

RECLAMATION

Managing Water in the West

Environmental Scoping Report

Shasta Lake Water Resources Investigation, California



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

February 2006

Environmental Scoping Report

for the



A study conducted by:

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

Report prepared by:



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Attachment B – Press Release

Attachment C – Comment Card

Attachment D – Scoping Meeting Display Materials

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ABBREVIATIONS AND ACRONYMS

Bay-Delta	San Francisco Bay/Sacramento-San Joaquin Delta
CALFED	CALFED Bay-Delta Program
CEQA	California Environmental Quality Act
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
Delta	Sacramento-San Joaquin Delta
DWR	Department of Water Resources
EIS	Environmental Impact Statement
FR	Feasibility Report
IAIR	Initial Alternatives Information Report
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRA	National Recreation Area
PEIS/R	Programmatic Environmental Impact Statement and Environmental Impact Report
Reclamation	Bureau of Reclamation
ROD	Record of Decision
SLWRI	Shasta Lake Water Resources Investigation
SWP	California State Water Project
TAF	thousand acre-feet
USFS	United States Forest Service

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CHAPTER 1

INTRODUCTION

The Department of the Interior, Bureau of Reclamation (Reclamation) has initiated environmental compliance documentation for the Shasta Lake Water Resources Investigation (SLWRI). An Environmental Impact Statement (EIS) will be prepared in compliance with the National Environmental Policy Act (NEPA) to evaluate proposed actions to increase the storage of water in Shasta Dam and Reservoir to improve water supply reliability and anadromous fish survival on the upper Sacramento River. Reclamation is the lead Federal agency for the EIS.

The SLWRI is one of five surface water storage studies identified in the CALFED Bay-Delta Program (CALFED) Programmatic Environmental Impact Statement and Environmental Impact Report (PEIS/R) Record of Decision (ROD) of August 2000. The SLWRI is being conducted in four phases: the mission statement phase, initial alternatives phase, plan formulation phase, and recommended plan phase. The mission statement phase concluded in the preparation of a Mission Statement Milestone Report in March 2003 that described the planning process for the study and provided a general description of problems and opportunities, project objectives, and study criteria and constraints. The initial alternatives phase concluded in the preparation of an Initial Alternatives Information Report (IAIR) in June 2004 that further refined study objectives and constraints, and provided an initial evaluation and screening of potential actions to be considered further in the feasibility investigation. Both the Mission Statement Milestone Report and IAIR were available for public review prior to the scoping meetings. The next phase of the feasibility investigation, the plan formulation phase, is currently underway.

SCOPING PROCESS

Scoping allows agencies, stakeholders, and interested parties to identify or suggest resources to be evaluated, issues that may require environmental review, reasonable alternatives to consider, and potential mitigation (ways to reduce or avoid environmental impacts) if significant adverse effects are identified. Scoping also allows Reclamation to clearly set the parameters of the environmental review process by determining which issues will or will not be addressed in the environmental documentation, and provide rationale for those determinations. Last, scoping provides decision makers with insight on the analyses that the public believes should be considered as part of the feasibility study process.

An environmental scoping and process consistent with NEPA was initiated in October 2005 when Reclamation issued a Notice of Intent (NOI), included as **Attachment A**. Between October 24th and November 3rd, 2005 Reclamation convened a set of public scoping meetings in Sacramento, Fresno, Los Angeles, Concord, Dunsmuir, Redding, and Red Bluff, California, to inform interested groups and individuals about the SLWRI and to solicit ideas and comments. Scoping meetings were conducted in an “open house” format. Project team members from Reclamation and its consultants staffed informational workstations and interacted with meeting participants to provide information and answer questions. The opportunity for submitting written comments extended through December 6, 2005.

This Scoping Report was prepared consistent with Reclamation guidance and in compliance with NEPA requirements. It describes agency and public comments received on the scope of the EIS, the SLWRI approach to the environmental review process, and responds to questions and comments that will be addressed in the EIS. Written comments received at the scoping meetings or submitted via letter, fax, and e-mail through December 6, 2005, are considered in this Scoping Report.

FUTURE ACTIONS

As the SLWRI proceeds, Reclamation will conduct technical studies and identify a proposed action to address study objectives. Reclamation will continue to provide interested agencies, groups, and the public with opportunities for input. Although the formal scoping period has passed, interested agencies, groups, and individuals are encouraged to provide input to the study process at anytime. There will be additional opportunity for public involvement when the Draft Feasibility Report / Environmental Impact Statement (FR/EIS) is released, scheduled for December 2007. A Final FR/EIS is anticipated in the fall of 2008, to be followed by a ROD. Additional comments, questions, or concerns may be directed to:

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A copy of this Scoping Report, other SLWRI information, and upcoming reports may be found on the project website: www.usbr.gov/mp/slwri.

ORGANIZATION OF SCOPING REPORT

This report is organized into three chapters and six attachments:

- **Chapter 1 - Introduction** provides an overview of the Investigation and scoping process.
- **Chapter 2 - Background** describes major issues identified during scoping and the approach to the environmental review process.
- **Chapter 3 - Comments and Responses** summarizes all comments received during the scoping process by topic.
- The **Attachments** provide a copy of the NOI and related press releases, comment card, public scoping materials and advertisements, and a list individuals and agencies that provided written scoping comments.

CHAPTER 2 BACKGROUND

Constructed from 1938 to 1945, Shasta Dam serves multiple purposes including flood control, irrigation and municipal and industrial water supplies, and hydropower generation. In addition, Shasta Lake significantly contributes to the regional economy through extensive recreational activities. The current feasibility study was reinitiated in 2000. Raising Shasta Dam is one of five surface water storage projects identified in the August 2000 CALFED ROD which includes North of Delta Off-Stream Storage, In-Delta Storage, Los Vaqueros Enlargement, and Upper San Joaquin River Basin Storage Investigation. These surface water storage projects are being developed further in separate feasibility studies.

The primary study area for the SLWRI is Shasta Dam and Reservoir; tributary rivers and streams, including the upper reaches of the Sacramento River, McCloud River, Pit River, and Squaw Creek; and the Sacramento River downstream from Shasta Dam to about the Red Bluff Diversion Dam. Because of the potential influence of a Shasta Dam modification on natural resources along the Sacramento River and on programs and projects in the Central Valley, the extended study area includes other major tributaries to the Sacramento River, the Sacramento-San Joaquin Delta, San Joaquin River basin, and service areas of the Central Valley Project (CVP) and State Water Project (SWP).

Planning studies to date have focused on identifying water resources problems and needs in the primary study area, developing a set of planning objectives to help guide the remainder of the feasibility study, and formulating several initial alternatives. Major water and related resources problems and needs identified in the primary study area include:

- **Anadromous Fish Restoration** – The population of chinook salmon has declined in the Central Valley. To address this salmon decline in the Sacramento River, various actions have been taken, ranging from establishing minimum flow requirements in the river to making structural changes at Shasta Dam. However, a need still exists for additional actions to benefit anadromous fish, especially in dry and critically dry water years.
- **Water Supply Reliability** – Demand for water in California exceeds available supplies. As the population of the Central Valley grows, the need to maintain a healthy and vibrant industrial and agricultural economy will increase while the demand for an adequate water supply becomes more acute.
- **Other Resource Needs** – Other identified problems and needs include the need for environmental restoration in the Shasta Lake area and downstream along the Sacramento River; the need for additional flood control along the upper Sacramento River; and growing demands for new energy sources in California and outdoor recreation in the primary study area.

These problems and needs were translated into primary and secondary planning objectives. Alternatives will be formulated to address the primary objectives. The primary objectives for the SLWRI are: (1) Increase the restoration of anadromous fish populations in the Sacramento River

primarily upstream from the Red Bluff Diversion Dam and (2) increase water supplies and water supply reliability for agricultural, municipal and industrial, and environmental purposes to help meet future water demands, with a focus on enlarging Shasta Dam and Reservoir. Through pursuit of the primary planning objectives, the following secondary objectives will be met to the extent possible: (1) Preserve and restore ecosystem resources in the Shasta Lake area and along the upper Sacramento River, (2) reduce flood damages along the Sacramento River; (3) develop additional hydropower capabilities at Shasta Dam, and (4) preserve outdoor recreation opportunities at Shasta Lake.

A number of water resources management measures were identified to address the planning objectives. The most effective of measures were used to formulate a set of concept plans from which five initial alternatives were developed. Specific measures and combinations of measures in these initial alternatives will likely change in future studies and some may be combined with others or dropped from further consideration. In addition, other measures and combination of measures may emerge and warrant development into alternatives during the scoping process. These five initial alternatives are summarized below.

- **No-Action (No Federal Action)** – Under the No-Action Alternative, the Federal Government would take no action toward implementing a specific plan to help increase anadromous fish survival opportunities in the upper Sacramento River nor help address the growing water reliability issues in the Central Valley of California through the assistance of Shasta Dam and Reservoir.
- **Increase Water Supply Reliability with Shasta Enlargement** – The primary purpose of this initial alternative is to be consistent with the goals of the CALFED ROD, which focus on increasing CVP and SWP water supply reliability while contributing to increased anadromous fish survival. It includes raising Shasta Dam between 6.5 to 18.5 feet, which would increase storage space in Shasta Reservoir by 290,000 acre-feet and 640,000 acre-feet, respectively. The increased pool depth and volume also could contribute to incidental benefits for flood control, hydropower, and outdoor recreation.
- **Increase Water Supply Reliability with Shasta Enlargement and Conjunctive Water Management** – The primary purpose of this initial alternative is to increase CVP and SWP water supply reliability through a combination of enlargement of Shasta Dam and Reservoir and conjunctive water management, consistent with the goals of the CALFED ROD. This plan is similar to the above initial alternative and includes raising Shasta Dam up to about 18.5 feet. It also includes implementing a conjunctive water management component consisting primarily of contract agreements between Reclamation and Sacramento River basin water users.
- **Increase Anadromous Fish Habitat and Water Supply Reliability with Shasta Enlargement** – The primary purpose of this initial alternative is to address both primary objectives with a focus on increasing anadromous fish habitat and enlarging Shasta Reservoir up to about 18.5 feet. In addition to increasing the cold water pool in Shasta Lake, this alternative includes restoring inactive gravel mines along the Sacramento River to help benefit anadromous fish.

- **Multipurpose with Shasta Enlargement** – This initial alternative also consists of raising Shasta Dam up to about 18.5 feet. In addition, to address the primary objectives, it includes conjunctive water management and restoring inactive gravel mines and floodplain habitat along the upper Sacramento River. Features that address the secondary objectives include constructing warm water fish habitat in the Shasta Lake area, restoring one or more riparian habitat areas between Redding and Red Bluff on the Sacramento River, and possibly reoperating Shasta Dam for increased flood control.

STUDIES TO DATE

A number of studies have been accomplished to date to (1) define resources problems, establish study objectives, and define potential measures; (2) formulate initial alternatives to address the objectives; (3) evaluate and compare initial alternatives, including estimating potential benefits and impacts of each; and (4) formulate a set of comprehensive plans from the initial alternatives for further development in the feasibility study. These studies have been used in part to help define the likely range of possible project actions to address the objectives to a level of detail sufficient for requesting input from other agencies, organizations, and interests on the scope of potential environmental issues to be considered in further efforts on the feasibility study.

Major Technical Studies and Other Efforts

Following is a summary of several of the major study efforts accomplished to date.

- **Hydrology and Hydraulics** – System operation simulation modeling has been accomplished to evaluate the potential magnitude of increases in water supply reliability to the CVP and State Water Project (SWP). Results from this effort have and will be used to help evaluate impacts to other system resources in and around Shasta Lake as well as along the Sacramento River and elsewhere in the CVP/SWP system. Reservoir operation modeling has also been accomplished to assess the potential for increasing the level of flood protection from increased storage in Shasta Reservoir. In addition, hydraulic modeling has been accomplished to estimate the changes in flows and stages at various locations in the Sacramento River resulting from enlargements to Shasta Reservoir.
- **Structure Inventories** – Aerial photogrammetry of the entire Shasta Lake and surrounding area along with an inventory of structures around Lake Shasta to within 30 feet of the existing gross pool elevation was accomplished.
- **Environmental Related Investigations** – An inventory of shoreline erosion potential, plant series types, and wildlife habitat around Shasta Lake to within 20 feet of the existing gross pool elevation was completed. Estimates of possible impacts to these and other terrestrial and aquatic resources in the primary study area are underway. This includes accomplishment of Habitat Evaluation Procedure assessments around Shasta Lake and development and use of the SALMOD model to estimate impacts, both beneficial and adverse, to anadromous fish along the upper Sacramento River. A number of other environmental related evaluations are underway both in and around Shasta Lake and along the Sacramento River.

- **Recreation Related Investigations** – Major recreation facilities and recreation activities and potential impacts due to enlarging Shasta Reservoir are underway. This includes identification of the location and elevation of existing facilities, how these facilities might be impacted with increased lake levels, and formulation of features to reduce or eliminate the impacts. It also includes assessing benefits to recreation resulting to a larger lake area as well as identifying potential impacts to reservoir area boating interests with higher reservoir elevations along with ways to reduce these impacts. Further, studies are being initiated to identify additional features that could be added to existing facilities to enhance recreation and recreational experiences on Shasta Lake.
- **Plan Formulation** – Water resources and related problems and needs, planning objectives to address these problems, and numerous resources management measures consistent with the management measures have been identified. From these management measures, a number of initial alternatives have been formulated and efforts are underway to formulate, evaluate, and compare a set of detail comprehensive alternatives for display in the.
- **Designs and Cost Estimates** – Preliminary estimates of major facilities designs and cost estimates of initial alternatives have been completed to help identify those alternatives and their components that should be included into comprehensive alternatives. Efforts are underway on developing appraisal level designs and costs for several comprehensive alternatives upcoming Plan Formulation Report.
- **Cultural Resources** – Major efforts to identify potential cultural, including Native American resources, potential impacts on those resources, and formulating ways to mitigate those impacts are being initiated.
- **Public and Agency Coordination** – Three sets of public outreach through well attended public workshops at numerous locations mainly in the primary study area have been accomplished. In addition, numerous meetings with local interest groups and individuals have been accomplished. Numerous multi-agency project coordination meeting have occurred. Significant addition public and agency coordination is planned during the remainder of the study.

Reports and Documentation

Important study related reports and documentation are listed below.

- Plan Formulation Strategy Summary, July 2002
- Mission Statement Milestone Report, March 2003
- Initial Alternatives Information Report, June 2004
- Natural Resources Characterization (Draft), December 2003
- Technical Memoranda and Office Reports:

- Reservoir Area Inventory, February 2003
- Strategic Agency and Public Involvement Plan, March 2003
- Break-Point Analysis, June 2003
- Ecosystem Restoration, November 2003
- Assessment of Potential of Shasta Dam Reoperation for Flood Control and Water Supply Improvement, February 2004
- (Initial) CALSIM II System Operation Simulation, June 2004
- Surface Water Storage Options, June 2004
- (Initial) Conjunctive Water Management Assessment, June 2004
- (Initial) Fish Survival and Habitat Analyses, June 2004
- (Initial) Basis of Design, June 2004

ISSUES IDENTIFIED TO DATE

Federal, State and local stakeholders have identified several areas of concern during SLWRI meetings and workshops. Several of the major concerns raised to date are highlighted below.

- **Impacts to Cultural Resources** - Sites of cultural significance exist in and around Shasta Lake, many related to historic activities of Native Americans. The Winnemem band of the Wintu Indians have raised concerns about potential impacts of enlarging Shasta Dam on sites they value for historic and cultural significance. The Winnemem also have indicated that numerous sites may be affected by inundation or changed operations associated with an 18.5-foot raise.
- **Impacts to Recreation** - Shasta Lake is the principal recreation destination in Shasta County, which realizes annually well over \$160 million related to outdoor recreation. Shasta Lake has attracted development of 11 private marinas with 1,075 houseboats and 18 public campgrounds. Local interests are concerned about possible adverse effects on recreation at the lake. This ranges from impacts to the lake area concessionaires and their facilities to concerns by Shasta County about potential impacts on the regional economy. Recreation is not an existing project purpose for the Shasta Unit to the CVP; however, Shasta Lake is within the Shasta-Trinity National Recreation Area (NRA). Accordingly, impacts to campgrounds and related facilities administered by the USFS under the NRA is of major concern.
- **McCloud River** - Although the California Department of Water Resources (DWR) is the current non-Federal sponsor for the SLWRI, its participation and that of other State agencies are limited by California Public Resources Code 5093.542(c). The McCloud River CRMP, influential landowners, and various environmental groups have expressed concerns about impacts to the McCloud River resulting from enlarging Shasta Dam.

- **Impacts to Reservoir Area Property Owners** - Raising Shasta Dam by 18.5 feet would inundate about 2,500 additional acres around Shasta Lake. This would affect at least 130 structures and require replacing 7 bridges and about 115 segments of existing paved and non-paved roads. These actions are of great concern to many property owners around Shasta Lake.
- **Impacts to the Environment** - Enlarging Shasta Dam or modifying project operations would affect a broad range of environmental resources, some adversely and some beneficially. Significant concern has been expressed about potential impacts to reservoir rim wildlife habitat, fishery habitat on several inflowing creeks and streams, and fishery resources along the upper Sacramento River.
- **Reservoir Reoperation** - Residents and businesses around Shasta Lake have expressed interest in revising the operation of Shasta Dam to reduce the potential for extreme seasonal drawdown for flood control, such as occurred in early 2004. Some view the 30-year-old current flood control diagram as outdated, and are interested in considering how new and evolving technology could reduce water supply impacts associated with flood operations.
- **Consistency with the CALFED ROD**- Enlarging Shasta Dam and Reservoir to help maintain lower water temperatures in the upper Sacramento River and improve water supply reliability is one of five surface water storage projects identified in the CALFED ROD. o reduce potential planning and implementation inconsistencies among these projects, participating CALFED agencies are defining a set of Common Assumptions related to without-project conditions, water operations, and economics evaluations for application to the storage studies.

MEETINGS

Environmental Scoping for the SLWRI commenced on October 7th, 2005 with the release of the Notice of Intent, included as **Attachment A**. Reclamation hosted seven public scoping meetings for the SLWRI between October 24th and November 3rd, 2005. The locations, dates, and times of each meeting are indicated in the press releases included in **Attachment B**. Comment cards were provided by the project team, shown in **Attachment C**. Similar displays and information were presented at each meeting on large-scale panels at a series of four workstations, shown in **Attachment D** and summarized below:

- **Background** – This workstation included information about Shasta Dam and Reservoir, Federal feasibility study authorization and other pertinent guidance, CALFED Record of Decision relating to enlarging Shasta Dam and Reservoir, and the primary and extended areas of study.
- **Environmental Overview** – This workstation summarized the major resource areas to be evaluated, and defined biological, socioeconomic, physical, and cultural environments and potential impacts on those environments. The workstation also included information on the

Federal environmental review process and Federal and State regulatory requirements and processes.

- **Study Process** – This workstation included information about the water resources and related problems and needs being addressed in the SLWRI. The primary and secondary study objectives were identified along with the overall study mission. The workstation also included information about the Federal plan formulation process, the initial alternatives and comprehensive alternatives being formulated, and how these efforts fall within the Plan current Plan Formulation phase and subsequent Feasibility Report phase of the study.
- **Initial Alternatives** – This workstation included information about the initial alternatives formulated to date, potential major features associated with potential enlargement of Shasta Dam and Reservoir that are likely to be considered in future studies, and potential environmental restoration features to be included in the alternatives.

The meetings were advertised in three newspapers, as described in **Attachment E**. Attendance ranged from very light in the Fresno and Concord meetings to strong participation in Dunsmuir, Redding, and Red Bluff meetings, as summarized in **Table 1**. The meetings were attended by private citizens, Federal and State agency personnel, local government representatives, political representatives, members of the media, Native American groups, business owners, and representatives of private industry, utilities, environmental interest groups, and non-governmental organizations. The focus of interest varied among the meetings. However, a common theme centered on the potential impacts to the Shasta Lake area that could result from enlarging the reservoir. All of the issues discussed at the meetings were captured through written comments, as summarized in **Chapter 3**.

TABLE 1
SUMMARY OF MEETING ATTENDANCE

Meeting Location	Date	No. of People Signed In
Sacramento	October 24	10
Concord	October 24	2
Los Angeles	October 26	4
Fresno	November 1	2
Dunsmuir	November 2	11
Redding	November 3	39
Red Bluff	November 3	20
Total		88

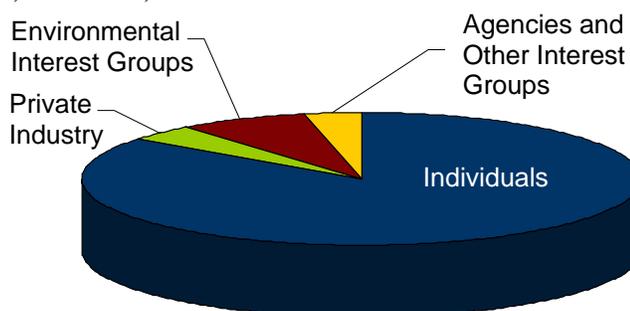
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CHAPTER 3 COMMENTS AND RESPONSES

This section describes the general approach to addressing comments received during the scoping process, and summarizes the major issues raised during scoping that may have a direct affect on the environmental review process for the SLWRI.

APPROACH

Over 200 comment cards, letters, faxes, and emails were received by the close of the official comment period, December 6, 2005. Reclamation received scoping comments from Federal agencies, power and water utilities, local Shasta-area residents, environmental groups and other non-governmental organizations, Native American groups, private industry, and individuals. Geographically, about thirty percent of those who submitted formal written comments (and provided an address) were from Sacramento, Alameda, and Shasta counties. About 85% of those commenting were private individuals; of those who were not, about 50% represented environmental interest groups and 25 % represented private industry. Form letters were received from multiple individuals, and constituted about 62% of total respondents. A list of individuals and agencies that submitted written comments is included in **Attachment F**.



Each scoping comment was reviewed by Reclamation and SLWRI team members. From the written comments, the SLWRI team identified specific issues, questions, and concerns. The comments were organized into various categories or themes, then grouped and summarized. Copies of original comments are on file with Reclamation. Although the comments addressed a broad range of concerns, they can be grouped into the following categories:

- Institutional issues
- Environmental resources
- Cultural and historic resources
- Recreation
- McCloud river wild and scenic status
- Real estate
- Planning and plan formulation
- Economics and cost
- Engineering
- Water management operations
- Other comments

The following provides a summary of substantive comments that may help Reclamation in identifying the range of potential actions, alternatives, mitigations measures, and significant effects to be analyzed in depth in the FR/EIS. The italicized comment summaries are intended to provide a brief overview of the major issues raised; each are followed by a description of the approach Reclamation plans to follow in preparing the FR/EIS.

INSTITUTIONAL ISSUES

Institutional issues raised generally related to consistency with the CALFED Program, consistency with the NEPA/CEQA environmental review process, and environmental justice. These comments and concerns are summarized below, along with responses indicating how Reclamation plans to address the issues in the feasibility study.

Consistency with CALFED Program

- ❖ *The FR/EIS should describe the consistency with the CALFED Program; specifically, the potential to undermine the significant public investments made in the CALFED program and/or redirect impacts on other CALFED projects.*

The CALFED PEIS/R ROD presented a preferred alternative consisting of eight broadly described actions and programs to attain the CALFED goals. Specific projects to be further considered were identified for each action and program. The SLWRI is one of five surface water storage investigations identified in the Storage Program as warranting further analysis. Although the SLWRI is not tiering off the CALFED ROD, the goals of the study are believed to be consistent with the goals of CALFED. In addition, SLWRI planning principles maintain that "Primary consideration should be given to recommendations in the CALFED ROD," and "Alternatives should be formulated to neither preclude nor enhance development and implementation other elements of the CALFED program or other water resources programs and projects in the Central Valley."

Consistency with NEPA/CEQA

- ❖ *To date, not enough attention has been placed on potential environmental, cultural, and socioeconomic impacts; a more credible and comprehensive assessment is needed.*

Because a primary purpose of Public Scoping is to help lead agencies identify resource areas that require major or minor analysis, detailed environmental impact analyses were not conducted prior to the scoping meetings. The comments received during Scoping will help Reclamation gauge the level of potential environmental impact to each resource area and focus analyses on those resources that are likely to be significantly affected. Reclamation recognizes that the scoping comments were not comprehensive in identifying all potential adverse environmental impacts of possible Investigation alternatives. NEPA and CEQA guidance will be followed to identify other resource areas that could be potentially affected.

- ❖ *The FR/EIS needs to include discussion of credible alternatives to raising the dam.*

Alternatives formulation for the SLWRI will follow established Federal planning guidelines, which call for the identification of a comprehensive range of measures to address the primary planning objectives (both structural and nonstructural) and the evaluation of the No Action alternative. These will be documented in the FR/EIS.

- ❖ *There is a need for a supplemental NEPA document following project authorization.*

Federal feasibility studies and reports for water resources development are guided by various Federal laws and policies including the National Environmental Policy Act (NEPA). It is

intended within the feasibility study process to prepare an appropriate level NEPA document to support processing the report to Congress in enough detail to allow their consideration and possible authorization. Once authorized, it is intended that if funded, the project or action can be implemented with no further environmental analysis. However, supplemental NEPA documentation may be required when one or more elements of an authorized project differ from that described in the Final EIS, or when elements have been added to a project after authorization. Supplemental NEPA documentation may also be required if significant new circumstances or information exist at the time of project implementation that could affect the economic or technical feasibility of the project (the ability to achieve project goals and objectives).

For a project including enlarging Shasta Dam and Reservoir, it is intended that the feasibility study include as thorough and complete an analysis of alternatives as possible to identify significant impacts and appropriate mitigation. However, it is recognized that following authorization, additional evaluations will be required to support detailed design of specific project features. It is likely that, as part of these design related activities, that previous resource understandings will be altered and that supplemental NEPA compliance documentation will be required.

❖ *The FR/EIS should discuss significant regulatory obstacles to any proposed alternatives.*

The FR/EIS will describe significant regulatory issues or obstacles associated with project implementation. These issues will likely also be used in comparing alternatives with regard to implement ability and acceptability.

❖ *The FR/EIS needs to describe legal mechanisms by which project benefits would be ensured and the public trust / long-term public interest would be protected.*

As owner and operator of Shasta Dam and Reservoir, Reclamation is responsible for operating the facility to meet the Federally authorized purposes of the project and maintain the public trust, in compliance with applicable Federal, State, interstate, local, and tribal laws. Should the reservoir be expanded, Reclamation would likely continue to be responsible, both technically and financially, for operation of the project to meet existing and/or new project objectives, as identified by Congress, and comply with any related mitigation requirements. The Feasibility Report will describe project implementation, including legal responsibilities related to project operations.

❖ *The validity of public scoping for the SLWRI was questioned with regard to meeting locations and/or information about potential project impacts presented at the meetings.*

Public involvement is an important requirement of NEPA. The public scoping meetings for the SLWRI were planned, advertised, and conducted consistent with Reclamation guidance and NEPA requirements. As identified in the Notice of Intent published in the Federal Register, a total of six meetings were held throughout California to provide opportunities for public comment; the meetings were advertised locally and regionally, as appropriate, and held in locations accessible to the general public. There will be additional opportunities for the public to comment on the feasibility study as it progresses toward a Draft FR/EIS.

- ❖ *The public comment period for the Scoping Process should be extended.*

Many respondents felt that the formal comment period for the SLWRI should be extended. Although the public comment period will not be extended beyond December 6, 2005, there will be additional opportunities to provide input and comments to the study team over the course of the feasibility study. It is anticipated that there will be additional public workshops, informational meetings, and stakeholder briefings held between now and the draft FR/EIS.

- ❖ *How will input and comments made during the scoping process be included in the feasibility study?*

Comments and input identified during the scoping process will help Reclamation identify affected public and agency concerns; define the issues and alternatives that will be examined in detail in the EIS; facilitate an efficient EIS preparation process; and help ensure that relevant issues are adequately considered in the planning process. There will be additional opportunities for public comment in the future.

- ❖ *The FR/EIS should include a discussion of compliance with the National Historic Preservation Act and the Section 106 review process, including the identification of historic/cultural properties and resources and mitigation for any impacts to these resources.*

The FR/EIS will be in compliance with the NHPA / Section 106 and include a description of supporting analyses, studies, coordination, impacts, and mitigation, as necessary.

Environmental Justice

- ❖ *The FR/EIS needs to include a full discussion of Executive Order 12898 (Environmental Justice in minority and low-income populations).*

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." As required under NEPA and in keeping with Executive Order 12898, the EIS will describe the measures taken by Reclamation to: 1) fully analyze the environmental effects of the proposed Federal action on minority communities, e.g. Indian Tribes, and low-income populations, and 2) present opportunities for affected communities to provide input into the NEPA process.

ENVIRONMENTAL RESOURCES

Comments and concerns related to environmental resources were divided into three broad categories: general comments, comments related to impacts upstream of Shasta Dam, and those related to impacts downstream from Shasta Dam. The comments are summarized below in italics, followed by responses indicating how Reclamation plans to address the issues in the feasibility study.

General

- ❖ *The FR/EIS needs to fully consider potential environmental impacts to the local, regional, and state ecosystems, including how mitigation would be achieved.*

In addition to assessing the direct impacts associated with raising Shasta Dam and enlarging Shasta Lake, such as impacts to fish and wildlife in the inundation area, the FR/EIS will also evaluate impacts to the greater study area. This generally includes the Sacramento River downstream from Shasta Dam, the Sacramento-San Joaquin Rivers Delta, and service area of the CVP (where project benefits would be realized). Potential impacts to these areas will be evaluated in varying levels of detail, depending on the relative significance of the impact and impacted resource. For example, detailed fisheries evaluations will be conducted downstream from Shasta Dam to the Red Bluff Diversion Dam, where temperature impacts are most prevalent, whereas less detailed analyses may be performed downstream from RBDD.

- ❖ *Will the FR/EIS describe or include mitigation for the environmental impacts of the original construction of Shasta Dam?*

The FR/EIS will assess existing and future (without project) environmental conditions within the study area. However, it will not study or address the sufficiency of mitigation for the existing Shasta Dam and Reservoir project, or include additional mitigation features to address environmental impacts associated with original construction of the project.

- ❖ *The FR/EIS should examine the environmental impacts of all project components/elements, including those not directly related to Shasta Dam and Reservoir; for example, if conjunctive use is included in a proposed alternative, the impacts to areas where conjunctive management is occurring should be examined.*

The EIS will consider impacts resulting from all project components, even those that are not physically located within the primary study area. The primary study area (which consists of Shasta Lake and vicinity, the lower reaches of tributaries, and the Sacramento River from Shasta Dam to the Red Bluff Diversion Dam) was identified because this area is likely to experience the most significant impacts from a potential project to raise Shasta Dam; however, it is understood that there may be impacts within the extended project area. For example, if a project alternative includes conjunctive water management within the western Sacramento Valley, the potential impacts of conjunctive use operations in the western Sacramento Valley would be evaluated and discussed in the FR/EIS.

Upstream Impacts

Various comments concerned potential impacts in areas upstream from Shasta Dam, including the reservoir rim area and the downstream reaches of tributaries. These comments are summarized below and followed by brief responses.

- ❖ *The FR/EIS should include discussion of the frequency, timing, and extent of inundation both around the lake and along the downstream reaches of tributaries. Impacts to habitat, fish and wildlife, and other natural resources (such as springs) in these areas should be evaluated.*

The FR/EIS will examine how an expanded reservoir would be operated and identify associated impacts to the existing and/or newly inundated areas. This will include an evaluation of how the length and frequency of inundation could affect habitat, associated fish and wildlife, and other natural resources.

- ❖ *The FR/EIS should address potential environmental impacts associated with flooding abandoned mines.*

There are numerous mines located in the vicinity of Shasta Dam and Reservoir that currently impact water quality in the lake. The EIS will evaluate the environmental impacts of any mines that would be inundated as a result of the project.

Downstream Impacts

Various comments related to potential impacts downstream from Shasta Dam, including the Sacramento River and Sacramento-San Joaquin River Delta (Delta). These comments are summarized below and followed by brief responses.

- ❖ *The FR/EIS should examine impacts to all runs of Salmon (not just winter run chinook), including temperature, flow, and habitat.*

While threatened and endangered species, such as winter run chinook salmon, are a primary focus of impact analyses, these studies will also address potential benefits/impacts to other anadromous and resident fisheries.

- ❖ *There is a need to study erosion and potential impacts to natural process downstream from the Dam.*

There is a potential for changes in the operation of Shasta Dam to affect erosion and other physical processes along the Sacramento River. These impacts will be evaluated in the FR/EIS.

- ❖ *This FR/EIS should include a full discussion of potential temperature impacts on the Sacramento River; specifically, the impact of potential weakening of temperature requirements in OCAP and discussion of how operations would be conducted to maintain stated temperature benefits.*

Reclamation is currently developing several numerical models that will allow the team to simulate potential impacts to temperature on the Sacramento River resulting from changes to storage and/or operation of Shasta Dam. These tools may be used to estimate project benefits as well as potential negative impacts.

- ❖ *The Feasibility Report and EIS needs to include a complete analysis of potential impacts to the Delta environment, including flow, water quality, habitat, water export operations, Delta fisheries, and other biological resources.*

Because changes to the operation of Shasta Dam have the potential to affect flow and temperature conditions on the Sacramento River, conceivably as far downstream as San Francisco Bay, the Delta is part of the extended study area for the SLWRI. Potential environmental impacts to the Delta will be evaluated in the EIS.

- ❖ *In addition to analyzing the impacts to the Delta environment, the FR/EIS need to examine potential impacts to Delta water users, including the timing, reliability, and quality of exports; the complete results of these analyses should be available for review.*

In addition to supporting fish and wildlife, water supplies for two thirds of Californians flow through the Sacramento-San Joaquin Delta. Potential impacts to this critical hub in the management of the State's water resources will be evaluated and discussed in the EIS.

CULTURAL AND HISTORIC RESOURCES

Many comments relating to cultural and historic resources were general in nature, while others were specific to the Winnemem Wintu band of Native Americans. The comments are summarized below in italics, followed by responses indicating how Reclamation plans to address the issues in the feasibility study.

General

General comments related to cultural resources are summarized below.

- ❖ *The FR/EIS needs to discuss the impacts to cultural, traditional and historical resources with a proposed Shasta Dam raise.*

The FR/EIS will be in compliance with the National Historic Preservation Act and Section 106, and will include a description of supporting analyses, studies, coordination, impacts and mitigation, as necessary.

- ❖ *The cultural resources displays used during the SLWRI public scoping meetings did not show living traditions or tribal people.*

Comments made during the scoping process will help Reclamation identify affected public, agency and tribal concerns; define issues that will be addressed in the EIS, especially related to cultural resources and Native American issues; and help ensure that relevant issues are adequately considered in the planning process.

- ❖ *Tribal participation in the Feasibility Study has been inadequate; more aggressive outreach and tribal involvement is needed.*

Reclamation has held tribal coordination meetings and stakeholder meetings since the initiation of the feasibility study in 2000. Under the NEPA process and Section 106, Reclamation will continue to coordinate with tribal interests and any parties that are affected within the study area.

Winnemem Wintu

Comments specific to the Winnemen Wintu are summarized in italics below, followed by brief responses.

- ❖ *The FR/EIS needs to adequately address compliance with the Central Valley Project Indian Land Acquisition Act (CVPILAA, 55Stat 612), regarding the acquisition of tribal lands for the original Shasta Dam construction and for any potential new construction.*

The FR/EIS will assess existing and future (without project) conditions in the study area. However, it will not study or address the sufficiency of compliance with the CVPILAA under the original construction of Shasta Dam. Reclamation is conducting a document search of its Shasta records, separate from the feasibility study, to review the acquisition of allotted Indian trust land for the original construction of Shasta Dam.

- ❖ *The feasibility study needs to inventory sacred sites, burial sites and sites of cultural importance of the Winnemem Wintu and other Native American communities that use land in the vicinity of the study area.*

The EIS will be in compliance with the National Historic Preservation Act and Section 106, and will include a description of supporting analyses, studies, coordination, impacts and mitigation, as necessary.

- ❖ *The FR/EIS needs to adequately address (cumulative) impacts of the construction of raising Shasta Dam on the Winnemem Wintu.*

The EIS will be in compliance with the National Historic Preservation Act and Section 106, and will include a description of supporting analyses, studies, coordination, impacts and mitigation, as necessary.

- ❖ *The Winnemem Wintu's status (not a Federally recognized tribe) affects their ability to fully participate in the feasibility study.*

The Winnemem Wintu will have the opportunity to participate and provide input in the feasibility study/EIS through NEPA and the Section 106 process, and additional opportunities for public comment in the future. However, the FR/EIS will not address Federal recognition of Native American groups. Federal recognition is under the jurisdiction of the Assistant Secretary - Indian Affairs.

- ❖ *The FR/EIS must assess the tribal resources in use today by the Winnemem Wintu and the Environmental Justice issues associated with the impacts to the cultural resources of the Wintu.*

Executive Order 12898 provides that "each /federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations". As required under NEPA and in keeping with Executive Order 12898, the EIS will describe measures taken by Reclamation to 1) fully analyze the environmental effects of the proposed Federal action on minority communities, e.g. Indian Tribes, and low-income populations, and 2) present opportunities for the affected communities to provide input into the NEPA process.

RECREATION

Comments and concerns related to recreation ranged from requests that the recreation objective of the study be revised, to questions about how marinas and other recreational facilities potentially impacted by a project would be moved or relocated. These comments are summarized in italics below and followed by brief responses.

- ❖ *The FR/EIS should discuss the potential recreational benefits and impacts of the proposed project, in comparison with the existing recreational use of Shasta Lake and the upstream rivers.*

Estimates of potential impacts (both negative and positive) to existing recreation facilities and uses will be included in the FR/EIS. In addition, should additional recreation facilities be included into alternatives considered, net economic recreation benefits will also be included in the document.

- ❖ *If the proposed project includes new recreational facilities, the FR/EIS should analyze the extent to which authorized recreational facilities in the CVP have been constructed. This analysis is necessary to ensure that any costs allocated to recreation will prove to be justified.*

At the request of the Forest Service, Shasta County, and others, recreation has been added as a study objective. Recreation is not currently a project purpose of the Shasta Unit to the CVP. If found to be economically justified and a non-Federal sponsor agrees to cost share and operate the added recreation facilities, a recommendation could be a part of the FR/EIS to include recreation as a project purpose and cost shared accordingly.

- ❖ *The FR/EIS should fully analyze the economic impacts on local communities caused by the loss of many miles of three famous trout streams.*

Included in the estimate of economic impacts on recreation resulting from enlarging Shasta Dam and Reservoir will be a consideration of fishing and its contribution to the recreation experience.

- ❖ *The FE/EIS should discuss the potential economic ramifications of any impacts to tourism, recreation, and related hospitality industries, both locally and regionally.*

The FR/EIS will include an evaluation of potential economic impacts (both negative and positive) to business surrounding Shasta Lake area as well as the regional economy (including Shasta County).

- ❖ *There is concern that an enlarged reservoir will be drawn down more often and to a greater extent, which will negatively impact the recreational experience and reduce its value as a recreational destination.*

It is anticipated that there would be no significant change in the frequency or extent of drawdown at Shasta Lake should the dam be raised by the amounts likely to be evaluated the FR/EIS. Information on drawdown frequency and extent, along with supporting information, will be included in the study documentation.

- ❖ *There is a significant concern that enlarging Shasta Dam and Reservoir would restrict the passage of houseboats under the UPRR and other bridges during the peak months for water oriented recreation; this would significantly impact various marina owners and other businesses around the lake.*

It is recognized that enlarging Shasta Dam and Reservoir could have an adverse impact on house-boating interests. Accordingly, it is the intent of the SLWRI study team to work with these interests to include features in potential alternatives to reduce or mitigate for these potential impacts. This effort and potential residual impacts to boating on the lake will be included in the FR/EIS.

- ❖ *There is a potential for recreation capacity to be displaced as a result of the project. The FR/EIS should include a recreation study that analyzes the feasibility of re-establishing any recreation capacity lost as a result of a dam raise and discussing the availability of potential replacement sites for those facilities impacted by the inundation.*

Included in the FR/EIS will be an estimate of impacts on existing recreation capacity resulting from enlarging Shasta Dam and Reservoir. It is intended, at this time, to also include in alternatives being considered an estimate of the features and costs to offset a potential adverse impact on capacity. Should a project be authorized for implementation that includes enlarging Shasta Dam and Reservoir, there would be detailed site designs developed with supporting documentation for new or modifications to existing recreation facilities at Shasta Lake.

- ❖ *The FR/EIS should describe how and when more detailed analyses of recreation effects and proposed mitigation will be completed and how the public will be involved in the decision making process. This will allow the public and affected agencies to clearly understand when their specific input about recreation needs would be most useful.*

It is intended that potential impacts to recreation (both positive and negative) be included in the FR/EIS and discussed in public forums supporting processing of this document. Included in the document, however, will also be a description of how a potential project could be implemented which would disclose the scope of any further post authorization evaluations.

- ❖ *Shasta Lake area marina owners and other interests wanted to know about future studies and how their interests will be addressed in the Feasibility Study.*

It is intended that as part of conducting the feasibility study that marina owners and other interests be kept informed about the status of studies, their findings, and how they relate to the overall feasibility study and its conclusion.

- ❖ *The Forest Service supports the addition of a study objective to preserve outdoor recreation opportunities at Shasta Lake and to plan for expected growth and increased demand for recreation facilities and capacities in the future. They recommend including goals set forth in the National Recreation Area Public Law 89-336 "...to provide...public outdoor recreation use and enjoyment...and the conservation of scenic, scientific, historic and other values contributing to public enjoyment of such lands and waters... by present and future generations ."*

Reference to Public Law 89-336 will be discussed in the FR/EIS and considered in formulating alternative plans.

- ❖ *The Forest Service recommends that the Bureau include a new alternative in the FR/EIS that incorporates the objective of maintaining the existing recreation capacity for the preferred level of raise. This alternative would, at a minimum, analyze and disclose the number of replacement sites potentially available for resorts and marinas.*

Reclamation has added preserving and increasing recreation opportunities at Shasta Lake as a secondary study objective. Accordingly, the preservation and/or increasing the recreation opportunities will be included in one or more of the alternatives formulated to address the two primary study objectives. To the extent practical, this will include assessing additional recreation facilities which may or may not include modifying existing or providing additional marina facilities.

MCCLOUD RIVER WILD AND SCENIC STATUS

Various comments were received that related to the McCloud River and the California Wild and Scenic Rivers Act, as summarized below in italics and followed by brief responses.

- ❖ *Raising Shasta Dam would be in violation of the California Wild and Scenic Rivers Act.*

The California Wild & Scenic River System Act was amended in 1989 to include portions of the McCloud River (PRC 5093.542). Although it did not formally designate the McCloud River as a Wild & Scenic River, it did state that no new dams, reservoirs, diversions, or water impoundment facilities are to be constructed on the McCloud River from 0.25 miles downstream from the McCloud Dam to the McCloud River Bridge - a reach length of approximately 24 miles. Other than the DWR participation in certain studies regarding the enlargement of Shasta Dam, the Code precluded other State entities from assisting or cooperating in the planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing conditions of the McCloud River, or on its wild trout fishery. At gross pool, the existing Shasta Lake can inundate just over a mile of river reach upstream from the McCloud Bridge; Raising Shasta Dam would extend this area by about 2/3 of a mile. The FR/EIS will evaluate potential impacts of this increased length on the trout fishery of the McCloud River.

- ❖ *The FR/EIS should include a discussion of the impacts of enlarging Shasta Dam and Reservoir on the eligibility of the McCloud River for Federal Wild and Scenic River Status.*

The Shasta-Trinity Forest Plan recognizes the Lower McCloud River as a potential wild and scenic river with outstandingly remarkable values. In lieu of recommending the McCloud River system for wild and scenic river designation, the Forest Service has taken a lead in working with adjacent private landowners to develop a Coordinated Resources Management Plan (CRMP) for the River corridor. As part of the SLWRI, Reclamation will work with the Forest Service to determine if a potential project including enlarging Shasta Dam and Reservoir could adversely impact the eligibility of the McCloud River for Federal Wild and Scenic River Status. This information will be included in the FR/EIS.

REAL ESTATE

Real estate comments and concerns related primarily to relocation and/or modification of existing structures and marina facilities, and the cost to accomplish these actions, as summarized below in italics and followed by brief responses.

- ❖ *The study needs to identify impacts of removing, relocating, or modifying existing facilities to accommodate reservoir enlargement.*

Estimates of costs to acquire, relocate, and/or modify facilities for each of the alternative plans, as well as a description of potential residual impacts, will be included in the FR/EIS.

- ❖ *Concern was expressed over the costs to raise existing marina services impacted by the proposed project. Who pays for these improvements - the marina owners, the Forest Service, or the Bureau?*

Assessments are underway to determine (1) extent of potential impacts to marina (and other reservoir area) commercial facilities and services, (2) potential features to mitigate these impacts if any, and (3) how these features can be included into an implementable plan. This information will be included in the FR/EIS.

PLANNING AND PLAN FORMULATION

A variety of comments were received that related to the SLWRI planning process and how alternative plans will be formulated to meet study objectives. These comments generally fall into six categories: general planning, alternatives development/formulation, water supply reliability, environmental restoration, flood control, and hydropower. Comment summaries (in italics) are followed by brief responses indicating how Reclamation plans to address the issues in the feasibility study.

General Planning

General planning comments related to the definition of the study area, study objectives, potential project beneficiaries, and project implementation, as summarized below.

- ❖ *Concern was expressed about the terminology or labeling being used to define the Upper Sacramento River with respect to Shasta Dam and Reservoir, and the definition of the “primary” study area.*

For consistency throughout the report, the tributaries and watershed area upstream from Shasta Dam and Reservoir will be referred to as the “upper” or “headwater reaches” of the major tributaries, while the area in the primary study area downstream from Shasta Dam to the Red Bluff Diversion Dam will be referred to as the “upper Sacramento River.”

The primary study area includes the areas most likely to be directly affected by a project to raise Shasta Dam: the lower reaches of the major tributaries to Shasta Lake, Shasta Lake and the lands surrounding the lake, and the Sacramento River from Shasta Dam to the Red Bluff diversion dam. An extended study area covers those areas that may be affected by changes in water management operations at the dam, including the Sacramento River downstream from Shasta Dam and the CVP service area (where water supplies from the proposed project would be used).

- ❖ *Request was made to more clearly identify which anadromous fish populations are included in the study objectives and would be benefited by raising Shasta Dam.*

Water resource problems and needs in the study area will be described in the FR/EIS, including those related to anadromous fish. These problems and needs are used to define the study objectives. Currently, the SLWRI objective to increase the survival of anadromous fish populations in the Sacramento River does not specify a particular species or run of anadromous fish. It is believed that increasing the coldwater pool in Shasta Lake would benefit all anadromous fish in the upper Sacramento River, but further study is needed to evaluate benefits to individual runs of chinook salmon, for example.

- ❖ *The FR/EIS needs to more clearly identify who would benefit from increases in water supply reliability, and whether these beneficiaries would include others than the CVP water users.*

Water resource problems and needs in the study area will be described in the FR/EIS, including those related to water supply reliability. This discussion will include the water supply reliability needs of both the CVP and SWP. The potential water supply reliability benefits of each alternative will be evaluated and compared in the FR/EIS, and beneficiaries will be identified.

- ❖ *The FR/EIS needs to explain how a plan involving raising Shasta Dam can be implemented given current CVP system operational limitations.*

The feasibility report will include a description of the implementation of any plan identified and its compliance with applicable laws, policies, and programs. Operations modeling will be performed that simulates existing system constraints and limitations.

- ❖ *The FR/EIS needs to identify relationships of the proposed project to other existing and potential future water systems and projects.*

The FR/EIS will identify a future without project condition that includes projects and programs that are authorized for construction or highly likely to occur in the future. SLWRI alternative will be evaluated in the context of these future conditions. The FR/EIS will also include a

description of the implementation of any plan identified and its compliance with applicable laws, policies, and programs.

Alternatives Development / Formulation

Those who commented both supported and opposed raising Shasta Dam, for a variety of reasons. Numerous comments were received suggesting different actions or alternatives to be evaluated in the feasibility study, as summarized below in italics and followed by brief responses.

❖ *The following management measures should be considered for anadromous fish survival:*

- *Transfer existing Shasta storage from water supply to cold water releases*
- *Enlarge the minimum pool at Shasta to maintain a larger cold water pool*
- *Remove Shasta Dam and Reservoir*
- *Reoperate Shasta Dam*
- *Reoperate the CVP to improve overall fish management*
- *Enlarge Shasta Dam and Reservoir*
- *Reintroduce anadromous fish to areas upstream from Shasta Dam*
- *Construct a fish ladder on Shasta Dam*
- *Consider ceasing operating or removing the Red Bluff Diversion Dam*
- *Construct a spawning/migration channel around Shasta Dam.*

These measures will be considered in the feasibility study.

❖ *The following management measures should be considered for water supply reliability:*

- *Construct off-stream storage*
- *Implement conjunctive water management*
- *Focus on water use efficiency*
- *Expansion of existing groundwater sources*
- *Construct desalinization options*
- *Enlargement of Shasta Dam and Reservoir*
- *Implement additional land retirement*
- *Dredge to bottom Shasta Reservoir*
- *Consider new storage on tributaries to Sacramento River*
- *Reoperate Shasta Dam*
- *Consider water transfers.*

These measures will be considered in the feasibility study.

❖ *Support was expressed for the "no-action" plan.*

One of the candidate plans to be included in the FR/EIS will be the No-Action Plan. The No-Action Plan serves as the baseline against which the impacts and benefits of the alternative plans will be evaluated. Under the No-Action Plan, the Federal Government would take no action to implement a specific plan to address the study objectives.

- ❖ *Plans should include modifications in the Bay-Delta system to improve water quality.*

Studies are underway by other CALFED entities to consider modification of Bay-Delta systems for other purposes.

Water Supply Reliability

Comments related to water supply reliability planning and plan formulation ranged from concern over alternative yield estimates to suggestions for additional measures to be considered, as summarized below in italics and followed by brief responses.

- ❖ *It is believed that the potential yield from an enlarged Shasta Reservoir is overestimated.*

The CALSIM II water planning model is used in the SLWRI to estimate water supply reliability accomplishments consistent with all CALFED surface water storage projects. The model will undergo peer review.

- ❖ *New storage is needed to add water reliability during severe drought periods.*

New system water storage will be included in the SLWRI.

- ❖ *The feasibility report should include a drought management plan.*

The SLWRI will identify water supply reliability problems and needs and ways to resolve them. The California Water Plan and other efforts consider drought management issues.

- ❖ *The study should consider controlling growth in water-short areas of California.*

The SLWRI will identify water supply reliability problems and needs and ways to resolve them. The California Water Plan and other efforts consider population and regional growth issues in California.

- ❖ *Water-short areas in the south should resolve their own problems and not look to the north State for more water.*

Shasta Dam and Reservoir was constructed as an integral element of the CVP for the purposes of navigation; flood control; irrigation, municipal, and industrial water supply; hydropower generation; and fish and wildlife conservation. The October 1992 Central Valley Project Improvement Act (CVPIA) redefined the purposes of the CVP to include protection, restoration, and enhancement of fish, wildlife, and associated habitats; as a result, much of the yield of the project was redirected to these environmental related purposes. During development of the CVP, the United States entered into long-term contracts with many Central Valley water right holders, who belong to three major groups: (1) Sacramento River Settlement Contractors, (2) San Joaquin River Exchange Contractors, and (3) Water Service Contractors. CVP water contractors are to repay the cost over time of the CVP facilities through the terms of the long-term contracts. That portion of an enlargement of Shasta Dam allocated to water supply would likely be repaid by users in the same manor and primarily used to supplement supply reductions resulting from provisions of the CVPIA

Ecosystem Restoration

Comments related to ecosystem restoration planning and plan formulation ranged from suggestions on how a dam raise could be used to benefit the environment to questions about the ability to increase the cold water pool at Shasta Dam.

- ❖ *The CVP should be reoperated to support the winter-run chinook salmon because of the reduction of Trinity River flows and increases in CVP water supply commitments.*

Impacts and mitigation to aquatic resources due to flow changes by Trinity River flow and other system operation decisions are evaluated as part of those actions.

- ❖ *Raising Shasta Dam should be considered for Bay water quality and flushing.*

Improving water quality of the San Francisco Bay is not an objective of the SLWRI. However, the FR/EIS will evaluate potential impacts (both positive and negative) to the Bay-Delta resulting from a project to raise Shasta Dam.

- ❖ *Consider increasing flows in the Upper Sacramento River for improving riparian and aquatic ecosystems.*

A measure to increase flows in the Upper Sacramento River is included in the SLWRI.

- ❖ *Disagreement was expressed about the ability to increase dam height and increase the cold water pool.*

Information regarding impacts on the cold water pool from increasing the dam height will be included to the FR/EIS.

Hydropower

Comments relating to hydropower, a secondary objective of the study, were submitted primarily by individuals, interest groups, and power utilities. These comments are summarized below in italics and followed by brief responses.

- ❖ *Impacts of raising Shasta Dam Pit 7 Dam and other existing power generation facilities needs to be evaluated.*

Potential impacts and mitigation measures of raising Shasta Dam on existing power generation facilities will be evaluated in the SLWRI.

- ❖ *The power gained by raising Shasta Dam would be less than the power needed to supply the water to its intended service area.*

An assessment of and reasons for an increase in the net power generated by raising Shasta Dam to the CVP service area will be included in the feasibility report.

- ❖ *The FR/EIS needs to consider if other system features at Keswick Dam are needed to support the hydropower benefits of raising Shasta Dam.*

A secondary objective is to develop additional hydropower capabilities at Shasta Dam to the extent possible through pursuit of the primary objectives. Potential impacts to Keswick Dam and operation will be evaluated in the SLWRI.

Flood Control

Comments related to flood control are summarized in italics and followed by brief responses, as follows:

- ❖ *The flood control storage space in Shasta Reservoir should be increased.*

The need to effectively increase flood control along the Upper Sacramento River through increasing storage in Shasta Reservoir will be included in the SLWRI.

- ❖ *Enlarging Shasta Dam and Reservoir should not result in a reduction in flood protection.*

A major plan formulation criterion is to have no adverse impacts on existing flood control or flood operations at Shasta.

- ❖ *The level of flood protection along the Upper Sacramento River should be increased.*

A secondary objective is to reduce flood damages along the Upper Sacramento River to the extent possible through pursuit of the primary objectives. Potential benefits to potential reduced damages will be evaluated in the SLWRI.

- ❖ *The feasibility study should consider the effectiveness of the existing flood control manual and operating rules.*

The existing flood operating rules will be reviewed as part of the SLWRI.

- ❖ *Consider reconstructing the spillway at Shasta Dam to reduce drawdown and uncontrolled releases to benefit flood control.*

Measures to increase flood control through modifying the physical facilities and/or reoperating the flood space are included in the SLWRI.

ECONOMICS AND COSTS

Various comments were submitted that related to the calculation of project costs, how a project could be financed, or how beneficiaries would pay for a project. These comments are summarized below in italics and followed by brief responses.

- ❖ *Concern was raised that taxpayers would bear the financial burden for a project that benefited a relative few; or, that special interests would profit from a publicly-funded project.*

The FR/EIS will include an economic evaluation of project alternatives consistent with Federal planning and economic principles. This will include an evaluation of net economic benefits to the nation, or National Economic Development (NED), to determine economic feasibility from a Federal perspective. The report will also include a preliminary cost allocation demonstrating how the costs of a project could be allocated to various project purposes and apportioned to Federal and non-Federal sponsors.

- ❖ *People asked for information on how the project would be financed, and who the local sponsors would be.*

The FR/EIS will identify project beneficiaries and include an economic evaluation to determine economic feasibility. A discussion on project implementation will identify potential project sponsors and address financing.

- ❖ *A benefit-cost analysis should be performed; the FR/EIS should discuss how societal and environmental costs/benefits will be weighed.*

An economic analysis will be included in the FR/EIS that compares project costs and benefits. This analysis will consider how each alternative addresses the project objectives, including environmental objectives. The benefit-cost analysis will follow applicable Federal guidelines.

- ❖ *The FR/EIS should discuss how the project will be consistent with the CALFED "beneficiary pays" principle (i.e. those who do not benefit should not have to pay for the project)*

Federal cost allocation procedures and applicable cost sharing laws/regulations govern how the costs of a project are allocated among project purposes and apportioned to Federal and non-Federal project sponsors. Federal laws and regulations also determine what Federal costs are reimbursable (paid back to the Federal government by beneficiaries, typically over time) and non-reimbursable (the burden of the Federal tax payer). Should a project be authorized for implementation/construction by Congress, the Federal authorizing language would likely specify any cost-sharing or financing arrangements that deviate from previously established Federal laws. Local sponsors would be responsible for determining how their share of project costs are financed (i.e. how these costs might be passed on to beneficiaries). It is believed that Federal cost allocation and cost-sharing practices are generally consistent with the CALFED "beneficiary pays" principle. The FR/EIS will describe the cost allocation and apportionment process.

- ❖ *The calculation of costs should be a true reflection of the cost to implement the project, including power required to deliver water to beneficiaries, removal/replacement of existing facilities, mitigation costs, interest, and operating and maintenance costs.*

The FR/EIS will include feasibility level cost estimates for each alternative with emphasis on the selected plan. Cost estimates will include all known features required to achieve the identified project benefits. This will include the initial project implementation cost, such as those costs necessary to construct major and minor infrastructure, acquire lands, implement necessary relocations, and to mitigate for significant adverse impacts. Allowance also will be included for

potential future major facility replacements, for interest accrued during the construction period, and for the regular and recurring costs to operate and maintain the completed project. Power required to provide any increases in CVP yield will be considered as either a project cost or as a reduction in the economic benefits.

- ❖ *This EIS should discuss the price of the water developed by each project alternative, including identification of potential recipients, and compare these to the price of other potential water sources.*

The FR/EIS will include an estimate of the cost of each alternative and anticipated cost of the water supplies or other benefits provided by the alternatives. The cost of supplies developed by each alternative will be compared. The report will also identify potential project beneficiaries.

ENGINEERING

Comments concerning engineering generally related to two issues: timber and vegetation clearing around the reservoir rim area, and dam safety. These comments are summarized below (in italics) and followed by brief responses indicating how Reclamation plans to address the issues in the feasibility study.

- ❖ *The FR/EIS needs to describe how the reservoir rim area clearing would be accomplished should Shasta Dam and Reservoir be enlarged.*

Information will be included in the feasibility report about reservoir clearing during the construction period. Reclamation will coordinate with USFS and others to consider options for clearing timber and other vegetation around the reservoir rim area, should the dam be raised.

- ❖ *Concern was expressed about the safety of Shasta Dam both under existing conditions and should it be enlarged.*

Dam safety is a primary consideration at all Reclamation reservoirs. Feasibility level designs for raising Shasta Dam will consider both the age of the existing structure and potential for seismic events at the site.

WATER MANAGEMENT OPERATIONS

Various comments and questions were received that related to how an enlarged reservoir would be operated, both individually and within the overall water management system. These comments are summarized below (in italics), followed by brief responses.

- ❖ *The FR/EIS needs to describe the operation of an enlargement to Shasta Dam. It does not make sense to raise the dam when it only fills in wet years.*

The operation of Shasta Reservoir is governed by various rules primarily including flood control, water supply, and environmental requirements. These rules and their influences under existing and with-project conditions will be described in the FR/EIS.

- ❖ *The FR/EIS should consider the impacts of climate change / basin hydrology on the operation of an expanded reservoir.*

To the extent possible, forecasts in climatic changes and the uncertainty in hydrologic and hydraulic conditions associated with it will be considered in assessing both without and with-project conditions.

- ❖ *What is the average annual evaporative loss from Shasta Lake?*

Potential inflows and outflows including evaporation from Shasta Lake will be included in reservoir operation analysis for the SLWRI.

- ❖ *There is a need to develop more advanced /accurate hydrologic and hydraulic tools to simulate the operation of the reservoir.*

Various hydrologic, hydraulic, and operational modeling tools will be used in the analysis. These will be based on the most current available information. These tools, including associated assumptions and constraints such as operation under OCAP, will be documented in the FR/EIS.

- ❖ *The potential impacts of enlarging Shasta Dam and Reservoir on OCAP, CVP contracts, and CVP water users should be included in the FR/EIS.*

Potential impacts of enlarging Shasta Dam and Reservoir on existing CVP system and related operations will be evaluated in the SLWRI.

OTHER COMMENTS

Other comments were received that did not fall within the categories previously described. These were general comments, often not relating to the SLWRI directly, or comments concerning coordination with Federal agencies and local government.

General

Several people expressed praise for the public scoping meetings, meeting materials, and/or information provided by SLWRI study team members who attended the meetings, while others were unsatisfied with the scoping process. Numerous observations and comments were received that did not relate to the SLWRI or the public scoping process. For example, concern was expressed over the environmental impacts of existing commercial bottling plants located in the Shasta Lake area. The SLWRI will not evaluate the environmental impacts of the bottling plants or other existing facilities, as these are local planning decisions; however, should a project to raise Shasta Dam have the potential to impact an existing bottling plant or other facility, these impacts will be described in the FR/EIS.

Coordination

Comments relating to coordination are summarized below in italics, and followed by brief responses.

- ❖ *Forest Service has a significant interest in future plans and projects in the NRA and recommends roles and responsibilities be clarified before project detailed design phase.*

Reclamation intends to continue to coordinate closely on all study and project phases with Forest Service.

- ❖ *The Forest Service would like to insure ownership of a 300 foot buffer around Lake Shasta as it was originally set in the Code of Federal Regulations and subsequent county zoning regulations. The buffer was provided for the protection of shoreline to protect scenic qualities and reduce potentials for pollution of public reservoirs.*

A revised guide-taking line would be established for a dam enlargement project. It is estimated that it would include the potential to acquire new lands in only several locations and that area outside of the new gross pool boundary would equal or exceed the Forest Service requirements. This information will be coordinated with Forest Service.

- ❖ *Better communication with local government and communities is needed to avoid development of contrary projects.*

Local interests have jurisdiction over local projects. Efforts have been made in the SLWRI to avoid duplication of or adverse impacts to these projects; these efforts will continue throughout the feasibility study.

SUMMARY OF ISSUES NOT TO BE ADDRESSED IN THE ENVIRONMENTAL DOCUMENT

Several of the comments summarized above highlighted issues that are not included in the scope of the environmental documentation and will not be evaluated for the FR/EIS. The purpose of the FR/EIS is to identify and evaluate potential impacts of a project to raise Shasta Dam on biological, socio-economic, cultural, recreation, and other important resource areas. As such, the FR/EIS will not evaluate the impacts of existing projects or facilities, or discuss the sufficiency of mitigation performed when an existing project or facility was originally constructed. Specifically, the FR/EIS will not evaluate (1) the impacts of existing commercial bottling plants on the local environment, (2) environmental and cultural mitigation actions performed when Shasta Dam was originally constructed, (3) the origin or Federal status of Native American groups in the study area, or (4) the contribution of oil companies to MTBE pollution in the area.

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ATTACHMENTS

ATTACHMENT A – NOTICE OF INTENT	A1
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ATTACHMENT A

NOTICE OF INTENT

58744 Federal Register / Vol. 70, No. 194 /
Friday, October 7, 2005 / Notices

DEPARTMENT OF THE INTERIOR
Bureau of Reclamation
Shasta Lake Water Resources
Investigation,
Shasta and Tehama Counties, CA

AGENCY: Bureau of Reclamation,
Interior.

ACTION: Notice of Intent to prepare an
Environmental Impact Statement (EIS) and notice
of public scoping meetings.

SUMMARY: Pursuant to the National
Environmental Policy Act (NEPA), the Bureau of
Reclamation proposes to prepare an EIS for the
Shasta Lake Water Resources Investigation
(SLWRI). Authorization for the investigation
comes from Pub. L. 96-375, 1980; which directs
the Secretary of the Interior to engage in feasibility
studies related to enlarging Shasta Dam and
Reservoir. Other directing legislation includes
Title 34 of Pub. L. 102-575, the Central Valley
Project Improvement Act and Pub. L. 108-137,
the Energy and Water Development Act. In
addition, enlargement of Shasta Dam was
identified in the CALFED Programmatic
Environmental Impact Report/Statement and
Record of Decision (ROD) and in Pub. L. 108-
361, the CALFED Bay-Delta authority.

DATES: A series of public scoping meetings will
be held to solicit public input on the scope of the
environmental document, alternatives, concerns,
and issues to be addressed in the EIS. The meeting
dates are as follows:

- October 24, 2005, 10 a.m. to 1 p.m.,
Sacramento, CA.
- October 24, 2005, 6 to 9 p.m., Concord, CA.
- October 26, 2005, 1 to 4 p.m., Los Angeles,
CA.
- November 1, 2005, 6 to 9 p.m., Fresno, CA.
- November 2, 2005, 6 to 9 p.m., Dunsmuir, CA.
- November 3, 2005, 6 to 9 p.m., Red Bluff, CA.

Submit written comments on or before
December 6, 2005 to the address provided
below.

ADDRESSES: The public scoping meeting
locations are:

- Federal Building, 2800 Cottage Way, Rooms
C-1001 and C-1002, Sacramento, CA.
- Heald Conference Center, 5130 Commercial
Circle, Concord, CA.
- Metropolitan Water District of Southern
California, 700 North Alameda Street Room
1-102, Los Angeles, CA.
- Piccadilly Inn, 2305 West Shaw Avenue, in
Fresno, CA.
- Dunsmuir Community Building, 4835
Dunsmuir Avenue in Dunsmuir, CA.
- Red Bluff Community Center, Auditorium,
1500 South Jackson.

Written comments on the scope of the
environmental document should be sent to: Ms.
Sammie Cervantes, Bureau of Reclamation,
2800 Cottage Way, MP- 700, Sacramento CA
95825.

FOR FURTHER INFORMATION CONTACT: Ms.
Donna Garcia, Reclamation Project Manager, at
the above address, at 916- 978-5009, TDD 916-
978-5608, or via fax at 916-978-5094 or e-mail
at dgarcia@mp.usbr.gov. If special assistance
is required, please contact Ms. Cervantes at 916-
978-5189, TDD 916-978-5608, or via e-mail at
scervantes@mp.usbr.gov no less than 5 working
days prior to the meetings. Further information
on the investigation, including interim results,
can be found on the SLWRI Web site at
<http://www.usbr.gov/mp/slwri> or through the
above contact persons.

SUPPLEMENTARY INFORMATION: Constructed
from 1938 to 1945, Shasta Dam serves multiple
purposes including flood control, irrigation and
municipal and industrial water supplies, and
hydropower generation. In addition, Shasta Lake
significantly contributes to the regional economy
through extensive recreational activities.

Initial feasibility studies in partial response to
Pub. L. 96-375 culminated in a 1988 Wrap-Up

Report which concluded that enlarging Shasta Dam and Reservoir could significantly increase water supply reliability, if and when water demands warranted the required financing. The current feasibility scope study primarily involving enlargement of Shasta Dam and Reservoir was reinitiated in 2000. Raising Shasta Dam is one of five surface water storage projects identified in the August 2000 CALFED ROD which includes North of Delta Off-Stream Storage, In-Delta Storage, Los Vaqueros Enlargement, and Upper San Joaquin River Basin Storage Investigation. These surface water storage projects are being developed further in separate feasibility studies.

The primary study area for the SLWRI is Shasta Dam and Reservoir; tributary rivers and streams, including the upper reaches of the Sacramento River, McCloud River, Pit River, and Squaw Creek; and the Sacramento River downstream from Shasta Dam to about the Red Bluff Diversion Dam. Because of the potential influence of a Shasta Dam modification on natural resources along the Sacramento River and on programs and projects in the Central Valley, the extended study area includes other major tributaries to the Sacramento River, the Sacramento-San Joaquin Delta, San Joaquin River basin, and service areas of the Central Valley Project (CVP) and State Water Project (SWP).

Planning studies to date have focused on identifying water resources problems and needs in the primary study area, developing a set of planning objectives to help guide the remainder of the feasibility study, and formulating several initial alternatives. These three important elements of the study are summarized below.

Problems and Needs

Major water and related resources problems and needs identified in the primary study area include:

- **Anadromous Fish Restoration:** The population of Chinook salmon has declined in the Central Valley. To address this salmon decline in the Sacramento River, various actions have been taken, ranging from establishing minimum flow requirements in the river to making structural changes at Shasta Dam. However, a need still exists for additional actions to benefit anadromous fish, especially in dry and critically dry water years.

- **Water Supply Reliability:** Demand for water in California exceeds available supplies. As the population of the Central Valley grows, the need to maintain a healthy and vibrant industrial and agricultural economy will increase while the demand for an adequate water supply becomes more acute.
- **Other Resource Needs:** Other identified problems and needs include the need for environmental restoration in the Shasta Lake area and downstream along the Sacramento River; the need for additional flood control along the upper Sacramento River; and growing demands for new energy sources in California and outdoor recreation in the primary study area.

Planning Objectives

The Problems and Needs in the study area were translated into Primary and Secondary Planning Objectives.

- **Primary Planning Objectives:** Alternatives will be formulated to address the primary objectives. The primary objectives for the SLWRI are: (1) Increase the restoration of anadromous fish populations in the Sacramento River primarily upstream from the Red Bluff Diversion Dam and (2) increase water supplies and water supply reliability for agricultural, municipal and industrial, and environmental purposes to help meet future water demands, with a focus on enlarging Shasta Dam and Reservoir.
- **Secondary Planning Objectives:** Through pursuit of the primary planning objectives, the following secondary objectives will be met to the extent possible: (1) Preserve and restore ecosystem resources in the Shasta Lake area and along the upper Sacramento River, (2) reduce flood damages along the Sacramento River; (3) develop additional hydropower capabilities at Shasta Dam, and (4) preserve outdoor recreation opportunities at Shasta Lake.

Initial Alternatives

From the Planning Objectives and a resulting planning constraints and criteria, a number of water resources management measures were identified. The most effective of measures were used to formulate a set of concept plans from which five initial alternatives were developed. Specific measures and combinations of measures in these initial alternatives will likely change in

future studies and some may be combined with others or dropped from further consideration. In addition, other measures and combination of measures may emerge and warrant development into alternatives during the scoping process. These five initial alternatives are summarized below.

- **No-Action (No Federal Action):** Under the No-Action Alternative, the Federal Government would take no action toward implementing a specific plan to help increase anadromous fish survival opportunities in the upper Sacramento River nor help address the growing water reliability issues in the Central Valley of California through the assistance of Shasta Dam and Reservoir.
- **Increase Water Supply Reliability with Shasta Enlargement:** The primary purpose of this initial alternative is to be consistent with the goals of the CALFED ROD, which focus on increasing CVP and SWP water supply reliability while contributing to increased anadromous fish survival. It includes raising Shasta Dam between 6.5 to 18.5 feet, which would increase storage space in Shasta Reservoir by 290,000 acre-feet and 640,000 acre-feet, respectively. The increased pool depth and volume also could contribute to incidental benefits for flood control, hydropower, and outdoor recreation.
- **Increase Water Supply Reliability with Shasta Enlargement and Conjunctive Water Management:** The primary purpose of this initial alternative is to increase CVP and SWP water supply reliability through a combination of enlargement of Shasta Dam and Reservoir and conjunctive water management, consistent with the goals of the CALFED ROD. This plan is similar to the above initial alternative and includes raising Shasta Dam up to about 18.5 feet. It also includes implementing a conjunctive water management component consisting primarily of contract agreements between Reclamation and Sacramento River basin water users.
- **Increase Anadromous Fish Habitat and Water Supply Reliability with Shasta Enlargement:** The primary purpose of this initial alternative is to address both primary objectives with a focus on increasing anadromous fish habitat and enlarging Shasta Reservoir up to about 18.5 feet. In addition

to increasing the cold water pool in Shasta Lake, this alternative includes restoring inactive gravel mines along the Sacramento River to help benefit anadromous fish.

- **Multipurpose with Shasta Enlargement:** This initial alternative also consists of raising Shasta Dam up to about 18.5 feet. In addition, to address the primary objectives, it includes conjunctive water management and restoring inactive gravel mines and floodplain habitat along the upper Sacramento River. Features that address the secondary objectives include constructing warm water fish habitat in the Shasta Lake area, restoring one or more riparian habitat areas between Redding and Red Bluff on the Sacramento River, and possibly reoperating Shasta Dam for increased flood control.

These and other possible alternatives will be considered and developed through comments received during the scoping process. During scoping, Reclamation will be seeking input about possible methods for evaluating water management that will meet the identified water resources problems and needs consistent with the planning objectives.

Written comments, including names and home addresses of respondents, will be made available for public review. Individual respondents may request that their home address be withheld from public disclosure, which will be honored to the extent allowable by law. There may be circumstances in which respondents' identity may also be withheld from public disclosure, as allowable by law. If you wish to have your name and/or address withheld, you must state this prominently at the beginning of your comment. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Dated: August 26, 2005.

Michael Nepstad,
Deputy Regional Environmental Officer, Mid-Pacific Region.

[FR Doc. 05-20169 Filed 10-6-05; 8:45 am]

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ATTACHMENT B PRESS RELEASE

Two press releases were made to announce the commencement of public scoping for the SLWRI, on October 7th and 20th of 2005. The second release, on October 20th, noted an additional meeting location in Red Bluff. Both press releases are included below.

News Release

Mid-Pacific Region
Sacramento, CA

RECLAMATION

Managing Water in the West

MP-05-115

Media Contact: Jeffrey McCracken 916-978-5100
jmccracken@mp.usbr.gov

For Release On: October 7, 2005

Public Scoping Meetings Scheduled on the Shasta Lake Water Resources Investigation

The Bureau of Reclamation is conducting the Shasta Lake Water Resources Investigation (SLWRI). The feasibility study and subsequent report for the SLWRI will include an Environmental Impact Statement (EIS) consistent with requirements of the National Environmental Policy Act. A Notice of Intent to prepare the EIS was published in the Federal Register on Friday, October 7, 2005.

Six public scoping meetings are being held to solicit public input on topics to be addressed in the integrated SLWRI planning report and EIS, including resources to be evaluated, alternatives to be considered, and significant concerns and issues. The meetings will be held as open houses, allowing participants the opportunity to drop by anytime during the scheduled times and interact directly with the SLWRI study team. The meetings are scheduled as follows:

- **Sacramento** – Monday, October 24, 2005, anytime between 10 a.m. and 1 p.m., Reclamation Mid-Pacific Regional Office, 2800 Cottage Way, Cafeteria Conference Rooms, C-1001 and C-1002.
- **Concord** – Monday, October 24, 2005, 6 to 9 p.m., Heald Conference Center, 5130 Commercial Circle, Rm 3
- **Los Angeles** – Wednesday, October 26, 2005, 1 to 4 p.m., Metropolitan Water District of Southern California, 700 North Alameda Street, Room 1-102
- **Fresno** – Tuesday, November 1, 2005, 6 to 9 p.m., Piccadilly Inn, 2305 West Shaw Avenue
- **Dunsmuir** – Wednesday, November 2, 2005, 6 to 9 p.m., Dunsmuir Community Building, 4835 Dunsmuir Avenue
- **Red Bluff** – Thursday, November 3, 2005, 6 to 9 p.m., Red Bluff Community Center, 1500 South Jackson

The SLWRI is being conducted to develop an implementable plan principally involving the enlargement of Shasta Dam and reservoir to address two primary objectives: (1) to increase the survival of anadromous fish populations in the upper Sacramento River, and (2) to increase water supply reliability for agricultural, municipal and industrial, and environmental purposes. The SLWRI will also, to the extent possible through meeting these primary objectives, include features to benefit other identified ecosystem, flood control, and related water resources needs.

Written comments on the scope of the environmental document are due by close of business on Friday, November 18, 2005, and should be sent to Mr. Louis Moore, Bureau of Reclamation, 2800 Cottage Way, Sacramento, CA 95825. For additional information, please contact Mr. Moore at 916-978-5106, TDD 916-978-5608, or e-mail wmoore@mp.usbr.gov. Additional information can also be obtained by contacting Ms. Donna Garcia, SLWRI Project Manager, at 916-978-5009, e-mail dgarcia@mp.usbr.gov, or by visiting the SLWRI Web site at <http://www.usbr.gov/mp/slwri>.

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Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our Website at <http://www.usbr.gov>.



U.S. Department of the Interior
Bureau of Reclamation

News Release

Mid-Pacific Region
Sacramento, CA

RECLAMATION

Managing Water in the West

MP-05-123

Media Contact: Jeffrey McCracken 916-978-5100
jmccracken@mp.usbr.gov

For Release On: October 20, 2005

Public Scoping Meetings Scheduled on the Shasta Lake Water Resources Investigation

The Bureau of Reclamation is conducting the Shasta Lake Water Resources Investigation (SLWRI). The feasibility study and subsequent report for the SLWRI will include an Environmental Impact Statement (EIS) consistent with requirements of the National Environmental Policy Act. A Notice of Intent (NOI) to prepare the EIS was published in the Federal Register on Friday, October 7, 2005. A new meeting location in Redding, California, has been added, and a revised NOI is anticipated to be posted in the Federal Register on Monday, October 24, 2005.

Seven public scoping meetings are being held to solicit public input on topics to be addressed in the integrated SLWRI planning report and EIS, including resources to be evaluated, alternatives to be considered, and significant concerns and issues. The meetings will be held as open houses, allowing participants the opportunity to drop by anytime during the scheduled times and interact directly with the SLWRI study team. The meetings are scheduled as follows:

- **Sacramento** – Monday, October 24, 2005, anytime between 10 a.m. and 1 p.m., Reclamation Mid-Pacific Regional Office, 2800 Cottage Way, Cafeteria Conference Rooms, C-1001 and C-1002
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- **Fresno** – Tuesday, November 1, 2005, 6 to 9 p.m., Piccadilly Inn, 2305 West Shaw Avenue
- **Dunsmuir** – Wednesday, November 2, 2005, 6 to 9 p.m., Dunsmuir Community Building, 4835 Dunsmuir Avenue
- **Redding** – Thursday, November 3, 2005, *12 to 3 p.m., Redding Veterans Hall, 1605 Yuba Street (*new time)
- **Red Bluff** – Thursday, November 3, 2005, 6 to 9 p.m., Red Bluff Community Center, 1500 South Jackson

The SLWRI is being conducted to develop an implementable plan principally involving the enlargement of Shasta Dam and reservoir to address two primary objectives: (1) to increase the survival of anadromous fish populations in the upper Sacramento River, and (2) to increase water supply reliability for agricultural, municipal and industrial, and environmental purposes. The SLWRI will also, to the extent possible through meeting these primary objectives, include features to benefit other identified ecosystem, flood control, and related water resources needs.

Written comments on the scope of the environmental document are due by close of business on Friday, November 18, 2005, and should be sent to Mr. Louis Moore, Bureau of Reclamation, 2800 Cottage Way, Sacramento, CA 95825. For additional information, please contact Mr. Moore at 916-978-5106, TDD 916-978-5608, or e-mail wmoore@mp.usbr.gov. Additional information can also be obtained by contacting Ms. Donna Garcia, SLWRI Project Manager, at 916-978-5009, e-mail dgarcia@mp.usbr.gov, or by visiting the SLWRI Web site at <http://www.usbr.gov/mp/slwri>.

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U.S. Department of the Interior
Bureau of Reclamation

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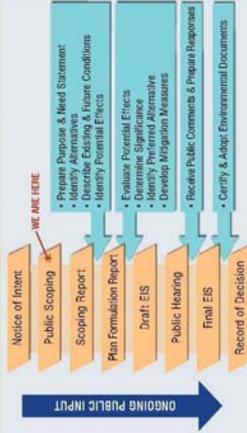
Environmental Overview



The SLWRI will include an Environmental Impact Statement (EIS). The EIS will identify effects to a broad range of physical, biological, cultural, and socioeconomic resources. During this environmental scoping phase, the study team is seeking input on resources to be considered, alternative plans to be evaluated, and significant concerns and issues to be addressed in the EIS.

<p>Wildlife Resources</p> <ul style="list-style-type: none"> Bald Eagle Shasta Salamander Special Status Species Mountain Lady's Slipper 	<p>Biological Environment</p> <ul style="list-style-type: none"> Riparian Vegetation Aquatic Resources Wildlife Resources Riparian Habitat Wetland Habitat Upland Habitat Special Status Species Wild and Scenic Rivers 	<p>Socioeconomic Environment</p> <ul style="list-style-type: none"> Water Supply Power and Energy Flood Protection Agricultural Production Regional Economics Land Use Recreation and Public Access Traffic and Transportation Utilities and Public Services 	<p>Cultural Environment</p> <ul style="list-style-type: none"> Prehistoric Resources Historic Resources Indian Trust Assets Ethnohistory Aesthetics
<p>Erosion</p> <ul style="list-style-type: none"> Shasta Lake Shoreline 	<p>Physical Environment</p> <ul style="list-style-type: none"> Topography, Geology, and Soils Geomorphology Sedimentation and Erosion Hydrology Water Quality Air Quality Noise 	<p>Water Supply</p> <ul style="list-style-type: none"> Recreation 	<p>Other Federal and State Regulatory Requirements and Processes</p> <ul style="list-style-type: none"> Endangered Species Act - Section 7 Fish and Wildlife Coordination Act Clean Water Act - Sections 301, 303, 401, 402, and 404 California Water Code River and Harbors Act - Section 10, Navigable Waters Streambed Alteration Agreement - Section 1601 Executive Order 11990 - Protection of Wetlands Executive Order 11888 - Flood Plain Management National Historic Preservation Act - Section 106 Archaeological Resources Protection Act

Federal Environmental Review Process
An Environmental Impact Statement (EIS), compliant with the National Environmental Policy Act (NEPA), will be prepared to document environmental effects of alternatives and recommended action. The Bureau of Reclamation is the lead Federal agency for preparing the EIS.



It is intended that the draft and final Feasibility Report for the SLWRI will include both an EIS, and an Environmental Impact Report (EIR), that is consistent with the California Environmental Quality Act (CEQA). The lead State agency for the EIR will be designated following identification of potential impacts on the McCloud River and consistency with California Public Resources Code 5093.542 (c).

Other Federal and State Regulatory Requirements and Processes

- Endangered Species Act - Section 7
- Fish and Wildlife Coordination Act
- Clean Water Act - Sections 301, 303, 401, 402, and 404
- California Water Code
- River and Harbors Act - Section 10, Navigable Waters
- Streambed Alteration Agreement - Section 1601
- Executive Order 11990 - Protection of Wetlands
- Executive Order 11888 - Flood Plain Management
- National Historic Preservation Act - Section 106
- Archaeological Resources Protection Act



Study Process

The Review Process involves reviewing and revising the study process and conclusions throughout the study process.

Initial Alternatives Phase

Alternative water resource management measures were identified to address either a primary or secondary objective. The initial alternatives phase involves identifying individual study objectives, reviewing individual study objectives, and combining them to form a comprehensive alternative plan. The first alternative concept plans focused on a single primary objective, while subsequent alternatives arrived at water supply plans that addressed multiple objectives. The concept plans were formulated in this manner to explore the likely range of potential actions to address the planning objectives.

Alternative No.	Alternative Description	Quantity of Water Available (AFY)							
1
2
3
4
5

Recommended Plan Phase

The Recommended Plan phase involves an initial review of the study process and conclusions, a technical analysis, and a final report. The plan formulation process involves a technical analysis of the alternatives, a comparison of the alternatives, and a recommendation of the Recommended Plan.

Comprehensive Alternatives Phase

The initial alternatives are a starting point for the development of a comprehensive alternative plan. The comprehensive alternative plan involves a technical analysis of the alternatives, a comparison of the alternatives, and a recommendation of the Recommended Plan. The comprehensive alternative plan is developed in this manner to explore the likely range of potential actions to address the planning objectives.

Plan Formulation Phases

The Federal planning process consists of:

- Characterizing water resource problems, needs, and opportunities, and defining a set of specific study objectives
- Identifying individual resource management measures and combining them to form initial plans that address the study objectives in different ways
- Formulating comprehensive alternative plans from the initial plans
- Developing a detailed recommended plan for implementation

The emphasis on these planning activities changes as the feasibility study progresses.

2003 - Initial Alternatives Phase (Public, State, & Federal) - Review of water supply issues, identification of water supply issues, identification of water supply issues, identification of water supply issues.

2004 - Comprehensive Alternatives Phase (Public, State, & Federal) - Review of water supply issues, identification of water supply issues, identification of water supply issues, identification of water supply issues.

2005 - Plan Formulation Phase (Public, State, & Federal) - Review of water supply issues, identification of water supply issues, identification of water supply issues, identification of water supply issues.

2006 - Recommended Plan Phase (Public, State, & Federal) - Review of water supply issues, identification of water supply issues, identification of water supply issues, identification of water supply issues.

2008 - Final Report (Public, State, & Federal) - Review of water supply issues, identification of water supply issues, identification of water supply issues, identification of water supply issues.

Alternatives Development

Mission Statement Phase

Problems, Needs, & Opportunities

- Water Supply** - The need to increase the availability of water supply is a primary objective of the study.
- Water Quality** - The need to improve the quality of water supply is a primary objective of the study.
- Water Quantity** - The need to increase the quantity of water supply is a primary objective of the study.
- Water Reliability** - The need to increase the reliability of water supply is a primary objective of the study.
- Water Security** - The need to increase the security of water supply is a primary objective of the study.
- Water Sustainability** - The need to increase the sustainability of water supply is a primary objective of the study.

Planning Objectives

Primary

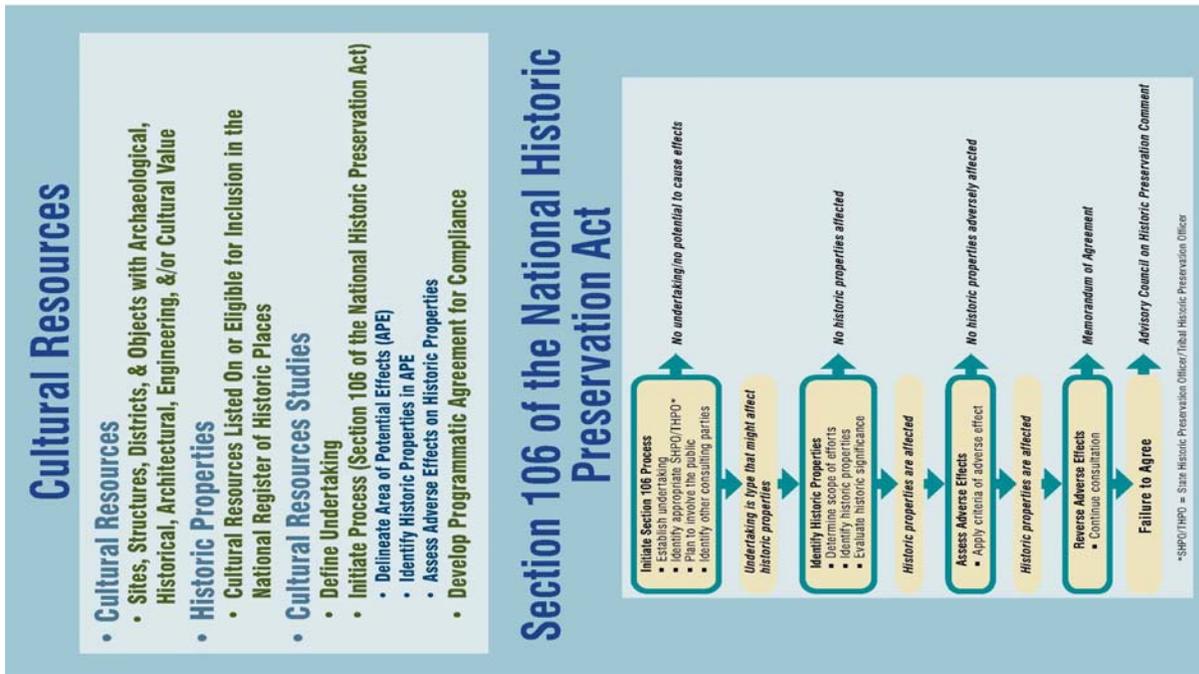
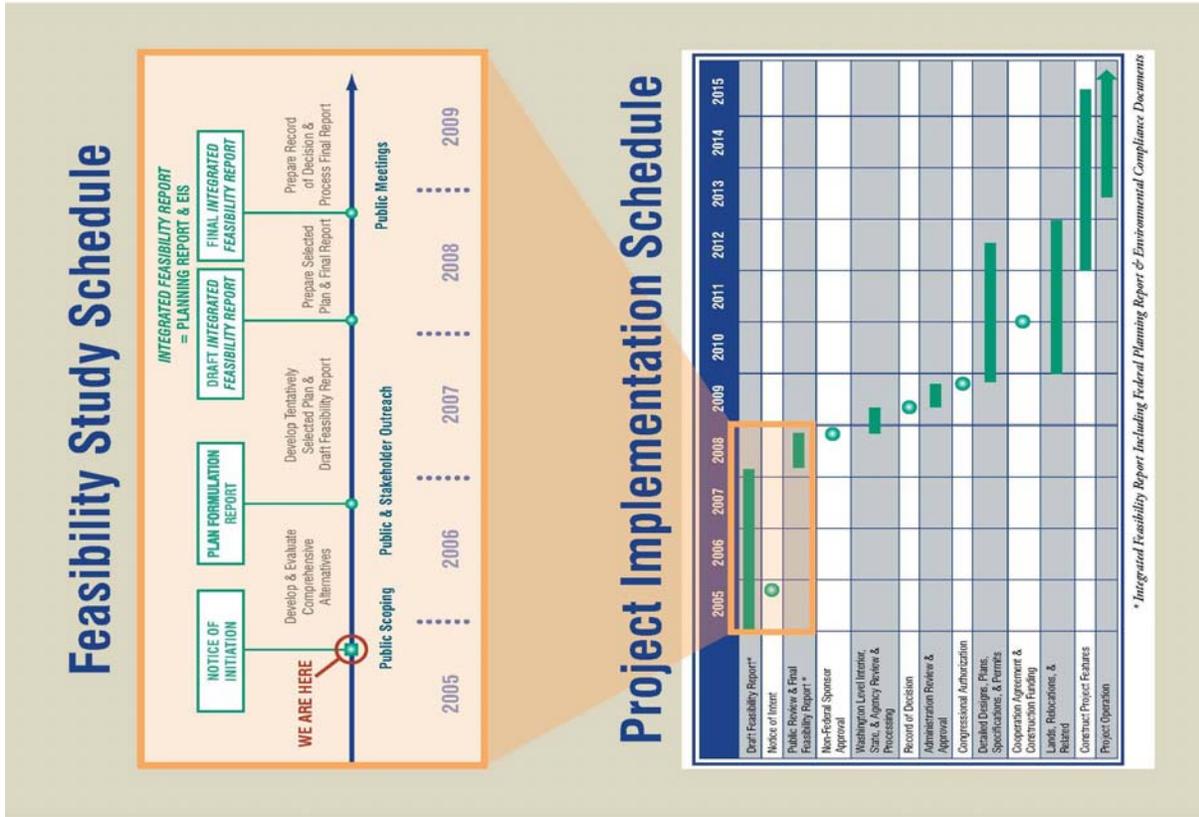
- Develop a water supply plan that provides for the long-term water supply needs of the Shasta Dam and Reservoir.
- Develop a water quality plan that provides for the long-term water quality needs of the Shasta Dam and Reservoir.
- Develop a water quantity plan that provides for the long-term water quantity needs of the Shasta Dam and Reservoir.
- Develop a water reliability plan that provides for the long-term water reliability needs of the Shasta Dam and Reservoir.
- Develop a water security plan that provides for the long-term water security needs of the Shasta Dam and Reservoir.
- Develop a water sustainability plan that provides for the long-term water sustainability needs of the Shasta Dam and Reservoir.

Secondary

- Develop a water supply plan that provides for the long-term water supply needs of the Shasta Dam and Reservoir.
- Develop a water quality plan that provides for the long-term water quality needs of the Shasta Dam and Reservoir.
- Develop a water quantity plan that provides for the long-term water quantity needs of the Shasta Dam and Reservoir.
- Develop a water reliability plan that provides for the long-term water reliability needs of the Shasta Dam and Reservoir.
- Develop a water security plan that provides for the long-term water security needs of the Shasta Dam and Reservoir.
- Develop a water sustainability plan that provides for the long-term water sustainability needs of the Shasta Dam and Reservoir.

Mission Statement

The study will provide a water supply plan that provides for the long-term water supply needs of the Shasta Dam and Reservoir. The study will also provide a water quality plan that provides for the long-term water quality needs of the Shasta Dam and Reservoir. The study will also provide a water quantity plan that provides for the long-term water quantity needs of the Shasta Dam and Reservoir. The study will also provide a water reliability plan that provides for the long-term water reliability needs of the Shasta Dam and Reservoir. The study will also provide a water security plan that provides for the long-term water security needs of the Shasta Dam and Reservoir. The study will also provide a water sustainability plan that provides for the long-term water sustainability needs of the Shasta Dam and Reservoir.



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ATTACHMENT E

ADVERTISEMENTS

An advertisement for the SLWRI scoping meetings was run in three newspapers: the Redding Record Searchlight, the Red Bluff Daily News, and the Mt. Shasta Herald. The Searchlight and Daily News are daily papers; the Herald is a weekly publication. The ad was run twice in both the Searchlight and Daily News (at least 1 week prior to the public meetings), and once in the Herald (1 week prior to the meeting).

PUBLIC SCOPING MEETINGS ON THE SHASTA LAKE WATER RESOURCES INVESTIGATION

The Bureau of Reclamation is holding public scoping meetings on the Shasta Lake Water Resources Investigation (SLWRI) to solicit input to prepare an Environmental Impact Statement.

The SLWRI considers enlarging Shasta Dam and Reservoir. The open-house meetings will allow the public to drop by anytime during the scheduled times and interact directly with the SLWRI study team. The Public will be able to make formal comments on topics to be addressed in the investigation, including resources to be evaluated, alternatives to be considered, and significant concerns and issues. Two of the open houses will be held in the Shasta Lake Region:

- Dunsmuir – Wednesday, November 2, 2005, anytime between 6 and 9 p.m., at the Dunsmuir Community Building, 4835 Dunsmuir Avenue, Dunsmuir, California 96025
- Red Bluff – Thursday, November 3, 2005, anytime between 6 to 9 p.m., at Red Bluff Community Center, Auditorium, 1500 South Jackson, Red Bluff, California 96080

For more information about the study or for the dates and locations of the other meetings, please contact Sammie Cervantes, Bureau of Reclamation, Public Involvement Specialist, at 916-978-5189.

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ATTACHMENT F LIST OF RESPONDENTS

NAME	AFFILIATION / COMPANY / ORGANIZATION
Abell, Kenneth	Individual
Adams, David	Individual
Allen, Jessica.....	Individual
Anderson, Clifford	Individual
Aparicio, Karolo	Individual
Arndt, Clara.....	Individual
Bacher, Dan.....	Individual
Baenziger, Barbara.....	Individual
Bakes, Stephen A.	Individual
Barr, Meadow	Meadow Industries
Bauer, Ken	Individual
Berkowitz, Allan	Individual
Boutin, Dolores	Individual
Branstetter, Kevin	Individual
Braun, Fred M.	Individual
Brobeck, Jim	Individual
Brown, Matt	U.S. Fish and Wildlife Service
Bucur, Sorana.....	Individual
Burke, Joyce.....	Individual
Califf, Stanley	Individual
Caplan, Ruth	Sierra Club, Corporate Accountability Committee
Carpenter, Jim	Individual
Champion, William H.....	Individual
Cheyne, Steve	Individual
Chipman, Cheryl.....	Individual
Collins, Shan	Individual
Connolly, Michael.....	Individual
Crook, Wendy	Individual
Cross, Karen.....	Individual
Crutcher, Randy	Individual
Cummings, Earle W.....	Individual
Curnett, Lisa.....	Individual
Damon, Michael.....	Individual
Danver, Jean.....	Individual
David Jr., Delbert C.	Individual
Davis, John Hunter.....	Individual
Davis, Thomas	Individual
De Thomas, Lysa	Individual
DeCroft, Albert J. *	Individual
DeGroft, JoAnn.....	Individual
Denton, Richard A.	Contra Costa Water District
Depew, John.....	Individual

NAME	AFFILIATION / COMPANY / ORGANIZATION
Harris, Victoria	Individual
Herzog, Joseph	Individual
Heywood, Sharon J.	U.S. Forest Service
Hilton, Theresa.....	Individual
Hirahara, Howard.....	Western Area Power Administration
Hoffman, Ed.....	Individual
Holmquist, Kirsten.....	Individual
Horrigan, Richard	Individual
Hurt, Rachel	Individual
Iskow, Rachel.....	Individual
Israel, Carolyn.....	Individual
Jasper, Marilyn.....	Individual
Johnson, John.....	Individual
Jones, Patricia	Individual
Judd, Floyd.....	Individual
KETABI.....	Natural Resources Defense Council
Kiefling, Dale.....	Individual
King, trish	Individual
King, Warren.....	Individual
Kitagawa, Brandon	Individual
Kneedler, Chris	Individual
Knight, Curtis.....	California Trout
Koo, Jolia	Individual
Krawec, Mark	Individual
Laine, Pamela.....	Individual
Lampe, William	Individual
Lanik, Kenneth.....	Individual
Lavine, Kenneth.....	Individual
Leal-Hernandez, Melissa.....	Individual
Leavitt, Maimon.....	Individual
Linney, Doug	Individual
Linney, Warran	Individual
Lucaj, Princess	Individual
Lune, River	Individual
Madhvani, Sharon	Individual
Markevich, Nicholas J.	Pacific Gas and Electric Company
Marshall, Nicole.....	Individual
Matejcek, Patricia	Individual
McColm, George.....	Individual
McCracken, Larry	Antlers Resort and Marina Inc.
McCully, Patrick.....	Individual
McMahon, John & Marion	Individual
Meckfessel, Tom.....	Individual
Melman, Jennifer	Individual
Meyer, Tanya	Individual

NAME	AFFILIATION / COMPANY / ORGANIZATION
Miller, Dan.....	Individual
Morawitz, Terry	Individual
Nakashioya, Howard.....	Individual
Nasser, Kent.....	Individual
Neal, Brendan	Individual
Nelson, Barry	Natural Resources Defense Council
Newman, Simeon.....	Individual
Newman, William L.....	Individual
Nichols, Eva.....	Individual
O'Neill, Donald *	Individual
Ongerth, Steve.....	Individual
Orbuch, Eva	Individual
Owen, Dai	Individual
Parker, Deborah	Individual
Parkers, Douglas	Individual
Patten, Joseph E.	Individual
Pearson, Glen	Individual
Un-named Representative	Pennie Opal Plant
Potter, Bob	Individual
Pottinger, Lori.....	Individual
Pruden, Julia.....	Individual
Raab, Theodore K.	Stanford University
Rader, Nancy.....	Individual
Ramstrom, Carl.....	Individual
Rawley, George.....	Individual
Rawson, Richard.....	Individual
Reich, Andrew	Individual
Repogle, Kirsten	Sierra Club, Environmental Justice Committee
Rhodes, Raleigh	Individual
Richards, Paul	Individual
Robinson, Mary Ann.....	Individual
Rockwell, Dr. C. Mark.....	Northern California Council, Federation of Fly Fishers
Rollins, Bob	Bridge Bay Resort
Rudesill, Dale.....	Individual
Sabel, Elizabeth.....	Individual
Salisbury, Robert.....	Individual
Sanguinetti, John.....	Individual
Schinnerer, John.....	Individual
Schubert, Bob.....	Individual
Schwartz, A *	Individual
Seeley, Mar	Individual
Seltzer, Rob.....	Individual
Shea, Casey	Individual
Shulters, Jacqueline.....	Individual
Silver, Dan	Individual

NAME	AFFILIATION / COMPANY / ORGANIZATION
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Sisk-Franco, Caleen	Winnemem Wintu
Snedden, Dena	Individual
Spangler, Linda	Individual
Steadman, Lisa	Individual
Stefanski, Mark	Individual
Strachan, Diane	Individual
Stromsness, Bjorn	Individual
Stromsness, Chris	Individual
Sullivan, Elizabeth	Individual
Swan, Peer	Individual
Thomas, Dave	Individual
Thomas, Robin	Individual
Thompson, Robert	Individual
Thrasher, Dianna	Individual
Todd, J. Gordon	Individual
Tollefson, Suzanne	Individual
Tomlinson, Michael	Individual
Tranguilli, Soleil	Individual
Trapp, Gene R.	Individual
Tung, Louann	Individual
Tyler, John Howard	Individual
Unger, Arthur D.	Individual
Vanderwarker, Amy	Environmental Justice Coalition for Water
Walker, Casey	Individual
Walker, Weston	Individual
Walker-Knoblich, Brooke	Individual
Wallerstein, Christina	Individual
Warburton, Michael	Public Trust Alliance
Waring, Alysa	Individual
Weiland, Elizabeth	Individual
Wendt, Paul	Individual
Whitnah, Claudia	Individual
Wieser, Stacy Alysa	Individual
Wiley, Carol	Individual
Williams, Peggy	Individual
Wright, Marcia	Individual
Wurtzel, Harvey	Individual
Yi, Robert	Individual

Note:

*Name not legible as submitted

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U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region