, and methylmercury production and transport in Folsom Lake and adjacent water bodies. Please contact me at (916) 464-4621 or [pmorris@waterboards.ca.gov](mailto:pmorris@waterboards.ca.gov) if you have any questions regarding these comments.

/s/

Patrick Morris  
Senior Water Resource Control Engineer  
Mercury TMDL Unit

Cc: David Martasian, DWR, Sacramento

Mr. Tyler Stalker

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8 November 2012

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Mr. Tyler Stalker

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**Bill George – President**  
Division 3

**John P. Fraser – Director**  
Division 2

**Alan Day – Director**  
Division 5



**George W. Osborne – Vice President**  
Division 1

**George A. Wheeldon – Director**  
Division 4

**Jim Abercrombie**  
*General Manager*

**Thomas D. Cumpston**  
*General Counsel*

In Reply Refer To: ECL1112-1302

November 9, 2012

VIA CERTIFIED MAIL

Central Valley Flood Protection Board  
Attn: Mr. David Martasian  
3464 El Camino Avenue, Room 200  
Sacramento, CA 95821

U.S. Army Corps of Engineers  
Attn: Mr. Tyler Stalker  
1325 J Street  
Sacramento, CA 95814

**SUBJECT:** Response to Notice of Preparation – Folsom Dam Water Control Manual Update

Dear Mr. Martasian and Mr. Stalker:

Thank you for this opportunity to respond to the Notice of Preparation (NOP) for the proposed Joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Folsom Dam Water Control Manual Update (Project). The El Dorado Irrigation District (EID) currently maintains both a 7,550 acre-foot (AF) Long-Term Central Valley Project (CVP) Water Service Contract and a 4,560 AF Long-Term Warren Act Contract (LTWA) for water supplies in Folsom Reservoir. Additionally, EID is nearing completion of an additional 17,000 AF LTWA Contract, which will be critical to future growth of the western portion of EID's service area. As such, EID maintains a significant interest in any potential negative and/or positive effects/impacts of the proposed Project related to current and future regional water supplies. In addition to this overall interest, EID offers the following specific comment for the Central Valley Flood Protection Board (CVFPB) and U.S. Army Corps of Engineers (USACE) to consider during preparation of the joint EIS/EIR.

The NOP indicates that the area of analysis will include the CVP and State Water Project (SWP) service areas. However, as indicated above, EID maintains one LTWA contract and is currently pursuing a second such contract to divert its local supplies at Folsom Reservoir. Such contracts are not bound by the service areas limitations specified in contracts for CVP (and potentially SWP) supplies. EID anticipates many other purveyors with supplies in Folsom Reservoir also have service areas that extend beyond the CVP and SWP service areas. Therefore, any potential impacts to these contracts could affect a contractor's entire service area potentially requiring adjustment to other local supplies and management considerations available to the purveyor. In the case of EID, most of the service area is located outside (east) of the CVP Consolidated Place of Use (CPOU) and any changes to Folsom supplies would require changes to other local available supplies in the eastern portion of EID's service area to accommodate revised demands in the portion of EID's service area within the CVP CPOU. As such, the area of analysis should address the full service areas of each purveyor and not limit to analyses to CVP and SWP service areas.

2890 Mosquito Road, Placerville, California 95667 • (530) 622-4513

Letter No. ECL1112-1302  
To: David Martasian and Tyler Stalker



November 9, 2012  
Page 2 of 2

If you have any questions regarding this letter, please contact me at (530) 642-4082 or email [dcorcoran@eid.org](mailto:dcorcoran@eid.org).

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Corcoran', written over a horizontal line.

Dan Corcoran  
Environmental Division Manager

DC:lk

cc: El Dorado Irrigation District:  
Jim Abercrombie, General Manager  
Tom Cumpston, General Counsel  
Brian Mueller, Director of Engineering

2890 Mosquito Road, Placerville, California 95667 • (530) 622-4513

-----Original Message-----

From: Marcos Guerrero [<mailto:mguerrero@aubumrancheria.com>]

Sent: Tuesday, November 13, 2012 6:56 PM

To: Stalker, Tyler M SPK; [Folsom\\_scoping@water.ca.gov](mailto:Folsom_scoping@water.ca.gov)

Subject: Folsom Dam Water Release Manual

Hello,

I would like to know if Folsom Dam Water Release Manual include a comprehensive agreement for any unanticipated or inadvertent discoveries of Native American human remains?

Marcos Guerrero, RPA

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Nothing in this e-mail is intended to constitute an electronic signature for purposes of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15, U.S.C. §§ 7001 to 7006 or the Uniform Electronic Transactions Act of any state or the federal government unless a specific statement to the contrary is included in this e-mail.

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

November 20, 2012

Tyler Stalker  
U.S. Army Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, California 95814

Subject: Intent to Prepare a Draft Environmental Impact Statement for the Joint  
Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the  
Folsom Dam Water Control Manual Update, Sacramento County, California

Dear Mr. Stalker,

The U.S. Environmental Protection Agency (EPA) is providing comments on the U.S. Army Corps of Engineers Notice of Intent to Prepare a Joint Environmental Impact Statement (EIS)/Environmental Impact Report, which appeared in the Federal Register on October 15, 2012. We appreciate the challenge facing the Army Corps of Engineers in developing the updated manual and realize that you must balance competing priorities including flood control, water supply, power generation, recreation, fisheries and endangered species. While the Corps is familiar with a wide range of water quality parameters of interest to us, we recommend expansion of the water quality focus to consider a water quality pollutant which is not typically addressed in water control manuals; mercury.

Folsom Lake appears on the 2010 Clean Water Act 303(d) list of impaired water bodies for mercury, primarily from upstream historic mining operations. As mercury moves through the environment, it undergoes a series of chemical transformations. One of the products of these transformations is an organic form called methylmercury. It is easily absorbed into the living tissue of aquatic organisms and is not easily eliminated, so methylmercury accumulates in predators. A study by the National Academy of Science<sup>1</sup> concluded that the population at highest risk from methylmercury is the children of women who consume large amounts of fish and seafood during pregnancy. These children are more likely to struggle in school and require remedial classes or special education.

Executive Order 13045 on Children's Health and Safety directs each Federal agency to place a high priority on identification and assessment of environmental health and safety risks that may disproportionately affect children, and ensure that its policies, programs, activities, and standards address these risks. The California State Water Resources Control Board (State Board) is currently developing both a statewide mercury policy and a reservoir mercury control program including Total Maximum Daily Loads (TMDLs) and action plans. To facilitate achieving methylmercury fish tissue objectives, we encourage the Corps of Engineers to work with the

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<sup>1</sup> Toxicological Effects of Methyl Mercury, Committee on the Toxicological Effects of Methylmercury, Board on Environmental Studies and Toxicology, Commission on Life Sciences, National Research Council, 2000.



State Board and Central Valley Regional Water Quality Control Board, to develop a Water Control Manual and EIS that incorporate reservoir management actions to reduce mercury methylation, such as minimizing water level fluctuation<sup>2</sup>, and reflects the applicable portions of the final TMDL, or the best science available, if the TMDL has not been finalized. The Central Valley Regional Water Quality Control Board may be of assistance to you in achieving the goals of the executive order and the State Board mercury program. We recommend you contact:

Patrick Morris, Senior Water Resources Control Engineer  
Mercury TMDL Unit  
Central Valley Water Board  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670  
(916) 464-4621  
pmorris@waterboards.ca.gov

Please note that EPA Headquarters will not accept paper copies or CDs of EISs for official filing purposes. As of October 1, 2012, submissions must be made through the EPA's new electronic EIS submittal tool: e-NEPA. To begin using e-NEPA, you must first register with the EPA's electronic reporting site <https://cdx.epa.gov/>. Electronic submission does not change requirements for distribution of EISs for public review and comment, and lead agencies should still provide one hard copy and one electronic copy of each Draft and Final EIS released for public circulation to the EPA Region 9 office in San Francisco (Mail Code: CED-2). If you have questions about these comments, please contact me at (415) 972-3856 or [kelly.thomasp@epa.gov](mailto:kelly.thomasp@epa.gov).

Sincerely,



Tom Kelly  
Environmental Review Office  
Communities and Ecosystems Division

cc (via email): Patrick Morris, Central Valley Regional Water Quality Control Board

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<sup>2</sup> Recent studies on water level fluctuation and methylmercury formation include <http://www.bioone.org/doi/abs/10.1641/B570107>, <http://www.ncbi.nlm.nih.gov/pubmed/16382948>, <http://rd.springer.com/article/10.1023/A%3A1010379103335>



## **Appendix D** Scoping Meetings Sign-In Sheets

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Following are scanned copies of the sign-in sheets from the public scoping meetings for the Folsom Dam WCM Update held on October 15 and October 22, 2012.

[illegible]

FOLSOM DAM WATER CONTROL MANUAL UPDATE Oct 22, 2012		PUBLIC SCOPING MEETINGS October 15, 2012 & October 22, 2012		
NAME - PLEASE PRINT	ORGANIZATION	MAILING ADDRESS	EMAIL	PHONE NUMBER
Patrick Morris	CV-RWQCB	11020 Suncenter Rancho Cordova	pmorris@waterboards.ca.gov	916-464-4821
Tori Boardman	Sp. L. St Delta Mendota Water Authority		tboardman@aper.net	916-940-0317
Boone Lek	DWR	3310 El Camino Ave	blek@water.ca.gov	916-574-2633
GARY ESTES		4135 EAGLES NEST AUBURN, CA 95603	GARY32@DG4135.US	530-889-9025
Ken Payne	CITY OF Folsom	50 Alameda St Folsom CA 95630	kpayne@folsom.ca.us	351-3573
David Mantasian	DWR	3464 El Camino Ave Sacramento CA 95821	dmantasi@water.ca.gov	574-1442
Liz Vasquez	BDR	2800 Cottagebury Sacramento, CA	lvazquez@NSBR60	978-5040
Jeri Merritt	FCUSD	1365 BILK MOUNT Rancho Cordova CA	merritt.jeri@gmail.com	905-570-9096
Lisa Eckert	USACE	1325 S ST SAC, CA	lisa.e.eckert@usace.army.mil	916-557-6698



FOLSOM DAM WATER CONTROL MANUAL UPDATE OCT 22, 2012		PUBLIC SCOPING MEETINGS October 15, 2012 & October 22, 2012		
NAME - PLEASE PRINT	ORGANIZATION	MAILING ADDRESS	EMAIL	PHONE NUMBER
MADELEINE MOSELEY		908 BIDWELL ST,		915-3788
ERIN AQUINO-CARROLL	DFG		erinaquino@dfg.ca.gov	(916) 445-1237
Michael Ross	ASM Beth Gaines	1700 Eureka Road Suite 169, Roseville 95661	Michael.Ross@asm.ca.gov	(916) 774-4430
John Linda	Reubert	152 AMARA DR FOLSOM	John.Linda@reubert.com	916 296-1626
Jerry Toenyas	NCPA	651 Commerce Dr Roseville	Jerry.Toenyas@ncpa.com	916 781-4297
Jim Michaels	State Parks	7806 Folsom-Auburn Rd.	Jim.Michaels@stateparks.ca.gov	(916) 988-0513
Erick Wright	Folsom High		erickwright@fhsd.org	
Mark Gurney	Reclamation	7794 Folsom Dam Rd.	Mark.Gurney@usbr.gov	(916) 989-7243
Dor Peterson		184 SINGLETON		