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

May 7, 2004

Jason Phillips
Bureau of Reclamation
Division of Planning
2800 Cottage Way
Sacramento, CA 95825

Subject: Scoping comments for the Upper San Joaquin River Basin Storage Investigation, Central Valley Project, CA

Dear Mr. Phillips:

The U.S. Environmental Protection Agency (EPA) has reviewed the Federal Register Notice published February 3, 2004, requesting comments on the scope of the environmental impact statement (EIS) for the above Investigation. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act.

The scoping notice for the Storage Investigation states that potential uses of additional stored water may include: contribution to future restoration of the San Joaquin River; improvement of water quality in the River; and, in association with conjunctive management or exchanges, improvements in the quality of water supplies. These purposes, which derive from the CALFED Program Record of Decision, reflect the fact that significant water quality impairments in reaches of the San Joaquin River below Friant Dam to the Delta impact beneficial uses along the River, water quality in the Delta, and water exports from the Delta. There are a number of efforts being planned or implemented to address these problems, such as local and regional agricultural drainage plans, salinity and dissolved oxygen total maximum daily loads (TMDLs) through the Regional Water Quality Control Board, and flow releases from tributary reservoirs to meet water quality and fishery needs in the lower San Joaquin and Delta. Major water projects in the Upper San Joaquin River Basin have the potential to affect these issues. The Storage Investigation provides an opportunity to explore measures to improve conditions along the River and contribute to other water quality and ecosystem enhancement efforts underway.

The range of beneficial uses recognized in the Water Quality Control Plan (Basin Plan) for the San Joaquin River below Friant Dam is diverse and includes municipal and domestic supply and agricultural irrigation; wildlife; recreation; warm and coldwater habitat; and fish migration, and spawning. Substantial flow depletions and intensive use of available supplies have exacerbated water quality problems affecting many of these designated beneficial uses. We ask that the Storage Investigation take account of the water quality goals appropriate for all

designated uses which could be affected by the proposed project and examine ways to assist in enhancing and restoring conditions. In consideration of conditions needed to support fishery and wildlife uses, we recommend examining ways of supporting the full hydrological connectivity of the River with the Bay-Delta and enhancing natural functions of the River to improve instream, riparian and wetland areas.

Improving water quality and flows along the San Joaquin River is a complex problem that cannot be solved with a single strategy. Solutions will likely require a combination of new surface storage, additional ground water storage and conjunctive use, improved coordination and routing of existing supplies, or water conservation. Based on the alternatives described in the Phase I Investigation Report, the project appears to narrowly focus on new storage and conjunctive use for water supply. We recommend the Bureau of Reclamation (Reclamation) expand the scope of the alternatives to evaluate options that utilize existing facilities and supplies and other water supply management tools. These tools could include conjunctive use, transfers, changes in operations, exchanges, and water efficiency measures.

There are other important projects in the area that should be used as sources of information and, as appropriate, integrated with the Storage Investigation. These include other restoration and enhancement plans for anadromous coldwater fisheries (such as the restoration strategy prepared for Friant/Natural Resources Defense Council (NRDC)); other native fisheries studies; exchange and transfer agreements within the San Joaquin River Basin; water management studies, such as the Water Supply Study prepared by URS for Friant Water Users Authority and NRDC (October 10, 2002); and drainage plans such as the San Luis Drainage Feature Re-Evaluation.

The enclosed comments offer more detail on subjects which EPA would like to see covered in the Storage Investigation and EIS. We appreciate the opportunity to submit scoping comments at this time and look forward to continued participation in this process. When the Draft EIS is released for public review, please send three copies to the address above (mail code: CMD-2). If you have any questions, please contact me or Laura Fujii, the lead reviewer for this project. Laura can be reached at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,

/s/

Lisa B. Hanf, Manager
Federal Activities Office
Cross Media Division

cc: John Brooks, US Fish and Wildlife Service
Dennis Wescott, Central Valley Regional Water Quality Control Board

Design of Alternatives

The scoping notice reiterates three potential project purposes cited in the CALFED Record of Decision for the Bay Delta Program Plan: use of storage to improve San Joaquin River (River) water quality; contribute to restoration of the River; and, in association with conjunctive management or exchanges, improve quality of water supplies. Below are recommendations on the design of alternatives to address these three project purposes.

Project Purpose to Improve Water Quality in the San Joaquin River

1. Greater infusions of fresh water would favor a range of Clean Water Act beneficial uses currently impaired or constrained by poor water quality and limited continuous fresh water flow along the mainstem of the San Joaquin River. These uses include aquatic resources (designated warm and cold freshwater habitat in the Basin Plan); fish migration and spawning; agriculture; recreation; and wildlife habitat, such as refuges and managed wetlands in the historical river floodplain.

The Upper San Joaquin River Basin Storage Investigation (Storage Investigation) assumes high quality water released from Friant Dam will go only as far as the Mendota Pool, where it could be diverted by the Exchange Contractors in place of lower quality Delta water delivered through the Delta Mendota Canal (p. 4-11, Phase 1 Investigation Report). Thus, water quality benefits downstream of the Mendota Pool would be indirect, chiefly in the form of groundwater inflow and reduced salinity of agricultural drainage from Exchange Contractors using higher quality Friant Dam water. Additionally, the Phase 1 Investigation Report states that the initial modeling runs for a "water quality only" objective focused on the period of July-September, when the water quality conditions were judged to be "most severe."

Recommendations:
Additional freshwater flows below the Mendota Pool could improve water quality for beneficial uses. Providing freshwater flows in the River in the non-irrigation months may also provide improvements. Alternatives should evaluate the benefits of flows past the Mendota Pool, including time periods outside the July to September window.

2. Reaches of the San Joaquin River and tributaries are listed as "impaired" pursuant to Section 303(d) of the Clean Water Act for a variety of pollutants, including selenium, low dissolved oxygen/nutrient enrichment, high levels of salt and boron, and pesticides. A total maximum monthly load (TMML) reduction program is in place for selenium, and high priority total maximum daily loads (TMDLs) are now being developed by the Regional Water Quality Control Board (Regional Board) for salt/boron, low dissolved oxygen, and pesticides. In incorporating the TMDLs in Basin Plan amendments, the Regional Board is expected to require measures to monitor and reduce pollutant loading.

Flow improvements and substitution of fresh San Joaquin River water for some of the imported Delta water supplies can address elevated salinity and low dissolved oxygen. Further, the Regional Board is developing a drinking water policy for the Bay Delta and upstream tributaries to address pollutants of concern in Delta drinking water supplies. These water quality regulatory actions highlight the need to address San Joaquin River water quality problems.

Recommendations:
The DEIS should describe the existing conditions of water quality and pollutant sources; TMDLs being developed and potential implementation measures; and pending water quality standards from the upstream project sites to the Delta. Discuss how existing water quality affects designated beneficial uses. Evaluate the alternatives with respect to their effects (beneficial or adverse) on surface and ground water quality and on designated beneficial uses.

The DEIS should also address water quality and ecosystem changes that could be caused by changes in Delta exports.

The DEIS should describe specific monitoring programs that are in place or will be implemented to determine potential impacts on surface, groundwater, and drinking water quality and beneficial uses.

Project Purpose to Contribute to San Joaquin River Restoration

1. Water quality improvements associated with flow enhancement are integrally linked to ecosystem restoration. Although there is currently no comprehensive restoration plan for the River, a number of studies and plans are underway examining a range of possible objectives, including reintroduction of anadromous fish runs.

Recommendations:
The range of alternatives should include ways of supporting the full hydrologic connection of the San Joaquin River with the San Francisco Bay Delta and contributing to restoration of natural functions of the river and associated ecosystem (i.e., floodplain and wetlands resources, instream aquatic species, and riparian habitat and associated species).

Describe the relationship between the proposed project and ecosystem restoration programs for the San Joaquin River and tributaries and the Bay-Delta. Programs to investigate include: Central Valley Project Improvement Act (CVPIA) water dedication; environmental water purchases; operations in the Delta and tributaries to the San Joaquin compatible with fish requirements; projects supported by the CALFED Ecosystem Restoration, Watershed, and Science programs; activities to protect the headwaters of key watersheds such as the recently proposed purchase of Pacific Gas and Electric lands; and activities of non-government organizations such as the San Joaquin River Parkway Trust and the Central Valley Habitat Joint Venture, which targets protection and restoration of waterfowl habitat.

2. We recognize that restoration can take different forms and will be an adaptive process. Furthermore, the Storage Investigation does not include development of a restoration plan and will draw on restoration planning done by others. Nevertheless, this project is an opportunity to explore River restoration objectives and water needs to achieve these objectives.

Recommendations:
The Storage Investigation should use the best available information to evaluate a range of restoration objectives and the estimates regarding water needs to achieve these objectives. The proposed project could contribute to: restoration of cold water fisheries (spring run Chinook salmon, fall run Chinook salmon, Central Valley steelhead); riparian and wetlands habitat enhancement; and enhancement of conditions for warm-water fisheries native to the River. Project alternatives and the DEIS should examine options for contributing to these objectives.

The DEIS should discuss uncertainties associated with available information on restoration water needs and identify how these uncertainties can be reduced through additional study, adaptive management, pilot projects, and similar efforts.

Project Purpose to Improve Water Supply Management

1. A final project purpose listed in the Bay Delta Program Plan is to Facilitate conjunctive water management and water exchanges that improve the quality of water deliveries to urban communities. Improving the quality of water deliveries to urban communities depends on the participation of other parties who can offer exchange water and infrastructure to support conjunctive use and water exchanges.

Recommendations:
The DEIS should describe potential agriculture-to- urban water transfers, water exchanges, and conjunctive use programs. The direct, indirect, and cumulative effects of project alternatives which include management of supplies for urban benefits should be evaluated in the DEIS.

We strongly recommend that project alternatives which include supply improvements for urban or agricultural users be designed to complement the San Joaquin River water quality and restoration purposes discussed above. The DEIS should explain the relationship between expanded storage and the water quality, river restoration, and water supply reliability objectives. Explain, for example, how the alternatives under consideration would use expanded storage and operational rules to provide benefits for water quality and river restoration.

2. It is important to fully disclose how the additional water supply might be used and managed in order to support the impact analysis as well as the analysis of project benefits and cost allocation.

Recommendations:
The DEIS should disclose how the water supply would be distributed: who may receive the water and for what uses (such as water quality, river restoration, agriculture, in-stream uses, wildlife refuges and managed wetlands, municipal and industrial uses, and the Environmental Water Account).

Disclose the legal and contractual basis for allocation, such as whether water will be distributed under existing CVP/State Water Project contracts. Explain who holds, or will hold, the water rights, licenses and/or permits needed for the proposed project.

The DEIS should disclose how the water will be actively managed: who determines the distribution decisions and how shortages will be handled.

3. There may be opportunities to achieve multiple benefits from project actions. For instance, additional freshwater flow releases could provide water quality and operational improvements to agricultural users downstream of Friant Dam; flood management could enhance riverine floodplain functions; and water exchanges and transfers could be used to improve river flows.

Recommendation:
The project alternatives should explore ways to benefit a range of water uses along the river. If there are opportunities for shared benefits (for example, instream flow and downstream deliveries), how will these benefits be assured?

4. Based on the Phase 1 Investigation Report, the project appears to be focused on new surface storage and conjunctive use of existing surface and expanded groundwater storage. Focusing on "new supplies" in the form of water that currently spills from Friant Dam could overlook more cost-effective opportunities to achieve project purposes. For example, there may be additional opportunities for making water available to meet project purposes by changing current water management practices. Possible changes could include altering operating rules of other dams on the River; modifying how "developed" water is conveyed, exchanged, and transferred; and improving district-level and on-farm efficiencies.

Recommendations:
The DEIS should provide information on current water supply management practices and activities, such as exchanges, transfers, and water conservation. The alternatives in the DEIS should investigate ways to adjust management of existing facilities and supplies to improve water quality and ecosystem conditions while maintaining existing uses which depend on diversions.

The DEIS should evaluate additional management tools such as pricing, conjunctive use, voluntary land fallowing, and wastewater reclamation and recycling. We recommend that project alternatives make use of the many studies which address integrated management, including the Water Supply Study prepared by URS for the Friant Water Users Authority and Natural Resources Defense Council (NRDC) (October 10, 2002).

5. The Bay Delta Program Plan and its Programmatic EIS did not examine water supply issues for users whose supplies are not derived from the Bay Delta, such as Friant contractors and the urban areas within the San Joaquin/Tulare basin. Thus, potential needs for supply increases or improved reliability among these water users are not addressed in the CALFED Record of Decision for the Bay Delta Program Plan.

Recommendations:
If water supply improvements for Friant contractors or others within the San Joaquin/Tulare basin are included in the project, the DEIS should disclose the origin of this project purpose, describe the baseline water supply conditions, and state the reliability and supply needs addressed by the project.

Water Pricing

1. The CALFED Record of Decision for the Bay Delta Program Plan endorses a general principle that beneficiaries should pay the costs of Program activities such as water supply improvements. This is intended to encourage water use efficiency, reflect the true cost of developing new supplies, and ensure equitable distribution of costs. It has also been demonstrated over the last decade that variable pricing of water can significantly influence water demand and supply. Thus, project water, particularly any newly developed supplies, should not be underpriced.

Recommendations:
The DEIS should document the full cost (including environmental and other mitigation) of providing water benefits and explain how these costs might be allocated among parties, according to explicit criteria.

The DEIS should provide comparative information on the costs of producing benefits under the various alternatives (reservoirs, reoperation, water transfers, water exchanges, and conjunctive use). Distinguish discrete features of an alternative (such as surface supplies only, versus conjunctive management of surface and ground water, and conveyance facilities costs) where possible.

Identify the magnitude and allocation (or incidence) of the benefits and costs for all alternatives, including no action. Include information on the total cost and costs paid by water users under the various alternatives.

Explain if water supply improvements for CVP contractors above levels without the project would be made available through terms and procedures established by existing contracts.

Explain if any CVP contractors may receive ability-to-pay relief for water made available through the project.

The DEIS should include an in-depth discussion of how pricing can be used in allocation of water supply and management of user s demands.

Groundwater Comments

1. A potential use of the new stored water may include additional conjunctive use of surface and groundwater supplies. This use could affect water quality, changes in basin surface and groundwater flows, and water availability.

Recommendations:
The DEIS should document existing groundwater conditions, conjunctive use projects, and proposed actions. Evaluate long-term changes under with-project and without-project conditions, third party effects, water quality impacts, potential changes in the basin surface and groundwater balance, including amounts of seepage and return flows, and possible effects on the quantity, timing, and quality of water available. Information gaps should be identified, such as lack of direct measurements of groundwater data.

Wetlands and Waters of the U.S.

EPA will review the proposed action for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the Clean Water Act (CWA). The DEIS should fully disclose compliance with these requirements.

Recommendations:
The DEIS should identify and quantify all wetlands and waters of the U.S. within the study area, including an overview of their condition and current threats to their ecological health. For instance, identify area and linear impacts to waters, including streams, floodplains, and wetlands.

Provide a clear statement of project purpose in compliance with Section 404(b)(1) requirements. A basic project purpose under Section 404 is a brief statement that assists regulators in determining whether a project is water dependent. The overall project purpose is an elaboration of the basic project purpose and provides a more specific description of the purpose and need for the project. The overall project purpose should not be constructed so narrowly as to preclude alternatives that

avoid discharges of dredged or fill material to waters of the United States including special aquatic sites.

Evaluate a reasonable range of alternatives for the proposed project purpose, and comprehensively evaluate the impacts (including beneficial impacts if restoration/enhancement are part of the alternatives) on aquatic resources from each alternative. The total estimated impacts to waters should include the direct footprint of each alternative plus the estimated indirect and cumulative impacts.

Identify the least environmentally damaging practicable alternative (LEDPA). Provide data to support the elimination of other alternatives. If an alternative is determined to be 'impracticable', provide technical, logistical, and/or cost information to support this conclusion. Supporting information and the rationale for eliminating an alternative is especially important if less environmentally damaging alternatives are eliminated and not identified as the LEDPA.

Required mitigation for impacts to waters of the U.S. should be identified and committed to in the DEIS for evaluation by the public and decision-makers.

The DEIS should address any opportunities for improving the quality and quantity of wetlands in the study area in designing management options and infrastructure improvements.

Biological Resources

1. Proposed alternatives include new reservoirs and water supply infrastructure that could affect biological resources. Below are recommendations regarding full disclosure and evaluation of potential impacts to biological resources.

Recommendations:
The DEIS should evaluate direct, indirect, and cumulative impacts to fish and wildlife from proposed alternatives. One evaluation technique is to follow the impacts examining the impacts that may extend beyond the immediate location of the new storage facilities.

Evaluate the effect of flows on biological resources. For example, describe the potential timing and magnitude of diversions to offstream storage and their impacts on in-stream flows and aquatic life. Consider the affect on flows of other environmental requirements - notably the Endangered Species Act and Clean Water Act.

Consider temperature needs, seasonality, and other water quality components critical to threatened and endangered species and biological resources. Identify ways in which water managed through the proposed project might be used for environmental compliance.

Describe the relationships of the project, if any, to CALFED efforts to secure environmental water to enhance instream flows upstream of the Delta and improve conditions in the Delta for fish. Identify the degree of improvement under the various action alternatives relative to the existing and future without project conditions. Also document environmental conditions with the proposed storage features, but absent measures to provide environmental water.

Cumulative Impacts

1. According to the Council on Environmental Quality (CEQ) regulations implementing NEPA, a cumulative impact is ...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR §1508.7).

Cumulative impacts analyses are of increasing importance to EPA as they describe the threat to resources as a whole. Understanding these cumulative impacts can illuminate opportunities for minimizing those threats. The DEIS should describe the methodology used to assess cumulative project impacts. Guidance on how to analyze cumulative impacts has been published by the CEQ [1] and EPA.[2]

Recommendations:
The cumulative impacts analysis should focus on resources of concern those resources that are at risk and/or are significantly affected by the proposed project, before mitigation. Describe a baseline for the resources of concern with an explanation as to why that baseline was selected and identify all other on-going, planned, and reasonably foreseeable projects in the study area. When cumulative impacts occur, mitigation should be proposed. Clearly state the lead agency s mitigation responsibilities and the mitigation responsibilities of other entities.

[1] Considering Cumulative Effects Under the National Environmental Policy Act, Council on Environmental Quality, January 1997. http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm

[2] Consideration of Cumulative Impacts in EPA Review of NEPA Documents, U.S.EPA, May 1999. http://www.epa.gov/compliance/resources/policies/nepa/index.html

cc:

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Summary Paragraph for NOI Upper San Joaquin River Basin Storage Project
May 7, 2004

Substantial flow depletions and intensive use of available water supplies have exacerbated water quality problems affecting many of the designated beneficial uses of the San Joaquin River. EPA asked the Bureau of Reclamation (Reclamation) to take account of the water quality goals appropriate for all designated uses of the San Joaquin River and examine ways to assist in enhancing and restoring River conditions. In consideration of fishery and wildlife beneficial uses, we recommended examining ways to support the full hydrological connectivity of the River with the Bay-Delta and enhancing natural functions of the River to improve instream, riparian and wetland areas. Since the complex water quality problems of the River cannot be solved with a single strategy, we recommended Reclamation expand the scope of the alternatives to utilize existing facilities and supplies; and other water supply management tools such as conjunctive use, transfers, changes in operations, exchanges, and water conservation.