Chapter 16

State and Local Agency Comments on the 2000 REIR/SEIS

RS 1

BILL LOCKYER
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State of California
DEPARTMENT OF JUSTICE

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November 20, 2000

Mr. Rob Schroeder
U.S. Bureau of Reclamation
Central California Office
7794 Folsom Dam Road, CA 95630
Folsom, CA 95630

Mr. Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utilities District
375 Eleventh Street
Oakland, CA 94607

Re: Comments on Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement, East Bay Municipal Utility District Supplemental Water Supply Project, SCH# 1996022035.

Dear Mssrs. Schroeder and Ladensack:

We submit these comments on behalf of the California State Lands Commission (SLC) and the California Department of Fish and Game (DFG) on the Draft Recirculated Environmental Impact Report and Supplemental Environmental Impact Statement (DEIR/DEIS) for the East Bay Municipal Utility District (EBMUD) Supplemental Water Supply Project. These comments incorporate by reference, and are supplemental to, any more detailed comments the SLC and DFG will be filing on the DEIR/DEIS.

Introduction

Both the DFG and the SLC have major responsibilities for stewardship of the public trust resources of the Lower American River. California's fish and wildlife and water resources are the property of its people. (Fish & G. Code, §§ 711.7. 1802; Wat. Code, § 102; *People v. Truckee Lumber Co.* (1897) 116 Cal. 397, 399-400.) The beds and banks of the navigable rivers and streams, including the Lower American River, are held by the SLC for navigation, fisheries and the protection and conservation of their natural resources, and the SLC bears trust

responsibility for administering these lands and waters on behalf of the people of California. (Pub. Resources Code, § 6301.) The DFG, in turn, holds all the state's fish and wildlife resources, including those of the Lower American River, in trust for the people of the state. (Fish & G. Code, § 711.7.) The DFG has jurisdiction over the conservation, protection and management of fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.)

The Legislature has specifically declared that the cumulative effect of any new request to appropriate water could adversely affect fish and wildlife resources dependent upon California's streams and watercourses "to a serious and significant degree." (Pub. Resources Code, § 10000.) The Legislature also has, by designating the Lower American River as a wild and scenic river, determined that this river, and its immediate environment should be preserved in its free-flowing state for the benefit and enjoyment of the people of the state. (Pub. Resources Code, §§ 5093.50, 5093.54(e).) The state's Wild and Scenic Rivers Act prohibits the construction of dams on the river, and prohibits the construction of water diversion facilities unless the Secretary of Resources determines that the water is needed to supply domestic water *to residents of the county through which the river flows*, and further determines that the facilities will not adversely affect the free flowing condition and natural character of the river. (Pub. Resources Code, § 5093.55(a); see also § 5093.56.) The Lower American River is also designated as a wild and scenic river under the federal Wild and Scenic Rivers Act. (46 Fed. Reg. 7484 (Jan. 23, 1981).)

Given this statutory context, the state is gravely concerned with diversions that could, either individually or cumulatively, adversely affect the exceptional values of the Lower American River. Both the SLC and DFG are plaintiffs in *Environmental Defense Fund v. East Bay Municipal Utility District*, Alameda County Superior Court Case No. 425955, in which Judge Richard Hodge designated the minium flows and conditions necessary, under California's reasonable and beneficial use doctrine and public trust doctrine, for the protection of the river and its many public amenities. The lengthy trial that resulted in Judge Hodge's decree demonstrated beyond doubt that: RS1-1

1. The American River and its parkway are "'scenic and ecological treasures of national significance,' imperiled by prospective diversions of water." (*EDF v. EBMUD*, Statement of Decision at 24, quoting *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 425, cert. denied 464 U.S. 977.

2. Water in the American River watershed is limited, and the river, its fish, wildlife and other amenities could be severely harmed by the cumulative demands for water from the river. The court expressly found that "overwhelming" evidence showed that the cumulative impact of EBMUD's diversion, along with consumptive demand projected over the next few decades, would cause "irreparable damage to the American River, its fisheries and its riparian habitat." (*Id.* at 2.)

In addition, recent studies by the Sacramento Area Water Forum have shown that potential diversions for consumptive uses *within the American River watershed alone* may exceed the river's annual inflows. The efforts in Congress to condition flood improvement projects on providing additional diversions from the American River are indicative of the strong pressures on this watershed's limited resources. Finally, the ongoing CALFED program and the studies mandated by the Central Valley Project Improvement Act are directed toward comprehensive planning for water use consistent with the needs of wildlife as well as domestic users, and the restoration of the state's depleted fisheries. These goals appear to be at odds with EBMUD's proposed American River diversion, which is based on 30-year old assumptions and environmental standards.

As an environmental document prepared pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), the DEIR/DEIS must meet the standards required by both statutes. Under CEQA, a lead agency cannot approve a project that will have significant adverse effects if there are feasible alternatives or feasible mitigation measures that can substantially lessen such impacts. (Pub. Resources Code, § 21002, *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41.) Although NEPA requires that the lead agency merely "identify and consider" potentially significant adverse environmental impacts (42 U.S.C. § 4332(B), (C)), state law governing the diversion of water, including the reasonable and beneficial use doctrine and the public trust doctrine, controls the Bureau's substantive determinations in this case. (*United States v. California* (1978) 438 U.S. 645.) As explained below, application of both these principles of state law, as well as federal law, leads to the conclusion that EBMUD and the Bureau must avoid approving a diversion from the Lower American River.

The Reasonable and Beneficial Use Doctrine in the California Constitution Mandates That EBMUD and the Bureau Avoid a Lower American River Diversion

The California Supreme Court has expressly held that EBMUD's diversions must meet state constitutional standards of reasonable use, and that determination of the diversion point under EBMUD's contract should be determined by State law. (*Environmental Defense Fund v. EBMUD* (1980) 26 Cal.3d 183, 193, 200; Cal. Const. art X, § 2.) This constitutional standard of reasonable use requires that the waste or unreasonable use or unreasonable method of use of water be prevented, that the consumption of the state's water be exercised with a view to reasonable and beneficial use, and that the state's waters "be put to the beneficial use to the fullest extent of which they are capable." (Cal. Const. art X, § 2.) By conferring wild and scenic river designation to the Lower American River, the Legislature has declared that preservation of its instream values are "the highest and most beneficial use" of the river, and are "a reasonable and beneficial use of water within the meaning of section 2 of article X of the California Constitution." (Pub. Resources Code, § 5093.50.) This statutory declaration constitutes a legislative rule protecting instream public trust values in the river, and a declaration of the

priority of these uses of the river's waters. Such declarations must be respected unless they are clearly contrary to the state's constitutional protections. (*California Trout v. State Water Resources Control Board* (1989) 207 Cal.App.3d 585, 631.)

Furthermore, California's constitutional mandate that the waters of the state be put to beneficial use "to the fullest extent of which they are capable" means that water must be put to "the greatest number of beneficial uses to which the supply can yield." (*Peabody v. City of Vallejo* (1935) 2 Cal.2d 351, 368.) This rule of state water law can best be carried out by permitting water to flow down the American River unimpeded to protect instream beneficial uses, and then diverted at a lower point on the Sacramento River for consumptive beneficial uses.

The Public Trust Doctrine Imposes an Affirmative Duty on EBMUD and the Bureau to Manage Water to Protect Public Trust Uses of the Lower American River, and to Employ Alternatives That Avoid or Minimize Harm to Public Trust Values Whenever Feasible

In *National Audubon, supra*, 33 Cal.3d 419, the California Supreme Court held that the public trust doctrine imposes an affirmative duty on the state "to take the public trust into account in the planning and allocation of water resources" and "to protect public trust uses whenever feasible."[1] (*Id.* at 446.) These values include recreation, fish and wildlife, aesthetic and ecological uses manifest in the Lower American River and parkway. (*Id.* at 434-435; *Marks v. Whitney* (1971) 6 Cal.3d 251, 259-260.) Accordingly, EBMUD's and the Bureau's decision regarding the proposed water diversion must consider the effects of such diversion on interests protected by the public trust, and "attempt, so far as feasible, to avoid or minimize any harm to those interests." (*National Audubon, supra*, 33 Cal.3d at 426.)

In *EDF v. EBMUD*, the Superior Court found that EBMUD's diversions from the Lower American River have the potential to do major damage to the river's trust values. The DEIR/DEIS demonstrates that feasible alternatives exist in the form of diversions from the Sacramento River or the Delta. Both CEQA and the public trust doctrine require that these alternatives be considered in the DEIR/DEIS, and that EBMUD and the Bureau select one of these alternatives as their preferred alternative.

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[1] CEQA provides a useful definition of "feasible": "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." (Pub. Resources Code, § 21061.1.) The California Supreme Court in *National Audubon* characterized the state's obligation to consider and approve environmentally superior feasible alternatives under CEQA as "similar" to the state's duty to do so under the public trust doctrine. (33 Cal.3d at 446, n. 27.)

Federal Law Also Mandates That the Bureau Approve an Alternative That Avoids Diversions From the Lower American River.

In addition to the above principles of state law, federal law also prohibits the Bureau from approving a Lower American River diversion. A great deal has happened since the Bureau originally contracted with EBMUD for 150,000 acre feet of water in 1970. Most significant, the Secretary of the Interior included the Lower American River within the national system of wild and scenic rivers on January 19, 1981. (46 Fed. Reg. 7484 (Jan. 23, 1981).)

In doing so, the Secretary found that the policy of the national Wild and Scenic Rivers Act applied to the Lower American River. This policy declares that certain rivers of the Nation, which, together with their immediate environments, "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values," and that these rivers "shall be preserved in their free-flowing conditions, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." (16 U.S.C. § 1271.) A national wild and scenic river must be administered "in such manner as to protect and enhance the values" which caused it to be included in the wild and scenic river system. (*Id.*, § 1281(a).) Federal agencies must give "primary emphasis" to protecting the river's "esthetic, scenic, historic, archaeologic, and scientific features." (*Id.*) The Act prohibits any federal agency from assisting by "loan, grant, license or otherwise" in the construction of any water resources project, that would have a direct and adverse effect on the values for which the river was designated. (16 U.S.C. § 1278(a).) The Act also prohibits any federal agency from authorizing developments above or below a designated wild and scenic river segment if such development would "invade the area" or "unreasonably diminish the scenic, recreational and fish and wildlife values present in the area" as of the date of its designation. (*Id.*)

EBMUD's proposed American River diversion is inconsistent with these requirements of federal law.

Conclusion

We are mindful of the EBMUD's desire for a safe and potable water supply for its customers. The record shows that such a supply can feasibly be provided without threatening the reasonable and beneficial uses and public trust values of the Lower American River, which is recognized under state and federal law as a unique natural treasure. In a field as subject to the public interest as the diversion of California's extremely limited water resources, no purveyor may expect a contract made in 1970 to evade fresh scrutiny 30 years later. The public trust values of the Lower American River have risen to new levels of state and federal protection, while the DEIR/DEIS identifies feasible alternatives for obtaining a supplemental water supply for EBMUD that will not harm these important values. Consequently, EBMUD and the Bureau must select one of these feasible alternatives.

We appreciate your consideration of these comments. If you have any questions, please contact Jan Stevens at (916) 324-6312 or Tara Mueller at (510) 622-2136. Thank you.

Respectfully submitted,

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State Agencies

Responses to Comments by the Attorney General, California Department of Justice, on Behalf of the Department of Fish and Game and the State Lands Commission

RS 1-1, Bill Lockyer, Attorney General, et al.
The Attorney General's legal assertions that EBMUD is precluded from taking delivery of water from the Lower American River based on the reasonable and beneficial use doctrine, the public trust doctrine, and the Wild and Scenic Rivers Act were previously the subject of litigation in Environmental Defense Fund, Inc. et al. v. EBMUD (Alameda County Superior Court Case No. 425955). As the comment acknowledges, the Attorney General represented the Department of Fish and Game (DFG) and the State Lands Commission (SLC) as plaintiffs in that case. Following a lengthy trial, Judge Richard A. Hodge entered a decision affirming the right of EBMUD to take delivery of American River water, subject to a physical solution imposing minimum flow requirements determined to be protective of the public trust interests and in furtherance of the reasonable and beneficial use doctrine.

The Attorney General comments that Article X, section 2 of the California Constitution "mandates" that a lower American River diversion be avoided. This is the central issue decided by Judge Hodge. As expressed in the court's decision, "The single issue, which has spawned 17 years of litigation to date, is whether, pursuant to a 1970 contract with the Bureau of Reclamation, EBMUD may divert 150,000 acre-feet annually (AFA) from the Folsom Reservoir at the Folsom South Canal or whether the mandates of Article X, section 2 of the California Constitution and public trust doctrine require that the diversion occur below the confluence of the American River and Sacramento River" (Decision, page 1). Judge Hodge disagreed with the Attorney General's argument and found that EBMUD's contract is "valid" and can be lawfully exercised subject to the minimum flow requirements established by the court to protect public trust values on the lower American River (Decision, pages 29, 82, and 108). Those minimum flow requirements are specifically included as part of the project descriptions for Alternatives 2 and 4.

The Attorney General also comments that the public trust doctrine imposes an affirmative duty to protect such uses. Judge Hodge's decision fully recognizes this, and protection of public trust uses is embodied in his physical solution. In response to the argument that protection of public trust values requires that EBMUD be prohibited from taking delivery of American River water, the decision states: "It is simply not a fact that diversion below the confluence of the American/Sacramento rivers is the only way to achieve that protection. And if protection of public trust values can be accomplished consistently with the diversion at Folsom South Canal, then plaintiffs and interveners have no sustainable complaint. In the absence of an unnecessary diminution of public trust values, plaintiff's demand for a different diversion site has no supportable legal foundation. In the absence of harm, plaintiff is not entitled simply to achieve a different diversion site as a question of policy or preference" (Decision, page 28).

Judge Hodge addressed the Attorney General's comments with respect to the Wild and Scenic River legislation, both state and federal. He ruled that their application did not justify the conclusion that EBMUD's diversion "must necessarily be prohibited" (Decision, page 44). He states in his decision that neither the state nor federal acts "provide obstacles to the balancing approach of Audubon, nor to the fashioning of a physical solution designed to protect and enhance public trust values" (Decision, page 46). The Attorney General did not appeal the court's decision, and the comments submitted on behalf of

DFG and SLC do not assert that the minimum flows established by the court to protect public trust values are improper.

The court also determined that the existence of alternatives is not, in and of itself, a basis for prohibiting delivery of American River water under EBMUD's contract. Having imposed a physical solution that protects public trust values of the lower American River, Judge Hodge states, "this court rejects the logic of plaintiff's position that the existence of feasible alternatives 'forbids the utilization of the Folsom-South Canal' " (Decision, page 105).

In summary, the same legal issues presented in the Attorney General's comments were raised on behalf of DFG and SLC in the EDF v. EBMUD litigation. These issues were fully litigated and decided against the state agencies. They did not appeal, and they are bound by the determinations of Judge Hodge's decision.

RS 2

State of California **The Resources Agency**

MEMORANDUM

To: Project Coordinator
Resources Agency

Date: November 27, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
P. O. Box 24055
Oakland, CA 94623

From: **Department of Conservation**
Office of Governmental and Environmental Relations

Subject: Draft Recirculated Environmental Impact Report (DREIR) for the East Bay Municipal Utility District Supplemental Water Supply Project - **SCH# 1996022035**

The Department of Conservation's Division of Land Resource Protection (Division) has reviewed the referenced DREIR. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments for your consideration.

The purpose of the proposed project is to provide the East Bay Municipal Utility District (EBMUD) with a supplemental water supply to reduce existing and future customer deficiencies to manageable levels during drought conditions. EBMUD and the U.S. Bureau of Reclamation (Reclamation) have supplemented, and are recirculating the CEQA/NEPA analysis for the project in order to address additional alternatives and issues related to impact assessment methodology.

The approach used to assess the significance of agricultural impacts seems arbitrary and subjective. According to the DREIR, two factors were used to determine if an agricultural impact would be significant (DREIR: 11-3):

1. The amount of prime farmland converted by the project relative to the amount in the study area; and,
2. The loss of production value of specific crops relative to the total production value in the study area.

Using this approach, the project's agricultural impact is compared to the total amount of farmland, or total productive value of the study area, and expressed as a percentage. Based on the calculated percentage, the impact is deemed "significant" or "less than significant". However, the DREIR does not discuss the significance threshold

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for the percentages. Omitting this information impairs a full understanding of the approach used to evaluate the significance of the project's agricultural impacts. For example, we do not know at what percentage an impact is considered significant, or if a specific percentage was used, the rationale behind its selection. RS2-1

The absence of a threshold aside, we question the validity of the methodology used for evaluating the environmental significance of the agricultural land conversion impacts in the first place. From our perspective, few projects would be considered to have a significant impact on agricultural land if the threshold for significance was the conversion of a substantial portion of a county's total agricultural land base, or, in this case, the total land base of a multi-county region (Sacramento, San Joaquin and Contra Costa County (Alternative 7)). For example, a project the size of the City of Folsom (~9,600 acres) would constitute less than 2 percent of the three-county region used in this analysis. It is hard to imagine that the loss of close to 10,000 acres of prime agricultural land would not be deemed significant under CEQA when CEQA already considers the cancellation of 100 acres of a Williamson Act contract to be a project of area, regional or statewide significance. Conversely, it is conceivable that the loss of 10,000 acres of rangeland in fragmented ownership could be deemed insignificant in some circumstances. We recommend that the final REIR's analysis of the agricultural land impacts of this project rely on a less misleading and more scientific approach to the analysis of significance. RS2-2

The California Environmental Quality Act (CEQA) Guidelines encourages public agencies to develop and publish thresholds for the determination of the significance of environmental impacts (Section 15064.7). The Division has developed a California version of the USDA Land Evaluation and Site Assessment (LESA) Model, a semi-quantitative rating system for establishing the environmental significance of a project's impact on farmland. The model may also be used to rate the relative value of alternative project sites. As an alternative to the approached now used in the DREIR, we recommend that EBMUD adopt the use of the California LESA model. A user's manual for the application of LESA is available from the Division at the contact listed in the closing paragraph of this comment. RS2-3

It should also be noted that under the Farmland Protection Policy Act of 1981, any project being implemented by a federal agency, or simply using federal funds, must conduct a LESA analysis of the project's impact on agricultural land resources. If FPPA applies to this project, we recommend including the FPPA LESA assessment in the Final REIR. Also, if federal regulations permit, we encourage the use of the California LESA model in lieu of the federal model. RS2-4

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In addition to an analysis of the project's direct impacts on agricultural land, the DREIR should include an analysis of the project's cumulative impacts on the loss of productive farmland. This analysis should include past conversions as well as the conversions due to reasonably foreseeable projects in the region. Finally, an analysis of the growth inducing impacts of the project in both the project area and the EBMUD service area should be conducted. In other words, how will the provision of new water supplies in the EBMUD service area remove barriers to urban development that could convert additional agricultural land? Currently, the DREIR does not contain a discussion of these impacts. If they were addressed in the 1997 DEIR/EIS, then we recommend that these discussions be summarized in the Final REIR. RS2-5

To assist you in your treatment of the project's impacts on agricultural land resources, the Division's 1990 publication, *The Impacts of Farmland Conversion in California*, contains a good discussion of the kinds of physical, social and economic impacts that can occur as a result of farmland conversion. This publication is available from the Division. RS2-6

Williamson Act Lands

The DREIR notes that the cancellation of Williamson Act contracts may be necessary in order to allow construction of a treatment plant (DREIR: 11-7). Please be advised that the Williamson Act provides for those occasions when the need for public improvements on agricultural preserve lands overrides the need to conserve those lands. Thus, under certain circumstances, the very acquisition of Williamson Act land for a public improvement can serve to null and void the affected contract(s). Therefore, cancellation of the underlying Williamson Act contract may be unnecessary for this project.

However, public acquisition of lands under Williamson Act contract requires the documentation with substantial evidence of specified findings (Government Code Sections 51291-51292). Therefore, the Final REIR should identify Williamson Act lands that may be acquired for the project, and discuss the required findings, including why project alternatives that would avoid Williamson Act lands are not feasible. Finally, the Act requires that upon first consideration of Williamson Act land for acquisition for a public improvement, written notice of the potential acquisition be given to the Department and the administering local agency (either the affected city or county) by the acquiring agency. RS2-7

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In addition to addressing the project's impacts on Williamson Act contracts on the project site, the Final REIR should discuss the impacts that termination of Williamson Act contracts could have on nearby properties, also under contract. RS2-8

If cancellation is pursued, please note that as a general rule, land can only be withdrawn from Williamson Act contract through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855). Cancellation must be based on specific findings that are supported by substantial evidence. If a Williamson Act contract cancellation is proposed, a discussion of the specific findings (Government Code Section 51282) that must be made by the board of supervisors or city council of jurisdiction in order to approve tentative contract cancellation should be included in the DREIR. As with contract termination through public purchase, the Department must be noticed of an impending contract cancellation. A notice of the hearing and a copy of the landowner's petition must be mailed to the Director of the Department of Conservation ten (10) working days prior to the hearing on tentative contract cancellation. (The notice should be mailed to Darryl Young, Director, Department of Conservation, 801 K Street MS 24-01, Sacramento, CA 95814-3528). RS2-9

Agricultural Land Impact Mitigation Measures

Should significant agricultural impacts be identified in the Final REIR, feasible mitigation measures and alternatives to lessen farmland conversion impacts should be also be discussed. The Division has compiled an annotated listing of approximately thirty "conservation tools" which have been used to conserve or mitigate impacts on agricultural land. The unpublished report may be requested from the Division.

One of the tools described in the report is the purchase of agricultural land conservation easements on land of equal quantity and size as replacement for the land converted. We highlight this mitigation measure because of its growing application by agencies in California. The Cities of Livermore and Davis currently require at least a 1:1 mitigation via conservation easements for every acre of farmland converted by development. Sonoma County similarly requires a compensatory placement of conservation easements on prime agricultural land for prime agricultural land converted by mining projects. At the state level, Caltrans may soon be using conservation easements to mitigate for the conversion of agricultural land due to highway construction projects. Giving legitimacy to these mitigation approaches, at least one California court has ruled that conservation easements should be considered as a reasonable mitigation measure for the loss of agricultural land. (El Toro Land Use RS2-10

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Planning Authority, et al v. County of Orange, et al, San Diego Superior Court #710123, January 6, 1998.)

An alternative to the outright purchase of easements is the donation of mitigation funds to a regional or statewide program promoting and implementing the use of agricultural conservation easements, such as those run by local land trusts or the State's California Farmland Conservancy Program (CFCP). If the use of conservation easements is considered, the conversion of agricultural land should be deemed an impact of regional significance, and the search of replacement lands conducted on a regional level, rather than limited to lands within a particular county.

Information on the CFCP, and conservation easements generally, is available on the Department's website, or by contacting the Division at the address and phone number listed below. The Department's website address is:

http://www.consrv.ca.gov/dirp/CFCP/index.htm

Thank you for the opportunity to comment on the DREIR. If you have questions concerning our comments, or require technical assistance or information on agricultural land conservation or Williamson Act issues, please contact the Division at 801 K Street, MS 13-71, Sacramento, CA 95814; or, phone (916) 324-0850. You may also call me at (916) 445-8733.

Jason Marshall
Assistant Director

cc: Erik Vink, Assistant Director
Division of Land Resource Protection

Responses to Comments of the California Department of Conservation, Division of Land Resource Protection

RS 2-1, Jason Marshall, Department of Conservation
Specific "quantitative benchmarks" are not required under either CEQA or NEPA. Worst-case estimates developed for the 1997 Draft EIR/EIS and the 2000 REIR/SEIS indicate that less than 0.01 percent of the total acreage of farmland would be affected. In addition, as noted under "Methods and Assumptions" in Chapter 11 of the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, the acreage estimates provided are greatly overstated, because the analysis assumed that all lands would not return to agricultural production in the permanent right-of-way. In fact, most of the right-of-way would be allowed to return to production, thereby further reducing impacts. The fact that 0.01 percent is a very small proportion of the farmland in the project areas coupled with the fact that the impact analysis overstates the likely impact provide substantial evidence that any impacts would be less than significant.

RS 2-2, Jason Marshall, Department of Conservation
The methodology is considered appropriate given the fact that the project consists largely of linear facilities that have little potential for substantial impacts. Specific information regarding impacts of each of the alternatives is provided in Chapter 11 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. In addition, as noted under "Methods and Assumptions" in Chapter 11, the acreage estimates provided are greatly overstated, because the analysis assumed that all lands would not return to agricultural production in the permanent right-of-way. In fact, most of the right-of-way would be allowed to return to production, thereby further reducing impacts.

RS 2-3, Jason Marshall, Department of Conservation
The impact analysis on farmland is relatively straightforward, and no additional analyses are necessary. The differences in project-related effects on prime agricultural lands and agricultural crops are presented in Chapter 11 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. Alternative 8 would have the least impact on agricultural lands, followed by Alternative 2 (pipeline alignments 2 and 3). Alternative 7 would have the greatest potential impacts on farmlands.

RS 2-4, Jason Marshall, Department of Conservation
A LESA analysis is in the process of being completed for the project. The results will be reviewed prior to implementation of a project.

RS 2-5, Jason Marshall, Department of Conservation
See response to Comment RS 2-3 above. Even assuming the worst-case analysis conducted for the Supplemental Water Supply Project alternatives, the alternatives would affect minor farmland acreages and would not contribute in a cumulatively significant way to any ongoing cumulative impacts occurring in Sacramento or San Joaquin counties. Cumulative and growth-inducing impacts are discussed in Chapter 18 of the 1997 Draft EIR/EIS.

RS 2-6, Jason Marshall, Department of Conservation
The publication mentioned in this comment was used during the development of the farmland impact analysis but was not cited because no direct material was used from this publication.

RS 2-7, Jason Marshall, Department of Conservation
Comment noted. Compliance with Government Code Sections 51291-51292 will occur, if necessary, once a project has been adopted and specific information relating to Williamson Act lands is available. EBMUD fully intends to comply with all appropriate

provisions of the relevant Government Code should acquisition of Williamson Act lands be necessary for project implementation.

RS 2-8, Jason Marshall, Department of Conservation
There is no evidence to suggest that the termination of Williamson Act contracts due to project facility construction would have any effect on nearby properties.

RS 2-9, Jason Marshall, Department of Conservation
Comment noted. Compliance with Government Code Section 51282 will occur, if necessary, once a project has been adopted and specific information relating to Williamson Act lands is available. EBMUD fully intends to comply with all appropriate provisions of the relevant Government Code should acquisition of Williamson Act lands be necessary for project implementation.

RS 2-10, Jason Marshall, Department of Conservation
As noted in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, no significant impacts on agricultural lands would result from the implementation of any of the alternatives. Therefore, no mitigation is necessary.

RS 3

STATE OF CALIFORNIA - THE RESOURCES AGENCY

GRAY DAVIS, Gover

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November 27, 2000

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Oakland, California 94623

Dear Mr. Ladensack

The Department of Fish and Game (DFG) has reviewed the draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (REIR) for the East Bay Municipal Utility District (EBMUD) Supplemental Water Supply Project (SCH# 1996022035). The project proposes the construction of a new water delivery system and conveyance facilities to allow EBMUD to divert water from the American or Sacramento River. The REIR proposes eight alternatives in addition to those proposed in the original 1997 Draft EIR/EIS. The DFG is offering these comments for consideration in determining the preferred alternative. These comments are in addition to DFG comments submitted in 1997.

1. Impacts on salmon and steelhead associated with diversion at Folsom South Canal (FSC) are potentially very high and more directly identifiable, including: reduced cold water storage, reduced carry over storage, reduced flexibility in operating the Central Valley Project (CVP) to meet requirements in the Lower American River (LAR) and in the Sacramento River and Delta, ultimately reducing opportunities to provide colder water for steelhead rearing (summer), colder water for salmon spawning, and higher flows for a longer period of time for salmon spawning in the LAR. These conditions have already been substantially affected by existing operations to the extent that habitat conditions required for steelhead and salmon are often marginal. Present operations of the Folsom Project are still flexible in most years to improve these habitat conditions to sustain populations of salmon and steelhead that could not occur if 75,000 to 150,000 acre feet of water were removed at the FCS. RS3-1

2. Diversions at any location upstream of the Delta will reduce flexibility in meeting Delta standards for fish-habitat needs in upstream tributaries. The federal Bureau of Reclamation (BOR) should identify how to they plan to incorporate the EBMUD diversions into the their operations relative to the proposed point of diversion. The further down into the system that the diversion occurs, the greater the flexibility to use the water to meet habitat needs between the point of release and the point of diversion. However, without a better description of how the flexibility would be applied to accommodate optimizing water-use for temperature and flow conditions in the LAR, and potentially in the Sacramento, the impact associated with the diversion is not clear. Additionally, the comparison of alternatives with existing conditions is not possible since the "No Action" alternative does not accurately reflect existing conditions. RS3-2

3. Comparing alternatives that divert water at FSC versus further downstream on the LAR is relatively simple. Diversion at the FSC will have substantial impacts upon water availability for use in the LAR. Diversion at Hwy 5, is vastly superior to diversion at FSC as it increases the flexibility of using the EBMUD water to meet environmental needs in the LAR. Diversion from the Sacramento River downstream of the LAR is incrementally even better for the LAR since it allows water to be used to provide habitat conditions throughout the LAR. Significant fish entrainment issues will require mitigation the Alternative 4 and Sacramento River diversion sites. RS3-3

4. The document does not recognize the likely increases in water diversion "upstream" of the Folsom South Canal diversion point. These diversions will change future water availability, and therefore substantially alters analysis of future impacts on fishery resources. RS3-4

5. It should be noted that the scope of impacts of the various alternative projects is much greater than the lower American River. There are at least five other major areas of impact that may need to be discussed in a DFG response to EBMUD: RS3-5

   A. Impacts on the Mokelumne River fisheries and wildlife habitats

   B. Impact associated with the various alternative methods proposed to transport water to the Bay Area (e.g., Impacts to sundry habitats along any new alignment).

   C. Impacts on CVP operations

   D. Impacts upon Delta water quality and quantity

   E. Impacts due to expanded growth in the Bay Area resultant from increased water supply.

6. Although EBMUD has a contract to obtain 150,000 AF of water from the Bureau, the effects of removing this amount of water from the American River is not known. To date, it appears that the "Hodge Flows" are inadequate to support a viable salmonid fishery below Lake Natoma. The Lower American River Task Force (LARTF) has initiated studies to evaluate baseline in-water, and floodway habitat values. These data will be used to determine the potential impacts resulting from reoperation of Folsom Reservoir, identify potential fisheries habitat enhancement measures and limiting habitat variables within the LAR, evaluate impacts from future erosion control work, and evaluate the effects of water re-allocation as developed by the Water Forum. These studies should be completed prior to any consideration of increased diversions from the LAR by EBMUD. RS3-6

7. The 1997 EIR was prepared prior to the listing of several currently listed as threatened and endangered fishes. Specifically, the EIR should be revisited in order to determine potential impacts to Steelhead-Central Valley ESU (*Oncorhynchus mykiss*), Delta Smelt (*Hypomesus transpacificus*), and Sacramento Splittail (*Ponichthys macrolepidotus*). RS3-7

8. The American River Operations Group (AROG-an advisory group representing state and federal regulatory agencies, and professional scientists) meet monthly to evaluate storage levels in Folsom Lake, projected seasonal weather forecasts, real-time life history phases of the resident and migratory fish species in the Lower American River (LAR), and water needs within the CVP system. Monthly flows are determined adaptively by this group in light of these constantly changing variables. The EIR should discuss flow diversions in terms of the necessary flow recommendations for the protection of fishery resources needs in light of real time water allocation commitments. It would be advisable for EBMUD to participate in this, and other consensus building groups which are focusing on various resource protection issues in the American River (LARTF, Water Forum, etc.). RS3-8

9. The EIR uses the protection of resources in the Mokelumne River as a goal. It is important to keep in mind that resource protection in the Mokelumne Rive should not occur at the expense of natural resources in the LAR. RS3-9

10. Most of the Alternatives in the EIR/EIS propose the construction of various pipelines across southern Sacramento County. This area of Sacramento County contains significant natural resources. The DFG owns greater than 10,000 acres of wildlife habitat within the Cosumnes River Preserve (CRP). Alternative 7 proposes that the pipeline cross through the CRP. The project applicant should be aware of the potential significant direct, indirect and cumulative impacts that could occur from this Alternative. Additionally, direct, indirect and cumulative impacts to several State and federally listed vernal pool endemic species will result from construction of these pipelines. RS3-10

11. Mitigation proposed for tricolored blackbirds (*Agaelius tricolor*), burrowing owl (*Speotyto cunicularia*), and Swainson's hawks (*Buteo swainsoni*) is inadequate. While the proposed mitigation may prevent disturbance to nesting birds, the EIR provides no mitigation for potential impacts to nesting habitat, or cumulative impacts to foraging habitat from growth inducing impacts. The EIR should be revised to provide mitigation to reduce potential impacts to less than significant levels. RS3-11

Thank you for the opportunity to review the EIR/EIS. If we can be of further assistance, please contact Mr. Nick Villa or Ms. Terry Roscoe, Environmental Supervisors, at (916) 358-2883.

Sincerely,

Banky E. Curtis
Regional Manager

cc: Mr. Nick Villa
Ms. Terry Roscoe
Department of Fish and Game
Sacramento Valley-Central Sierra Region
1701 Nimbus Road, Suite A
Rancho Cordova, California 95670

Mr. William Snider
Department of Fish and Game
1416 Ninth Street
Sacramento, California 95614

Responses to Comments of the California Department of Fish and Game

RS 3-1, Banky E. Curtis, Department of Fish and Game
Chapter 5 in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS fully evaluated potential effects on fishery resources in the lower American River. Impacts associated with Alternative 2 (delivery from the Folsom South Canal) were determined to be less than significant. Average annual deliveries to EBMUD under alternative 2 would be approximately 27,000 acre-feet per year (not 75,000 to 150,000 acre-feet per year) and would be consistent with the requirements of the Hodge Decision.

RS 3-2, Banky E. Curtis, Department of Fish and Game
Deliveries to EBMUD would be treated similarly to all other CVP contractors. Reclamation operates the CVP as an integrated system and does not fundamentally alter its operations in response to small increases in CVP demands. Reclamation would continue to meet its instream flow obligations and could impose shortages on its contractors (including EBMUD) to meet those obligations.

RS 3-3, Banky E. Curtis, Department of Fish and Game
As noted in Chapter 5 of the 1997 Draft EIR/EIS, deliveries under Alternative 2 would be consistent with the Hodge Decision and would not result in significant impacts on the lower American River. It is recognized that overall system flexibility is slightly increased with an EBMUD delivery downstream of the lower American River. Fish entrainment is an issue for Alternatives 3-8 but not for Alternative 2, because no new intake facility would be constructed in any natural waterway.

RS 3-4, Banky E. Curtis, Department of Fish and Game
The hydrologic analysis has been thoroughly reviewed and it is consistent with Reclamation's understanding of upstream water uses. Minor changes in such upstream uses would not alter the conclusions reached in the Supplemental Water Supply Project impact analyses.

RS 3-5, Banky E. Curtis, Department of Fish and Game
The issues listed in this comment were fully addressed in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RS 3-6, Banky E. Curtis, Department of Fish and Game
The 1997 Draft EIR/EIS fully evaluates the effects of proposed deliveries to EBMUD under its contract with Reclamation consistent with the Hodge Decision. New information is continually being developed and may affect future operations along the lower American River. Any such changes could affect deliveries made to EBMUD and all other water users along the lower American River.

RS 3-7, Banky E. Curtis, Department of Fish and Game
The species identified in this comment were fully taken into consideration and treated as though they were listed, whether or not they were at the time of document preparation, in Chapter 5 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RS 3-8, Banky E. Curtis, Department of Fish and Game
See response to Comment RS 3-6 above. Should a delivery along the American River be selected, EBMUD would willingly participate in such efforts. EBMUD attended numerous Water Forum meetings but was not invited to formally participate by the Water Forum stakeholders.

RS 3-9, Banky E. Curtis, Department of Fish and Game
Comment noted. The project alternatives do not contemplate protection of Mokelumne River resources at the expense of natural resources in the lower American River.

RS 3-10, Banky E. Curtis, Department of Fish and Game
Comment noted. The 1997 Draft EIR/EIS and the 2000 REIR/SEIS address impacts from pipeline construction and describe mitigation measures. It should be noted that such impacts are largely temporary, and substantial site-specific avoidance would occur during detailed design and project construction.

RS 3-11, Banky E. Curtis, Department of Fish and Game
No cumulative impacts on habitat for these species are anticipated from facility construction. Facility construction would be relatively minor, most facilities would be underground, and habitat values would generally be recovered. In addition, compared to other disturbances occurring within the general project area, such as the substantial urban development taking place, these impacts would be minimal and temporary. Specifically, in terms of nesting habitat, habitat for burrowing owls would naturally recover over the pipeline right-of-way; nesting habitat for tricolored blackbirds would be mitigated through implementation of wetland replacement mitigation measures described in detail in Chapter 7 of the 1997 Draft EIR/EIS and summarized in the 2000 REIR/SEIS; and Swainson's hawk foraging habitat would naturally recover over most of the facility construction areas. To the extent that any large potential nesting trees are removed, they will be replaced pursuant to the heritage tree ordinances in place in the various counties.

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 3, SACRAMENTO AREA OFFICE - MS 41
P.O. BOX 942874
SACRAMENTO, CA 94274-0001
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RS 4

November 27, 2000

LSAC173
03-SAC, VARIOUS
Supplemental Water Supply Project
Recirculated EIR/Supplemental EIS
SCH#1996022035

Mr. Kurt Ladensack
East Bay Municipal Utility District
Post Office Box 24055, Mail Stop 305
Oakland, CA 94623

Dear Mr. Ladensack:

Thank you for the opportunity to review and comment on the East Bay Municipal Utility District proposed Supplemental Water Supply Project. Our comments are as follows:

- Any pipeline or other work to be performed within Caltrans right of way will require an encroachment permit. For permit assistance within District 3, please contact Bruce Capaul at (530) 741-.4408. RS4-1
- A Traffic Management Plan or Plans should be prepared and submitted for Caltrans review to minimize traffic impacts to State highways during construction of the chosen alternative pipeline(s). The traffic control plan(s) should discuss the expected dates and duration of construction, as well as traffic mitigation measures. We recommend that to the extent possible, the applicant should limit truck trips during morning and evening peak traffic periods (6-9 AM and 3-6 PM) to avoid exacerbating congestion. RS4-2
- Pipeline undercrossings should be installed by boring and jacking, directional drilling, or another method meeting Caltrans approval. Tunneling under freeways and expressways is considered under the following conditions: RS4-3

  -Studies establish that the soil structure is sufficiently stable.

  -Permanent tunnel portals usually shall be located outside of the ultimate right-of-way line or access control line (if those do not coincide).

  Consideration may be given to a portal within the access control line provided that 1) it will not adversely affect highway operation, 2) it will be beyond the toe slope of current and future embankments, and 3) prior approval is given by Caltrans.
- At undercrossings, the water transmission line should be placed in casings extending beyond the access control limits for the highway right-of-way. This will assure that the transmission line 1. can be installed and removed from outside of State right-of-way; 2. reduce the likelihood that potential leaks would flow into State right-of-way, with a number of possible ill effects; and 3. is protected from damage during maintenance and capacity-increasing construction activities. Any other option besides casing must be approved by Caltrans. The following information should be provided to Caltrans - District 03 prior to the permit request to expedite the process: RS4-4

  - Type of pipe used
  - Line pressure and flow volumes
  - Type of casing or other measures planned to prevent leaks over the long term, especially if there are to be joints or sealed connections in the State's right-of-way
- Any material to be removed from State right-of-way, e.g. during drilling or boring and jacking, must be disposed of properly. The potential for both soil and/or groundwater contamination must be assessed prior to construction. The FEIR should include an inventory of potential hazardous waste/contamination properties along the pipeline route and should discuss how the potential for contamination was evaluated in the vicinity of State highways RS4-5
- We recommend that soil and groundwater sampling be conducted prior to construction. This information will determine if special handling and disposal of waste soil and water is necessary and if any special health and safety issues exist for site workers. RS4-6
- Any new or replacement pipes crossing conventional State highways or otherwise entering the traveled way must be bored or jacked at a minimum depth of 36". Interstate and freeway facilities must similarly be bored or jacked at a minimum depth of 36". RS4-7
- New or replacement pipes longitudinal to the highway should be located outside the traveled way for conventional highways. No longitudinal installation is allowed inside access controlled rights of way along freeways. RS4-8
- Pipes crossing the highway should be placed in casings extending beyond the traveled way to assure that the pipelines 1. can be installed and removed from outside of the traveled way; 2. reduce the likelihood that potential leaks would compromise ground features beneath the traveled way; and 3. are protected from damage during maintenance and capacity-increasing construction activities. For the crossing pipes, any other option besides casing must be approved by Caltrans. RS4-9
- If multiple permits are sought and there is some question whether State right-of-way will be encroached upon for a given phase, the actual right-of-way may have to be identified before an encroachment permit can be issued. For assistance, contact Scott Jackson of Right-of-Way Engineering at (530) 741-4307. RS4-10
- Caltrans would likely delay certain maintenance, if planned, until any roadwork is complete. Please keep us informed of likely project phasing and delays as well as other planned work. RS4-11
- Soon after the close of the project, the location of all new and out-of-service pipes should be documented and shared with Caltrans. RS4-12
- The precise location of the pipeline crossing installations in relation to State highway right of way lines and structures should be provided to Caltrans on "As-Built" plans. RS4-13

Mr. Kurt Ladensack
November 27, 2000
Page 3

Please provide our office with a copy of the FEIR, the requested information, proposed mitigation, and detailed maps regarding the selected alternative of this project. If you have any questions regarding these comments, please contact Ken Champion at (916) 324-6642. RS4-14

Sincerely,

JEFFREY PULVERMAN, Chief
Office of Regional Planning

c: Katie Shulte Joung, State Clearinghouse

Responses to Comments of the California Department of Transportation (Caltrans)

RS 4-1, Jeffrey Pulverman, Caltrans
Comment noted. This requirement was identified Table 2-7 of the 1997 Draft EIR/EIS.

RS 4-2, Jeffrey Pulverman, Caltrans
Comment noted. It is anticipated that a traffic management plan would be part of any encroachment permit required from Caltrans.

RS 4-3, Jeffrey Pulverman, Caltrans
Comment noted. Construction techniques at state highways would be coordinated with and approved by Caltrans as required by state law.

RS 4-4, Jeffrey Pulverman, Caltrans
Comment noted. The requested information will be provided to Caltrans prior to or concurrent with any encroachment permit request.

RS 4-5, Jeffrey Pulverman, Caltrans
Comment noted. All excess materials will be properly disposed of in accordance with state and local regulations. The environmental commitments discussed in Chapter 2 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS include conducting a hazardous materials inventory prior to final design of facilities.

RS 4-6, Jeffrey Pulverman, Caltrans
See response to comment RS 4-5 above. All federal, state, and local laws and regulations will be complied with fully during project construction.

RS 4-7, Jeffrey Pulverman, Caltrans
Comment noted. Construction techniques at state highways will be coordinated with and approved by Caltrans as required by state law.

RS 4-8, Jeffrey Pulverman, Caltrans
Comment noted. No longitudinal installation is proposed inside access-controlled rights of way along freeways.

RS 4-9, Jeffrey Pulverman, Caltrans
Comment noted. Construction techniques at state highways will be coordinated with and approved by Caltrans as required by state law.

RS 4-10, Jeffrey Pulverman, Caltrans
Comment noted.

RS 4-11, Jeffrey Pulverman, Caltrans
Comment noted.

RS 4-12, Jeffrey Pulverman, Caltrans
Comment noted. The requested information will be supplied to Caltrans.

RS 4-13, Jeffrey Pulverman, Caltrans
Comment noted.

RS 4-14, Jeffrey Pulverman, Caltrans
Comment noted. The requested information will be provided to Caltrans once a project has been selected.

RS 5

STATE OF CALIFORNIA -- THE RESOURCES AGENCY GRAY DAVIS, Governor
DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

November 27, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
Post Office Box 24055
Oakland, California 94623-1055

Dear Mr. Ladensack:

This letter transmits the Department of Water Resources' comments on the Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement for the Supplemental Water Supply Project and Water Service Contract Amendment Between the U.S. Bureau of Reclamation and the East Bay Municipal Utility District. The Department previously commented on the Draft EIR/EIS for this project by letter of March 18, 1998 (copy enclosed). Since the DEIR/EIS has not yet been finalized and the Department has not received a formal reply, our comments still apply. RS5-1

It is encouraging to see that the Recirculated EIR/EIS adds several other alternatives for consideration. The new studies for these alternatives seem to have considered our previous comments and appropriately include Central Valley Project Improvement Act Anadromous Fish Restoration Program actions. The REIS/EIR, however, does not mention any efforts to incorporate the relevant programs or projects being considered by the CALFED Bay-Delta Program. The recent CALFED Record of Decision contemplates investigations of through-Delta conveyance strategies and the Bay Area Blending/Exchange project to address water quality and water supply issues. The proposed project would likely benefit from participation in these efforts. We recommend that Reclamation and EBMUD coordinate this project with CALFED's programs if an in-Delta diversion, like alternative 8, is selected as the preferred alternative. RS5-2

If you have any questions regarding our comments, please call me at (916) 653-1099 or John Pacheco of my staff at (916) 653-6426.

Sincerely,

Katherine Kelly, Chief
Office of SWP Planning

Enclosure

Same letter to:

Mr. Rob Schroeder
U. S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, California 95630

Responses to Comments of the California Department of Water Resources

RS 5-1, Katherine Kelly, Department of Water Resources
See responses to the Department of Water Resources comment letters (Letters S 3 and S 4) in Chapter 6 of this document.

RS 5-2, Katherine Kelly, Department of Water Resources
Comments noted. CALFED is a large, complex, statewide planning effort that will be implemented over a period of many years. Most of the specific actions included in the CALFED program, including the Bay Area Blending/Exchange project, will require significant planning and site-specific environmental documentation. Therefore, these CALFED programs have not been incorporated into the Supplemental Water Supply Project. See also the "Relationship to CALFED" major issue in Chapter 3 of this document.

AIE OF CALIFORNIA

GRAY DAVIS, Governor

:ALIFORNIA STATE
:ANDS COMMISSION

:RUZ M. BUSTAMANTE, *Lieutenant Governor*
:ATHLEEN CONNELL, *Controller*
. TIMOTHY GAGE, *Director of Finance*

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November 27, 2000

Mr. Kurt Ladensack
Water Supply Improvements Division
EDMUD
P.O. Box 24055
Oakland, CA 94623

Dear Mr. Ladensack:

The staff of the California State Lands Commission (CSLC) has received and reviewed the Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement for the "East Bay Municipal Utility District Supplemental Water Supply Project" (Project) - SCH #1996022035 and submits these comments.

California Environmental Quality Act (CEQA) Compliance

In three key areas, the document does not comply with the provisions of the CEQA and the State EIR Guidelines (Guidelines):

A. Section 15088.5 (d) provides that, "Recirculation of an EIR requires notice pursuant to Section 15087, and consultation pursuant to Section 15086." The CSLC participated in the litigation that resulted in the "Hodge Decision" and provided comments on the 1997 Draft EIR/EIS for the Project. It is, therefore, a known party of interest to the lead Agencies (Agencies). Staff is unaware of CSLC's receipt of "notice" for the document as required by Section 15087 of the Guidelines. RS6-1

In addition, the CSLC is a Responsible/Trustee Agency with respect to the Project. Accordingly, consultation with the CSLC should have occurred as required by Section 15086 of the Guidelines. Staff is not aware of the required consultation having occurred. CSLC staff had no opportunity to participate in the identification of the Alternatives proposed or the range of potential impacts; its initial exposure to the process occurred when the document was received on October 10, 2000, through the circulation process of the State Clearinghouse.

B. The document does not identify, as required by Guidelines Section 15126.6 (e)(2), the "Environmentally Superior Alternative" in the context of the Project. The cited section provides, in pertinent part, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Clearly, the "no project", AKA "No Action" alternative is, in comparison to all other Project RS6-2

RS 6

configurations, the "environmentally superior alternative." The Agencies' decision not to identify a "preferred alternative" does not eliminate their ability or relieve them of the responsibility to comply with the requirement of Section 15126.6 (e)(2). Neither the public nor the decision-makers benefit from the expertise of those charged with preparation of the document if it is not used to objectively, on the basis of information available, identify an environmentally preferable option.

C. The document inappropriately relies on referral of the reviewer to the 1997 DEIR/EIS, which is tantamount to, as used in each of the impact chapters, "incorporation by reference." At page 1-2, it states, "This REIR/SEIS does not present a comprehensive analysis of the Supplemental Water Supply Project but rather supplements the information presented in the 1997 DEIR/EIS. Together, this REIR/SEIS and the 1997 DEIR/EIS provide the complete draft EIR/EIS analysis of potential environmental effects of the Supplemental Water Supply Project in compliance with CEQA and NEPA. Reviewers are therefore referred to the 1997 DEIR/EIS for background information on the project and for previously presented analyses." RS6-3

Section 15150 (f) provides, "Incorporation by reference is most appropriate for including long, descriptive, or technical materials that provide general background <u>but do not contribute directly to the analysis of the problem at hand.</u>" (Emphasis added) In contrast, the document, in each of the impact areas, references the <u>analyses performed</u> in the 1997 EIR/EIS. As an example, the document, at page 1-2, states, "The cumulative impact analysis presented for Alternative 3, "Joint Water Supply," in the 1997 DEIR/EIS is representative of cumulative effects that would be anticipated under the alternatives considered in this REIR/EIS."

For the newly proposed Alternative 4, EBMUD American River Deliveries, in particular, and proposed Alternatives 5-8 to varying degrees, the document is a "shell" without information and analyses contained in the 1997 DEIR/EIS. The document contains neither a summary of the pertinent material nor information where the three years old DEIR/EIS is available for use.

As made necessary by the above, the CSLC resubmits, by this reference, its comments on the 1997 DEIR/EIS.

Specific Comments

1. At page 1-2, "Chapter 18, 'Cumulative and Growth-Related Effects,.....from the 1997 DEIR/EIS are not included because there is no significant new information relevant to these Chapters." In this light, what is the relationship of the Project to the City of Sacramento Water Facilities Expansion Project? RS6-4

2. Alternative 4, as described at pages 2-2 and 2-3, is based on the 'City's and County's "Modified Proposal" and appears to be premature and of questionable feasibility. Specifically to the former issue, as indicated in 17. at page 2-3, a required EIR/EIS has not yet been prepared for the Modified Proposal. Without RS6-5

the required analysis on the "core" of Alternative 4, the full nature and potential of its environmental impacts can not be determined. The "Programmatic Analysis" in Chapter 18 is not sufficient environmental documentation to fulfill this purpose. It, at page 18-2, recognizes the need to prepare the required analysis "If a specific project can be developed through negotiations with stakeholders and the issues identified in the Modified Proposal addressed to the satisfaction of the Sacramento Parties and other interest groups,..." Further, at page 2-3, "Elements 2 through 7, 10, 12, 15 and 18 through 22 are subject to further negotiation between EBMUD and the Sacramento Parties."

As to the later issue of feasibility, the Alternative is dependent on speculative arrangements: for example, in 3. on page 2-2, "The City, County, and the Sacramento Environmental Water Caucus would request Judge Hodge to amend his order....." and in 4. at the same page, "Sacramento County would work with its stakeholders to provide assurances that EBMUD could bank water in Sacramento County."

3. At page 2-4 and other relevant pages, it is concluded that, "Because of the industrial nature of the surrounding land uses, many options for power supply are available." The information on which this presumption and conclusion are based is not provided, nor is any analysis of potential impacts. RS6-6

4. The pipeline is stated at page 2-4 to be 66 inches in diameter. At page 2-8, the pipeline becomes 70 inches in diameter. Please provide the need for and basis of the change in size. RS6-7

5. At page 2-11, the REIR/SEIS provides, "These deliveries of up to 155 cfs would be limited to those periods when flows in the American River are at or above flows required by the Hodge Decision (1990)." If the delivery of 155 cfs occurs when flows are at the requirements of the Hodge Decision, would not the minimum flow requirements be violated? RS6-8

6. The feasibility of the "Fairbairn intake option" of Alternative 4, page 2-11, is also speculative as "Implementation of this option would require the cooperation of the City of Sacramento and the County of Sacramento. This option is not part of the Sacramento Parties' Modified Proposal." RS6-9

7. The document, page 2-12, states, "Based on these discussions, the following types of commitments were determined to be potentially feasible and implementable measures to reduce or mitigate short term, construction-related effects." On what analyses was this conclusion based? The document itself seems to have second thoughts as indicated the same page, "It is impossible at this stage in project planning to definitively determine which of the above measures are feasible, practicable, and effective at each construction site." The issue is compounded by the next sentence, "Therefore, the specific construction mitigation plan will be developed through additional community outreach and design after the project is approved." This situation appears to defer the development and implementation of mitigation to a later date, a deficiency addressed in *Sundstrum v. County of Mendocino* (1st Dist. 1988) 202 Cal.App.3rd 296 [248 Cal.Rptr. 352]. RS6-10

8. At page 3-1, the document indicates numerous factors that were incorporated into "Reclamation's PROSIM" since the 1997 DEIR/EIS, but concludes, "PROSIM 99 modeling results are not substantively different from the results that were presented in the 1997 DEIR/EIS based on previous versions of PROSIM." (The analyses on which this conclusion is based was provided only to a select few, specifically "the Sacramento parties and others.")

   The revised PROSIM was used, as indicated at page 3-5, to analyze effects of Alternative 4. At the same page, the discussion concludes, " ...a portion of the decreased deliveries to EBMUD are a result of the revisions that were made to PROSIM 99 as compared to the version of PROSIM that was used in the 1997 EIR/EIS." This statement appears to contradict that cited above (page 3-1). It also seems to argue for the reanalysis, under the revised PROSIM 99, of all Project configurations discussed in the 1997 EIR/EIS. As pointed out in comment C on page 1 of this letter, the Lead Agencies place the impact analyses of configurations in the REIR/SEIS totally in context of the 1997 analyses. If each of the analyses is based on different results of different versions of PROSIM, how can they be comparable? RS6-11

9. CALFED does not appear to have figured into the revision of PROSIM 99 as described at page 3-1. The basis of this omission may be at page 3-5, "Implementation of CALFED programs is a long-term process. For purposes of this project evaluation, the water supply demands, instream flow requirements, and applicable Delta water quality objectives are assumed to remain unchanged." The reference point for the term "unchanged" is not provided. Is it CALFED as described in the FEIR/EIS recently released and described in its Implementation Program? By what means could the Project's configurations make adjustments to become compatible with CALFED as it is implemented on its proposed timeline? Would approval of any Project configuration conflict with or jeopardize the implementation of CALFED? RS6-12

10. The narrative at page 3-13 explains, "For Alternative 8, EBMUD delivery at Bixler in the Delta was not specifically modeled. Therefore, the anticipated changes in flows can only be assessed qualitatively." This omission seems to place the consideration of Alternative 8 on an unequal basis to that of all other configurations. RS6-13

11. This same discussion at page 3-13 concludes, "The effect of Alternative 8 on Delta outflow would be expected to be the same as under Alternatives 5, 6, and 7." No where in Chapter 3., Hydrology and Water Supply, does there appear an analysis of the effects of all configurations on the location of the Null Zone in the Carquinez Strait. This analysis should also be carried forward to other relevant issue areas, e.g., Water Quality, Fisheries and Vegetation and Wetland Resources, in particular. RS6-14

12. At page 4-5, Mitigation Measure 4-1, the document states, "Before completing design activities and initiating construction, EBMUD would be required to undertake additional studies in order to obtain a discharge permit from the SFBRWQCB." Section 15050 (b) requires, in part, ". the decisionmaking body of RS6-15

each responsible agency shall consider the lead agency's EIR...prior to acting upon or approving the project." The level of information provided is not sufficient for the SFBRWQCB to comply with the cited section.

13. The analysis in Chapter 5 does not include "riparian vegetation" as a component of fisheries habitat and subsequently does not analyze the potential impacts of Alternatives 4-8 to this aspect of fisheries habitat. The presence or absence of riparian vegetation also influences water temperature as well as survival rates of juveniles. RS6-16

14. Mitigation measures 7-3a and 7-3b at page 7-6 are too general to allow any determination of their ability to effectively lessen or eliminate potential impacts. As to the former, how large should the buffer be? Where should it be established and for how long? To the latter, at what ratio should riparian losses be compensated? What performance standards are to be set for determining if adequate mitigation has been achieved? Over what period will monitoring extend? RS6-17

15. Page 8-5 contains other examples of inappropriate mitigation measures, specifically 8-1, 8-2, 8-3, 8-4 and 8-5. "Conduct Surveys...and take Appropriate Precautions," Conduct Surveys and Prepare a Mitigation Plan," and "Conduct Preconstruction Surveys and Mitigate for Loss." To direct the development of mitigation as a mitigation measure is not consistent with the requirements of the CEQA. RS6-18

16. The document appears to find that impacts will be less than significant based on possible future actions. For example, in the discussion of Alternative 6 at page 10-5, "The pipeline and pumping plant in Freeport would need to be carefully located to avoid conflicting with these future industrial uses." And "EBMUD would work with the City, County, and local landowners to avoid a pipeline location that conflicted with these designated land uses..." It would be more appropriate to determine that potential land use conflicts are potentially significant and develop mitigation, e.g., relocation of pipeline, than to approach the issue vice versa as illustrated above. The presentation of "Conflict with Contra Costa County Agricultural Land Preservation Policies" at page 10-6 is an example of the above-suggested approach. RS6-19

17. The Significance Criteria at page 11-3 do not provide a quantitative benchmarks to determine significance, only factors to consider. For example, for the first criteria, is 10% conversion significant, is 40 %, or would 60% be significant? There are presently no "metes and bounds" for determining significance. RS6-20

18. At page 12-4, additional Significance Criteria have been added "For purposes of this analysis,..." This results of this analysis may be more restrictive and severe in comparison to analyses presented in the 1997 DEIR/EIS if these same criteria have not been applied to similar Alternatives. RS6-21

19. The document, at page 14-3 indicates that, in Contra Costa County, "Conditionally acceptable noise levels range from 70 to 80 Ldn..." At page 14-5 RS6-22

for Bixler Delivery, noise levels from construction of the intake...could reach 80 to 90 dBA, yet the document concludes that, "This impact is less than significant." Please reconcile the apparent discrepancy.

In conclusion, we believe that the Lead Agencies have missed an opportunity to respond more comprehensively to concerns about the Project. At page 5-2, it is stated, "This REIR/EIS does not include formal responses to comments on the 1997 DEIR/EIS, although it does address several issues raised in those comments." RS6-23

We conclude, therefore, that the "issues" addressed concern the number of alternatives analyzed rather than additionally, for example, concerns with available information, methods of analyses or definition of mitigation since this document relies solely on the analyses and conclusions of the 1997 DEIR/EIS. An alternative approach might have revised the 1997 base document in consideration of all comments, enfolded the new alternatives into its framework and resulted in the recirculation of a unified analysis incorporating the Project and all its alternative configurations. RS6-24

I can be reached at sanderd@slc.ca.gov or by telephone at (916) 574-1880 should there be any questions regarding our comments.

Respectfully,

Dwight E. Sanders, Chief
Division of Environmental
Planning and Management

Cc: Paul D. Thayer, Executive Officer
Jack Rump, Chief Counsel
Matt Rodriquez, Office of the Attorney General
Tara Mueller, Office of the Attorney General
Katie Schulte Joung, State Clearinghouse

Responses to Comments of the State Lands Commission

RS 6-1, Dwight E. Sanders, State Lands Commission
As noted in this comment, the State Lands Commission received notice of the publication of the 2000 REIR/SEIS on October 10, 2000. This is the date that the 2000 REIR/SEIS was submitted to the State Clearinghouse, as required by Section 15205 of the State Clearinghouse. All requirements of Section 15087 regarding notice of publication of the 2000 REIR/SEIS were met:

- Notices were posted at the offices of the county clerks in each of the affected counties.
- Over 4,000 notices were distributed to the public.
- The 2000 REIR/SEIS was made available on the internet.
- The 2000 REIR/SEIS was made available for review at 27 separate locations, including many public libraries in the project area.
- Notices of availability and public meeting notices were published in several local newspapers in the project area.

In addition, State Lands Commission input was sought through the publication of two Notices of Preparation, prepared by EBMUD and distributed to responsible and trustee agencies, and the 1997 Draft EIR/EIS. No comments were received from the State Lands Commission as part of any of these processes. Section 15086 of the State CEQA Guidelines states that the "Lead Agency shall consult with and request comments on the draft EIR" from responsible and trustee agencies. The Notices of Preparation and the distribution of the 1997 Draft EIR/EIS and the 2000 REIR/SEIS to the State Lands Commission through the State Clearinghouse comprise full compliance with Sections 15087 and 15086 of the State CEQA Guidelines.

RS 6-2, Dwight E. Sanders, State Lands Commission
The discussion on page S-10 of the 2000 REIR/SEIS fully complies with Section 15126.6(e)(2) of the State CEQA Guidelines. An attempt was made to develop alternatives that would have reduced environmental impacts, as compared to other alternatives, while still achieving most of the project objectives. Although, as with most large-scale infrastructure projects, the no-action alternative clearly would result in fewer environmental impacts, as fully acknowledged throughout the document, none of the other alternatives is clearly environmentally superior, as noted on page S-10.

RS 6-3, Dwight E. Sanders, State Lands Commission
The 2000 REIR/SEIS does not incorporate by reference the 1997 Draft EIR/EIS pursuant to Section 15150 of the State CEQA Guidelines. Section 15088.5(c) of the State CEQA Guidelines states, in part, that when recirculating an EIR, "the lead agency need only recirculate the chapter or portions that have been modified." For purposes of the Supplemental Water Supply Project environmental documentation, the modifications are largely limited to the examination of additional alternatives using the same approaches and methodologies as used for the 1997 Draft EIR/EIS. Therefore, to reduce redundancy, the 1997 Draft EIR/EIS and its contents were not repeated verbatim in the 2000 REIR/SEIS but were instead summarized to provide appropriate information and context to the reviewer.

RS 6-4, Dwight E. Sanders, State Lands Commission
The City of Sacramento's expansion of its water facilities were contemplated and addressed in the 1997 Draft EIR/EIS in Chapter 18 in general and in particular on page 18-9. The City's expansion of its facilities has been contemplated throughout the Supplemental Water Supply Project analyses and is independent of the Supplemental Water Supply Project.

RS 6-5, Dwight E. Sanders, State Lands Commission
Implementation of Alternative 4 would require substantial negotiation and agreement with Sacramento area stakeholders before it could be implemented. However, the alternative is appropriate for inclusion in the 2000 REIR/SEIS, as it could meet some of the project objectives, and was so included at the specific request of Sacramento area interests.

RS 6-6, Dwight E. Sanders, State Lands Commission
The intake sites are located in the midst of highly developed areas of Sacramento and do not have unique power requirements. Numerous sources of power would be available, and use of these sources is not anticipated to result in any environmental effects.

RS 6-7, Dwight E. Sanders, State Lands Commission
The paragraphs in question discuss two different pipelines, and these pipelines may be of different sizes depending on final engineering requirements. In any case, the environmental impacts that may result from construction of large-diameter water conveyance pipelines would be identical, regardless of whether the pipeline were 66 inches in diameter or 70 inches in diameter.

RS 6-8, Dwight E. Sanders, State Lands Commission
The Hodge Decision flow requirements as a condition of EBMUD deliveries would be met at all times under Alternative 4.

RS 6-9, Dwight E. Sanders, State Lands Commission
Comment noted.

RS 6-10, Dwight E. Sanders, State Lands Commission
See response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document. No deferral of mitigation is contemplated. These discussions merely reflect the fact that many issues are likely to arise on a very site-specific basis during construction, and flexibility to address these issues must be built into the mitigation planning process. The commitments included in this section are extensive and are well beyond the measures that have been required or proposed for other major construction projects in the Sacramento area, including the Watt Avenue Bridge Widening Project and the City of Sacramento's Water Facilities Expansion Project.

RS 6-11, Dwight E. Sanders, State Lands Commission
See response to the "PROSIM Modeling" major issue in Chapter 3 of this document. See also Appendix B to this document.

RS 6-12, Dwight E. Sanders, State Lands Commission
CALFED is a large, complex, statewide planning effort that will be implemented over a period of many years. Most of the specific actions included in the CALFED program will require significant planning and site-specific environmental documentation. Therefore, the CALFED program has not been specifically included in modeling for the Supplemental Water Supply Project. Chapter 18 of the 1997 Draft EIR/EIS does discuss cumulative impacts, including CALFED actions. See also response to the "Relationship to CALFED major issue is Chapter 3 of this document.

RS 6-13, Dwight E. Sanders, State Lands Commission
The approach to hydrological modeling is fully described on page 3-1 of the 2000 REIR/SEIS. As indicated, for Alternatives 5-8, a PROSIM 99 model run of EBMUD-only operations with EBMUD deliveries at Node 16 was used to represent changes in system operations that could be expected. This approach has been reviewed and is an appropriate approach to hydrological modeling. Alternative 8 is analyzed with a similar degree of specificity and treated equally with Alternatives 5-7.

RS 6-14, Dwight E. Sanders, State Lands Commission
None of the alternatives would have any substantial effect on the location of X2. The average change in the location of X2 is essentially zero under all alternatives.

RS 6-15, Dwight E. Sanders, State Lands Commission
It is recognized that specific additional information would be required to obtain a discharge permit for a brine pipeline. This information cannot be developed unless and until this alternative is selected and detailed design information is available. The analysis in Chapter 4 of the 2000 REIR/SEIS is appropriate for purposes of CEQA and NEPA analysis at this stage of the project.

RS 6-16, Dwight E. Sanders, State Lands Commission
As noted in Chapter 7 of the 1997 Draft EIR/EIS, none of the alternatives would be expected to have any substantial impact on riparian vegetation. Therefore, no analysis of effects on fisheries habitat is warranted.

RS 6-17, Dwight E. Sanders, State Lands Commission
As stated in Chapter 7 of the 2000 REIR/SEIS, the mitigation measures are briefly summarized from the more detailed description included in Chapter 7 of the 1997 Draft EIR/EIS. In that document, Mitigation Measure 7-3a, the appropriate width of such a buffer can and should be established in the field taking into account site conditions, specific construction activities, and consultation with appropriate agencies. Similarly, in the 1997 Draft EIR/EIS, Mitigation Measure 7-3b provides detailed mitigation and performance criteria.

RS 6-18, Dwight E. Sanders, State Lands Commission
See response to Comments RS 6-15 and RS 6-17 above. The detailed mitigation measure descriptions in the 1997 Draft EIR/EIS, which were summarized and not repeated in full in the 2000 REIR/SEIS, provide substantive performance criteria and are appropriate measures under CEQA and NEPA.

RS 6-19, Dwight E. Sanders, State Lands Commission
The discussion referred to in this comment is appropriate because little specific information is available regarding specific proposed or potential future uses. In addition, there is substantial flexibility in locating project-related facilities. Through the environmental commitments listed in Chapter 2, EBMUD has already committed to working closely with affected agencies to minimize the potential for such conflicts. This impact is therefore less than significant.

RS 6-20, Dwight E. Sanders, State Lands Commission
Specific "quantitative benchmarks" are not required under either CEQA or NEPA. The fact that the worst-case estimates developed for the 2000 REIR/SEIS indicate that less than 0.01 percent of the total acreage of farmland would be affected clearly indicates that this impact should be considered less than significant.

RS 6-21, Dwight E. Sanders, State Lands Commission
The significance criteria used in the 2000 REIR/SEIS are identical to those listed on page 12-4 of the 1997 Draft EIR/EIS.

RS 6-22, Dwight E. Sanders, State Lands Commission
This comment confuses construction-related noise, which is not specifically regulated in Contra Costa County, with operation-related noise effects. The analysis and the conclusions are appropriate.

RS 6-23, Dwight E. Sanders, State Lands Commission
See responses to comments received on the 1997 Draft EIR/EIS in Chapters 4-11 of this final document.

RS 6-24, Dwight E. Sanders, State Lands Commission
The 2000 REIR/SEIS is a supplemental document and as such only contains new information related the additional alternatives

considered. Together, the 2000 REIR/SEIS and the 1997 Draft EIR/EIS comprise the complete draft EIR/EIS for the Supplemental Water Supply Project.

Chapter 16 (Continued)

Local Agencies

RL 1

STOCKTON EAST WATER DISTRICT

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GENERAL COUNSEL

October 31, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P.O. Box 24055
MS #305
Oakland, CA 94623-1055

Re: Proposed Supplemental Water Supply (SWS) Project Draft REIR/SEIS, dated October 2000

Dear Mr. Ladensack:

Thank you for providing the district with a copy of the above referenced document. This letter is intended to provide you with the district's comments on the October 2000 draft.

1. As noted in the January 29, 1998 letter from the district's legal counsel, Jeanne M. Zolezzi, the district believes the above project's environmental document must address how the project will comply with Water Code Section 11460. The above recirculated/supplemental draft continues to lack any discussion of the Water Code Section 11460 issue. RL1-1
2. The language in the second paragraph of Alternative 4 on page S-7 is concerning. Obviously, interested parties in Sacramento County and interested parties in San Joaquin County would consider approval of groundwater banking projects in their respective county. Neither county has the approval authority for such a project in another county. In San Joaquin County, a banking project that included the exporting of ground water would require a county groundwater export permit. RL1-2
3. Details on water sales of American River water need clarification. The district has been promised American River water since the resolution of Mokelumne River water rights. As this project proceeds the district is likely to either: (1) negotiate a water supply contract with the Bureau of Reclamation or, (2) file an application with the State Water Resources Control Board for a water right on the American River. At that point, the district would be interested in becoming a partner with EBMUD in the raw water transmission and treatment facilities planned as part of this project. RL1-3
4. The alignment of the raw water transmission pipeline does not appear to be the best choice for either a groundwater-banking project, or to meet the needs of this or other districts and municipalities as potential partners. The district understands that landowner opinions on a more north-south alignment led to the current alignment proposal. The district suggests that a more north-south alignment be reconsidered in order to encourage regional partnerships and benefit. RL1-4
5. A joint water treatment plant constructed to meet local needs as well as the needs of EBMUD would also encourage partnerships and result in mutual benefits. RL1-5

The district is grateful for the opportunity to comment on this document. Should you have any questions, please contact this office.

Sincerely,

Kevin M. Kauffman, P.E.
General Manager

Cc: Board of Directors
Legal Counsel
Gerald Schwartz, EBMUD

Local Agencies

Responses to Comments of Stockton East Water District (10/31/00)

RL 1-1, Kevin M. Kaufman, Stockton East Water District
See response to the "Area of Origin" major issue in Chapter 3 of this document.

RL 1-2, Kevin M. Kaufman, Stockton East Water District
Comment noted. Reclamation and EBMUD agree that San Joaquin County jurisdictions would have primary authority over any groundwater elements located in San Joaquin County.

RL 1-3, Kevin M. Kaufman, Stockton East Water District
The Hodge Decision precludes the sale of water by EBMUD to third parties. The construction of physical facilities may provide opportunities for regional benefits, but no such project has been identified at this time. Should such a project be proposed in the future, additional project-specific environmental documentation would be required at that time.

RL 1-4, Kevin M. Kaufman, Stockton East Water District
An alternative involving an extension of the Folsom South Canal was evaluated in the Alternatives Screening Report (Appendix B to the 1997 Draft EIR/EIS). While such an alternative was determined to be less costly, it was also determined that it would result in unacceptable environmental impacts including, incompatibility with surrounding land uses, greater property severance and property-related effects, public safety issues, impacts on wildlife, and increased water quality concerns. Based on that analysis, this conveyance alternative was not carried forward into the EIR/EIS process.

RL 1-5, Kevin M. Kaufman, Stockton East Water District
Should an alternative be selected that includes facilities within San Joaquin County, EBMUD and Reclamation would be amenable to exploring possible joint uses of such facilities. However, no such joint use project or facilities have been identified at this time, and the implementation of any joint project would require substantial definition and additional environmental documentation.

RL 2

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STOCKTON EAST WATER DISTRICT

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November 20, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P.O. Box 24055
MS #305
Oakland, CA 94623-1055 VIA FAX: (510) 287-1295

Re: Proposed Supplemental Water Supply (SWS) Project Draft REIR/SEIS, dated October 2000

Dear Mr. Ladensack:

In addition to our January 29, 1998 and October 31, 2000 letters, the district would like to acknowledge and support the point made by the North San Joaquin County Water Conservation District (NSJWCD) in their letter to you dated November 20,2000.

NSJWCD points out that, in proposing this project, EBMUD has the potential of committing a breach of its promise made to San Joaquin County in 1959. The district does not believe that this was EBMUD intention. If it were, the district and we believe the County and others would take issue with such a position.

RL2-1

The district is grateful for the opportunity to comment on this document. Should you have any questions, please contact this office.

Sincerely,

K. M. Kauffman

Kevin M. Kauffman, P.E.
General Manager

Cc: Board of Directors
Legal Counsel
Gerald Schwartz, EBMUD

Response to Comment of the Stockton East Water District (11/20/00)

RL 2-1, Kevin M. Kaufman, Stockton East Water District
See response to Comment RL12-1 in this document.

RL 3

AMADOR COUNTY COUNSEL

COUNTY ADMINISTRATION CENTER
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November 7, 2000

John B. Lampe
Director of Water and Natural Resources
East Bay Municipal Utility District
375 11th Street
Oakland, CA 94607-4240

Subject: Amador County's Comments on DREIR/DSEIR for EBMUD's Suupplemental Water Supply Project (SCH# 1996022035)

Dear John:

Amador County wishes to comment on the proposed Supplemental Water Supply Project and the DREIR/DSEIR.

We are enormously pleased with the Alternatives set forth in the DREIR/DSEIR because none has the Mokelumne River as a source of additional water for EBMUD's use. The Alternatives described in the document all involve EBMUD's use of American River water which leaves available for use in Amador County any Mokelumne River water not yet under license. The addition of new storage of American River water for use in EBMUD's service area is a beneficial concept which Amador County fully ratifies and supports. No one knows better than Amador County the terrible risks all local agencies face with growing water demand and shrinking surface storage opportunities. RL3-1

We feel assured that EBMUD will fully address in the DREIR/DSEIR the environmental issues attendant to the various alternatives for EBMUD's diversion, use, and storage of American River water. Thank you for giving Amador County the opportunity to comment. We look forward to reviewing the final REIR/SEIR.

Yours very truly,

John F. Hahn
County Counsel

JGH/jag

cc: Kurt Ladensack

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Response to Comments of the Amador County Counsel

RL 3-1, John F. Hahn, Amador County Counsel

The commenter's support for alternatives that make use of the American River is noted, as is the commenter's support for additional water storage.

RL 4

Board of Directors

Mark R. Emmerson
President

Paul Selsky
Director

Sanford B. Kozlen
Director

CARMICHAEL WATER DISTRICT

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General Manager

November 16, 2000

Mr. Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
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Oakland, CA 94623

Mr. Robert Schroeder
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, CA 95630

Dear Mr. Ladensack and Mr. Schroeder:

RE: Draft Recirculated EIR and Supplemental EIS for EBMUD Supplemental Water Supply Project

In March 1998, Carmichael Water District submitted comments on the East Bay Municipal Utility District Supplemental Water Supply Project Draft Environmental Impact Report, Environmental Impact Statement and appreciates the opportunity to comment on the new Draft REIR/SEIS.

Carmichael Water District is opposed to a project which would take delivery of American River Water at Nimbus, due to the impact of this diversion on water purveyors such as the Carmichael Water District that operate diversion and treatment facilities on the Lower American River.

RL4-1

Carmichael Water District has been a participant in the Sacramento Water Forum process since its inception several years ago. The Impact of a Nimbus Diversion on the Sacramento Water Forum Agreement was not addressed in the Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement. If EBMUD and Reclamation proceed with the Nimbus project, years of negotiation and compromise to achieve protection of the Lower American River by the stakeholders in this region would have to be revisited and diversion commitments of water purveyors renegotiated, which could unravel the entire agreement and result in significant environmental and economic impacts in this region.

Messrs. Ladensack & Schroeder
Draft REIR/SEIS, EBMUD
November 15, 2000
Page 2

Thank you for providing the opportunity to submit comments on the Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (Draft REIR/SEIS) for the East Bay Municipal Utility District and U.S. Bureau of Reclamation Proposed Supplemental Water Supply (SWS) Project, and for your consideration of these comments.

Very truly yours,

LaNell K. Little

LaNell K. Little
General Manager

Response to Comment of the Carmichael Water District

RL 4-1, LaNell K. Little, Carmichael Water District
The 1997 Draft EIR/EIS and the 2000 REIR/SEIS focus on the physical changes to the environment that could result from implementation of the project alternatives as required by CEQA and NEPA. It is not possible to predict the effect of the selection of Alternative 2 on an agreement or process such as the Water Forum effort. The final EIR for the Water Forum Proposal contains a new cumulative impact analysis that includes an EBMUD delivery at Nimbus. The final EIR concludes that cumulative impacts with an EBMUD delivery at Nimbus would not differ substantially from the impacts identified in the cumulative analysis in the draft EIR for the Water Forum Proposal.

RL 5

CENTRAL DELTA WATER AGENCY
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DIRECTORS
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Thomas M. Zuckerman

November 16, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P. O. Box 24055, MS #305
Oakland, CA 94623-1055

Re: Draft Recirculated Impact Report/Supplemental Environmental Impact Statement: Supplemental Water Supply Project, October 2000.

Dear Mr. Ladensack:

You will undoubtedly recall that the Central Delta Water Agency submitted comments on your earlier version of the impact report on this project which were critical, among other things, of the failure to include a direct diversion from the Delta in the vicinity of your present aqueduct alignment as one of the studied alternatives. We are pleased to see that you have included such an alternative (#8) in your current draft, but remain concerned over some aspects of your description of such an alternative, as well as important aspects of your proposal in general.

At pages S-3 and S-4 of the new report, the following statements appear:

"Despite successful water conservation and reclamation programs, EBMUD's Mokelumne River supply is no longer sufficient to provide reliable water supplies during severe drought conditions without resulting in substantial economic impacts on its customers". (Emphasis added); and

"Most of EBMUD's increased water needs projected over the next 20 years are for increased flows for senior water rights holders and for resource protection in the Mokelumne River and the San Francisco Bay/Sacramento-San Joaquin River Delta. Needs of new residential, business and industrial customers would be almost entirely offset in normal years by conservation and water reclamation projects."

A clearer way of making this same point would be to admit that EBMUD lacks sufficient rights on the Mokelumne River to meet downstream flow and quality conditions and still meet the needs of its customers, especially during periods of drought.

Therefore, EBMUD needs to find ways of diverting portions of its entitlements from the

RL5-1

Mokelumne River, as well as from the American River, well downstream from its current points of diversion at Pardee and Camanche Reservoirs to meet any portion of its resulting shortages which are not made up by conservation and water reclamation projects.

In our view, this need should not be looked at as just a "severe drought" problem, and therefore the water quality conditions at the Bixler location should not be restricted to drought conditions, and especially not to the conditions which occurred from September 1977 to January 1978 highlighted under the discussion of "Process Concerns" at pages 23 and 24 of Appendix B to the revised report. RL5-2

The Supplemental EIS does not adequately address potential diversion from the Delta at a location other than at Bixler. Contra Costa Water District has its Los Vaqueros diversion on Old River and during the 1976-77 drought EBMUD had an emergency diversion on Middle River. RL5-3

It must be kept in mind in reviewing the EBMUD proposal that EBMUD's desire to access pristine mountain stream water at all times, and especially during droughts, comes at the expense of "area of origin" needs and diminished flows in the Lower Mokelumne and the Delta itself, thereby often worsening environmental conditions and water quality conditions to the detriment of other instream uses and diverters in those areas. Many local users and communities (including the entire Central Delta Water Agency) as well as the customers of the Contra Costa Water District, the State Water Project, and the Federal Central Valley Project rely on diversions downstream from Camanche Dam and are able to meet their needs from that water supply, employing appropriate treatment where necessary. Actually, as we have pointed out previously, Contra Costa Water District is often able to supply better water quality water to its customers from its Delta diversions by using appropriate treatment than EBMUD does from its Pardee diversion. In all likelihood, EBMUD will need to modernize its water treatment facilities in due course to be able to meet current and projected drinking water standards thus reducing the financial and water quality impacts it currently assigns to having to deal with a Delta supply. RL5-4 RL5-5

For these and reasons previously submitted, we believe the Delta diversion to be the best of the Alternatives presented. Once correctly configured to be integrated into EBMUD's annual operations, it should become the Preferred Alternative. RL5-6

Yours very truly,

THOMAS M. ZUCKERMAN
Co-Counsel

Responses to Comments of the Central Delta Water Agency

RL 5-1, Thomas M. Zuckerman, Central Delta Water Agency
As noted on page 1-2 of the 1997 Draft EIR/EIS, EBMUD has water rights to divert a maximum of 325 million gallons per day (mgd) of water from the Mokelumne River to its service area. As noted in Table 1-2 of the 1997 Draft EIR/EIS, EBMUD's customer demand is expected to reach 277 mgd by 2020. EBMUD expects to meet approximately 50 mgd of this demand through conservation and reclamation measures. Therefore, EBMUD has sufficient water rights to meet all projected future customer demands. However, during dry years, runoff in the Mokelumne River system is insufficient to meet user demands, and the EBMUD supply must be drawn from reservoir supplies stored during previous years. Therefore, the Supplemental Water Supply Project has been proposed, in part, to help reduce customer deficiencies during such droughts.

RL 5-2, Thomas M. Zuckerman, Central Delta Water Agency
See response RL 5-1 above. EBMUD supplies are sufficient to meet all customer demands except during periods of drought or potential outages. The concerns noted on pages 23 and 24 of Appendix B to the REIR/SEIS are appropriate, because these are the conditions during which EBMUD would require supplemental water supplies.

RL 5-3, Thomas M. Zuckerman, Central Delta Water Agency
The REIR/SEIS adequately evaluates a Delta delivery alternative. Based on engineering analyses and public and agency scoping comments, the Bixler Delivery Alternative is a logical and reasonable alternative. An alternative that took delivery of water from another location in the Delta would likely result in similar concerns and impacts.

RL 5-4, Thomas M. Zuckerman, Central Delta Water Agency
See response to "Area of Origin" major issue in Chapter 3 of this document.

RL 5-5, Thomas M. Zuckerman, Central Delta Water Agency
See response to "Alternatives Considered" major issue in Chapter 3 of this document.

RL 5-6, Thomas M. Zuckerman, Central Delta Water Agency
The commenter's preference for a Delta delivery location is noted.

RL 6

CITY OF FOLSOM
50 Natoma Street
Folsom, California 95630

Public Works Department
Administration/Engineering

November 17, 2000

Mr. Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
P.O. Box 24055, MS #305
Oakland, CA 94623-1055

Mr. Robert Schroeder
US Bureau of Reclamation
Central California Area Office
7794 Folsom Dam road
Folsom, CA 95630

Subject: **DRAFT RECIRCULATED EIR/EIS SCH # 1996022035**

Dear Mr. Ladensack and Mr. Schroeder:

Thank you for the opportunity to respond to your Draft Recirculated EIR/EIS on the Supplemental Water Supply (SWS) Project.

The City of Folsom is greatly concerned with any project that may impact the Sacramento Area Water Forum Agreement. As you know, this collaborative effort involves water supply entities, business interest, environmental organizations, individuals and general governmental agencies. The six year effort has resulted in an agreed upon plan for protecting ecological values, addressing threats to groundwater and meeting water supply needs. The City of Folsom, along with all of the other involved water purveyors, have made concessions in order to reach this agreement; however, any EBMUD diversion was not factored into the agreement. The effects of an EBMUD diversion, which potentially can disrupt the Water Forum Agreement, is unacceptable. RL6-1

The selected alternative needs to take into account the Water Forum Agreement. Any potential impact to this Agreement must be addressed and mitigated. If American River water is to be the supply source, EBMUD should participate in the Water Forum, including development and approval of a Purveyor Specific Agreement just as other American River water purveyors have done.

Sincerely,

Gordon F. Tornberg
Water Engineer

Public Works (916) 355-7272 / Fax (916) 351-0525

Response to Comments of the City of Folsom, Public Works Department

RL 6-1, Gordon F. Tornberg, City of Folsom

The 1997 Draft EIR/EIS and the 2000 REIR/SEIS focus on the physical changes to the environment that could result from implementation of the project alternatives as required by CEQA and NEPA. It is not possible to predict the effect of the selection of Alternative 2 on an agreement or process such as the Water Forum effort. The final EIR for the Water Forum Proposal contains a new cumulative impact analysis that includes an EBMUD delivery at Nimbus. The final EIR concludes that cumulative impacts with an EBMUD delivery at Nimbus would not differ substantially from the impacts identified in the cumulative analysis in the draft EIR for the Water Forum Proposal. EBMUD attempted to participate in the Water Forum Process and attended numerous meetings. However, EBMUD was never invited to formally participate in that process.

RL 7

GALT IRRIGATION DISTRICT
POST OFFICE BOX 187
HERALD, CA 95638
(209)748-2324

DIRECTORS:
JOHN BRALY
MIKE BENEFICK
ROBERT LIEBIG
JOHN MULROONEY
LEO VANWARMERDAM
ADMINISTRATIVE OFFICER
WENDY SPARROWK

Mr. Kurt Ladensack
Water Supply Improvement Division
EBMUD MS #305
P.O. Box 24055
Oakland, CA 94623

November 17, 2000

Dear Mr. Ladensack,

On behalf of the Directors of Galt Irrigation District, I am submitting these comments for the record in response to the five newly developed alternatives for East Bay Municipal District (EBMUD) to utilize water for which they hold a legal right.

First, Galt Irrigation District supports EBMUD's right to utilize water for which they hold a legal right. We believe this matter needs to be resolved in a timely manner so as to not "take" their right to utilize the water for beneficial uses. Further delay infringes upon this right and such delays should be avoided. RL7-1

Second, Galt Irrigation District supports alternatives that allow for the use of the Folsom South Canal because of the potential benefit to the South County in a way that conserves agriculture and open space. However, any use of the canal should have minimal impact on existing farms and ranches. The potential for conjunctive use of water will have significant positive environmental effects for Sacramento County. RL7-2

Thank you for your consideration of our comments in this matter. Should you have any questions, please feel free to contact Wendy Sparrowk in our Office at 209-748-2324.

Sincerely,

Wendy Sparrowk

Wendy Sparrowk
Administrative Officer

cc: GID Directors
Denny Lewis

Responses to Comments of the Galt Irrigation District

RL 7-1, Wendy Sparrowk, Galt Irrigation District
The District's support of EBMUD's use of its contractual entitlement is noted.

RL 7-2, Wendy Sparrowk, Galt Irrigation District
The District's support for alternatives that use the Folsom South Canal and the potential for the conjunctive use of water is noted.

RL 8

Sacramento North Area Groundwater Management Authority

SNAGMA

Walt Pettit
General Manager
Anne Schneider
Legal Counsel

Arcade Water District
Carmichael Water District
Citrus Heights Water District
City of Citrus Heights
City of Folsom
City of Sacramento
Del Paso Manor Water District
Fair Oaks Water District
Sacramento County Water Agency
Northridge Water District
Orange Vale Water Co
Rio Linda/Elverta Community Water District
San Juan Water District
Southern California Water Co

SMWA

Leo Winternitz
Chairman
Ed Crouse
Vice Chairman
Walt Pettit
General Manager
Sandra Thomas
Administrative Assistant

Members

City of Folsom
Gordon Turnbery
City of Galt
Tony Gora
Arcade Water District
Leo H. Winternitz
Byron Buck
Carmichael Water Dist
Sunland Sanders
Paul Selsky
Citrus Heights Water Dist
Chuck Rose
Allen Dunn
Clay Water District
Gary Silva
Walter W. Trowbridge
Del Paso Manor Water Dist
Phillip Rappington
Frank Marques
ERC/Del Ela Grove Water Works
Michael Kenny
Fair Oaks Water District
Bruce Henz
Joe Alexander
Fulton County Water District
Rick Bedal
Donna W. Marsden
Gold Hill Water District
John Mahoney
John Irish
Northridge Water District
Roy Kuhn
Ron Berning
Orangevale Water Dist
Leanne Schneider
Robert Mahon
Rancho Murieta CSD
Ed Crouse
Don Mendonca
Rio Linda Elverta W.D.
Jay El Dayen
Robert Blomeland
San Juan Water District
Kenneth Miller
Lyle Hoag
Southern California Water Co
Fred Lemon
Craig Grant

5620 Birdcage Street • Suite 180 • Citrus Heights, CA • 95610-7632 • Phone (916) 967-7692 • Fax (916) 967-7322

Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
P.O. Box 24055, MS #305
Oakland, CA 94623-1055

Robert Schroeder
US Bureau of Reclamation
Central California Area office
7794 Folsom Dam Road
Folsom, CA 95630

Subject: Draft Recirculated EIR/EIS SCH #1996022035

Thank you for the opportunity to submit comments on the subject document.

We believe that you will receive extensive detailed comments from other entities and individuals in the American River Basin, which reflect the well known and generally agreed upon concerns of parties in this area. We will limit our comments to a few conceptual points.

The multi-year collaborative effort involving water supply entities, environmental groups, business interests, individuals and general government agencies (the Sacramento Water Forum) has resulted in an agreed upon plan for protecting ecological values, addressing threats to ground water and meeting water supply needs. All of the involved parties have made concessions in order to reach agreement, but the proposed EBMUD diversion has not been factored into that agreement. Any effects of an EBMUD diversion which potentially disrupt our agreement are unacceptable to area of origin interests. RL8-1

The existing EBMUD contract with USBR, and any amended contract, must be evaluated in light of the changes in the context in which the original contract was negotiated. That contract envisioned construction of Auburn Dam and the East Side Project. It is our understanding that there was never an assumption that the contract demand would be met with the Folsom Reservoir yield. For that reason, EBMUD "contract entitlements" must be viewed in the context of a major change in the situation in the past 30 plus years. There is no Auburn Dam, and the knowledge of paramount local needs has increased greatly. RL8-2

The Bureau of Reclamation operationsare the unquestioned dominant factor in the lower American River. The Bureau has a plethora of legitimate and often-competing needs to meet, and the location of Folsom makes it important on a statewide basis and critical to our plans to implement the Water Forum agreement. It seems apparent to us that the flexibility USBR would possess to meet all of the needs in an optimum manner would be enhanced if any EBMUD diversion occurred below the mouth of the American River. RL8-3

We commend the EBMUD objective of serving the highest quality water available to its customers. However, that objective must be balanced against the factors summarized above, i.e.

- The supply originally envisioned to meet the EBMUD demand was not developed
- Needs within the Basin have increased dramatically
- All of us are substantially dependent on USBR operations; those operations can more likely be optimized if the proposed EBMUD diversion does not occur between Nimbus and the mouth of the American River.

RL8-4

We are attaching a letter dated February 12, 1999 directed to Roger Patterson, former Regional Director of USBR. That letter was signed by members of the Boards and Managers of our two authorities, as well as other parties involved in our local efforts. Please include it with this letter in your file of comments on the draft EIR/EIS. RL8-5

Thank you again for the opportunity to comment.

Sincerely,

FOR

Leo Winternitz
Chair of SMWA

Chuck Rose
Chair of SNAGMA

Cc: SMWA Board and Managers
SNAGMA Board and Managers

February 12, 1999

U.S. Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Attn: Roger Patterson

Re: Draft BOR/EBMUD Water Service Contract

Dear Roger;

There are many regional concerns with the draft contract; some are general in nature while others are quite specific. We feel there should be no diversions from Nimbus, or elsewhere on the lower American River unless they have been approved as part of our regional collaborative process, as others have received approval for their increased diversions so should EBMUD. If this contract is not modified it could lay to waste all of the good work of our regional efforts.

There are no protections for existing water supplies in the Sacramento region. In fact the draft contract includes language which encourages EBMUD to take surplus water (section 215 water) when available; these are the only surface water supplies south Sacramento agriculture receives, when available! The groundwater basin is in overdraft and area purveyors need section 215 water for conjunctive use in the north area of the county rather than its being exported from the area of origin.

Area purveyors and others in this region are concerned that there are no area of origin protections in the draft contract. No water deliveries should be made to EBMUD at anytime if local supplies are not adequate or if those deliveries are adverse to the aquatic environment of the lower American River. It is highly appropriate that you specifically address those protections, not only for the people of our region, (population of approximately 1,123,000 served by 23 purveyors) but also for the instream needs of the fishery, (reference 1-7-99 USFWS letter to you).

The Sacramento region has spent millions of dollars and nearly six years of effort in reaching their action plan. The Bureau of Reclamation has been in nearly constant attendance and has actively participated in the process with us. We ask you to please seriously consider our concerns and include them in the revised draft contract.

Our main goal is to see EBMUD get their needed supplies through a regional agreement with the City and County of Sacramento in a way that will complement our regional collaborative process.

This letter is being submitted by the undersigned in anticipation that the Bureau of Reclamation (BOR) will, after reading our concerns, make significant changes to the subject draft contract and consider holding a public hearing on it.

Best regards,

Sacramento Metropolitan Water Authority

Sacramento Metropolitan Water Authority

5620 Birdcage Street
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California 95610-7632

(916) 967-5MWA (7692) Phone
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Chair, Sacramento County Board of Supervisors

Mayor, City of Folsom

Chairman, Sacramento Metropolitan Water Authority

President, Arcade Water District

General Manager, Carmichael WD

President, Citrus Heights Water District

Del Paso Manor Water District

Manager, Elk Grove Water Works

Environmental Council of Sacramento

General Manager, Florin County WD

Friends of the River

President, Galt Irrigation District

President, Natomas Central Mutual Water

President, Northridge Water District

President, Orange Vale Water Company

President, Rio Linda/Elverta CWD

Sacramento County Farm Bureau

Sacramento County Taxpayers League

President, San Juan Water District

Southern California Water Company

Save the American River Association

President Emeritus

Responses to Comments of the Sacramento North Area Groundwater Management Authority (SNAGMA)

RL 8-1, Leo Winternitz and Chuck Rose, SNAGMA
The 1997 Draft EIR/EIS and the 2000 REIR/SEIS focus on the physical changes to the environment that could result from implementation of the project alternatives as required by CEQA and NEPA. It is not possible to predict the effect of the selection of Alternative 2 on an agreement or process such as the Water Forum effort. The final EIR for the Water Forum Proposal contains a new cumulative impact analysis that includes an EBMUD delivery at Nimbus. The final EIR concludes that cumulative impacts with an EBMUD delivery at Nimbus would not differ substantially from the impacts identified in the cumulative analysis in the draft EIR for the Water Forum Proposal.

RL 8-2, Leo Winternitz and Chuck Rose, SNAGMA
The EBMUD/Reclamation water service contract is a valid entitlement to Central Valley Project (CVP) water with a specified turnout location on the Folsom South Canal near Grantline Road in the County of Sacramento.

RL 8-3, Leo Winternitz and Chuck Rose, SNAGMA
The 2000 REIR/SEIS fully evaluates four alternatives that would deliver water to EBMUD downstream of the lower American River and describes the environmental impacts associated with each alternative. None of the alternatives has been identified as being clearly superior to the others. Each alternative has impacts and benefits that must be weighed in making a decision on the Supplemental Water Supply Project.

RL 8-4, Leo Winternitz and Chuck Rose, SNAGMA
See responses to Comments RL 8-1 through RL 8-3 above.

RL 8-5, Leo Winternitz and Chuck Rose, SNAGMA
The attached letter has been reviewed and included in the project files.

RL 9

NEUMILLER & BEARDSLEE
A PROFESSIONAL CORPORATION • ATTORNEYS & COUNSELORS
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77045-27650

Thomas J. Shephard, Sr.

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November 17, 2000

Mr. Kurt Ladensack
Water Supply Improvements Division
EBMUD
Post Office Box 24055
Oakland, California 94623

Mr. Rob Schroeder
Environmental Specialist
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, California 95360

Re: Comments Relative to Proposed Supplemental Water Supply Project Draft REIR/SEIS dated October 2000

Gentlemen:

These comments are submitted on behalf of San Joaquin County and the San Joaquin County Flood Control and Water Conservation District, a County-wide District governed by the Board of Supervisors.

The draft REIR/SEIS retains many of the same inadequacies as the prior effort contained in the 1997 DEIR/EIS.

1. One of the most serious inadequacies of both the past and present effort is the issue of ignoring Water Code Section 11460. The Draft EIR/EIS notes that the District obtains its water rights from the American River exclusively by contract from the United States Bureau of Reclamation. The United States, in turn, holds water rights issued by the State Water Resources Control Board. San Joaquin County is clearly protected by the Watershed Protection law (California Water Code Section 11460) with regard to the American River, and particularly the water rights of the United States Bureau of Reclamation. Any discussion of water projects utilizing that American River water source must include an analysis of compliance with the Watershed Protection law. San Joaquin County concludes that the Draft REIR/SEIS is inadequate because it does not fully consider other reasonable alternatives to the Project and because it fails to address protection of the American

RL9-1

317381-1

River watershed and an area immediately adjacent thereto "which can conveniently be supplied with water therefrom" as required under both the Central Valley Project Improvement Act and the California Water Code. EBMUD is clearly an exporter from the protected basin.

The overdrafted condition of the Eastern San Joaquin County Groundwater Basiin ("Basin") has been documented repeatedly, including in the American River Investigation and the Mokelumne Aquifer Report. The continued failure of the United States and the State of California to deliver on plans and promises made over the years to provide American River Water to the Eastern San Joaquin County Area has created a serious groundwater overdraft in the Basin which today threatens the agricultural and urban economic viability of Eastern San Joaquin County. As just one example, the State of California in Decision 858 denied a permit to the North San Joaquin Water Conservation District for water to be stored at the Camanche site on the Mokelumne River in favor of the District. The denial was in part based on the fact that North San Joaquin would be supplied with water by the Folsom South Canal. The need and the overdraft condition have been well documented in the American River Investigation and the Mokelumne Aquifer Report, with which the United States and EBMUD are very familiar. We will not repeat that documentation but it must be considered.

Since the issue of Section 11460 was brought to the attention of the authors of the REIR/SEIS in 1997, and on many previous occasions, it would appear that the omission and resulting inadequacy of the REIR/SEIS is intentional. Whether intentional or not, it is a fundamental inadequacy.

2. The availability of American River Water is not adequately considered. Obviously there are interests in San Joaquin County who desire American River Water. Several districts in San Joaquin County have been promised American River Water since the Mokelumne Water rights decision of 1956. The County of San Joaquin has Application 29637 on file seeking the diversion to storage and direct diversion from the American River. Under the application, the County asserts its priority to the use of American River Water under Water Code Section 11460. If the County and/or its districts do not secure other suitable sources of water, the County will proceed with Application 29637 and assert its priority.

RL9-2

3. On page S-7 in the second paragraph of Alternative 4, a groundwater banking effort in Sacramento and San Joaquin counties is discussed which, in the view of San Joaquin County, may be a desirable solution. The same paragraph, however, states that such a plan would be subject to the approval of the "Sacramento Parties." The Sacramento Parties do not have authority in San Joaquin County, nor do the Sacramento Parties have approval authority over the use of American River

RL9-3

Mr. Kurt Ladensack
Mr. Rob Schroeder
November 17, 2000
Page 3

Water. The appropriate San Joaquin County Parties would have to approve a banking program in San Joaquin County. Finally, your attention is directed to the San Joaquin Groundwater Ordinance under which the exporting of groundwater would require an Export Permit.

4. The alternative alignments of the raw water transmission pipeline do not appear to be good choices. San Joaquin County and the various districts within Eastern San Joaquin County believe that a location closer to the route of the old proposed Folsom South Canal would better serve all parties and thus better allow for regional cooperation. We understand the issue of landowner concerns, but a better effort could and should be undertaken to address those concerns. RL9-4

5. There is no discussion of the possible joint use of the facilities EBMUD will be constructing into and through San Joaquin County. As just one example, there may be opportunities for the joint use of the water treatment plant being considered for construction in San Joaquin County. RL9-5

Very truly yours,

THOMAS J. SHEPHARD, SR.
Attorney at Law

TJS:glh
cc: Each Member of the Board of Supervisors
Each Member of the Advisory Water Commission
Manuel Lopez
Michael McGrew, Esq.

Responses to Comments of San Joaquin County and the San Joaquin County Flood Control and Water Conservation District

RL 9-1, Thomas J. Shephard, Sr., for San Joaquin Co. and San Joaquin County Flood Control and Water Conservation District
See response to the "Area of Origin" and "San Joaquin County Conjunctive Use" major issues in Chapter 3 of this document. In addition, as stated on page 18-1 of the 2000 REIR/SEIS, EBMUD is continually evaluating alternatives to increase available long-term storage and has expressed strong interest in a cooperative groundwater replenishment and conjunctive use project in San Joaquin County. However, despite significant efforts and expenditures by EBMUD, no such feasible project has been identified.

RL 9-2, Thomas J. Shephard, Sr., for San Joaquin Co. and San Joaquin County Flood Control and Water Conservation District
See "Area of Origin" major issue response in Chapter 3 of this document.

RL 9-3, Thomas J. Shephard, Sr., for San Joaquin Co. and San Joaquin County Flood Control and Water Conservation District
Comment noted. See also response to "San Joaquin County Conjunctive Use" major issue in Chapter 3 of this document.

RL 9-4, Thomas J. Shephard, Sr., for San Joaquin Co. and San Joaquin County Flood Control and Water Conservation District
An alternative involving an extension of the Folsom South Canal was evaluated in the Alternatives Screening Report (Appendix B to the 1997 Draft EIR/EIS). While such an alternative was determined to be less costly, it was also determined that it would result in unacceptable environmental impacts, including incompatibility with surrounding land uses, greater property severance and property-related effects, public safety issues, impacts on wildlife, and increased water quality concerns. Based on that analysis, this conveyance alternative was not carried forward into the EIR/EIS process.

RL 9-5, Thomas J. Shephard, Sr., for San Joaquin Co. and San Joaquin County Flood Control and Water Conservation District
Should an alternative be selected that includes facilities within San Joaquin County, EBMUD and Reclamation would be amenable to exploring possible joint uses of such facilities. However, no such joint use project or facilities have been identified at this time, and the implementation of any joint project would require substantial definition and additional environmental documentation.

RL10

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of the General Manager

November 17, 2000

Mr. Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
P.O. Box 24055
Oakland, California 94623

Mr. Rob Schroeder
Environmental Specialist
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, California 95630

Dear Messrs. Ladensack and Schroeder:

Draft Recirculated Environmental Impact Report/
Supplemental Environmental Impact Statement for the
East Bay Municipal Utility District Proposed Supplemental Water Supply Project

The Metropolitan Water District of Southern California (Metropolitan) has received the Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (REIR/SEIS), prepared by East Bay Municipal Utility District (EBMUD) and United States Bureau of Reclamation (USBR), for the proposed East Bay Municipal Utility District Supplemental Water Supply Project (Project). The Project would develop facilities to enable EBMUD to receive delivery of American River water under its Central Valley Project (CVP) contract with USBR.

Metropolitan is one of 29 agencies that have contracts with the Department of Water Resources (DWR) for State Water Project (SWP) water supplies. Metropolitan's contract is for 2.011 million acre-feet per year, or nearly half of the total contracted SWP supply. The SWP supply constitutes a significant portion of the supplies available to southern California. As a result, Metropolitan is interested in matters affecting the SWP, the Sacramento-San Joaquin Delta (Delta), and the tributaries to the Delta.

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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Messrs. Ladensack and Schroeder
Page 2
November 17, 2000

Metropolitan supports regional solutions and cooperative approaches to reducing the impacts of future water developments in the Bay-Delta watershed and supports the recently approved CALFED Bay-Delta Program as the appropriate mechanism for implementing such solutions. However the Draft REIR/SEIS fails to recognize the CALFED Program and is inconsistent with its approach to solving the long-standing problems in the Bay-Delta.

The CALFED Program represents years of environmental analysis that has concluded in the final selection of a comprehensive, long-term plan to solve the myriad problems in the Delta. The final approved plan, reflected in the Program's Record of Decision (ROD), identifies specific actions to be undertaken and a strategy for implementing these actions. The ROD also identifies complementary actions that the CALFED Agencies will pursue outside of the Program but which are completely consistent with the Program and its objectives.

The Supplemental Water Supply Project is neither included in the CALFED Program itself, nor is it identified as a complementary action that is consistent with the Program. To the contrary, the Supplemental Water Supply Project appears to be in direct conflict with at least two major elements of the CALFED Program:

1. Through-Delta Conveyance

   As Metropolitan noted in its March 19, 1998 letter (attached), USBR and EBMUD prematurely eliminated that alternative from its initial draft EIR/EIS. With this REIR/SEIS, USBR and EBMUD introduce Alternative 6, Freeport East Delivery, and Alternative 7, Freeport South Delivery, which divert water from the problem area studied extensively by the CALFED program. Proceeding independently without consideration or analysis of the synergies afforded by this major program is inconsistent with the CALFED Record of Decision, and State and Federal water policy goals for the Bay-Delta watershed. CALFED has developed a Through-Delta preferred alternative after considerable evaluation of how best to address the water quantity, quality, and reliability needs of a broad range of urban and agricultural water users while fostering the environment. The proposed EBMUD facility in the Delta can not be evaluated independently from the CALFED Through-Delta scheme as it may promote or inhibit accomplishment of the goals CALFED seeks to achieve with a Through-Delta conveyance alternative. RL10-1

2. Bay Area Blending and Exchange Project

   Identified as a 'Complementary Action' to the CALFED Program, the Record of Decision calls for the Bay Area water purveyors to "implement a project that enables Bay Area water districts to work cooperatively to address water quality and supply reliability concerns on a consensual basis." Such a project will minimize environmental impacts and maximize water quality benefits. Improving water quality and reliability are important to all urban water purveyors, including Metropolitan and other northern California urban water agencies. USBR

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Messrs. Ladensack and Schroeder
Page 3
November 17, 2000

and EBMUD must analyze the role their proposed project would play in the Bay Area Blending and Exchange project proposed by CALFED.

Because the CALFED Program represents the approved long-term plan for the Bay-Delta, the Supplemental Water Supply Project can not proceed independently from it. EBMUD and the USBR must evaluate the project in the context of the overall CALFED Program and its objectives and seek ways to integrate with the long-term Bay Delta solution.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental documentation on this project. If we can be of further assistance, please contact me at (213) 217-6242.

Very truly yours,

Laura J. Simonek

Laura J. Simonek
Principal Environmental Specialist

KAD/PJ/dtf
o\clustr10\mmshared\corres\EBMUD Recirculated DEIR/EIS.doc

Enclosure

Responses to Comments of the Metropolitan Water District of Southern California

RL 10-1, Laura J. Simonek, Metropolitan Water District of Southern California
See the response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL11

CONTRA COSTA WATER DISTRICT
1331 Concord Avenue
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Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122

November 20, 2000

Directors
Joseph L. Campbell
President
James Pratt
Vice President
Elizabeth R. Anello
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Noble O. Elcenko, D.C.
Walter J. Bishop
General Manager

Mr. Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
MS #305
P.O. Box 24055
Oakland, CA 94623

Mr. Robert Schroeder
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, CA 95630

Subject: CCWD's Comments on the October 2000 Draft SWSP REIR/SEIS

Dear Mr. Ladensack and Mr. Schroeder:

Contra Costa Water District (CCWD) appreciates the opportunity to comment on the October 2000 Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (REIR/SEIS) for the East Bay Municipal Utility District (EBMUD) Supplemental Water Supply Project (SWSP). The following comments are intended to supplement CCWD's extensive comments on the November 1997 Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) on March 19, 1998, which are hereby incorporated by reference.

All recent water projects that have been successful in California, such as Municipal Water District of Southern California's Diamond Valley Reservoir and CCWD's Los Vaqueros Reservoir, have sought and achieved solutions that provide net benefits to the environment and other water agencies and have reached consensus with affected stakeholders. In contrast, EBMUD is following a path of creating rather than resolving conflicts, and creating impacts rather than providing net environmental and water quality improvements, particularly in the Delta. EBMUD is attempting to implement an unnecessary and unjustified project that is based on further harming the Delta, instead of working to achieve a consensus solution that provides net benefits.

EBMUD asserts that the water quality of its supply cannot be degraded but assumes in the REIR/SEIS that degradation of water quality for Delta water users by up to 30 mg/L chlorides is acceptable and not significant. EBMUD purports to support the CALFED program and principles but rejects CALFED's goal of continuous improvement of water quality and instead proposes a single purpose project that only further degrades Delta water quality. EBMUD also asserts that it is not feasible to

RL11-1

modify EBMUD's water treatment plants to treat Sacramento or Delta water, even though other agencies are able to successfully treat Delta water and supply it to 20,000,000 people. In fact, EBMUD already has treatment plants fully capable of treating Delta water.

EBMUD apparently believes that it alone deserves a guaranteed water supply during droughts, including EBMUD's "design drought" which has never occurred and is significantly more severe than any drought experienced in California in the last 100 years. EBMUD expects to receive a guaranteed supply of high quality water during this unrealistically severe drought, even though all other CVP urban contractors would have significant degradation of water quality and be forced to impose severe rationing on their customers and prohibit landscape irrigation and CVP agricultural contractors would receive no irrigation supply at all. EBMUD's "design drought" and operating assumptions fails to meet reasonableness criteria under the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA).

RL11-2

EBMUD is also considering building its own private isolated facility around the Delta when the CALFED Bay-Delta Program member agencies have already decided through the CALFED Final EIS/EIR and August 28, 2000 Record of Decision that construction of an isolated facility around the Delta is not the least environmentally damaging alternative.

RL11-3

This REIR/SEIS is seriously flawed, both legally and logically, and does not justify the project for many reasons:

1. The environmental document fails to demonstrate a need for the project and fails to establish whether that need is met by any of the alternatives. EBMUD's no project alternative, for example, meets all of EBMUD's drought year water supply needs except for the third year of the "design drought" -- a drought that has not occurred in the past 100 years. EBMUD currently has an adequate supply from its Mokelumne facilities and Mokelumne water rights, and is pursuing water supply enhancement of its Mokelumne supply through purchase of PG&E hydroelectric facilities on the Mokelumne River and developing groundwater conjunctive use programs in the Bay Area. Surplus flows on the Mokelumne would provide similar yield to the American River. EBMUD has consistently shown in their Board of Directors agenda reports, water rights exhibits, and other public documents that surplus Mokelumne flow is available and is currently developing Mokelumne surplus projects that eliminate the need for American River water. The REIR/SEIS totally ignores these other projects.

RL11-4

2. EBMUD's project alternatives are incomplete because they either require new storage capacity or assume that the United States Bureau of Reclamation (Reclamation) will give EBMUD, and no other export contractor, a special CVP contract that guarantees water in critically dry years. The REIR/SEIS never presents any information that discloses whether the various alternatives, when combined with existing Mokelumne and local sources, actually meet the project need. Additional storage is needed to make this project work yet no storage is identified and analyzed and none of the environmental impacts of such storage are disclosed. EBMUD's current storage projects are ignored in the document; inclusion of such projects would certainly change the impact analysis and the final decision. By failing to

RL11-5

include storage components, EBMUD is improperly segmenting its supplemental water supply project, which is prohibited under CEQA and NEPA.

RL11-6

3. EBMUD is pursuing this project based on the premise that it cannot treat Delta water and will not accept raw water of lesser aesthetic quality during critically dry periods. EBMUD currently has treatment plants capable of treating Delta water, and has failed to include them in the analysis. EBMUD has failed to provide any valid drinking water quality arguments why the 11,000 acre-feet of average annual yield from the American River (using the value given on page 3-5 of the REIR/SEIS) could not be taken instead as a blend of Mokelumne and high quality Delta water. EBMUD is not prepared to avoid the significant impacts its demands will cause on the rest of California by taking steps, like the rest of the California water community, to eliminate or mitigate these impacts and provide net benefits by developing storage for wet period supplies.

RL11-7

4. The REIR/SEIS shows that EBMUD's alternatives would degrade water quality at CCWD's Delta intakes. The increases in salinity at CCWD's intakes would significantly impact CCWD's operations, and would reduce the benefits of CCWD's newly completed Los Vaqueros Reservoir. However, insufficient information is presented in the REIR/SEIS with respect to the timing of those impacts to enable CCWD to determine the impacts on CCWD's daily delivered water quality. Assumptions are used to hide the most significant impacts. The results are only presented as long-term average salinity changes and it is not possible for CCWD to determine how daily or weekly changes in salinity will affect CCWD's delivered water quality. The impacts of the project on CCWD must be fully disclosed and mitigation for those adverse impacts must be provided.

RL11-8

5. EBMUD's proposals that rely on exports from the Delta during periods of lowest flow in the Delta and its tributaries result in significant impacts to the environment, in particular fishery resources on the American River. These impacts are unacceptable because EBMUD already has an adequate water supply that is currently being supplemented through groundwater projects being developed in East Contra Costa County and the San Leandro Basin that store surplus Mokelumne flows during wet periods and have no significant environmental impacts. The annual yield of these projects initiated since the REIR/SEIS was prepared will exceed that reported for the American River.

RL11-9

6. EBMUD claims it needs an alternate supply in case of a catastrophe such as failure of the Mokelumne Aqueducts where they cross the Delta. None of the American or Sacramento River alternatives meet that need because they also are conveyed across the Delta through the Mokelumne Aqueducts. EBMUD claims it needs an alternate supply so it can take Pardee Reservoir (on the Mokelumne River) off line for repairs. However, in practice, dams are rarely taken out of service for maintenance. For example, Reclamation built the Shasta Temperature Control Device in two years on the upstream side of Shasta Dam using divers without having to take Shasta off line. During scheduled repairs, water could also be pumped out of Camanche Reservoir into the Mokelumne Aqueduct.

RL11-10

7. EBMUD assumes that expensive facilities are needed to pretreat American and Sacramento River water prior to the water being introduced into the Mokelumne Aqueducts. However, EBMUD already has two full treatment plants that could treat a blend of supplemental and Mokelumne water directly without the need for any new treatment facilities. EBMUD assumes a new expensive 100 MGD pumping plant would be needed at Bixler in the Delta even though EBMUD already has an unused 58 MGD pumping plant at that location. EBMUD's modeling results show that EBMUD only exceeds 25% rationing without the project in one year during EBMUD's 1922-1991 historical hydrological sequence. A new Bixler intake would only be needed once in 100 years, probably even less often.

RL11-11

8. EBMUD claims it wants to maintain a high-quality raw water supply even though its practice of adding free chlorine in the Mokelumne Aqueducts results in significantly higher disinfection byproduct concentrations in its delivered water (up to 140 μg/L total trihalomethanes in parts of its service area) than agencies treating Delta water. Portions of EBMUD's service area receive water from local runoff that requires a similar full treatment process to CCWD's treatment of Delta water.

No viable or justifiable alternatives have been presented to address EBMUD's actual supplemental water supply needs. The REIS/SEIS is inadequate and fails to meet the requirements of CEQA and NEPA. The REIR/SEIS must be revised to address the issues raised by CCWD in this and previous comment letters and then recirculated for public review and comment. CCWD remains committed to work with EBMUD and Reclamation to develop alternatives, such as storage of surplus Mokelumne water in an expanded Los Vaqueros Reservoir consistent with the CALFED Record of Decision.

If you have any questions regarding these comments, please contract me at (925) 688-8187.

Sincerely,

Richard A. Denton
Water Resources Manager

Attachments:
A. CCWD's Detailed Comments on the REIR/SEIS
B. Review of Drinking Water Quality Options in the REIR/SEIS
C. Impacts of Increased Delta Salinity on CCWD and Performance of Los Vaqueros Project
D. EBMUD's Deliveries to the Service Area under Each Alternative
E. Historical Unimpaired Mokelumne River Runoff
F. March 29, 2000 letter from Lester Snow to Dennis Diemer
G. CCWD's Operations and Facilities

cc: Lester Snow (Regional Director, USBR)
Dennis Diemer (General Manager, EBMUD)

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Attachment A

CCWD's Detailed Comments on the Inadequacy of the REIR/SEIS

The October 2000 REIR/SEIS is woefully inadequate and fails to meet the requirements of both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The fundamental failings of the REIR/SEIS include:

1) Failure to establish a valid, quantifiable purpose and need, and reasonable objectives of the project,
2) Failure of any of the proposed alternatives to meet the project purpose as described,
3) Failure to consider other feasible alternatives that would meet the defined purpose and need of the project with less environmental impact,
4) Segmentation of two project alternatives and the lack of project-level description for four project alternatives,
5) Failure to use significance criteria representative of significant impacts and resulting failure to disclose the true impacts of project descriptions, and
6) Failure to both present unbiased and practicable alternatives and to suggest adequate mitigation/minimization of the impacts resulting from each alternative.

As discussed below, the REIR/SEIS must be substantially revised to correct these failings and inadequacies and must be recirculated before it can be certified, a project can be approved, or any permits or contracts issued.

1. The REIR/SEIS fails to establish a valid, quantifiable Purpose and Need for the proposed project under CEQA and NEPA

1.1 Deficiencies during Drought

The REIR/SEIS states two project purposes: a supplemental drought management supply and an alternate supply for use during planned and unplanned outages of EBMUD's Mokelumne system facilities. Like the 1997 DEIR/EIS, the REIR/SEIS fails to establish, quantify and then demonstrate a purpose and need for the project. No substantial evidence is presented to support any need for the project.

One of the two needs stated in the REIR/SEIS (page S-2) is to supplement existing supplies which "*are insufficient to meet existing and future customer needs in droughts.*" However, the future customer needs are based on a drought scenario (a repeat of the 1976 and 1977 drought followed by a third year that is the average of the 1976 and 1977 drought conditions) that is unreasonably and unrealistically severe. As demonstrated in Appendix A of CCWD's March 1998 comments, this three-year "design drought" has a chance of occurrence of 1 in 1500.

RL11-12

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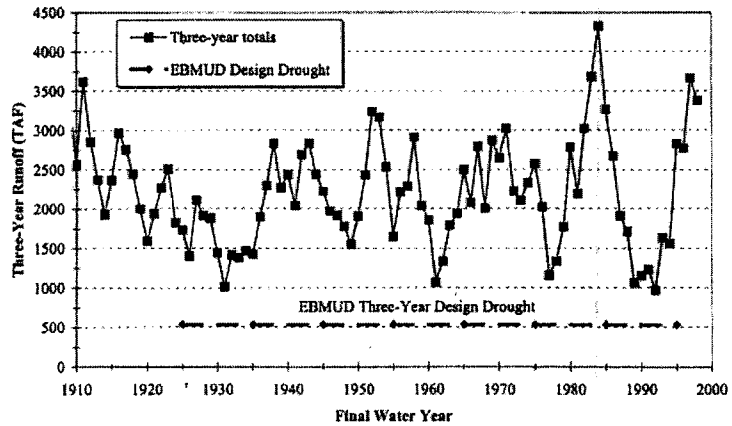
Figure 1: Three-Year Total Unimpaired Runoff



Data Source: CDEC Historical Monthly Unimpaired Runoffs - Mokelumne Hill

EBMUD's own projections indicate that additional water would only be needed under conditions that are much drier than the historical record of Mokelumne flows. EBMUD's artificial three-year design drought (1976, 1977 and an artificially dry 1978) assumed for the needs analysis is unreasonable and creates an artificial need for a supplemental water supply. Figure 1 shows the hydrology for the period of record as cumulative three-year flows. The driest three-year period during the historic record is almost twice the magnitude of EBMUD's three-year design drought (see Attachment A of CCWD's March 1998 comments).

EBMUD must clearly explain why it has chosen such an extremely low-probability event to justify its needs, when accepted water resources planning is to use a 1 in 100 or 1 in 200 probability for drought planning. In California, the usual practice is to model the historical sequence of hydrology beginning in 1922 which includes three major drought sequences 1928-1934, 1976-1977, and 1987-1992. This hydrologic record is used for planning studies by the Department of Water Resources for the State Water Project (SWP), Reclamation for the Central Valley Project, CALFED and the State Water Resources Control Board. The use of an artificially severe drought sequence is unprecedented and unjustified. Using a more realistic drought scenario will reduce or eliminate the need for this supplemental water supply project.

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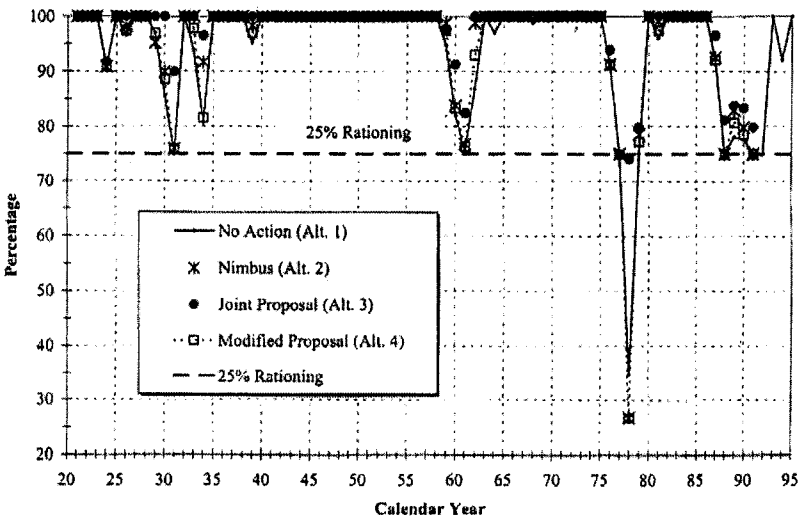
The REIR/SEIS also fails to make clear that the PROSIM 99 and EBMUDSIM modeling simulations for the Project assume an artificially dry 1978. The environmental documentation for this project must be revised to include an analysis of water supply needs using the actual historical 1978 hydrology, which was above normal for the Sacramento Basin and wet for the San Joaquin Basin, and recirculate the REIR/SEIS for public review.

Both the DEIR/EIS and REIR/SEIS fail to demonstrate a quantifiable need for the project. EBMUD refers to "manageable levels" of customer deficiencies during drought conditions (REIR/SEIS, page S-2). However, these levels are not defined. For this reason, it cannot be determined whether this is the amount of water that EBMUD will need to limit rationing to 25 percent of normal water demand levels during a drought. There is reference on page 1-10 of the October 1997 DEIR/EIS to EBMUD's Updated Water Supply Management Program (WSMP) which defined the Need for Water as the additional amount of water required during EBMUD's drought planning sequence to limit rationing to 25% of normal water demand levels at projected 2020 levels. Such a definition must be stated in the Need statement for the REIR/SEIS. As discussed above, EBMUD's drought planning sequence is not a realistic basis for defining a need for supplemental water supplies or establishing need.

Figure 2: Percentage of Maximum Annual Demand



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Without a quantified Need for the project, readers of the REIR/SEIS are unable to determine whether the alternatives actually meet the need for supplemental water. Additional comments on this subject are contained within CCWD's March 19, 1998 comment letter to EBMUD and Reclamation, which is hereby incorporated by reference.

1.2 Planned and Unplanned Outages

EBMUD asserts that the American River supply is necessary to allow EBMUD to take Pardee Reservoir, Dam, and tunnel out of service for inspection and maintenance in a wet year (REIR/SEIS, page S-2). However, EBMUD has not evaluated several feasible alternatives to allow this maintenance to occur without the construction of major facilities. For example, EBMUD could divert Mokelumne River water from Camanche Reservoir and pump it into the Mokelumne Aqueducts. During the repair period EBMUD could also rely on water previously stored in local reservoirs or diversions from the Delta, which could be supplied and treated by CCWD.

The most likely description of an "unplanned outage" in the state of California is an earthquake. Structures in delta peat soils are much more vulnerable to earthquake damage than a dam in the foothills of the Sierra, sitting on almost solid bedrock. None of the American River or Sacramento River alternatives meet EBMUD's water supply needs in an earthquake that causes the failure of the Mokelumne Aqueducts where they cross the Delta. Furthermore, EBMUD is completing a seismic upgrade on Mokelumne Aqueduct #3 which is designed to have the aqueduct operable within 6 months of an earthquake, with service originating from EBMUD's terminal reservoirs during that outage. RL11-13

The other example of an "unplanned outage" offered in the REIR/SEIS is that of a chemical spill into Pardee Reservoir. If Pardee Reservoir is indeed vulnerable to such an event, EBMUD should have an existing emergency response plan that could be used to determine how such a spill might be prevented, contained, cleaned up, or flushed through the system. The REIR/SEIS fails to disclose whether EBMUD has already investigated the best approach to handling such an unplanned outage, like the employment of preventative measures such as improvements to the conveyance (roads, rails) of such chemicals or education of the conveyors. These preventative measures are likely to be far less costly. It is also not clear if this is truly a foreseeable need, rather than a rare and extreme occurrence. Emergency interconnections between neighboring water agencies are one of the best alternatives for providing assistance to affected agencies during this type of extreme occurrence.

Only alternative 8, in which EBMUD exports water from the Delta at Bixler, appears to have the potential to meet this need.

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1.3 "Supplemental Supply"

The REIR/SEIS fails to establish that only a supplemental water supply will meet the project's defined needs. It does, on the other hand, acknowledge that EBMUD has ample water rights on the Mokelumne River (325 MGD), ample capacity to delivery this water to its service area (326 MGD with pumping), and ample ability to treat such "*high quality*" water. What is clearly missing is enough storage to fully utilize the flows available on the Mokelumne. Neither the REIR/SEIS, the 1997 DEIR/EIS, nor the 1993 WSMP EIR produce any evidence to the contrary. Additionally, the American River alternatives, as described, do not meet the needs identified by Reclamation as justification for contracting with EBMUD. That needs analysis established a need only in dry years. Two of the American River alternatives (Alternatives 2 and 4) contained within the REIR/SEIS are wet year direct diversion projects and do not meet EBMUD's identified need.

RL11-14

The REIR/SEIS is inadequate because it only presents simulation data representing EBMUD's annual exports from the American River. No information is given regarding EBMUD's specific demands within the EBMUD service area or whether those demands are met by the different alternatives and from which sources. No information regarding EBMUD's exports from the Mokelumne River, from terminal reservoir storage, or from groundwater storage to the delivery within EBMUD's service area are presented. The REIR/SEIS alternatives that only allow wet year diversions consistent with the Hodge Decision (Alternatives 2 and 4) clearly will require additional storage so that the American River exports are available for use by EBMUD in drier years. It might be possible for EBMUD to take American River water in wetter years in lieu of Mokelumne River supplies, thereby increasing the water available in storage in Pardee and Camanche Reservoirs. However, the REIR/SEIS fails to disclose any information regarding EBMUD's Mokelumne and service area operations under the alternatives or if such operations would be possible or successful. Such information must be provided in subsequent environmental documentation.

Simulation data for Pardee, Camanche and Terminal Reservoir operations obtained by CCWD from EBMUD (November 14, 2000 email from John Skinner to Richard Denton) indicate that diversions from Nimbus in wetter periods result in no long term effect on existing EBMUD system storage volumes and do not help provide supplemental water supplies in drier periods. Additional storage is clearly needed to make EBMUD's wet year export alternatives work.

The REIR/SEIS must be revised to include a detailed analysis and description of EBMUD's Mokelumne and service area operations and an analysis of EBMUD's ability to meet valid supplemental water supply needs. If storage is indeed required by these alternatives to meet the defined project needs, details of such storage elements must be described and evaluated at the project level. To do otherwise (such as in the REIR/SEIS) is to "piecemeal" or segment the project, which is illegal under NEPA and CEQA. A revised REIR/SEIS, which includes full project-level descriptions and analyses of the storage components that enable these alternatives to meet EBMUD's needs must be prepared and recirculated for public review and comment. Until a new revised document is finalized, EBMUD cannot legally choose any of these wet year

RL11-15

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diversion alternatives or obtain the necessary permits to build it. Similarly, Reclamation cannot legally amend EBMUD's CVP contract based on incomplete NEPA and Endangered Species Act compliance.

1.4 The REIR/SEIS Stated Purpose/Objectives Preclude Feasible Alternatives

By defining such narrow goals as "*secure an alternative supply*" and "*use American River contract*," EBMUD has artificially precluded feasible alternatives that meet any reasonable need it may have. EBMUD's September 1997 Alternatives Screening Report used three key criteria for screening alternatives (Page 4-1 of Appendix B of the November 1997 DEIR/EIS):

1. An alternative must allow EBMUD to take delivery of its contracted maximum 150,000 AF per year of American River water consistent with the Hodge Decision.
2. An alternative must allow EBMUD to maintain both its raw and treated water supply while minimizing health risk certainties for EBMUD customers, consistent with state and federal law and EBMUD's Policy 81[1].
3. An alternative must increase system reliability by providing a reliable alternative source of supply to EBMUD's Mokelumne River supply in the case of a catastrophic event or scheduled major maintenance at Pardee Reservoir.

RL11-16

Key criterion #1 is not a valid criterion for analyzing and disclosing environmental impacts of EBMUD supplemental water supply project. EBMUD must also consider less environmentally damaging alternatives that do not involve exports by EBMUD of American River water. These alternatives would include alternatives that combine new storage and EBMUD's existing supply, or that have an "export" location for the CVP contract that is further downstream, similar to other CVP in-basin and export contractors.

1.5 Inappropriate and Incomplete Reliance on WSMP Precludes Feasible Alternatives

Both the DEIR/EIS and REIR/SEIS rely on findings from the EBMUD's 1993 Updated Water Supply Management Program (WSMP) EIR for discussion of demand management through conservation and reclamation (pages 1-7 through 1-10), which in turn forms the basis for the need for a supplemental water supply project. The DEIR/EIS and the REIR/SEIS also rely on the Updated WSMP EIR for development of the hypothetical design drought, another important element used to quantify need for the project.

However, in adopting the Updated WSMP EIR, the EBMUD Board of Directors resolved that the Updated WSMP EIR could not be used to provide environmental documentation for a project on the American River. The Board's October 26, 1993 Findings regarding the WSMP contain the statement (page 33) that:

RL11-17

[1] EBMUD Policy 81 (adopted through EBMUD Resolution 3039-97, dated April 22, 1997) outlines the policy of EBMUD regarding delivering water from the best available source in preference to reliance on additional treatment.

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"Nothing in these findings is meant to preclude the District's participation in a joint groundwater/conjunctive use project with agencies in San Joaquin County involving the District's American River contract and the Board would be willing to consider such a project, provided that: (1) the CEQA review of any such project would begin *de novo* as no joint project involving the use of the District's American River contract was reviewed adequately in this EIR to satisfy the need for a program-level alternatives analysis of such a project; (2) all diversion of water from the American River by such a joint project would be subject to the physical solution of the Hodge decision; ....."

The DEIR/EIS and the REIR/SEIS discuss other aspects of EBMUD's 1993 Board of Director's Findings but do not acknowledge the Findings with respect to a supplemental water supply project from the American River. Although this Finding could be interpreted as only applying to a joint groundwater/conjunctive use project, if the WSMP analysis of American River diversions is inadequate for a joint project, it may also be inadequate for an American River diversion only project.

Furthermore, the WSMP EIR discusses a reservoir storage component that includes Los Vaqueros Reservoir (page 1-12) and raising Pardee Reservoir (pages 8-5 and 8-6). The WSMP EIR states that raising EBMUD's existing Pardee Dam presents an opportunity for increased storage with far fewer environmental impacts than would occur from development of the same amount of storage at a new site. The Los Vaqueros alternative, studied as a joint project with CCWD, was not pursued because of its environmental impacts, higher costs, potential health risks associated with drinking Delta water, and incompatibility of CCWD and EBMUD implementation schedules (WSMP EIR, page 1-2). CCWD has since completed the $450 million Los Vaqueros Project and now provides high quality drinking water from the Delta to its customers using Los Vaqueros Reservoir. Similar changes in the conditions regarding other WSMP project alternatives have occurred since 1993, and all WSMP project alternatives should be reevaluated as the baseline for this project (since the needs as described are identical). RL11-18

Similarly, significant changes have occurred in the Bay-Delta regulations and conditions since the completion of EBMUD's 1997 Alternatives Screening Report, e.g., completion of the CVPIA Final Programmatic EIS (PEIS), completion of the CALFED Bay-Delta Program Record of Decision (ROD) and adoption of SWRCB Decision 1641.

Of particular significance is the determination by the CALFED agencies, including Reclamation, in the CALFED ROD, to seek through-Delta and regional solutions and to reject solutions involving any isolated facility. EBMUD has failed to take this CALFED decision into account and continues to propose its own isolated facility.

EBMUD's timing criterion in the 1997 Alternatives Screening Report (page 4-8 of Appendix B), i.e., "*An alternative must be capable of being feasibly implemented by 2001*", is also no longer valid. RL11-19

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1.6 Implied Purpose of Project

The REIR/SEIS on page S-3 states, "*Most of EBMUD's increased water needs projected over the next 20 years are for increased flows for senior water rights holders and for resource protection in the Mokelumne River and the San Francisco Bay/Sacramento-San Joaquin River Delta. Needs of new residential, business, and industrial customers would be almost entirely offset in normal years by conservation and water reclamation projects.*" If the purpose of the project is to find additional water and fish flows for the Mokelumne system, EBMUD must consider alternatives that seek solutions within the Mokelumne River and not divert their impacts to other water basins such as the already heavily impacted American River or to other Bay-Delta water users. RL11-20

Another purpose of the project, which is not fully disclosed, is third-party sales of CVP water (REIR/SEIS page 2-2). These are expressly forbidden by the Hodge Decision. The implications and effect of the Hodge Decision on such alternatives must be fully disclosed within a recirculated REIR/SEIS. The REIR/SEIS must definitively state whether or not third-party sales will occur, and disclose any impacts of such sales to the areas where the water is sold.

2. The REIR/SEIS is Inadequate Because it Fails to Consider Other Feasible Alternatives That Could Meet Project Purpose and Need

The REIR/SEIS does not analyze all the feasible alternatives identified in EBMUD's WSMP EIR. EBMUD's Updated WSMP EIR proposed groundwater storage/conjunctive use in San Joaquin County near Lodi, (page 1-11) and reservoir storage at Los Vaqueros Reservoir (page 1-12) and Pardee Reservoir (pages 8-5 and 8-6) as well as other sources of supply to allow selection of the least environmentally damaging alternative. The preferred alternative was groundwater storage with conjunctive use of Mokelumne River water (page 26, EBMUD Board of Director's Findings regarding the Updated WSMP, October 26, 1993). The preferred alternative did not include the use of American River water.

One of an EIR's major functions is to ensure that public agencies thoroughly assess all reasonable alternatives to proposed projects. Consequently, an EIR must describe a range of reasonable alternatives to the project or project location, and must evaluate the comparative merits of the alternatives. The discussion of alternatives must focus on alternatives capable of eliminating significant environmental impacts, or reducing them to a less-than-significant level, even if the alternatives are more costly or would impede attainment of project objectives. If an EIR concludes that no feasible alternatives to a proposed project exist, the EIR must also discuss the rejected alternatives and the reasons for their rejection in sufficient detail to allow meaningful public review. Reasonable alternatives to the project location as well as to the project must also be discussed. RL11-21

NEPA provides more rigorous requirements regarding the evaluation of project alternatives, deeming the alternatives analysis as the "heart" of an EIS. The analysis must "ensure that each

agency decision maker has before him and takes into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit analysis." The range of alternatives to be analyzed "includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them." An EIS must "devote substantial treatment to each alternative considered in detail that reviewers may evaluate their comparative merits."

All alternatives that related to the CALFED-Bay Delta Program were eliminated in the 1997 Screening Report due to the timing of the program. EBMUD's timing criterion in the 1997 Alternatives Screening Report (page 4-8 of Appendix B of the DEIR/EIS) stated: "*An alternative must be capable of being feasibly implemented by 2001.*" Because of delays in this project, CALFED's alternatives are even more feasible than before. In a March 29, 2000 letter, Reclamation Director Lester Snow encouraged EBMUD General Manager Dennis Diemer to seek a Bay-Delta Regional solution (Attachment F). These alternatives are programmatically covered by the 2000 CALFED Final Programmatic EIR/EIS and Record of Decision and are defined at the same level of detail as Alternatives 5 through 8 in the REIR/SEIS. EBMUD's own planning efforts, in the WSMP EIR, subsequent WSMP Action Plans, Board Workshops, the 1997 DEIR/EIS and the REIR/SEIS have revealed several other feasible, stand-alone alternatives which are not presented in the REIR/SEIS. The selection of only those alternatives diverting from the American River, Sacramento River, and the Delta for analysis in the REIR/SEIS is arbitrary and *a priori*, without justification, and fails to meet CEQA and NEPA requirements on the scope of alternatives. Several feasible alternatives are presented here, and should be evaluated in a recirculated REIR/SEIS.

2.1 Mokelumne Alternative - Enlarged Los Vaqueros

The CALFED Bay-Delta Program August 28, 2000 Record of Decision includes an expansion of Los Vaqueros Reservoir by up to 400,000 acre-feet as one of the preferred alternative actions. This proposed expansion of Los Vaqueros Reservoir provides an ideal opportunity for EBMUD and Reclamation (a CALFED member agency) to meet both EBMUD and CALFED's goals. An expanded Los Vaqueros reservoir could provide storage for surplus Mokelumne River flow and high quality Delta water during wet periods when there would be no significant environmental impacts. This would eliminate the need to seek additional dry period diversions from the American River, Sacramento River or Delta when the risk of environmental impacts would be greatest. In fact, an enlarged Los Vaqueros Reservoir would allow EBMUD to provide net environmental benefits by reducing diversions from the Bay-Delta system during drier periods and to enhance CALFED's goal of ecosystem restoration. RL11-22

A key advantage of this alternative is that EBMUD's drought supply would be stored west of the Delta and would not be vulnerable to loss of conveyance capacity if the Mokelumne Aqueducts crossing of the Delta were to fail during an earthquake or other emergency. Note that any additional American or Sacramento River supplies would also be vulnerable to interruption of

the Mokelumne Aqueducts where the Aqueducts cross the Delta. This alternative therefore also satisfies Key Criterion #3 of the 1997 Screening Report.

Maintaining the right blend of high quality Delta water (from EBMUD's CVP supply) and Mokelumne water in Los Vaqueros Reservoir would also allow EBMUD to maintain both its raw and treated water supply while minimizing health risk certainties for EBMUD customers, consistent with state and federal law and EBMUD's Policy 81 (Key Criterion #2). For example, the stored blend of Delta water (< 30 mg/L chlorides) and Mokelumne water (2 mg/L chlorides) could result in a stored water concentration of 15-20 mg/L chlorides. If the stored water were then blended with EBMUD's Mokelumne Aqueduct supply during drier periods, the resulting blend could have a chloride concentration as low as 5-8 mg/L.

An additional benefit of this project is the existing facilities and permits (a state of the art fish exclusionary device at the intake which can be expanded, CCWD outright ownership of the watershed lands, and biological opinions for all related listed species, as well as the development of an East Contra Costa County Habitat Conservation Plan). Mitigation measures for the initial construction of the Los Vaqueros Reservoir could be used to determine measures for an additional environmental impacts.

2.2 Mokelumne/CVP Contract Alternative – Bay Area Blending Project (CALFED)

The CALFED Record of Decision (page 69) calls for a Bay Area Blending/Exchange Project that proposes the construction of interconnections between urban water agencies in the Bay Area to improve the water quality for those agencies currently dependent of Delta supply. This regional blending project also provides an ideal opportunity for EBMUD and Reclamation (a CALFED member agency) to meet both EBMUD and CALFED's goals.

The Bay Area Blending/Exchange project would enable Bay Area water districts to work cooperatively to address water quality and supply reliability concerns on a consensual basis. This "umbrella" project will evaluate a range of potential changes to existing infrastructure and institutional arrangements to encourage a regional approach to water supply operations. Conveyance interconnections would enable water suppliers to take advantage of different sources when water quality is highest. These interconnections would also be more effective if used in conjunction with an expanded Los Vaqueros Reservoir (CALFED ROD, page 69). RL11-23

For example, EBMUD's Mokelumne Aqueducts bisect CCWD's service area as they transport water from the Mokelumne River to EBMUD's service area. EBMUD could convey surplus Mokelumne water from Pardee reservoir (or high quality CVP contract water during Delta surplus conditions) for storage in Los Vaqueros reservoir. Low salinity Mokelumne water (2 mg/L Cl) would reduce the salinity of the water stored in Los Vaqueros reservoir (currently about 20 to 30 mg/L Cl). This, in turn, would provide EBMUD with high quality water to blend with Mokelumne supplies in drier years as well as reducing the amount of blending water that CCWD would need to release later to blend with the higher Delta chloride concentrations (to enable CCWD to achieve its 65 mg/L delivered Cl goal) and maintain higher storage levels in

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Los Vaqueros. This would also enhance CCWD and EBMUD's ability to provide net environmental benefits by allowing CCWD to cease diversions from the Delta during environmentally sensitive months.

Interim CALFED Projects of this type should be fully explored in the REIR/SEIS to enable EBMUD to become a more direct participant in the CALFED Bay-Delta process and to meet project needs in an environmentally-friendly way. Some benefits described in the Expanded Los Vaqueros alternative apply to this alternative as well.

2.3 Mokelumne Alternative - Raising Pardee Dam

Alternatively, EBMUD could meet its needs by proceeding with its previously proposed expansion of Pardee Reservoir. On March 25, 1997, EBMUD staff presented a new downstream concept for expanding Pardee Reservoir at an EBMUD Board Workshop. EBMUD staff described in detail how expansion of Pardee meets all of EBMUD's Water Supply Management Program goals, has reduced environmental impacts, is cost effective, has unique benefits, and could be an EBMUD-only or joint project. EBMUD staff proposed a new dam that would be about 1 mile downstream and increase the storage capacity of Pardee Reservoir from 198,000 acre-feet to 371,000 acre-feet. The maximum water surface level would increase from 570 feet to 614 feet. The new dam would have a replacement powerhouse with 20 - 30 MW capacity which could generate 85 GWh revenue per year. The present value of the new dam and powerhouse at that time was estimated to be $215 million - which included a saving of $12 million on the cost of repairing the existing Pardee Dam spillway. EBMUD staff described the unique benefits of raising Pardee, including improved reservoir water temperature, reduced aqueduct pumping costs and upgrading of Pardee Dam to current dam seismic standards. RL11-24

The 1997 DEIR/EIS on page 1-13 describes how the 1995 EBMUD Updated WSMP Action Plan calls for initiation "*of project level studies for raising Pardee Dam to provide additional storage to meet EBMUD's need for additional water, while simultaneously evaluating creation of Middle Bar and Duck Creek reservoirs as possible alternatives to expanding Pardee reservoir.*" However, despite the benefits of such a project, it was not analyzed in either the DEIR/EIS or the REIR/SEIS.

Because raising Pardee would involve only EBMUD's Mokelumne supply, EBMUD could maintain both its raw and treated water supply without any health risk for EBMUD customers (Key Criterion #2). Constructing a new Pardee Dam downstream would eliminate the need for scheduled major maintenance at Pardee Reservoir (Key Criterion #3). The additional storage capacity in Pardee Reservoir would allow EBMUD to keep its terminal reservoirs full to provide a more reliable emergency source of supply in the case of a catastrophic event (also Key Criterion #3).

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2.4 Mokelumne Alternative – Conjunctive Use/Storage

The REIR/SEIS should consider Mokelumne River conjunctive use as a feasible and less environmentally damaging alternative. The Updated WSMP EIR discusses a groundwater storage/conjunctive use program in Volume I, Chapter 7, pages 7-18 through 7-20. As stated in the Updated WSMP EIR, such a program would consist of storing Mokelumne River water in the underground basins of San Joaquin County in years when excess surface water supplies are available, for use during dry years when surface water supply is reduced. In 1993 the EBMUD Board of Directors found that groundwater conditions in areas of San Joaquin near the Mokelumne River are very favorable for development of a groundwater storage/conjunctive use program, with a potential water supply yield during dry years in the range of 50 to 70 TAF annually (page 22). It was the intent of the EBMUD Board that such a groundwater storage/conjunctive use program be operational by the year 2002 (page 46). Although this alternative was part of the preferred alternative in the Updated WSMP EIR, it was not discussed at a project-level in the REIR/SEIS, but at a programmatic-level declaring it "*would be designed to... fully meet EBMUD's dry year need for water, as described in the 1997 Draft EIR/EIS, independently...*" (REIR/SEIS page 18-4) RL11-25

A diversion from the lower Mokelumne would provide better water quality than a lower American River diversion and would cause fewer environmental impacts. Capital costs for facilities would be reduced, since a shorter pipeline could deliver the water to the Mokelumne Aqueduct. The REIR/SEIS is inadequate because it fails to analyze, in sufficient project-level detail, opportunities for groundwater banking in San Joaquin County and Sacramento County, as directed in the 1993 WSMP Action Plan. The REIS/SEIS must be revised to include a detailed analysis of groundwater banking in San Joaquin County and Sacramento County, and a revised Draft REIR/SEIS recirculated for public review and comment.

EBMUD has recently approved several studies of conjunctive use of groundwater in the Bay Area, e.g., the Bayside Groundwater Project in San Leandro and the Diablo Water District Groundwater Injection/Extraction Test Project near Oakley. Groundwater projects like these will contribute to and possibly meet the defined project needs. EBMUD appears to be actively pursuing groundwater storage of Mokelumne water within its service area (expecting to release an EIR in Spring 2001) yet there is little discussion of these storage projects in the REIR/SEIS. As these projects may significantly offset or even meet the project's needs, they must also be analyzed as part of the supplemental water supply EIR/EIS. The REIR/SEIS must be revised to include a detailed analysis of the groundwater banking in the Bay Area as a feasible alternative and recirculated for public review and comment.

2.5 PG&E Divestiture of the Mokelumne Hydroelectric Facilities

Another recent development that must be analyzed in a revised REIR/SEIS is the divestiture by PG&E of its Mokelumne Hydroelectric Facilities. PG&E owns and operates 18 dams/diversions and 4 powerhouses just upstream of Pardee Reservoir. EBMUD is an intervenor in the divestiture proceedings and is pursuing acquisition (through legislation) of these facilities. RL11-26

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EBMUD can protect, and potentially enhance, its Mokelumne water supply through acquisition and reoperation of these facilities. This opportunity for EBMUD to meet the project needs and purpose must be included as a reasonable alternative for this project.

2.6 Delta Diversions under EBMUD's Existing CVP Contract Conditions

Alternative 8 in the REIR/SEIS involves exports from the Delta by EBMUD at Bixler under conditions laid out in the proposed amendments to EBMUD's existing CVP contract, i.e., EBMUD claims that it would be entitled to export "*up to a total of 133,000 acre-feet of CVP water in any year in which EBMUD's March 1 forecast of its October 1 total system storage, as revised monthly through May 1, is less than 500,000 acre-feet.*" Under the proposed amendatory contract, EBMUD exports "*shall not exceed a total of 165,000 acre-feet in any consecutive 3-year period that EBMUD's total system storage forecast remains below 500,000 acre-feet.*"

Why such parameters are assumed for Delta pumping at Bixler is not stated. Restricting Bixler operations in the same way as American River exports increases the environmental impacts of this alternative. Pumping during periods of high runoff rather than during drought periods will significantly reduce environmental impacts and improve the quality of water exported from the Delta by EBMUD.

RL11-27

The REIR/SEIS is inadequate because it fails to include a Delta alternative under which EBMUD operates a Delta intake subject to the water availability conditions in EBMUD's current CVP contract (but with a Delta rather than Nimbus point of diversion). This would enable EBMUD to export water periods of high Delta outflow and high water quality (20th percentile water quality concentrations rather than 90th percentile quality). It would also make the project more consistent with CALFED's goals and objectives.

CCWD made a similar comment in its March 1998 comment letter on the DEIR/EIS. The Delta diversion could be used in wet and normal years to produce a blend of Mokelumne and Delta water that preserves storage in EBMUD's existing reservoirs. This alternative would be greatly improved through additional Bay Area storage. A Delta alternative that focuses on wet-period pumping would significantly reduce the environmental impacts of the Delta alternative analyzed in the REIR/SEIS. The REIS/SEIS must be revised to include this Delta wet-period diversion alternative and recirculated for public review and comment.

2.7 Reoperation of Existing Mokelumne and Terminal Reservoir System

Reoperation of the existing Mokelumne River system should also be evaluated as an alternative. The REIR/SEIS presents no evidence as to whether operational changes could improve the efficiency of the system in preparation for a drought. For example, moving water from the 60,000 acre-foot Briones reservoir into the terminal reservoirs might increase terminal storage at a critical time. Installation of an intake at Camanche Reservoir, which would enable EBMUD to use its existing water rights at Camanche during a drought, may also prove a feasible alternative.

RL11-28

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Such alternatives require little or no new infrastructure and may prove to be very effective solutions for meeting EBMUD's needs.

2.8 Alternatives Discarded During Screening of the WSMP Need to Be Revisited

RL11-29

Other alternatives discarded during the screening for the WSMP must be revisited, reexamined for changed circumstances, and disclosed in the REIR/SEIS. Alternatives such as expanding a terminal reservoir or building a new terminal reservoir may be more feasible, with changing patterns of development and the public's desire for open space. Such an alternative would serve the project needs and be considerably less expensive.

Table 1: Summary of Benefits in Proposed Feasible Alternatives

Mokelumne Alternative – Enlarged Los Vaqueros

- Meets drought needs and invulnerable to Mokelumne Aqueduct failure in Delta
- Net environmental benefits
- Regional Bay-Delta solution
- Potential for "Mokelumne" quality water storage and delivery
- Programmatic CEQA/NEPA coverage in CALFED FEIR/EIS and ROD

Mokelumne/CVP Contract Alternative – Bay Area Blending Project (CALFED)

- Meets drought needs and invulnerable to Mokelumne Aqueduct failure in Delta
- Net environmental benefits
- Regional Bay-Delta solution
- Minimal impacts on water quality through blending strategies
- Programmatic CEQA/NEPA coverage in CALFED FEIR/EIS and ROD

RL11-30

Mokelumne Alternative –Raising/Enlarging Pardee Dam

- Meets drought needs
- New dam would eliminating need for seismic upgrade activities
- Maintains "Mokelumne" water quality standards
- Potential as a Regional Bay-Delta solution
- Programmatic CEQA coverage in WSMP FEIR
- Preliminary engineering studies and environmental surveys complete

Mokelumne Alternative – Conjunctive Use/Storage

- Meets drought needs
- Could use surplus "high quality" Mokelumne water supply
- Less environmentally damaging than alternatives proposed in REIR/SEIS
- Programmatic CEQA coverage, preferred alternative in WSMP FEIR

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Table 1: Summary of Benefits in Proposed Feasible Alternatives (continued)

Mokelumne Alternative - PG&E Divestiture of Mokelumne Hydroelectric Facilities

- Protects quality of Mokelumne water supply and watershed lands
- Option is currently being pursued by EBMUD
- Increased storage opportunities from 18 dams/diversion upstream of Pardee Reservoir

Mokelumne Alternative - Reoperation of Existing System

- Operational changes may improve existing water supply system during outages
- Requires no environmental documentation or permits
- Has no environmental impacts

Mokelumne Alternative - Alternatives Discarded by WSMP Screening

- Changed circumstances may result in fewer/less environmental-impacts
- May not require NEPA compliance
- Potential to maintain "Mokelumne standards" water quality

3. The Alternatives Described in the REIR/SEIS Do Not Fulfill the Project Purpose and Need

CCWD is very concerned that EBMUD may have already made an internal decision to select one of the American River alternatives (Alternative 2, 3, or 4) and has completed a substantial amount of predesign work for its American River project. According to CEQA, environmental review must occur as early as feasible in the planning process to enable environmental considerations to influence project program and design. EBMUD's apparent commitment to an American River alternative should not be at the exclusion of more practicable and less environmentally damaging alternatives. RL11-31

The REIR/SEIS fails to disclose the quantitative interaction between the existing EBMUD system and the proposed alternatives. The water supply benefits to EBMUD should be disclosed for each alternative, including monthly yield from the Mokelumne system and monthly storage in EBMUD reservoirs. This information is required to: (1) assess the ability of the project alternatives and the existing system to meet EBMUD's service area demands during drought periods, and (2) to evaluate the environmental impacts of operational assumptions within the alternatives, since operations of the alternatives depend on demand and storage conditions within the EBMUD system. The following comments are based on CCWD's evaluation of the REIR/SEIS and the limited information and inadequate disclosure in the REIR/SEIS. RL11-32

3.1 Insufficient Description of Project Alternatives

The 1997 DEIR/EIS devoted 15 pages to the each description of Alternatives 2 and 3. The REIR/SEIS devotes 13 pages to the description of Alternative 4, yet only 5 pages to describe Alternative 5, and 3 pages to describe Alternatives 6 and 7 and 8. The REIR/SEIS is inadequate RL11-33

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because it provides insufficient project-level detail regarding alternatives that do not include exports from the American River. Alternatives 2 and 4 are incomplete segments of projects because they require a storage element to be a complete "project" as defined by CEQA and NEPA. Alternative 3 as described in the 1997 DEIR/EIS is unlikely to be a valid alternative, as it requires the participation and concurrence of the City and County of Sacramento who no longer support the alternative. Alternatives 5, 6, 7, and 8 appear to have been hastily prepared and only give general, programmatic descriptions of project alternatives – they lack the level of detail given to Alternatives 2, 3 and 4. The REIR/SEIS must be revised to provide adequate level of detail for all project alternatives and recirculated for public review and comment.

3.2 The Assumption in the REIR/SEIS of a Guaranteed Supply of CVP Water During Severe Droughts s in the REIR/SEIS is Unreasonable

Alternatives 3, 5, 6, 7, and 8 in the REIR/SEIS assume that Reclamation will grant EBMUD a guaranteed supply of high quality CVP water during very severe droughts at a time when water use for other Californians will be reduced to basic human sanitary and health needs. Under these severe drought conditions, the rest of California will have to abandon landscaping and crops, focusing only on the survival of trees and vines, will have to reduce its industrial production due to poor quality supplies, and will be restricted to limited showering, washing and toilet flushing. Water quality in the Delta would be degraded. RL11-34

EBMUD's assumption is unreasonable. During an extraordinary drought such as EBMUD's "design drought" (the only period when EBMUD would be required to impose more than 25% rationing in the No Action case), all Californians would need to "share the pain" of the limited water supply. The REIR/SEIS must be revised to address a reasonable purpose and need under CEQA and NEPA representing EBMUD's reasonable water supply needs, if any, during droughts that can reasonably be expected to occur and a revised REIR/SEIS recirculated for public review and comment.

3.3 The REIR/SEIS Alternatives are Inconsistent with State and Federal Objectives

Many significant changes have happened since the adoption of the 1993 Updated WSMP EIR. On December 15, 1994, state and federal agencies and Bay-Delta stakeholders, including California Governor Pete Wilson and the US Secretary of the Interior Bruce Babbitt, signed the "Principles for Agreement of Bay-Delta standards between the State of California and the Federal Government." The Principles for Agreement formed the basis for the Water Quality Control Plan adopted by the California State Water Resources Control Board (SWRCB) in May 1995, which made significant changes to the way the Delta is operated. On December 29, 1999, the State Water Resources Control Board adopted Water Rights Decision 1641 which implemented most of the provisions of the 1995 Water Quality Control Plan. RL11-35

On August 28, 2000, the CALFED Bay-Delta Program agencies adopted a Record of Decision (ROD) that defines the CALFED preferred alternative. This preferred alternative consists of a number of ecosystem restoration, water supply reliability, water quality projects, and actions that RL11-36

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have significantly changed the existing and future conditions under which the purpose and need and environmental impacts of the October 2000 REIR/SEIS alternatives should be assessed.

CEQA and NEPA require that the REIR/SEIS examine the cumulative and other impacts of the REIR/SEIS alternatives in conjunction with the CALFED Program. The REIR/SEIS fails to do so. CALFED has developed a long-term solution for the Delta that includes elements of ecosystem restoration and improved water transfer through the Delta. As discussed above, EBMUD's American River alternatives (Alternatives 2, 3, and 4) and Sacramento River alternatives (Alternatives 5, 6, and 7) are not compatible with the CALFED alternatives and are not be compatible with CALFED's preferred modified through-Delta alternative (CALFED ROD, pages 27 through 29).

EBMUD's American River and Sacramento River alternatives call for the isolated conveyance of a significant quantity of water around the Delta, depleting the Delta of water that might otherwise be available to provide fisheries, water quality and other benefits, as well as an adequate supply for in-Delta water users. The efforts of the Central Valley Project Improvement Act (CVPIA) and CALFED cannot succeed unless instream flows are maintained at levels adequate for fishery restoration. In contrast to the rest of California, EBMUD is proposing to implement traditional project alternatives that develop new sources of water at the expense of fisheries and the environment.

The REIR/SEIS must be revised to examine the cumulative and other impacts of the REIR/SEIS alternatives in conjunction with the CALFED Program and to incorporate alternatives that are compatible with the CALFED alternatives and CALFED's through-Delta conveyance approach. The revised REIR/SEIS must be recirculated for public review and comment.

3.4 The REIR/SEIS Segments Project Alternatives and None of the Alternatives Meet Project Needs

CCWD appreciates the inclusion of additional alternatives in the REIR/SEIS. CCWD's March 1998 comment letter specifically noted that the 1997 Draft EIR/EIS was inadequate because it failed to consider Sacramento and Delta export alternatives. However, CCWD also requested that the recirculated environmental document also consider alternatives that more fully utilize surplus flow on the Mokelumne River during wetter years. The REIR/SEIS segments the project alternatives because the impacts of groundwater storage projects currently being considered by EBMUD to meet its drought water needs are not disclosed in the REIR/SEIS. These groundwater conjunctive use projects in Sacramento County, San Joaquin County, East Contra Costa County and Alameda County near San Leandro must be analyzed and their environmental impacts and their impacts on EBMUD water quality described in a recirculated REIR/SEIS. Many of the alternatives considered in the REIR/SEIS will require additional surface or groundwater storage but no project-specific environmental analysis of these pieces of the project are presented in the REIR/SEIS. RL11-37

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Because of these and other failings, none of the alternatives in the REIR/SEIS meet EBMUD's purported need for additional water supplied in dry years.

Summary of Defects in REIR/SEIS Alternatives

Alternative 1: No Action

- Fails to meet EBMUD's 25% maximum rationing goal in one out of 70 years, i.e., the artificial severely-dry year 1978

Alternative 2: Nimbus Diversion (wet period – Hodge restrictions apply)

- Segmented (lacks project-level storage component needed to meet drought needs)
- Vulnerable to unplanned outage due to Mokelumne Aqueduct disruption
- Strong local opposition

Alternative 3: Joint Project (dry period - amended CVP contract)

- Requires CVP to give EBMUD special guaranteed drought water supply
- Significant adverse impacts (easily avoided by shifting to wet year pumping and adding storage)
- Vulnerable to unplanned outage due to Mokelumne Aqueduct disruption
- Lacks local support

Alternative 4: Modified Proposal (wet period – Hodge restrictions apply) RL11-38

- Segmented (lacks project-level storage component needed to meet drought needs)
- Vulnerable to unplanned outage due to Mokelumne Aqueduct disruption
- Contrary to Hodge Decision language forbidding third-party sales
- Significant water losses if conjunctive use project pursued

Alternative 5: Sacramento at Sacramento (dry period - amended CVP contract)

- Insufficient project description in current REIR/SEIS
- Requires CVP to give EBMUD special guaranteed drought water supply
- Significant adverse impacts (easily avoided by shifting to wet year pumping and adding storage)
- Vulnerable to unplanned catastrophic outage of Mokelumne Aqueducts

Alternative 6: Sacramento at Freeport to FSC (dry period - amended CVP contract)

- Insufficient project description in current REIR/SEIS
- Requires CVP to give EBMUD special guaranteed drought water supply
- Significant adverse impacts (easily avoided by shifting to wet year pumping and adding storage)
- Vulnerable to unplanned catastrophic outage of Mokelumne Aqueducts

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Summary of Defects in REIR/SEIS Alternatives (continued)

Alternative 7: Sacramento at Freeport to South (dry period - amended CVP contract)

- Insufficient project description in current REIR/SEIS
- Requires CVP to give EBMUD special guaranteed drought water supply
- Significant adverse impacts (easily avoided by shifting to wet year pumping and adding storage)
- Vulnerable to unplanned catastrophic outage of Mokelumne Aqueducts

Alternative 8: Delta at Bixler (dry period - amended CVP contract)

- Insufficient project description in current REIR/SEIS
- Requires CVP to give EBMUD special guaranteed drought water supply
- Significant adverse impacts (easily avoided by shifting to wet year pumping and adding storage)

3.4.1 Nimbus Alternative

Alternative 2, the Folsom South Canal Connection, will not provide sufficient water to EBMUD to meet its needs during a prolonged drought, especially during EBMUD's three-year planning design drought. The analysis of this alternative is deficient because it assumes that water will be diverted whenever the Hodge flows are met - typically wetter years - but does not identify where that water will be stored for use in drought years. A definitive storage element must be identified and evaluated at a project-level detail (similar to the supply and conveyance elements) in order to fully disclose the true impacts of the entire project. Without such an analysis, Reclamation and US Army Corps of Engineers will not be able to comply with the Endangered Species Act, or approve the project, and Reclamation cannot finalize or approve amendments to EBMUD's existing CVP contract. This alternative, as described and analyzed in the REIR/SEIS, does not meet EBMUD's supplemental water supply needs. RL11-39

3.4.2 Joint Proposal Alternative

Alternative 3, Joint Water Supply, focuses all the water diversions from the American River on dry periods. The DEIR/EIS showed that EBMUD's needs during EBMUD's three-year design drought could only be met by taking up to half of the remaining flow in the lower American River. The "full-use scenario" for the proposed new intake on the American River at the Interstate-5 crossing opens the door to significant, but inadequately analyzed and mitigated impacts during all years. The City and County of Sacramento have determined that they do not wish to participate in a joint water supply project (REIR/SEIS, page S-7). RL11-40

This alternative also assumes, without legal findings or final contract amendments, that water can be exported by EBMUD from the lower American River in violation of the Hodge Decision flow requirements and under a CVP contract amendment that gives EBMUD a special guaranteed

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drought year supply. This alternative, as described and analyzed in the REIR/SEIS, does not meet EBMUD's supplemental water supply needs.

3.4.3 Modified Proposal Alternative

Alternative 4, EBMUD-Only Lower American River Delivery (Modified Proposal), involves groundwater banking, which is still subject to the Sacramento Parties' review. No details or project-level environmental impact analysis of this groundwater conjunctive use project have been disclosed in the REIR/SEIS. At this time it is not known whether this alternative is feasible since several elements are subject to further negotiation between EBMUD and the Sacramento Parties (REIR/SEIS, page 2-3). Studies have not been done on the existing groundwater quality at potential banking sites in Sacramento and San Joaquin Counties. Salts, pesticides, hydrocarbons, heavy metals, etc. may be present in the existing groundwater and could contaminate the American River water injected into the groundwater aquifer. In addition, it is not known whether sufficient water could be extracted during a dry year or if land is available for spreading and percolation. The impact of a 2:1 or 3:1 "put to take" ratio on the amount of water diverted from the American River is also unknown. The delivered water qualities and quantities are unknown. Finally, Alternative 4 would require an amendment of the Hodge Decision in order to bank and then sell American River water diverted by EBMUD to third parties as part of the conjunctive use program. RL11-41

The REIR/SEIS is inadequate because a definitive storage element has not been identified and evaluated at a project-level detail (similar to the supply and conveyance elements) in order to fully disclose the full impacts of the entire project. Without such an analysis, Reclamation or US Army Corps of Engineers will not be able to comply with the Endangered Species Act, or approve the project and Reclamation cannot finalize or approve amendments to EBMUD's existing CVP contract. This alternative, as described and analyzed in the REIR/SEIS, does not meet EBMUD's supplemental water supply needs.

3.4.4 Sacramento River Alternatives

Alternatives 5 through 7 - Sacramento River exports - in the REIR/SEIS are not described or evaluated to the same level of detail as alternatives 1, 2 and 3 in the 1997 DEIR/EIS or the new alternative 4 in the REIR/SEIS. Whereas the description of alternative 3 discloses precise alignments, precise acreage of disturbed vernal pools, and jurisdiction of right of ways, the description of alternative 7 is a vague alignment following a highway and a superficial ground investigation for vernal pools at the wrong time of year or from large scale aerial photographs (REIR/SEIS page 7-1). The level of effort between these alternatives is clearly not equivalent. In fact, the level of detail for alternatives 5 through 7 and the Delta alternative 8, in particular the localized effects of construction, are so vague it is impossible to critically review them. Because there is no preferred alternative, each of the alternatives must be fully described and thoroughly evaluated as if each one were the preferred alternative. RL11-42

Another serious problem with the analysis of the Sacramento River alternatives and the Delta alternative is that EBMUD has not carried out a full PROSIM-99 simulation of EBMUD exports from the Sacramento River but has instead used results from a PROSIM-99 simulation of EBMUD-only diversions of up to 155 cfs (100 MGD) at PROSIM Node 16. This is a significant error. The REIR/SEIS on page 3-7 states: "*Because the downstream delivery locations for Alternatives 5, 6, 7 and 8 are simulated at PROSIM Node 16 on the American River, rather than on the Sacramento River or in the Delta, these simulated effects on Folsom storage may be high.*" It also follows that the impacts on Shasta and Oroville storage and other Sacramento River environmental impacts are underestimated because of the failure of EBMUD to fully simulate EBMUD's Sacramento and Delta exports.

The use of Node 16 to "represent" Sacramento and Delta export impacts also introduces another critical error in that diversions from Node 16 are treated in PROSIM as in-basin uses whereas EBMUD is exporting water out of the Sacramento-San Joaquin Delta in all the alternatives. This affects the Coordinated Operations Agreement between the Federal and State water projects and introduces additional errors into the impact analysis. Because EBMUD is a CVP exporter, Reclamation alone should be responsible for meeting those Sacramento or Delta demands through releases from CVP reservoirs or from the CVP share of surplus flow. The REIR/SEIS fails to properly account for the location (Sacramento or American River) and type of diversion (in-basin or export) for these alternatives which introduces errors into the PROSIM-99 simulations and results in inaccurate and inadequate disclosure of environmental impacts. The REIR/SEIS must be revised to correct these errors and inadequacies and recirculated for public comment and review.

Like the Joint Proposal Alternative (alternative 3), this alternative assumes, without final contract amendments, that water can be exported by EBMUD from the lower American River under a CVP contract amendment that gives EBMUD a special guaranteed drought year supply. Without an accurate impact analysis, Reclamation or US Army Corps of Engineers will not be able to comply with the Endangered Species Act, or approve the project and Reclamation cannot finalize or approve amendments to EBMUD's existing CVP contract. The Sacramento alternatives, as described and analyzed in the REIR/SEIS, do not meet EBMUD's supplemental water supply needs.

4. Water Quality Significance Criteria in the REIR/SEIS Fail to Comply with Mandates of Both CEQA and NEPA

RL11-43

The REIR/SEIS assumes a significance criterion threshold so large that it mocks the mandate of full disclosure of environmental impacts under both CEQA and NEPA. The REIR/SEIS environmental analysis is based on water quality significance criteria that allow increases in chloride concentrations at CCWD's drinking water intakes of up to 30 mg/L, i.e., a 20% increase relative to the existing Rock Slough municipal and industrial water quality standard of 150 mg/L chloride concentration. In fact, this REIR/SEIS significance criterion for water quality would allow

mean monthly chloride increases of up to 30 mg/L for more than one month each (i.e., 10% of the time). The increase on a daily basis could be even larger.

It is totally unacceptable for EBMUD to propose that a 30 mg/L degradation of the Delta water supply for over 20 million Californians is not significant. The change, EBMUD is proposing is almost half as much as CCWD's delivered chloride goal of 65 mg/L. In other words, EBMUD is claiming that, after investing in the $450 million Los Vaqueros Project, CCWD's customers should instead accept a delivered chloride concentration of 95 mg/L. At the same time, the REIR/SEIS claims that any degradation of EBMUD's existing supply (currently averaging 2 - 4 mg/L chlorides) is unacceptable.

The 30 mg/L significance criterion also conflicts with CALFED's goal of continuous improvement in water quality and CALFED's long-term water quality goal for users of Delta water of 50 µg/L bromide concentration (approximately 20 mg/L chloride).

The 30 mg/L chloride threshold determination of "significance" is unfounded and does not comply with the standard of significance required under either NEPA or CEQA. Such an increase would have severe impacts on Los Vaqueros Reservoir, either by reducing the amount of high quality water CCWD can store for blending, or by increasing the amount of reservoir water released to blend with CCWD's direct diversions from the Delta. The 430,000 customers in CCWD's service area did not invest $450 million in CCWD's Los Vaqueros Project to allow other projects to degrade CCWD's water supply or to mitigate the adverse impacts of those other projects.

The continued use of this unacceptable significance criterion is unresponsive to previous CCWD comments and fails to disclose the real environmental impacts of the project alternatives. For the Los Vaqueros Project EIR/EIS, CCWD used and continues to recommend a significance criteria of 5% (as a change from existing conditions) or a change of 5 mg/L chloride, which ever is larger, when evaluating the water quality impacts to Delta users. The 150 mg/L and 250 mg/L standards at Rock Slough are values which the State Water Project and Central Valley Project must operate to achieve, per SWRCB Decision 1641. They do not, however, ensure sufficient source water quality for Delta water users to be able to meet future drinking water regulations, and should not be used to determine water quality significance criteria.

Increases in bromide and chloride concentrations at Delta intakes resulting from any of the REIR/SEIS alternatives could have significant adverse impacts on CCWD by increasing the production of bromate, trihalomethanes, haloacetic acids, and other disinfection by-products during the water treatment process, thereby increasing public health risk. CEQA Guidelines §15065(d) mandates a finding of significance if a proposed project will cause substantial adverse effects on human beings, either directly or indirectly. The REIR/SEIS must mitigate this significant impact. The REIR/SEIS also fails to meet CEQA and NEPA requirements because it fails to provide a meaningful and reliable disclosure, in good faith, of project impacts on disinfection by-products and public health.

The REIR/SEIS fails to identify the adverse impacts of the proposed project alternatives on CCWD and fails to propose adequate mitigation measures. The REIR/SEIS must be revised and recirculated for public review and comment.

5. The REIR/SEIS fails to provide an Adequate Analysis of Water Quality Impacts

5.1 Daily Variation in CCWD's Operations are not Captured by Monthly Means

CCWD operates on a daily basis, not a monthly basis. Even small increases in daily or monthly Delta chlorides have enormous impacts on whether Los Vaqueros Reservoir can be used (see Attachment C for a detailed discussion of the impacts of chloride changes on CCWD's operations). The salinity-outflow relationship used in the REIR/SEIS provides an indication of the effects of seawater intrusion as a result of changes in Delta outflow but does not provide any information regarding the water quality changes at CCWD's Los Vaqueros intake on Old River or the effects of agricultural drainage on water quality at CCWD's drinking water intakes. The REIR/SEIS needs to model these alternatives on a daily basis, using a peer-reviewed hydrodynamic and salinity transport model of the Delta, such as the Fischer Delta Model, in order to truly evaluate the full impacts on CCWD. CCWD remains committed to work with EBMUD in determining these impacts and developing appropriate mitigation measures to eliminate the water quality impacts on CCWD's customers. RL11-44

5.2 Potential Mitigation Measures for Water Quality Impacts

The significant adverse water quality impacts of EBMUD's proposed use of American River water on CCWD could be mitigated if EBMUD, for example, were to provide high quality water from the Mokelumne Aqueduct to CCWD when EBMUD has surplus water, in lieu of CCWD's Delta water. This would not result in any net yield to CCWD. The improvement in water quality in Los Vaqueros Reservoir would be used to offset increases in Delta salinity resulting from EBMUD's proposed project and offset any impacts on the ability of CCWD to fill the reservoir from the Delta. CCWD's preliminary analyses (in 1998) suggested that these impacts could be offset by as little as an average of 10,000 acre-feet/year. A more detailed discussion of these impacts was given in Appendix F to CCWD's March 19, 1998 comment letter to EBMUD and Reclamation. These impacts on the performance of the Los Vaqueros Project and the quality of water delivered to CCWD are significant and must be mitigated. RL11-45

5.3 The REIR/SEIS Fails to Disclose Water Quality Treatment Issues Within the EBMUD Service Area

The REIR/SEIS only focuses on the quality of source water for each of the alternatives at the points of diversion. However, considerable degradation of water quality can occur after water is diverted from Sierra sources, e.g., during conveyance of the water through in the Mokelumne Aqueducts, while the water is stored in local reservoirs and during the drinking water treatment RL11-46

process. This information would provide decision-makers with a better understanding of EBMUD's current ability to meet drinking water standards and whether further upgrades of EBMUD's existing in-line and full treatment plants will be necessary in the near future to meet future drinking water regulations. If EBMUD will need to upgrade its inline treatment plants in the near future, that would be further reason not to invest in expensive pretreatment facilities for the supplemental water supply alternatives. The REIR/SEIS must be revised to included details regarding EBMUD's existing plant capabilities and treatment issues and recirculated for public review and comment.

5.4 The REIR/SEIS Incorrectly Evaluates Variations in Water Quality

The timing of the adverse water quality impacts in the Delta, e.g., is very important to CCWD and other Delta water users, e.g., which month of the year, for how many days, etc. CCWD's biological opinions, for example, require CCWD to cease all diversions from the Delta for 30 days in the spring to provide net benefits for Delta smelt and other fish species. During this shutdown period, CCWD will not be directly affected by increases in Delta water quality but as soon as this 30-day period ends, which will not necessarily coincide with the beginning or end of a month, CCWD will resume diverting from the Delta. The impacts of the proposed REIR/SEIS alternatives on CCWD operations cannot be determined from annual or monthly. Similarly, the impacts on CCWD cannot be determined by correlation plots of No Action chlorides versus with-Project chlorides (e.g., Figures 4-1 and 4-2 in the REIR/SEIS) because these plots contain no information about the month and year in which each increase in chlorides occurred.

The REIR/SEIS is inadequate and fails to disclose the full impact of the proposed project because it generally only presents the magnitudes of water quality impacts in terms of long-term averages (annual or 70-year average). The REIR/SEIS also fails to discuss the State Antidegradation Policy (SWRCB Resolution No. 68-16) which states that whenever the existing water quality is better than that defined by State water quality objectives and policies, such existing high water quality will be maintained until its has been demonstrated that any change will: (1) be consistent with the maximum benefit to the people of the State; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in water quality control plans or policies. The REIR/SEIS must be revised to adequately analyze the salinity impacts at CCWD's water supply intakes, such that the analysis includes the timing, duration and magnitude of the impacts at CCWD's three intakes in the Delta and the effects of those impacts on CCWD operations. The REIR/SEIS should then be recirculated for public comment and review. RL11-47

6. The REIR/SEIS Analysis of the Feasiblity of Alternative Diversion Locations to Meet Specific Water Quality Objectives (REIR/SEIS Appendix B) is Fundamentally Flawed and Biases Eventual Selection of a Preferred Alternative

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The REIR/SEIS fails to establish a need for the level of pretreatment it prescribes, biasing the eventual selection of a preferred alternative. Attachment B presents more detailed comments and discussion of the inadequacies of the REIR/SEIS analyses of water quality and water treatment.

6.1 The REIR/SEIS does not Accurately Characterize Microbial Water Quality, and Consequently Overstates Disinfection Requirements for Alternative Sources

The REIR/SEIS asserts that the water quality in Pardee Reservoir and in the American River is much higher than the Sacramento River or the Sacramento-San Joaquin Delta. However, recreation and cattle grazing in areas above Folsom and Pardee Reservoirs, as well as wastewater treatment plants above Nimbus, contribute a considerable amount of bacteria and pathogens to the two rivers (especially when considering recent raw sewage spills near the cities of Folsom and Sacramento). Alternatives in the vicinity of the Sacramento Regional Wastewater Treatment Plant may also be vulnerable to releases of secondary wastewater during tidal reverses in the Sacramento River. As pathogen and bacteria travel down rivers, they are oxidized, diluted, or consumed and are found, on average, at lower concentrations in the Delta than in the American or Mokelumne Rivers. RL11-48

The REIR/SEIS incorrectly concludes that water from the American and Sacramento Rivers and the Delta will be placed in different, higher risk water quality bins than EBMUD's Mokelumne River water. The reality is that all of the alternative water supplies, including the Mokelumne River, require the same level of disinfection treatment under the terms of the U.S. Environmental Protection Agencies' Federal Advisory Committee Act (FACA) agreement (see Attachment B for further discussion of this issue).

The REIR/SEIS also erroneously uses fecal coliform data in-lieu of actual *Cryptosporidium* data. EBMUD must obtain actual *Cryptosporidium* data and use these data to determine the actual differences between different water sources and the difference, if any, in drinking water treatment requirements. RL11-49

Other drinking water utilities relying on American and Sacramento River or Delta water supplies use the same or similar approaches to disinfection used by EBMUD to treat Mokelumne River water. All are in compliance with current and proposed drinking water regulations. The REIR/SEIS is inadequate because it fails to establish and justify a need for the level of pretreatment it prescribes, biasing the eventual selection of a preferred alternative. These errors and flaws in the REIR/SEIS must be corrected and a new environmental document recirculated for public review and comment. RL11-50

6.2 The REIR/SEIS incorrectly uses 90th Percentile Water Quality Data to Characterize Quality Available during Drought Years

When flows are high in the Delta and its tributaries, (spring/summer sierra snowmelt, fall/winter precipitation), turbidity is generally high (high flows mix sediments and precipitation erodes land surfaces) and the salinity is low (high quality source). Conversely, during dry periods, when RL11-51

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flows are low, turbidity is typically low and salinity in the Delta is high due to seawater intrusion. The REIR/SEIS is fundamentally flawed because it assumes that high turbidity and high salinity will occur at the same time and prescribes treatment accordingly. As a result, the REIR/SEIS presents water treatment schemes that are overly conservative. The REIR/SEIS must be revised using actual water quality concentrations consistent with the periods of diversion and recirculated for public comments and review.

6.3 The REIR/SEIS Understates the Treatment Capabilities and Upgrade Potential of EBMUD's Existing Treatment Plants

EBMUD currently operates full conventional treatment plants with advanced treatment processes (e.g., Sobrante and Upper San Leandro), that are capable of treating the water quality from any of the alternative diversion sites. The REIR/SEIS expresses concern about bromide and nutrients having long-term impacts on water quality in the terminal reservoirs, yet these impacts only apply to some, not all, of the supply alternatives. The use of more representative water quality, blending, storage, and treatment plant operation can largely mitigate any impacts on raw or treated water quality. There are other disinfection alternatives to ozone (which produces bromate from bromide) or chlorine (which produces trihalomenthanes) such as ultraviolet filtration that can be simply installed and should be considered. RL11-52

The REIR/SEIS appears to imply that EBMUD only operates in-line filtration plants and states that the in-line plants cannot treat water with turbidity greater than 2 NTU. This statement is not borne out by historical performance. EBMUD has successfully treated turbidities as high as 58 NTU at these facilities, most recently in 1997. Although, these extremely high turbidities can only be treated at reduced flow rates, such low flowrates would occur during periods of 25% rationing. Turbidity concentrations can also be reduced prior to treatment through use of storage, e.g., the average turbidity in Los Vaqueros Reservoir is less than 5 NTU. RL11-53

By coordinating water production schedules with the use of supplemental water, considerable flexibility could be provided to satisfy the demands in EBMUD's service area. The REIR/SEIS must be revised to consider all these options and recirculated for public review and comment. RL11-54

6.4 The REIR/SEIS Fails to Disclose Information Regarding EBMUD Delivered Water Quality

Nowhere in the REIR/SEIS is there an analysis or information on EBMUD's delivered water quality with any of the alternatives. For example, there are no data on the water quality when there is a blend of Mokelumne water, local water, and delta water (DEIR/EIS, Appendix B, Alternatives Screening Report). It not known whether the present analysis of the Alternative 8, Bixler Delivery, for example, assumes that Delta water at the 90th-percentile (i.e., TOC of 7.6 mg/L, bromide of 665 µg/L, and TDS of 550mg/L) is delivered undiluted by Mokelumne water. The REIR/SEIS must be revised to included specific details regarding the monthly quality (and quantity) of water delivered to the EBMUD service area under each alternative. RL11-55

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7. The REIR/SEIS is Inadequate because it Relies on an Inappropriate Fishery Significance Criterion and Fails to Fully Disclose Fisheries Impacts

The National Marine Fisheries Service (NMFS) has designated the lower American River, the Sacramento River, and the Delta as critical habitat for the Central Valley steelhead, and the Sacramento River and Suisun Bay as critical habitat for the spring-run chinook salmon (65 FR 7764, February 16, 2000). As discussed on pages 5-4 through 5-6 of the REIR/SEIS, other federal and endangered species also occur in the American River, the Sacramento River, and the Delta. On July 10, 2000 (65 FR 132), NMFS issued a final rule governing "take" of 14 threatened salmon and steelhead species under the 4(d) rule of the Endangered Species Act. (Take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.") RL11-56

For fisheries resources, the REIR/SEIS uses a 10 percent or greater change in the frequency of a particular impact relative to baseline as a potentially significant impact. However, NMFS would consider <u>any</u> take of these protected species, even if the impact is less than 10 percent, a violation of the Endangered Species Act. The REIR/SEIS is inadequate because it does not discuss any mitigation to prevent take of these species as a result of the new intake structures or operations.

The U.S. Bureau of Reclamation's EIR/EIS for CVP water supply contracts acknowledge that there are potentially significant adverse temperature impacts if acquired regional water entitlements are diverted at Folsom Reservoir, the Folsom South Canal, or the Fairbairn Water Treatment Plant. No impacts are expected if the acquired water is instead diverted from the Sacramento River. The amount of diversions involved is far less than the diversions proposed by the EBMUD project. The EIR/EIS only addresses 35,000 acre-feet of new diversions, and concludes that significant temperature impacts would occur on the lower American River. EBMUD's REIR/SEIS should evaluate temperature impacts of an additional 112,000 acre-feet or more of diversions and develop mitigation measures at the same level of detail. RL11-57

The 1997 DEIR/EIS on page 5-14 stated that: "*PROSIM reasonably simulates river and Delta flows and reservoir storage effects under existing conditions and alternatives.*" This same assumption is used in the REIR/SEIS to evaluate the impacts for Alternatives 4 through 8. Even if this statement were true, the PROSIM 99 modeling is limited to monthly flow averages and does not provide weekly or daily flow changes that relate to water quality of fisheries effects. Therefore, dramatic daily or weekly fluctuations in flow or temperature may significantly impact water quality and the fisheries, which includes several threatened or endangered species. For this reason, the thermal analysis is flawed and may significantly underestimate the impacts on fishery resources. RL11-58

According to the REIR/SEIS (page 3-1), the general process of hydrologic modeling of project alternatives with the current version of PROSIM 99 was unchanged from the 1997 DEIR/EIS. Therefore, water temperature impacts on fisheries resources in the Lower American River are significantly underestimated. Simulated temperature increases of less than 1.0 °F were not considered significant if they did not occur more than 10 percent of the time (REIR/SEIS, page 5-9). If the increase in temperature is great enough, even if it occurs less than 1.0 percent, of the RL11-59

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time, fish species and their habitats may be impacted. Because of these deficiencies, the REIR/SEIS fails to adequately disclose the impacts to the cold water fisheries of the Lower American River. The REIR/SEIS must be revised to include analysis and disclosure of these potential impacts and recirculated for public review and comment.

The REIR/SEIS is also deficient because it did not evaluate water temperatures in the Sacramento River or the Delta, and concomitant impacts to fish resources. The REIR/SEIS's failure to fully assess potential water temperature-related impacts to fisheries in the upper Sacramento River is a fundamental flaw. Of particular importance are potential impacts to the protected fish species, especially Delta Smelt. RL11-60

Alternative 8, Bixler Delivery, may have the least adverse impact on fishery resources. As discussed in Appendix C of CCWD's March 19, 1998 comment letter to EBMUD and Reclamation, fish entrainment and salvage data from Contra Costa Water District's Rock Slough Pumping Plant indicate little impact to fishery resources. The EBMUD intake facility would similarly be located away from the main Delta conveyance channels so that very little take of listed species would be expected to occur. RL11-61

8. The REIR/SEIS Fails to Present Adequate Analyses of Project Impacts

8.1 <u>The Modeling of CVP Operations for the Sacramento and Delta Alternatives is Incomplete</u>

The REIR/SEIS is inadequate because it fails to analyze the water supply impacts on CCWD, Delta exporters, and Central Valley Reservoir storage resulting from alternatives 5 through 8. The REIR/SEIS (page 3-1) states that a PROSIM 99 model run of EBMUD-Only operations with EBMUD deliveries at Node 16 (Fairbairn Water Treatment Plant) was used to represent changes in system operations that could be expected. This is not representative of the operations that would occur as a result of EBMUD's proposed exports from the Sacramento River or the Delta. Exports by EBMUD from the Sacramento River and Delta will result in less reliance on Folsom Dam and more on Shasta and Trinity operations, particularly because of the new CVPIA Section 3406b(2) and Environmental Water Account actions. The REIR/SEIS must be revised to include full simulations of the impacts of EBMUD exports from the Sacramento River and Delta (using PROSIM Nodes representative of those locations) so that the impacts of EBMUD's exports on fisheries, water quality, and water supply can be fully disclosed. The revised REIR/SEIS must be recirculated for public review and comment. RL11-62

8.2 <u>The Disclosure of EBMUD Mokelumne and Terminal Reservoir Operations is Inadequate and Incomplete</u> RL11-63

The REIR/SEIS on page 3-1 states that EBMUD demands were generated by the EBMUDISM model. However, the REIR/SEIS fails to present the monthly EBMUD demands in the service area, and the monthly deliveries to the service area from the other sources of EBMUD supply discussed in the REIR/SEIS, i.e., Mokelumne River, local reservoir, and

groundwater/conjunctive use. The EBMUDSIM data, for example, would disclose whether EBMUD exports at Nimbus under alternative 2 (which has no new storage component) result in any long-term increase in Pardee, Camanche and Terminal Reservoir storage or whether increases in storage in one month were merely "spilled" the next month.

The monthly-averaged quality of the water from these and the proposed American River source are also not given. There may be months, e.g., where the turbidity of water from EBMUD's existing Mokelumne River sources, or local Upper San Leandro and San Pablo Dam reservoirs, is as high as the turbidity from the American River. Without disclosure of this information, it is not possible for regulatory agencies and affected parties to determine whether or not the assertions made in the environmental document regarding EBMUD's water supply and water quality needs can be met from other sources with less environmental impact. The REIR/SEIS must be revised to disclose and analyze the simulated monthly supply and water quality data from all of EBMUD's sources. Also, the REIR/SEIS must be revised to allow a full assessment of EBMUD's ability to meet its apparent (but not quantified) supply and water quality needs from sources other than the American River. The revised REIR/SEIS must be recirculated for public review and comment. RL11-64

8.3 The REIR/SEIS Does Not Provide Adequate Project-Level Detail and Analyses Regarding the Sacramento and Delta Alternatives

Alternatives 5, 6, 7 and 8 are clearly not presented at the same level of detail as alternatives 2, 3 and even 4. The public can only determine if they would be directly impacted by these alternatives by guessing where the facilities might be located in accordance with such a large scale map. There is no evaluation of localized land, traffic, air or visual impacts, and there cannot be until the facilities have an actual location. Half-hazard surveys for terrestrial species were conducted out of season (vernal pools in *August*) and not over the typical two seasons. Acreage of terrestrial impacts are not presented for alternatives 5 through 8, offering the public no opportunity to evaluate whether these alternatives are less damaging than alternatives 2 or 4. RL11-65

Alternative 8 in the REIR/SEIS does not represent how an urban intake in the Delta would function. There are three major urban water intakes in the South Delta, none of which have a "brine line," reverse osmosis, or a pretreatment prerequisite that requires a special treated water conveyance system. Inclusion of reverse osmosis and the "brine line" in Alternative 8 negatively biases what should be an acceptable alternative for EBMUD to consider. The assumption that Bixler would only be used under the proposed dry-year CVP contract provisions also biases the assessment of this alternative. If EBMUD were to pump water at Bixler during wetter periods, the quality of the diverted water would be closer to the 20-30th percentile rather than the 90th as assumed in Appendix B of the REIR/SEIS. The REIR/SEIS fails to present alternative Delta diversion and water treatment scenarios, such as that used by CCWD. CCWD is able to fill Los Vaqueros Reservoir with high quality water and has no difficulty meeting state and federal regulations and minimizing taste and odor concerns. The REIR/SEIS must be revised to include reasonable Delta alternatives based on CCWD's experience diverting and treating Delta water, and recirculated for public review and comment. RL11-66

8.4 The REIR/SEIS Fails to Disclose Growth Impacts and Propose Mitigation Measures

The REIR/SEIS discussion fails to satisfy the requirements of CEQA and NEPA regarding cumulative and growth-related impacts for Alternatives 4 through 8, and relies solely on the discussion in the DEIR/EIS of Alternatives 1, 2, and 3 (Chapter 18). As discussed above, the EBMUD Board in 1993 found that the CEQA review of any project involving use of EBMUD's American River contract must begin *de novo*, because it was not adequately reviewed in the Updated WSMP EIR to satisfy the need for a program-level alternatives analysis of such a project (page 33). The DEIR/EIS and REIR/SEIS cannot rely on the analysis of cumulative and growth-related impacts in the Updated WSMP EIR to support the CEQA and NEPA review in the EIR/EIS. RL11-67

Any conjunctive use project outside the EBMUD service area will have growth inducing impacts outside the EBMUD service area that are not addressed in the REIR/SEIS. For example, there are potential cumulative and growth-related impacts in South Sacramento County or East San Joaquin County if current negotiations for a conjunctive use program are successful and a 3 or 2 to 1 injection:extraction ratio is used. The REIR/SEIS must be revised to fully analyze these growth-inducing impacts and reirculated for public review and comment.

8.5 The Analysis of Cumulative Impacts in the REIR/SEIS is Inadequate

An EIR must identify and discuss significant cumulative impacts. The cumulative impact analysis must contain three elements. First, it must identify related projects through the use of either a project list or a projection approach. Second, it must contain a summary of the expected environmental effects to be produced by related projects. Finally, it must contain a reasonable analysis of the cumulative impacts of the related projects and an examination of reasonable options for mitigation measures for a proposed project.

The REIR/SEIS does not discuss the cumulative impacts of the proposed project in combination with other reasonably foreseeable water supply projects. The REIR/SEIS relies solely on the DEIR/EIS that discusses cumulative impacts for only Alternatives 1, 2, and 3. Cumulative impacts are never discussed for Alternatives 4 through 8. RL11-68

The DEIR/EIS states that certain actions "*have not advanced in the planning process to the point where a quantitative analysis is warranted*" (DEIR/EIS, page 18-2). These include implementation of the CVPIA and the CALFED Bay-Delta Program and water service contracts. CCWD disagrees that the CVPIA is not sufficiently advanced in the planning process (a Final PEIS was released in October 1999). Similarly, CALFED has already released a series of documents each refining the range of alternatives for improving and restoring the Bay-Delta system. The EIR/EIS should discuss in quantitative terms how EBMUD's American River contract may be affected by changes in CVP operations under the CVPIA preferred alternative and by the coordinated operations of the CVP and SWP under likely CALFED Bay-Delta program alternatives. If CVPIA actions significantly reduce the ability of the Project to provide

water to EBMUD in drought years, then the Project may not meet one of its principal needs; the ability to augment EBMUD's dry-year water supply.

Additionally, the CVPIA PEIS assumes that EBMUD diverts its water entitlement from the Folsom South Canal, and that the Hodge flows are met (Alternative 2). If Alternative 3 or 4 were adopted, the cumulative impacts of the CVPIA and Supplemental Water Supply Project would not have been evaluated either in the Final CVPIA PEIS, the DEIR/EIS, or the REIR/SEIS. The REIR/SEIS must be revised to consider the cumulative impacts of Alternatives 3 and 4 in conjunction with the impacts of CVPIA implementation to ensure an adequate analysis of the lower American River diversion alternative.

The REIR/SEIS fails to analyze the cumulative growth-related impacts of the project for Alternatives 4 through 8, and instead relies on the discussion in the DEIR/EIS for Alternatives 1, 2, and 3 (Chapter 18), which was also deficient because it failed to consider storage impacts. The analysis should estimate the increase in urbanized area, location of urbanization, and increase in population associated with the project alternatives as well as cumulative impacts for future and existing projects. The REIR/SEIS must be revised to fully address and disclose all cumulative impacts of the project, and recirculated for public review and comment.

8.6 Mitigation

By failing to adequately identify significant impacts for each project alternative and failing to commit to a course of action associated with significant environmental impacts for each project alternative, the REIR/SEIS provides only hypothetical "mitigation measures," and fails to comply with CEQA or NEPA. In general, references to mitigation measures are vague, non-specific, and often do not comply with the CEQA/NEPA requirements for mitigation measures.

For example, on page 7-6 of the REIR/SEIS, Mitigation Measure 7-4b is to "Obtain and Comply with State and Federal Wetland Permits." This is a requirement, not a mitigation measure. The REIR/SEIS fails to establish a definite commitment to accomplish specific mitigation measures. The EIR/EIS must identify specific mitigation measures without relying on other parties to develop and implement mitigation measures. A lead agency must be able to determine that mitigation measures are implementable, achievable, and compensatory before the agency can certify a document. RL11-69

8.7 The REIR/SEIS Fails to Provide an Adequate LEDPA Analysis

The REIR/SEIS also fails to provide sufficient information to determine the least environmentally damaging practicable alternative (LEDPA). See for example, the discussion on page S-10. The U.S. Army Corps of Engineers (USACOE) will rely on the DEIR/EIS and REIR/SEIS as the environmental documentation for its consideration of Section 404 permits required to implement the Project. However, the DEIR/EIS and the REIR/SEIS fail to provide an adequate analysis of impacts to wetlands, wetland habitat, and aquatic habitat to facilitate a proper evaluation of Section 404 requirements, including Section 404(b)(1) requirements for an RL11-70

alternatives analysis. The DEIR/EIS and REIR/SEIS identify significant impacts on wetland resources, but fail to establish mitigation measures without equivocation. Rather than establish definitive mitigation measures, the DEIR/EIS and the REIR/SEIS describe each mitigation measure as a possibility. Obtaining and Complying with state and federal wetland permits is not a mitigation measure but a legal requirement (REIR/SEIS, Mitigation Measure 7-4b, page 7-6). Likewise, conducting preconstruction surveys is not a mitigation measure (REIR/SEIS, Mitigation Measure 7-5a, page 7-6).

All of the project alternatives (except the no action alternative) fail to meet the intent of the Federal Endangered Species Act. While the DEIR/EIS establishes evaluation criteria to determine if an impact was significant, the criteria established are not appropriate or valid under ESA. According to the Endangered Species Act, a federal agency must initiate consultation under Section 7 of the Act (including preparation of a biological opinion) prior to taking any action that adversely impacts a listed or candidate species. The Endangered Species Act does not allow Reclamation to select significance criteria and then dismiss the impacts as insignificant if they fail to meet the Reclamation's significance criteria. Arbitrarily deciding an impact is small enough to be insignificant does not obviate Reclamation's obligations under the Endangered Species Act. These impacts are most apparent in the simulated water temperature and flow schedules for the lower American River presented in Chapter 5 of the REIR/SEIS on Fisheries. RL11-71

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Attachment B

Review of Drinking Water Quality Options in the REIR/SEIS

The attached report presents additional detailed comments on the completeness of water treatment actions in the REIR/SEIS, the accuracy of the determination of water quality impacts to CCWD and the adequacy of the water quality mitigation measures. The REIR/SEIS must be revised to respond to these comments and suggestions and recirculated for public review and comment.

EVALUATION OF DRAFT
RECIRCULATED ENVIRONMENTAL IMPACT REPORT/
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Of

EAST BAY MUNICIPAL UTILITY DISTRICT
SUPPLEMENTAL WATER SUPPLY PROJECT

This report presents our findings related to the following three issues concerning the Draft Recirculated EIR/ Supplemental EIS (REIR/SEIS):

1. Completeness of Alternatives (Treatment, Storage, and a Combined American River and Sacramento River Alternative)
2. Accuracy of Impacts to Contra Costa Water District (CCWD)
3. Adequacy of Mitigation Measures

Our report is organized to address these three issues.

Our evaluations are based on material contained in the REIR/SEIS and the October 1997 Draft EIR/EIS. More specifically, the purpose of these two documents is to evaluate the environmental impacts of alternative projects for East Bay Municipal Utility District (EBMUD) to take delivery of water under their contract with the U.S. Bureau of Reclamation (USBR). We also assumed that Alternative 3 (the joint project) has been eliminated from further consideration since impacts were not evaluated in the REIR/SEIS.

OVERVIEW

Alternatives

- Water treatment and regulatory requirements appear to be overstated, which would result in inefficient use of treatment facilities,
- Benefits of storage on delivered water quality for the American River alternatives are not described,
- Storage requirements, either surface reservoirs or groundwater basins, are not adequately defined and the environmental impacts of storage are not described,
- Alternatives do not appear to cover the full range of options to take delivery of supplemental water under the USBR contract, and
- Alternatives that use both wet year American River diversions and dry year Sacramento River diversions were not considered. Combined alternatives would provide an increased supply, improved reliability, and less dependence on storage.

The alternatives presented in the DEIR/SEIS lacked adequate consideration of storage, either in ground water basins or surface reservoirs, as a project element to obtain delivery of American River and/or Sacramento River water under EBMUD's contract with the USBR. Additional storage could increase the reliability of EBMUD's supplies in dry years and could also increase their overall supply in all years. Additional storage should also allow better utilization of the existing supply from the Mokelumne River.

Impacts

The REIR/SEIS does not adequately describe the impacts of the proposed alternatives on CCWD. The REIR/SEIS neither evaluated the impacts on CCWD's raw and treated water deliveries nor provided the data and information needed to evaluate the magnitude of the required mitigation measures. Consequently, it is not possible to provide detailed information on the alternative mitigation measures.

Also, one of the water quality significance criterion used in the REIR/SEIS considers increases in chloride concentrations in CCWD's Delta water supply of up to 30 mg/l for 10% of the time to be insignificant. This criterion fails to acknowledge the impacts that increases as small as 5 mg/l chlorides will have on CCWD's operations and the quality of the raw and treated water delivered to CCWD's customers. Increases in chlorides at the CCWD Delta intakes (Rock Slough and Old River) as a result of the proposed alternatives should be acknowledged and mitigated.

Mitigation

Surface storage in Los Vaqueros Reservoir using supplemental or Mokelumne River water also appears to be an efficient way to mitigate the adverse impacts the project would have on water quality at CCWD's intakes at Rock Slough and Old River, and on the effectiveness of their two water treatment plants. Storage of high quality water in Los Vaqueros during wet years for subsequent use during dry years both for EBMUD's water supply needs and for mitigation of CCWD's water quality impacts should be considered and evaluated in the Recirculated EIR/EIS.

Other alternatives for mitigation are also suggested.

COMPLETENESS OF ALTERNATIVES

The completeness of alternatives is considered in terms of water treatment, storage, and combined supply from the American and Sacramento Rivers.

a. Water Treatment Requirements

1. *The REIR/SEIS does not adequately characterize microbial water quality, and consequently overstates disinfection requirements for alternative sources.*

   The REIR/SEIS concludes that water from the American and Sacramento Rivers and the Delta will be placed in different, higher risk water quality bins than the Mokelumne River. *Cryptosporidium* data collected by numerous water agencies during initial Information Collection Rule sampling and subsequent sampling of these supplemental supply sources contradicts this conclusion. These data clearly indicate that water from the Mokelumne, American, and Sacramento Rivers, as well as the Delta, will all be placed in the same bin, i.e. one that requires no additional treatment beyond current regulations. All of the alternative water supplies, including the Mokelumne River, require the same level of disinfection treatment under the terms of the EPA's FACA agreement.

   The REIR/SEIS acknowledges the existence of *Cryptosporidium* sampling data in the American and Sacramento Rivers and in the Delta, but chooses to use fecal coliform date in-lieu of Cryptosporium data. The FACA recommendation to use E. Coli levels as a surrogate for Cryptosporidium data applies to small systems that cannot afford the costs of monitoring, and to situations where data exists. Information on Cryptosporidium should be available at the EBMUD sources as part of ICR monitoring and other internal monitoring programs, yet was not shown in the REIR/SEIS. Furthermore, the use of the fecal coliform data presented in Appendix B, Table 1, is not necessary as noted in Item 2 below.

   Other drinking water utilities relying on American and Sacramento River or Delta water supplies use the same or similar approaches to disinfection used by EBMUD to treat Mokelumne River water. All are in compliance with current and proposed drinking water regulations. For example, the City of Sacramento treats both American River water (at its American River WTP) and Sacramento River water (at its Sacramento River WTP) using chlorine for disinfection. Contra Costa Water District treats Delta water from Rock Slough and Old River with ozone disinfection and a chloramine residual. Other Delta water users along the South Bay Aqueduct (Zone 7, Alameda County Water District, Santa Clara Valley Water District) use a single disinfectant (ozone or chlorine) followed by chloramines for residual maintenance.

   Because of this interpretation of the microbial data, the REIR/SEIS concludes that two stages of disinfection are needed for supplemental supplies, one in pretreatment and another at its existing water treatment plants. The operational experience of other urban water agencies does not bear this out.

2. *The REIR/SEIS characterizes supplemental source water quality using 90th percentile values as representative of drought years and this characterization is not a realistic characterization of water quality conditions during actual periods of diversion. The 90th percentile characterization is applied to both the American River and Sacramento River, even though one is a wet weather supply and one is a dry weather supply.*

   The REIR/SEIS states in Appendix B, Page 3:

"...90th percentile values were used as the basis for treatment process design to ensure adequate treatment during drought years."

Water quality varies at all locations (including Pardee Reservoir), depending on the season of the year and on year to year differences in the hydrologic cycle. Drought conditions will not affect all water quality parameters equally, nor even in the same manner, as some parameters will improve while others will worsen. For example, turbidity and fecal coliforms can peak with wet weather high flows in winter; chlorides and TDS peak with low, dry weather flows in summer, particularly in the Delta. Water quality presented in Appendix B, Table 1 of the REIR/SEIS does not reflect this variability, and does not represent a realistic assessment of water quality at the alternative sites during periods of supplemental water withdrawal.

There is abundant data showing a strong correlation between flows in the Sacramento and American Rivers and fecal coliform concentrations. High flows correlate with high coliform levels, and vice versa. The 90th percentile fecal coliform values are not representative of drought conditions; on the contrary, they are representative of wet weather flows.

In addition, alternatives considered in the REIR/SEIS vary between dry and wet year withdrawals. Thus, not only does the 90th percentile characterization fail to represent water quality during periods of withdrawal, it fails to accurately characterize the differences between supply alternatives.

The American River would be used for wet weather supply (Alternatives 2 or 4). The Sacramento River and Delta alternatives represent a dry weather supply from the Shasta and Oroville Reservoirs. Using the same 90th percentile data for these two different uses is not meaningful.

Finally, storage is included in several of the alternatives, but the impact of storage on water quality is not considered (see item 6, below). Either ground or surface water storage will significantly change water quality characteristics and subsequent treatment requirements.

Even at a planning level, the characterization of water quality included in the REIR/SEIS is insufficient to define or evaluate treatment alternatives.

The subjective analysis of water quality (REIR/SEIS, Appendix B, Table 2) is not rigorous.

3. *The REIR/SEIS does not consider the possibility of using blending of supplemental raw water supplies (American River, Sacramento River or Delta) with untreated Mokelumne River water, followed by a single treatment train in its existing water treatment plants. The basis for excluding this alternative is the supposed concern for Cryptosporidium and fecal coliforms discussed in items 1 and 2 above.*

If water quality were more realistically characterized, as discussed in items 1 and 2 above, supplemental water blended with Mokelumne quantity and quality could be treated at EBMUD's existing plants. Data is not available in the EIR to do these blending calculations, but the REIR/SEIS should address blending alternatives based on more representative water quality and blending ratio conditions in concert with utilization of storage.

If blending were considered as an option, it would reduce or possibly eliminate the need for pretreatment of the American, Sacramento or Delta supplies. Costs for this pretreatment, as estimated by EBMUD (Appendix B, Table 11), range from $65 M to $122 M on the American or Sacramento River sources, and substantially more for Delta water. Pretreatment followed by another treatment train is not typically done by other suppliers of American River, Sacramento River or Delta water. The pretreatment plants would be remote from customers and EBMUD operators, making them more difficult to operate that the current facilities.

4. *The simulations in the REIR/SEIS suggest that the proposed pretreatment facilities will have, on average, only 10 to 20% capacity utilization. New facilities would sit idle for years at a time, capital would be underutilized, site specific environmental impacts would be greater than necessary, and operational performance would be questionable.*

The REIR/SEIS simulations suggest that American River supply, limited to dry weather flow by the Hodge decision, would average from 11,200 to 15,300 AF/yr, depending on operating scenario (REIR/SEIS Table 3-2). The Sacramento River dry weather supply averages 21,300 AF/yr. On an annual average basis, production rates from the proposed 100 mgd pretreatment facilities would range from 10 to 19 mgd. In other words, only 10 to 19% of the capacity will be utilized under average conditions. Utilization of typical water treatment facilities is on the order of 40 to 50%.

If EBMUD built new treatment plants and were able to use them a higher percentage of time, costs per AF would decrease. Item C discusses this.

Furthermore, for the American River deliveries (see Figure 3-1 of the RIER/SEIS), the estimated annual deliveries using 1922 to 1990 hydrology show 22 of 70 years with no delivery at all. For the Sacramento River and Delta alternatives (see Figure 3-2 of the REIR/SEIS), there would be no delivery of supplemental water in 41 of 70 years. In this scenario, there would be 18 years in a row when the facility would not be in use. In 18 years of no use, the facilities would still have to be staffed and maintained. It is highly questionable if facilities

left idle for so many years can be expected to perform well. Electrical and mechanical equipment may need to be replaced before it is ever used.

Storage would improve the utilization of facilities, significantly reduce the size and cost of facilities, and minimize site specific environmental impacts. However, even when storage is specifically included in an alternative (e.g. Alternatives 2 and 4), its benefits are not discussed. It appears as though all of the alternatives would benefit if storage were considered.

The REIR/SEIS understates the treatment capabilities and upgrade potential of EBMUD's existing treatment plants.

EBMUD currently operates full conventional treatment plants with advanced treatment processes, including ozone and granular activated carbon filters. These facilities operate on EBMUD's terminal reservoirs, and are fully capable of treating the water quality from any of the alternative diversion sites. Operation of the Mokelumne Aqueducts does allow supplemental water to be isolated from the Mokelumne supply and delivered directly to the terminal reservoirs without affecting raw water quality at the in-line treatment plants. The REIR/SEIS expresses concern about bromide and nutrients having long-term impacts on water quality in the terminal reservoirs. However, these impacts only apply to some, not all of the supply alternatives. In addition, the use of more representative water quality (item 2), blending (item 3), storage (item 6), and treatment plant operation can largely mitigate any impacts on raw or treated water quality. Disinfection alternates other than ozone (which produces bromate from bromide) or chlorine (which produces THM's as applied to raw Mokelumne water) may need to be considered, but they are not space intensive.

EBMUD also operates in-line filtration plants. The REIR/SEIS includes the statement that the in-line EBMUD plants cannot treat water with turbidity greater than 2 NTU. This statement is not borne out by historical performance. EBMUD has successfully treated turbidities as high as 58 NTU at these facilities, most recently in 1997. Granted, these extremely high turbidities can only be treated at reduced flow rates, such as would be the case under 25% rationing, but nevertheless, the EBMUD in-line plants are not limited to treating only waters with turbidity of 2 NTU or less.

The capacity of in-line plants typically decreases as turbidity increases. We expect that the statement that the plants cannot treat more than 2 NTU water is related to production at 100% capacity. It is likely that the plants can treat higher turbidity water, say 5 to 10 NTU, at a somewhat reduced capacity. Furthermore, the REIR/SEIS anticipates 25% conservation in water demand during drought conditions. This suggests that under drought conditions, the in-line plants can treat water of approximately 5 NTU without difficulty, even under hot, late summer conditions. With storage and blending, any of the supply alternatives can stay below this turbidity level. The average turbidity in Los Vaqueros Reservoir is less than 5 NTU. By coordinating water production schedules with the use of supplemental water, considerable flexibility could be provided in satisfying the demands of the EBMUD service area.

In addition, the statement that upgrading and/or rebuilding the existing in-line plants is not feasible is not demonstrated. There are several compact technologies that would allow clarification or advanced disinfection to be installed at the existing in-line treatment plant sites and provide comparable quality. Technologies include using membranes (typically ultrafiltration) in either new applications or replaced in existing filter boxes with submerged membranes and modification of piping. Another technology with potential for disinfection is ultraviolet light, which would be an alternative to ozonation.

EBMUD itself has investigated new technologies and prepared preliminary plans.

New membrane filtration technologies, similar to the ultrafiltration membrane facility EBMUD currently operates at Pardee Reservoir, could be used at EBMUD's existing water treatment plants and could substantially improve the reliability and protection of EBMUD's current drinking water quality. Membrane treatment would provide a secure barrier to microorganisms (typically rated at 4 log each for virus, Giardia and Cryptosporidium) and the provide enhanced taste and odor control. Membrane filtration could achieve all EBMUD water quality objectives and enhance reliability without limitations of the existing in-line treatment plants.

Finally, the combined capacity of EBMUD in-line and conventional water treatment plants (as published in its annual reports and facility guides) is 500 mgd. This capacity, combined with terminal reservoir storage, should provide operating flexibility for treating 220 mgd average annual demand and attendant peaking factors.

6. *The REIR/SEIS describes a need for storage of wet year flows, but does not consider the positive effects of storage on water quality and treatment alternatives. Storage also reduces vulnerability, by maintaining a more consistent water quality and placing water closer to the service area.*

In addition to its role in water supply and reliability, storage also has a function in improving water quality and treatment. Many utilities use a combination of source water quality, storage and treatment to meet their overall quality objectives.

Surface water storage is widely used throughout the state. In addition to evening out the impacts of variations in water quality, storage also has demonstrated advantages for water quality improvement.

An obvious benefit of surface storage is settling of particulates and the reduction of turbidity. Storage also provides substantial reductions in microbial

concentrations and other water quality parameters of stated concern to EBMUD. Examples of utilities that use reservoir storage prior to treatment include:

- Contra Costa Water District (Mallard Reservoir for Bollman WTP and Los Vaqueros Reservoir for Bollman and Randall-Bold)
- Zone 7 Water Agency (State Water Project reservoirs including a small reservoir at Patterson Pass and Lake Del Valle at Del Valle WTP)
- Santa Clara Valley Water District (San Luis Reservoir for Santa Teresa and Rinconada WTPs, SWP terminal reservoir for Penitencia WTP)
- Metropolitan Water District of Southern California (State Water Project West Branch Pyramid and Castaic Lakes for Jensen WTP, SWP East Branch Silverwood Lake for Weymouth, Diemer and Mills WTPs, Colorado River Lake Mathews for Weymouth and Diemer WTP, Lake Skinner for Skinner WTP, and Diamond Valley Reservoir for overall system).

Turbidity of State Water Project stored in the terminal reservoirs in Southern California is typically 1-2 TU, rather than 10-15 NTU in the Delta. Similarly, the typical Old River water delivered to Los Vaqueros Reservoir is 20 NTU; after storage it is reduced to 5 NTU or less. CCWD also uses the Los Vaqueros Reservoir to take advantage of seasonal pumping from the Delta when chloride concentrations are low, deliver it to Los Vaqueros, and release it when Delta chloride is higher, thus achieving an overall improvement in chlorides delivered to its WTPs and customers. Turbidity during drought conditions is typically lower than in wet years.

Another possible storage technique mentioned, but not analyzed in REIR/SEIS is groundwater storage. Other applications of this technique using surface water spreading have shown a substantial decrease in turbidity and microorganisms in the subsequently extracted groundwater.

Furthermore, the REIR/SEIS provides a qualitative comparison of each diversion site's vulnerability in Appendix B, Table 2, but excludes the consideration of storage on this comparison. One of the principal advantages of storage is to protect water quality from potential contamination and mitigate vulnerability.

EBMUD has not evaluated storage and does not take advantage of quality improvements that could result. Storage is suggested as an alternative to the pretreatment plant for particulates removal. This could make the existing in-line filtration plants better able to remove turbidity from supplemental source water, particularly if blended with Mokelumne Aqueduct water.

b. Storage Requirements

The REIR/SEIS does not adequately describe the facilities needed to provide storage for American River water or the impacts of the storage operations.

1. *Alternatives 2 and 4 require storage for American River water that would be available during wet years.*

For Alternative 2, the REIR/SEIS states that

> *"EBMUD would generally take delivery of American River water whenever it was available, consistent with the Hodge Decision, and whenever storage capacity was available in EBMUD's existing system."*

The Draft EIR/EIS (October 1997) reported "the mean annual simulated delivery was 29,000 AF" for this alternative. The simulation was done using PROSIM. Since this delivery estimate was made, errors in PROSIM have been corrected and the simulated delivery amount should be substantially less than reported in the Draft EIR/EIS (October 1997). The REIR/SEIS is not clear on how much storage is needed to achieve this supply. Additional storage would allow Alternative 2 to capture and store even more American River water during wet years and secure an even more reliable supply for EBMUD customers during dry years. Additional storage could be in groundwater basins in Sacramento and San Joaquin Counties, a larger Pardee Reservoir, or in Los Vaqueros Reservoir.

2. *For Alternative 4, the REIR/SEIS indicates the American River water delivered to EBMUD would be stored*

This storage would be

> *"in groundwater basins in Sacramento and San Joaquin Counties" and/or "in an off-stream reservoir, e.g., Los Vaqueros . . . . ."*

In addition to Los Vaqueros, an enlarged Pardee Reservoir could also be used to store American River water, by exchange, or possibly by using and existing aqueduct and pumping into Pardee, during wet years. Figure 1 illustrates the potential storage areas for Alternative 4.

3. *The REIR/SEIS does not mention the use of storage for any of the Sacramento River alternatives (5, 6, 7 and 8). Operationally, it projects:*

> *"Under this alternative, EBMUD would be entitled to take delivery of up to a total of 133,000 acre-feet of CVP water in any year in which EBMUD's March 1 forecast of its October 1 total system storage, as revised monthly through May 1, is less than 500,000 acre-feet.*

In addition, the entitlement shall not exceed a total of 165,000 acre-feet of delivered water in any consecutive 3-year period that EBMUD's total system storage forecast remains below 500,000 acre-feet. Hodge Decision flows would not apply to this alternative, as the delivery of water would not occur on the lower American River."

Use of 133,000 AF of supplemental water during a drought year when demands are projected to be reduced by 25 percent through rationing, seems to be an extreme event. This condition only leaves 32,000 AF available for the remaining two years or 16,000 AF/year. A storage component added to the Sacramento River alternatives would mitigate these extreme annual diversion rates and could also be used to smooth out the impacts on monthly variations in available flow and water quality.

4. *The REIR/SEIS does not define the amount of storage needed and the additional supply or reliability improvements these alternatives were designed to achieve. Nor does it define the facilities needed to treat, store and deliver the water.*

Chapter 18 of the REIR/SEIS provides only a generic description of the environmental aspects of groundwater storage. It does not provide any project specific environmental impacts. These storage alternatives and their environmental impacts need to be evaluated before a specific project can be recommended. Any changes in water quality from storage in groundwater basins should be described and impacts discussed.

c. Combined Sacramento River and American River Alternatives

One alternative the REIR/SEIS did not consider is combining wet year American River with dry year Sacramento River flows.

1. *The two American River alternatives (No. 2 and No. 4) would provide additional supplies to EBMUD during wet years.*

Figure 3-1 (copy attached) of the REIR/SEIS illustrates the simulated annual deliveries for Alternative 4 and Table 3-2 of the REIR/SEIS reports an average annual delivery of 11,200 AF or 15,100 AF depending upon which operating scenario is adopted. Figure 3-1 (REIR/SEIS) shows that in most wet years, EBMUD would get 20,000 to 30,000 AF/year.

2. *The four Sacramento River/Delta alternatives (Nos. 5, 6, 7 and 8) would provide additional supplies to EBMUD during dry years.*

Figure 3-2 (copy attached) of the REIR/SEIS shows the simulated annual deliveries for these alternatives, and Table 3-2 from the REIR/SEIS, reports the average annual deliveries would be 21,300 AF. Figure 3-2 shows that in most dry years, EBMUD would get about 65,000 AF/year.

3. *American River Alternatives 2 and 4 could be combined with Sacramento River Alternative 5, 6, 7 and 8 with relatively few additional facilities.*

It would require an additional intake facility and a short pipeline. Figure 2 illustrates how Alternatives 4 and 5 could be combined. This alternative should provide a supply to EBMUD in nearly all, if not all, years and improve reliability. Figure 3 combines the deliveries from both Figures 3-1 and 3-2 (of the REIR/SEIS) to illustrate the potential of combining the American and Sacramento Rivers as supplemental sources. In addition, a combined supply would require less storage in either surface reservoirs or groundwater basins.

4. *Combined alternatives, such as the one illustrated in Figure 2, should be evaluated to determine how they would enhance the ability of EBMUD to take delivery of water under their contract with the USBR and how the environmental impacts would compare with the separate American or Sacramento River alternatives.*

Conclusions

The alternatives contained in the REIR/SEIS do not appear to cover the full range of alternatives available to EBMUD to take delivery of water on their contract with the USBR. Specifically:

1) the water treatment requirements appear to be overstated and result in inefficient use of the facilities,
2) the benefits of storage on water quality for the American River alternatives are not mentioned,
3) storage requirements, either surface reservoirs or groundwater basins, are not adequately defined and the environmental impacts of storage are not described, and
4) alternatives that combine American River and Sacramento River diversions that appear to provide an increased supply; improved reliability and less dependence on storage are not discussed.

ACCURACY OF IMPACTS TO CCWD

The REIR/SEIS does not appear to adequately describe the impacts on Contra Costa Water District (CCWD).

1. *The REIR/SEIS on page 4-3states that*

"The mean annual difference and associated standard deviation between Alternative 1, "No Action," and Alternative 2, "Folsom South Canal Connection," based on the PROSIM 99 modeling were -0.01 ± 1.4 mg/l chloride. Because the predicted mean annual change is small compared to the significance criteria, and the monthly differences never exceed 30 mg/l chloride, and given that changes resulting from Alternative 4 would be substantially

less than those under Alternative 2, this impact is less than significant."

2. *The REIR/SEIS also presents two figures (4-1 and 4-2) that illustrated the simulated impacts of Alternative 2 and Alternatives 5, 6, 7 and 8 on chloride levels at Rock Slough, which is one of CCWD's drinking water supply intakes in the Delta.*

These two figures are attached.

The first thing to recognize is that long-term "mean annual difference" of chloride levels is not a meaningful measure of the impacts on CCWD. Nor is Rock Slough the only location of importance. Water quality impacts on CCWD's intake on Old River must also be considered. To get a meaningful measurement, the Recirculated EIR/EIS should evaluate the changes in chloride levels on a daily or, at most, on a monthly basis at CCWD's intakes at both Rock Slough and Old River. These are much better measures of the impacts to CCWD customers and to CCWD treatment and storage operations. When chloride levels increase, CCWD customers can experience taste and odor impacts, and accelerate corrosion of certain industrial and domestic facilities. CCWD water treatment operations can also be impacted if bromides increase along with chlorides, and CCWD may need to release additional blending water out of storage in Los Vaqueros to mitigate the impacts of increased chloride levels. Reduced storage levels in Los Vaqueros Reservoir will in turn reduce CCWD's emergency water supply and result in less water being available for blending during prolonged periods of higher Delta salinities. Decisions to deal with these impacts are not based on average annual values over a 70-year period. They are made on a daily or weekly basis. Thus, short-term impacts should be evaluated, and if they impact CCWD customers and operations, should be mitigated.

Figures 4-1 and 4-2 from the REIR/SEIS show that the monthly average impacts could be significant during certain months. Since these are simulated monthly averages, some daily averages will be higher than the average and some lower. Some additional evaluations should be made to determine the potential daily variations of monthly average values at Rock Slough. This information will provide more insight into the impacts on CCWD customers and CCWD operations. The REIR/SEIS does not contain sufficient information to evaluate these impacts.

3. *The significance criteria used in the REIR/SEIS is lenient.*

The REIR/SEIS on page 4-2 defines the "water quality impact significance criteria" as

". . .an increase in average annual chloride levels at delivery points within the Delta by more than 3 mg/l or an increase of more than 30 mg/l in 10 percent of the months that were evaluated."

CCWD releases water from Los Vaqueros Reservoir whenever chloride levels at their Rock Slough intake exceed 65 mg/l and curtails diversions into Los Vaqueros Reservoir whenever chloride level at their Old River intake exceeds 50 mg/l. Thus, any increase in chloride levels when CCWD is taking water at either location will have an impact on CCWD.

As previously stated, average annual chloride values are not representative of the impacts on CCWD operations and CCWD customers. Daily and weekly increases of 30 mg/l chlorides are significant. For example, CCWD generally only diverts water from Old River to storage in Los Vaqueros Reservoir if the chloride concentration at the Old River intake is 50 mg/l or less. An increase of 30 mg/l, e.g., an increase at Old River from 35 mg/l to 65 mg/l would prevent CCWD from diverting to storage. This would be an impact. The REIR/SEIS however assumes that increasing monthly average chloride levels by 30 mg/l has no significant impact.

CCWD can also be impacted if the proposed REIR/SEIS alternatives cause the chloride concentration at CCWD's Rock Slough and Old River intake to exceed 65 mg/l. In that case, CCWD would release water stored in Los Vaqueros Project to blend its delivered water back to 65 mg/l.

A more reasonable significance criteria should be utilized in the REIR/SEIS, e.g., that used in CCWD's Los Vaqueros Project EIR. This significance criteria considered impacts to be significant and needing detailed review if the chloride increase exceeded 5 mg/l or 5% of the basecase, which ever were larger, or if the increase caused the chloride concentration to come within 90% of a water quality standard. However, mitigation should also be provided in cases where the increase in chloride concentration causes the chloride concentration to exceed 50 mg/l at CCWD's Old River intake or to exceed CCWD delivered chloride goal at CCWD's Rock Slough and Old River intakes.

4. *Given the treatment technology CCWD uses, any increase in chloride can have an impact on treated water quality.*

As chlorides increase in Delta water, so does bromide. CCWD uses ozone for disinfection at both its Bollman and Randall Bold water treatment plants. With ozonation of water high in bromide, bromates are produced. Bromates are limited by drinking water standards. If they increase above the limit, CCWD would need to mitigate the impact by lowering pH or adding ammonia to water; neither was discussed in the REIR/SEIS as a mitigation need.

The REIR/SEIS expresses concern over any increased chloride and bromide levels in the EBMUD water supply, citing issues with disinfection byproducts, treatment plant operation, and wastewater reclamation. CCWD also has concerns about chlorides and bromides, and has invested substantial amounts of time and money to limit concentrations in their water supply. In addition to impacts on storage and water supply, there are impacts on treatment plant operation, public health, and consumer costs. It is unreasonable to conclude that the impact of increasing CCWD chlorides up to 30 mg/l on CCWD operations and CCWD customers is "less than significant".

ADEQUACY OF MITIGATION MEASURES

The REIR/SEIS should include mitigation measures for the potential impacts on CCWD customers and operations.

1. *Chapter 4 of the REIR/SEIS contains the following statement concerning mitigation measures for impairment of Delta water quality at CCWD's intake at Rock Slough by Alternatives 2, 4, 5, 6, 7 and 8 (all alternatives):*

   "No mitigation is required."

Given the potential for significant water quality impacts as previously described and the insufficient analysis of the potential impacts to CCWD, the recommendation of no mitigation appears unfounded and is inadequate.

2. *There are four basic alternatives to mitigate the potential impacts on CCWD customers and operations and meet EBMUD's supplemental water supply needs.*

These alternatives are:

- CalFed's enlarged Los Vaqueros Project
  Higher chloride levels at CCWD's Rock Slough and Old River intakes would require increased blending with water from Los Vaqueros Reservoir to achieve CCWD's goal of delivering water to their customers with less than 65 mg/l of chlorides. This increased need for blending water translates into a need for a larger reservoir to store the water needed for blending. In addition, if chloride levels are increased at CCWD's Old River intake, the blending water would have a higher chloride level and even more blending water would be needed. Compounding these impacts would be reduced periods available for diversion if the chloride level at their Old River intake exceeded 50 mg/l. To mitigate these impacts would require an enlarged Los Vaqueros Reservoir and an increase in the size of the Old River pump station and the transfer pump station. The CalFed Record of Decision proposes such an enlargement of Los Vaqueros Reservoir to provide water quality improvement for Bay Area users of Delta water. Participation by EBMUD in this project could meet EBMUD's water supply reliability goals and provide mitigation to CCWD.

- Store High Quality Water in Los Vaqueros
  To mitigate the impacts of impaired water quality at both Rock Slough and Old River, EBMUD and the USBR could also provide high quality water from the Mokelumne River, the American River and/or the Sacramento River for storage in Los Vaqueros. This high quality water normally would be delivered in above normal and wet years when surplus water would be available. The better the water quality, the less water and less storage would be required for mitigation.

- Provide High Quality Water to CCWD Treatment Plants
  Rather than storing high quality water in Los Vaqueros, EBMUD and the USBR could provide high quality water directly to CCWD's two water treatment plants. This water would have to be provided during times when increases in chloride levels would occur. These times would usually occur during dry years when EBMUD would need the water. To implement this mitigation alternative, the project causing the impact (which would be any of the alternatives) would have to deliver even more water. Potentially, these increased deliveries would cause even more adverse impacts.

- Provide Additional Treatment Processes at CCWD Treatment Plants
  To reduce chlorides and other associated water quality parameters (e.g. TDS and bromides) to pre-project levels (Alternative 1 – No Action) could require additional treatment processes. These processes could result in a treatment train similar to that recommended by EBMUD for Alternative 8, the Delta diversion alternative at Bixler. The additional treatment processes for some portion of the flow could include reverse osmosis, plus a disinfection step (such as ozonation or UV) as well as brine disposal (which the REIR/SEIS acknowledged would produce an impact if used by EBMUD). One mitigation measure available to EBMUD is funding the RO plant.

  The REIR/SEIS neither evaluated the water quality impacts on CCWD (or other Delta users or exporters) nor provided the data and information needed to evaluate the magnitude of the required mitigation measures. Consequently, it is not possible to provide detailed information on the alternative mitigation measures.

CONCLUSIONS

The alternatives presented in the REIR/SEIS lacked adequate evaluation and consideration of storage, either in ground water basins or surface reservoirs, as a key project element for obtaining delivery of American River and/or Sacramento River water under EBMUD's contract with the USBR. Additional storage would increase the reliability of EBMUD's supplies in dry years and would also increase their overall supply in all years. Surface storage in Los Vaqueros Reservoir also appears to be an efficient way to mitigate the adverse impacts the project would have on water quality at CCWD's intakes at Rock Slough and Old River, and on the effectiveness of their water treatment plants. Storage of high quality water in Los Vaqueros during wet years for subsequent use during dry years both for EBMUD's water supply needs and for mitigation of CCWD's water quality impacts should be considered and evaluated in a recirculated REIR/SEIS.

Figures and Tables from REIR/SEIS

Figures and Tables from REIR/SEIS

Figures and Tables from REIR/SEIS

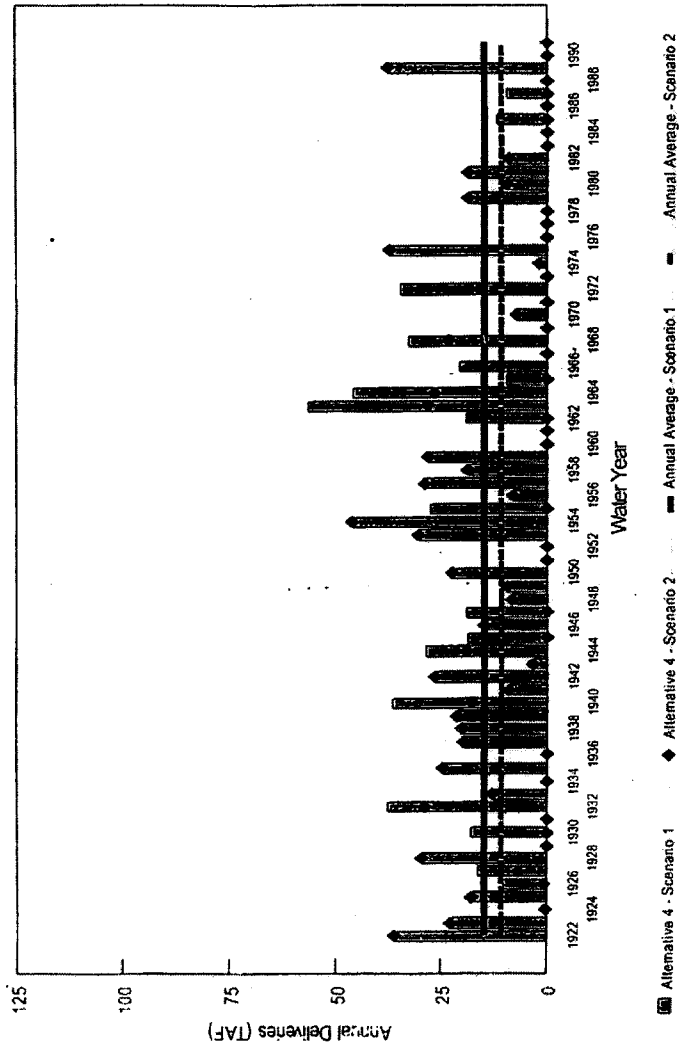


Figure 3-1.
Annual Deliveries for Alternative 4 Scenario 1 and Scenario 2

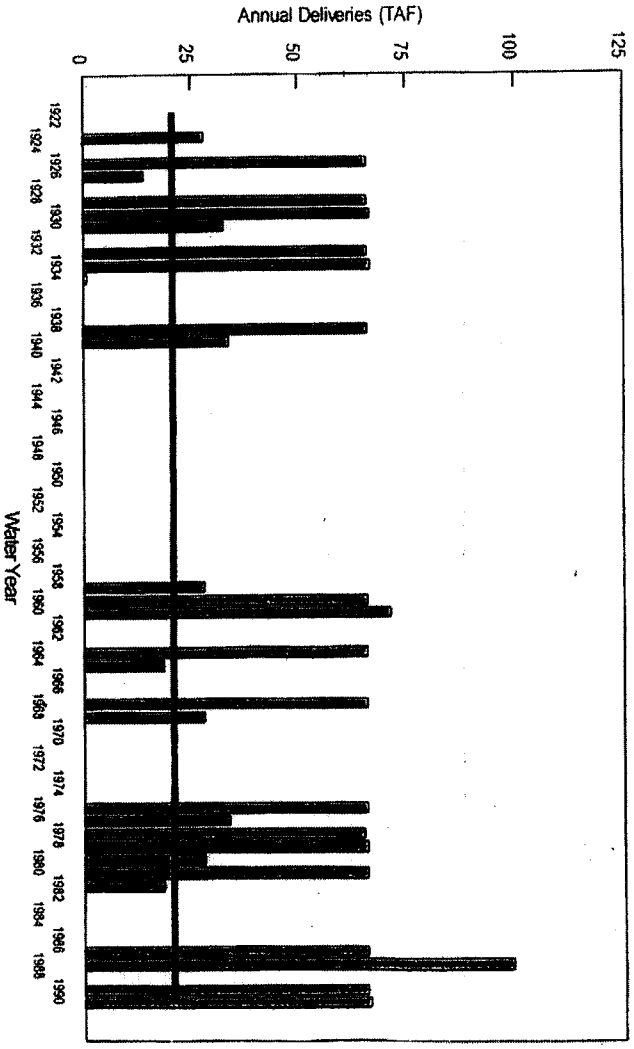


Figure 3-2.
Annual Deliveries for Alternatives 5, 6, 7, and 8

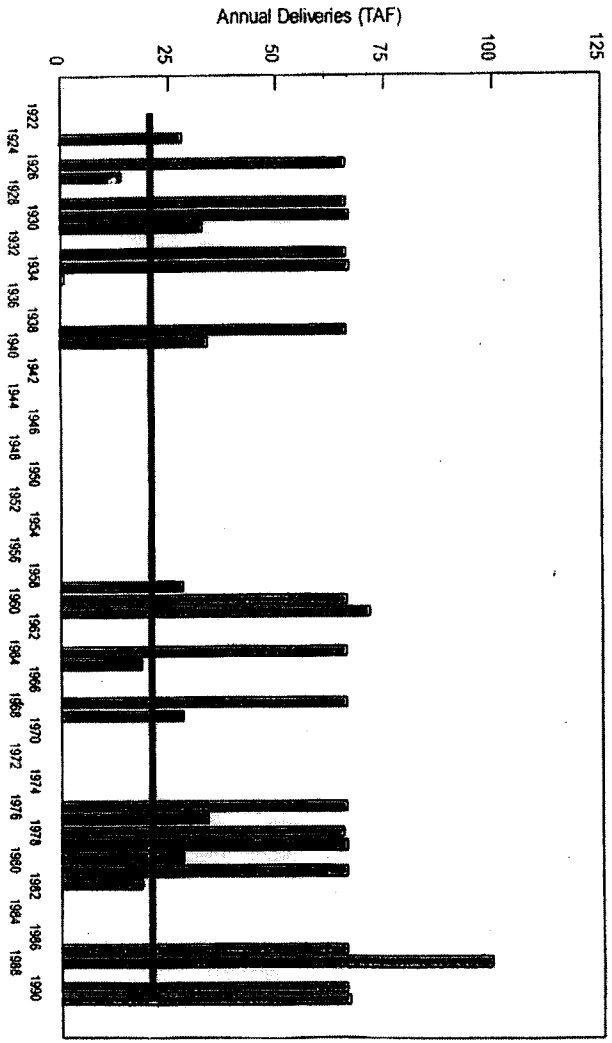


Figure 3-2.
Annual Deliveries for Alternatives 5, 6, 7, and 8

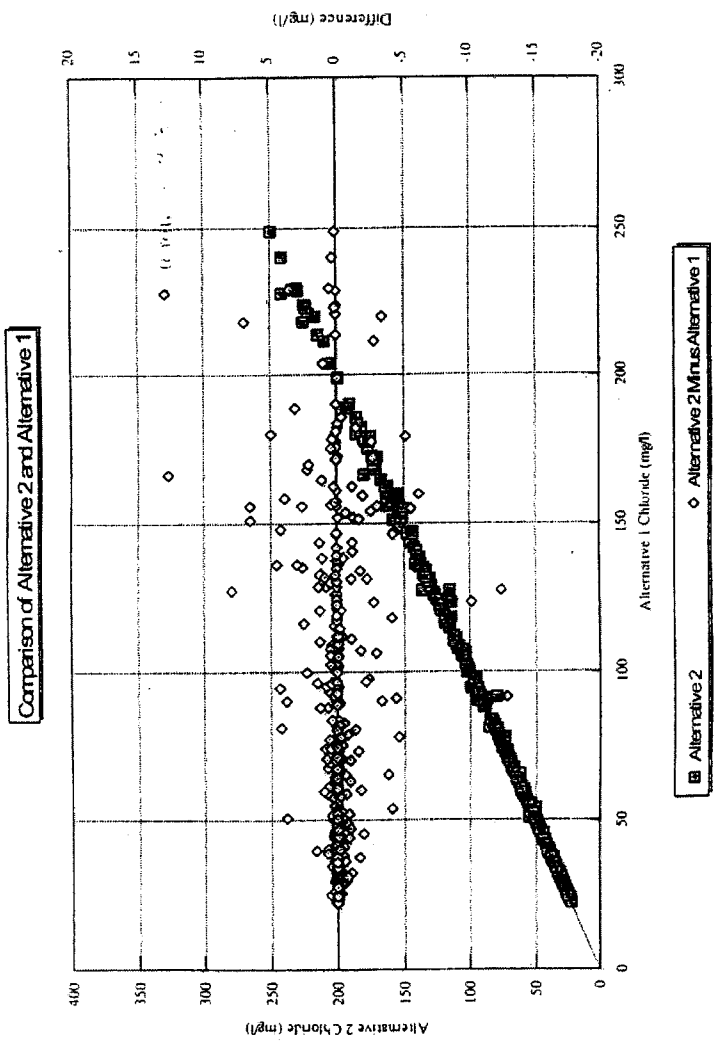


Figure 4-1.
Rock Slough Chloride: Alternative 2 and Alternative 1

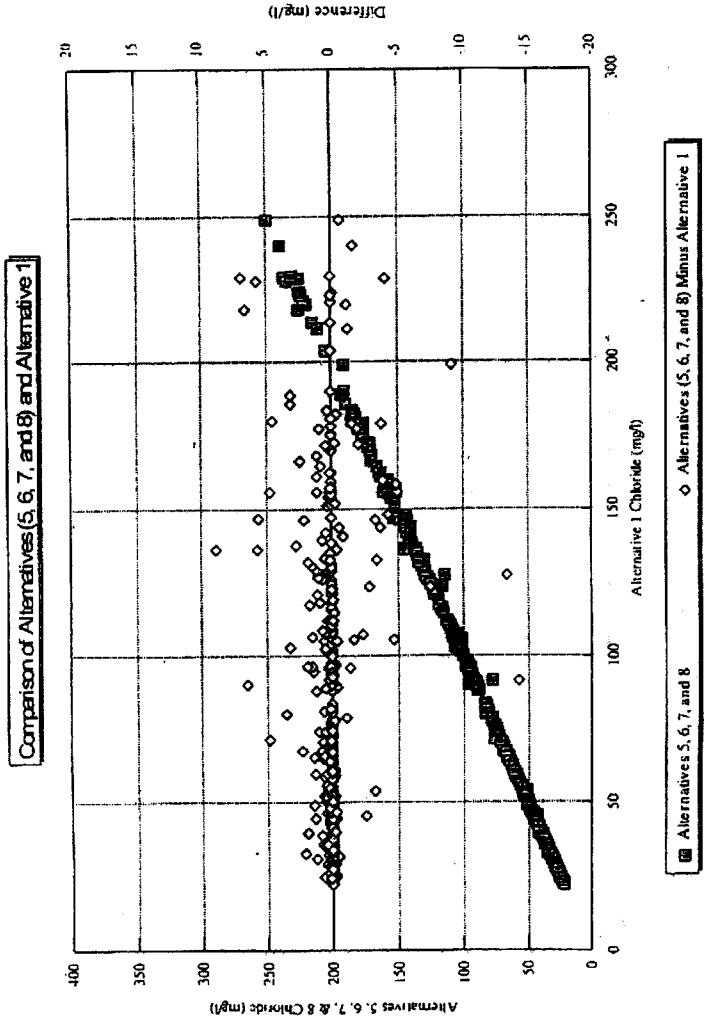


Figure 4-2.
Rock Slough Chloride: Alternatives 5, 6, 7, and 8 and Alternative 1

film control in the finished water distribution system. Furthermore, EBMUD's distribution system has extremely long detention times, and is dependent on stable water with low TOC levels for its integrity. Any increase in TOC could create serious water quality degradation within the distribution system.

TABLE 1

Water Quality Data Comparison (Using 90th percentile values)

Parameter	Mokelumne River - Pardee Reservoir	American River at E.A. Fairbairn Water Treatment Plant	Sacramento River at Sacramento River Water Treatment Plant*	Delta - Indian Slough at Bixler
Turbidity, NTU	1.0	4.4	15	24
Total Organic Carbon, mg/L	3.2	2.1	3.3	7.6
Total Dissolved Solids, mg/L	38	55	102	550
Bromide, µg/L	38	NA	NA	665
Hardness, mg/L	17	27	53	140
Phosphate as P, mg/L	0.001	0.15	0.11	0.12
Nitrate as N, mg/L	0.001	0.16	0.6	0.86
Total Coliforms, cfu/100 mL	68	2400	2400	1300
Fecal Coliforms, cfu/100 mL	4	230	230	118

* Water quality at both the Sacramento River WTP and Freeport sites were generally equivalent and could be used to design the pretreatment process needed for either diversion site.

3. Total dissolved solids is slightly increased at the Sacramento River sites and substantially increased at the Delta site. This parameter is generally considered to be aesthetic, but has economic impacts for both residential and commercial/industrial customers. The SMCL for total dissolved solids (TDS) is 500 mg/L.

4. Bromide data for the Sacramento River diversion sites was not available, but data from downstream on the Sacramento River at Greene's Landing suggests that bromide levels would be similar to those of the Mokelumne River. Conversely, bromide levels are substantially increased at the Delta. This is especially important from the perspective of disinfection. If ozone is used as a disinfectant, it will react with the bromide in this water to form bromate, which has a current MCL of 10 µg/L. If free chlorine is used as a disinfectant, it will react with the bromide and the organic matter present to form brominated trihalomethanes and haloacetic acids. These brominated species are considered to be higher risk carcinogens than their chlorinated counterparts.

SUPPLEMENTAL WATER SUPPLY PROJECT - PROPOSED DIVERSION SCENARIOS

All water utilities should deliver to the consumer an adequate supply of high quality drinking water at a cost commensurate with the needs of each individual water system. To achieve this objective, the water should come from the highest quality source of supply available and be appropriately treated to meet regulatory and water supply industry criteria.

TABLE 2

Supplemental Supply Source Water/Treatment Alternative Qualitative Comparison

Alternative	Impacts to Customers[1]	Vulnerability[2]	New & Existing D/DBP Precursors	Nutrients	New - Emerging Contaminants[3]	New - Emerging Pathogens[4]
2-3	Low	Low	Low	Low	Low	Low
4	Low	Low	Low	Low	Low	Low
5	Mod	Mod	Low	Mod	High	High
6	Mod	Mod	High	High	High	High
7	Mod	Mod	High	High	High	High
8	High	High	High	High	High	High

1 Increased taste and odor, increased salinity impacts.
2 Risk and susceptibility to urban and agricultural runoff, permitted discharges, and spills.
3 Level of activity in watershed that could be the source of new contaminants posing acute or chronic public health risk.
4 Level of activity in watershed that could be the source of new pathogens posing acute or chronic public health risk.

The vulnerability of drinking water sources to both regulated and unknown and/or emerging contaminants has also prompted the US Environmental Protection Agency (EPA) to make source water protection a priority. In its "Environmental Goals for America with Milestones for 2005", EPA has set the goal of having 60 percent of the population served by community water systems that have source water protection programs in place. To achieve this goal EPA has implemented a Source Water Assessment and Protection Program to supplement its sanitary survey program that was initiated in 1989.

A more elaborate presentation of drinking water industry and regulatory agency prioritization for source water selection/protection and EBMUD's interpretation of this approach is presented in Volume II Technical Appendices, Chapter 5, Attachment A of EBMUD's 1997 Supplemental Water Supply Project Draft EIR/EIS.

SUPPLEMENTAL WATER SUPPLY PROJECT PROPOSED DIVERSION SCENARIOS

TABLE 11
Cost Estimates for Alternatives (155 cfs capacity)

Alternatives	Conveyance		Treatment		Total		Present Value[a]	
	Capital	O&M	Capital	O&M	Capital	O&M	Total	$/AF diverted
Alternative 2 American River at Nimbus								
Canal Terminus, Alignment 2								
1 Actiflo and Ozone Disinfection	$135	$2.0	$113	$2.6	$248	$4.6	$298	$658
2. Actiflo and UV Disinfection	$135	$2.0	$65	$1.6	$200	$3.6	$237	$523
Contract Turnout, Alignment 4								
1 Actiflo and Ozone Disinfection	$218	$2.3	$113	$2.6	$331	$4.9	$371	$819
2. Actiflo and UV Disinfection	$218	$2.3	$65	$1.6	$283	$3.9	$310	$684
Alternative 4 American River Modified Project								
Site 5 Intake								
1 Actiflo and Ozone Disinfection	$254	$2.7	$113	$2.6	$367	$5.3	$409	$903
2. Actiflo and UV Disinfection	$254	$2.7	$65	$1.6	$319	$4.3	$348	$768
Fairbairn Intake								
1 Actiflo and Ozone Disinfection	$224	$2.7	$113	$2.6	$337	$5.3	$384	$849
2. Actiflo and UV Disinfection	$224	$2.7	$65	$1.6	$289	$4.3	$323	$714
Alternative 5 Sacramento River at Sacramento WTP								
A Meet Regulatory Requirements								
1 Actiflo and Ozone Disinfection	$270	$3.2	$113	$3.0	$383	$6.2	$441	$689
2. Actiflo and UV Disinfection	$270	$3.2	$65	$1.9	$335	$5.1	$378	$591
B Similar to Current Finished Water Quality								
Actiflo, Ozone and UV Disinfection	$270	$3.2	$99	$2.6	$369	$5.8	$421	$658
Alternative 6 Sacramento River at Freeport East Conveyance								
A Meet Regulatory Requirements								
1 Actiflo and Ozone Disinfection	$247	$3.2	$113	$3.0	$360	$6.2	$421	$659
2. Actiflo and UV Disinfection	$247	$3.2	$65	$1.9	$312	$5.1	$358	$560
B Similar to Current Finished Water Quality								
Actiflo Ozone and UV Disinfection	$247	$3.2	$99	$2.6	$346	$5.8	$401	$628
Alternative 7 Sacramento River at Freeport - South Conveyance								
A Meet Regulatory Requirements								
1 Actiflo and Ozone Disinfection	$254	$3.2	$122	$3.0	$376	$6.2	$435	$681
2 Actiflo and UV Disinfection	$254	$3.2	$69	$1.9	$323	$5.1	$368	$576
B Similar to Current Finished Water Quality								
Actiflo Ozone and UV Disinfection	$254	$3.2	$107	$2.6	$361	$5.8	$415	$649
Alternative 8 Delta at Indian Slough								
A Meet Regulatory Requirements								
1 Superpulsator w/ PAC, Ultrafiltration, and UV Disinfection	$42	$1.4	$211	$7.5	$253	$8.9	$392	$613
2. Superpulsator w /PAC, Rapid Sand Filtration, and UV Disinfection	$42	$1.4	$129	$4.6	$171	$6.0	$264	$414
B Similar to Current Finished Water Quality Microfiltration Reverse Osmosis Ozone and Corrosion Control	$329	$2.1	$404	$14.4	$733	$16.5	$941	$1,472

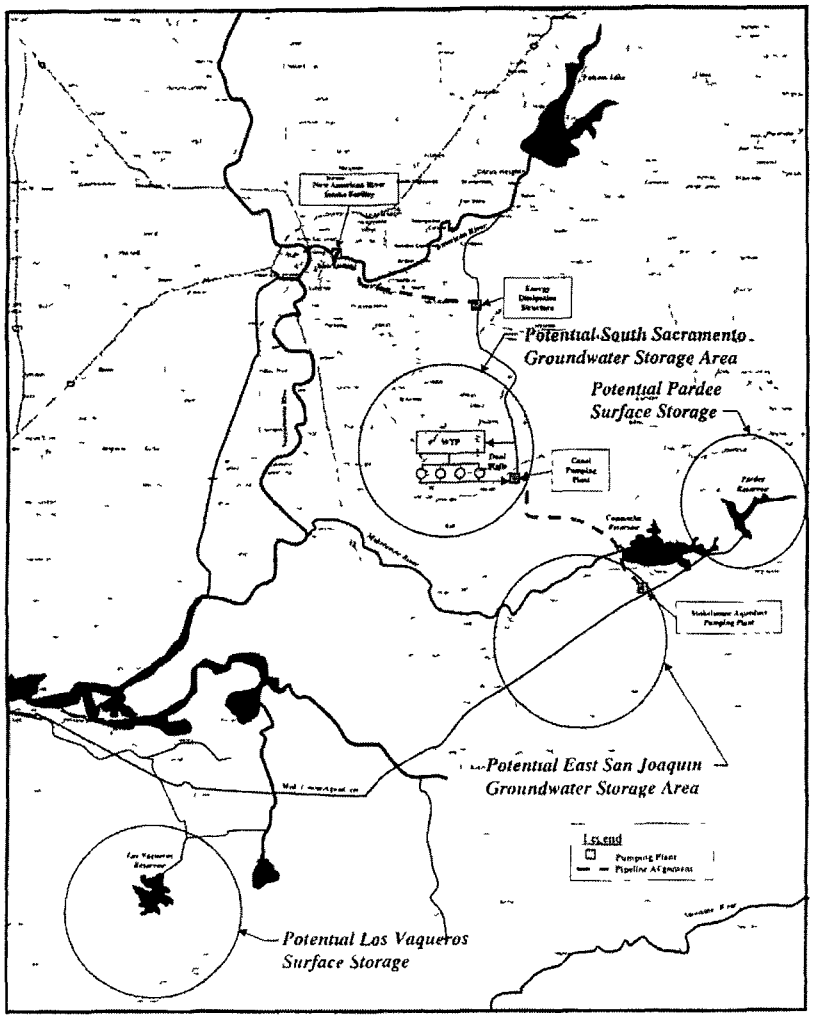
All costs expressed in August 2000 dollars Capital costs and total present value are million dollars O&M costs are million dollars per year

Operation and unit cost estimates were based on the following average annual deliveries
15.1 TAF/yr for Alternatives 2 and 4 21.3 TAF/yr for all other alternatives

Cost of water not included

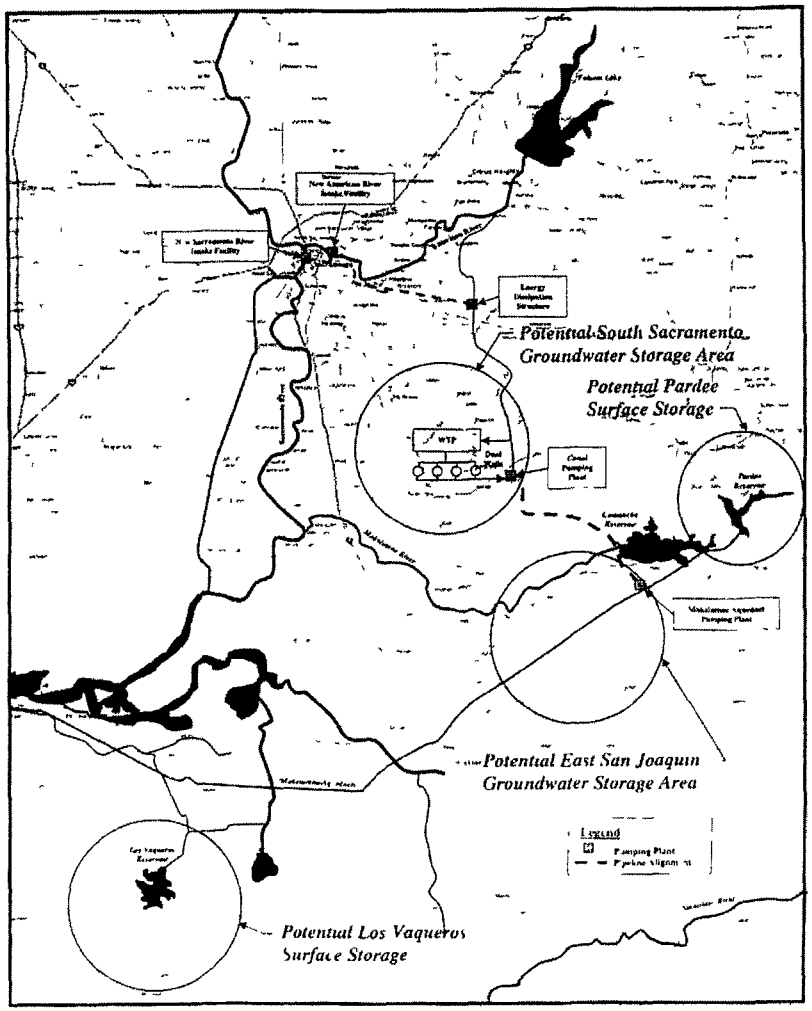
a Present value based upon assumptions used for the EBMUD Water Supply Management Program FIR
30-year project period 8% discount rate 5%/yr escalation of O&M costs
Salvage value computed assuming 4%/yr capital escalation and straight line depreciation over useful life of the facilities

New Figures from Comments on REIR/SEIS



MONTGOMERY WATSON

Figure 1
Modified Alternative 4 EBMUD Only
Lower American River Delivery Alternative with Storage



MONTGOMERY WATSON

Figure 2
Combined Alternatives 4 and 5 Sacramento River
American River Delivery Alternative with Storage

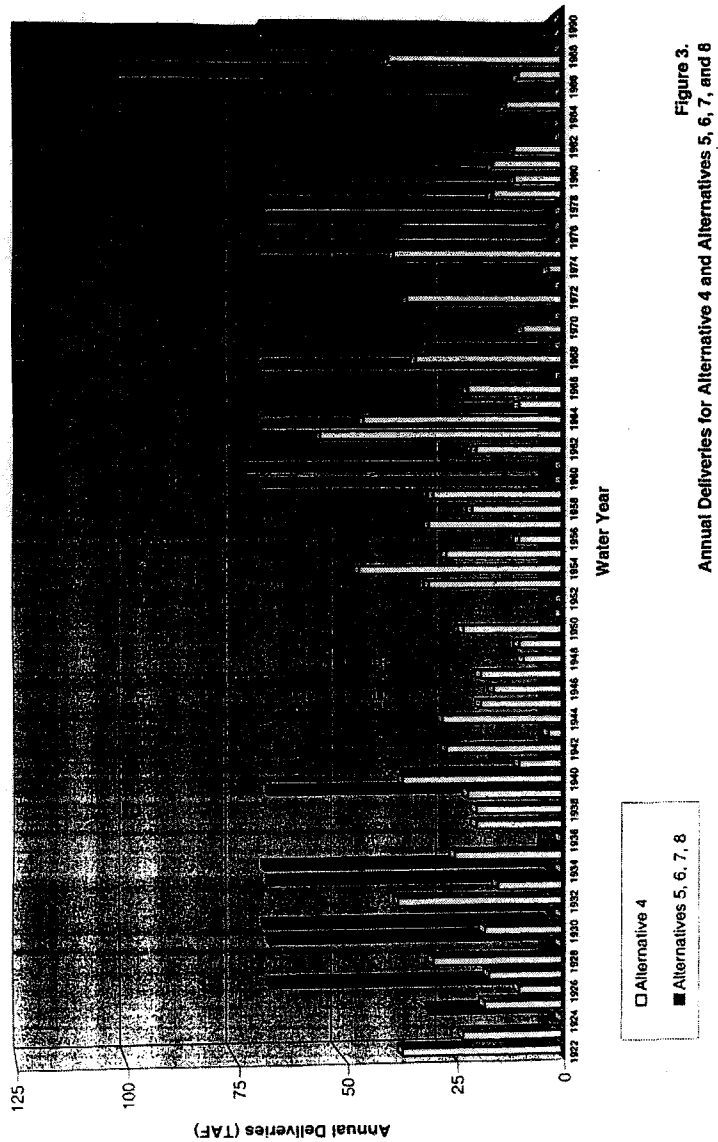


Figure 3.
Annual Deliveries for Alternative 4 and Alternatives 5, 6, 7, and 8

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Attachment C

The Impacts of Increased Delta Salinity on Contra Costa Water District and the Performance of CCWD's Los Vaqueros Project

Summary

Even what may appear to be small degradations to Delta water quality resulting from EBMUD's supplemental water supply project can have significant impacts on the quality of water delivered to the customers of Contra Costa Water District (CCWD) and the availability of emergency storage in CCWD's Los Vaqueros Reservoir. Any degradation affects CCWD's ability to fill Los Vaqueros reservoir and while also increasing the demand on the reservoir for blending. The result is significant adverse impacts on CCWD's delivered water quality and the emergency supply reliability for the District's 430,000 customers.

Background

CCWD is the largest urban Central Valley Project (CVP) contractor and is almost completely reliant upon the Delta for its water supply. CCWD has a contract with the U.S. Bureau of Reclamation for 195 thousand acre-feet (TAF) of water per year. Until 1997, CCWD diverted all of its CVP water supply from the Rock Slough intake to the Contra Costa Canal and had only three to five days of emergency storage within its service area. Consequently, CCWD's water deliveries were subject to large variations in salinity and the District and its customers were exposed to the risk of severe water shortages if its Delta water supply was to become contaminated for an extended period.

In 1988, residents of central and eastern Contra Costa County approved the Los Vaqueros Project and authorized the construction of the $450 million Los Vaqueros Project. In 1994, the State Water Resources Control Board adopted Decision 1629, which gave CCWD the necessary water right permits and amendments to CVP water rights to construct and operate the Los Vaqueros Project. Initial filling of the 100 TAF Los Vaqueros Reservoir began in 1998 and was completed on January 28, 1999, and in September 1999, blending water was released from the reservoir for the first time to meet the District's 65 mg/L goal.

Unlike most reservoir projects, Los Vaqueros Reservoir was not built to increase the water supply to CCWD. Rather, the primary purpose of the Project is to improve delivered water quality to CCWD's 430,000 customers and to provide improved water supply reliability in the event of a catastrophic event in the Delta. It also provides important benefits to fisheries by enabling CCWD to use the reservoir instead of the Delta as its water source during sensitive periods for fish. As such, it is important that the reservoir remain as full as possible and that the quality of the water diverted to and stored in the reservoir be as high as possible.

CCWD Raw Water Operations

CCWD's raw water system consists of three Delta pumping plants, Los Vaqueros Reservoir, and a canal and piping network including the Contra Costa Canal. These facilities provide conveyance to CCWD's water treatment plants or to CCWD's raw water customers. CCWD diverts water from the Delta through intakes at Rock Slough and at Old River located in the south-western Delta. A third intake in the western Delta at Mallard Slough is also used when water quality conditions allow. From the Delta intakes, direct deliveries can be made to CCWD's service area via the Contra Costa Canal. Water pumped from the Old River intake can also be stored in Los Vaqueros Reservoir. Releases from Los Vaqueros Reservoir flow by gravity to the Contra Costa Canal.

Los Vaqueros Reservoir is generally operated as a blending reservoir to improve water quality for CCWD's customers, however, the facility also provides a three to six month emergency supply. When Delta water is of high enough quality, usually determined by chloride concentration, water diverted from the Old River intake is stored in Los Vaqueros Reservoir while demand in CCWD's service area is met through diversions at the Rock Slough and Mallard Slough intakes. Any remaining capacity at the Old River intake can also be used to make direct deliveries to the service area. When Delta water degrades, either through seawater intrusion or by agricultural drainage, water previously stored in Los Vaqueros Reservoir is released and blended with Delta diversions.

CCWD's biological opinions contain terms related to the operation of the Los Vaqueros Project. These terms are designed to allow CCWD's operations to improve conditions for Delta fisheries, particularly those listed under the Endangered Species Act such as Delta smelt and winter-run chinook salmon, by limiting CCWD's diversions and the allowable time periods when Los Vaqueros Reservoir can be filled. Specifically, the terms in the U.S. Fish & Wildlife Service biological opinion for CCWD's Los Vaqueros Project for the protection of Delta smelt (September 9, 1993) and California Department of Fish & Game Management Authorization for the Los Vaqueros Project (January 24, 1994), limit CCWD's diversions of water to fill Los Vaqueros Reservoir based on the location of X2 (the distance of the 2 ppt isohaline from the Golden Gate). Diversions to storage in Los Vaqueros Reservoir are allowed when the 14-day running average of X2 is west of Chipps Island from February through May, when the 14-day running average of X2 is west of Collinsville in January and June through August, and last, filling is allowed in December if Delta smelt adults are not present at the Old River intake or if X2 is west of Collinsville.

The SWRCB recognized these restrictions on CCWD's operations in SWRCB Decision 1641 when it included terms and conditions for the State Water Project and Central Valley Project regarding operations of the export pumps at Banks and Tracy for Joint Point of Diversion. Appropriately, diversions by a junior water right holder which cause X2 to move east of Chipps Island or Collinsville, which in turn cause CCWD, as a senior water right holder, to cease diversions to Los Vaqueros Reservoir under its biological opinions and water rights, are not allowed.

CCWD's operational priority is to fill Los Vaqueros Reservoir with high quality water whenever possible and to minimize releases from Los Vaqueros Reservoir. This keeps CCWD prepared for an emergency, such as a contamination spill in the Delta, or for an extended dry period that would result in high Delta salinity from seawater intrusion. At present, diversions to Los Vaqueros are generally performed only when chloride concentration at the Old River intake is lower than 50 milligrams per liter (mg/L). The District's goal is to deliver no more than 65 mg/L chlorides to its service area. The use of the two Delta pumping plants is based on demand, water quality, capacity, pumping costs and environmental commitments. While local watershed runoff, including rainfall and Kellogg Creek inflow, changes the storage in the reservoir, Los Vaqueros Reservoir is an "off-stream" storage reservoir filled primarily by diversions from the Delta. Only about 4% of the water stored in Los Vaqueros Reservoir is derived from the watershed.

Benefits of the Los Vaqueros Project

The Los Vaqueros Project provides the following benefits:

Improved Delivered Water Quality: The salinity concentration at Rock Slough varies from as low as 15 mg/L chlorides during summer months in wet years to as high as 250 mg/L chlorides during the late summer and fall of drier years. When chlorides rise above 100 mg/L, customers notice the salty taste of their drinking water and the salty water affects industries because of the effects of the high TDS on their operations. The Los Vaqueros Project provides access to better water quality at Old River and stores higher quality water in Los Vaqueros Reservoir for later use to blend with water from the Delta when Delta salinity increases. Modeling studies indicate that the Los Vaqueros Project should meet the 65 mg/L delivered goal more than 90% of the time. Additionally, the Project allows CCWD to deliver a more uniform quality of water throughout the year.

Emergency Water Supply Reliability: Because CCWD had no significant storage reservoir before the construction of Los Vaqueros Reservoir, CCWD was subject to severe water shortages if a catastrophic event, such as a severe earthquake, occurred in the Delta. Los Vaqueros Reservoir has a dedicated emergency storage of 70 TAF for emergency purposes in normal and wet year-types, and is reduced to 44 TAF in dry and critical year-types. The 70 TAF figure represents a three-month supply during the peak demand months at a 2020 level of development, assuming 25% rationing. Currently, 70 TAF represents about a six-month emergency supply for CCWD.

Reduced Delta Diversions during Fish Sensitive Periods: The Los Vaqueros Project also provides significant benefits to fish by allowing CCWD to stop diverting from the Delta for 30 days during fish sensitive periods in the spring (typically during April and May). When Los Vaqueros Reservoir is above emergency storage, for 30 days each spring, CCWD ceases its Delta diversions at Rock Slough and Old River and instead relies on Los Vaqueros Reservoir for its water supply. The actual timing of the 30-day no-diversion period is determined in consultation with the state and federal fishery agencies to maximize the benefits to Delta fisheries.

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Increased Operational Flexibility to Benefit Delta Fisheries: The Los Vaqueros Project includes a fish monitoring program adjacent to CCWD's Delta intakes. Because CCWD has a new intake at Old River, it has flexibility to change its Delta diversion point. In consultation with the fishery agencies CCWD uses the monitoring data to determine which Delta intake should be used to minimize impacts to Delta fisheries. Results over the last two years indicate that very few endangered species are being entrained by CCWD's Delta diversions (for example, only one (1) delta smelt has been collected at the Old River intake during the same period of time when the export facilities took about 200,000 delta smelt).

Recreational Opportunities and Wildlife Benefits: CCWD has purchased all of the land in the watershed of Los Vaqueros Reservoir and has dedicated portions of it for environmental protection purposes. CCWD is implementing a recreation plan for the watershed that protects the environment and the water quality benefits of the Reservoir. Several endangered species inhabit the Los Vaqueros watershed and CCWD has devoted substantial resources to protect and enhance their habitat.

Impacts of Increased Delta Chlorides to CCWD and the Los Vaqueros Project

CCWD is very concerned about projects such as EBMUD's supplemental water supply project that increase salinity at its Delta intakes. Not only is CCWD affected by degraded water quality in the Delta, but all of the benefits derived from the Los Vaqueros Reservoir Project are also adversely affected, especially in drier years.

Small increases in Delta salinity can produce large increases in CCWD's delivered water quality. One reason is that the increase in Delta chlorides may cause Delta chlorides to exceed CCWD's delivered chloride goal of 65 mg/L requiring the release of blending water from Los Vaqueros Reservoir. A second reason is that the increase in Delta chloride may cause Old River intake chlorides to rise above 50 mg/L preventing CCWD from filling Los Vaqueros Reservoir during a period when blending storage levels are already relatively low.

Both of these factors result in lower Los Vaqueros Reservoir blending storage. This in turn reduces the period of time that CCWD can maintain delivered chlorides at 65 mg/L during periods of poorer Delta water quality. If blending water is available in the No Action case, for example, CCWD can make deliveries of 65 mg/L water. If blending storage is depleted in the with Project case, CCWD will be forced to deliver water directly from the Delta at concentrations that can significantly exceed 65 mg/L chlorides.

Lower storage in Los Vaqueros as a result of the adverse impacts of EBMUD's supplemental water supply project can impact the District's operations in an emergency when the District will rely on Los Vaqueros for its emergency water supply. Lower storage levels in Los Vaqueros also reduce fisheries benefits because CCWD may be unable to cease Delta diversions for 30 days in the spring (because storage is below the emergency storage threshold). This reduction in

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fisheries benefits would be an indirect environmental impact of EBMUD's supplemental water supply project that must be analyzed and disclosed in a revised and recirculated REIR/SEIS.

Elevated chloride levels in the Delta that require CCWD to release more water from Los Vaqueros Reservoir also financially impact CCWD because of the large pumping cost associated with refilling the Reservoir.

Conclusion

Contra Costa Water District's Los Vaqueros Reservoir Project provides improved water quality and emergency water supply reliability to CCWD's 430,000 customers. The Los Vaqueros Reservoir also provides benefits to Delta fisheries, endangered terrestrial species, and recreational opportunities. Degradation of Delta water significantly impacts the District's ability to provide these benefits. Even small increases in salinity can translate to a significant impairment of the operation of the Los Vaqueros Project and can significantly degrade CCWD's delivered water quality.

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Attachment D

EBMUD's Deliveries to the Service Area under Different Alternatives

This attachment presents annual average service area delivery rates from EBMUDSIM simulations of four alternatives:

- Alternative 1 No-Action
- Alternative 2 Nimbus Diversion (under Hodge conditions)
- Alternative 3 Joint Proposal (Diversion from Lower American River)
- Alternative 4 Modified Proposal (Diversion from Lower American River under Hodge conditions)

The data were provided to CCWD by John Skinner (EBMUD) on November 14, 2000 by electronic mail. The following table presents the annual average deliveries in million gallons per day (MGD). The maximum annual average delivery rate is 228 MGD.

Note that the lowest annual delivery occurs during the third year of EBMUD's artificial drought planning sequence (design drought), i.e., in 1978. The lowest delivery is 61 MGD or 21% of maximum. The Joint Proposal alternative minimum delivery is 169 MGD or 74% of maximum.

However, note also that in all other years for all alternatives, including the No Action alternative (i.e., no supplemental water supply), EBMUD is able to meet its rationing goal of 75%. This clearly demonstrates that without the assumption of an artificial third year of the historical 1976-1977 drought, EBMUD would not need a supplemental water supply.

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Calendar Year	No-Action (MGD)	Nimbus Diversion (MGD)	Joint Proposal (MGD)	Modified Proposal (MGD)	Calendar Year	No-Action (MGD)	Nimbus Diversion (MGD)	Joint Proposal (MGD)	Modified Proposal (MGD)
1921	228	228	228	228	1961	*172*	175	188	174
1922	228	228	228	228	1962	198	225	228	212
1923	228	228	228	228	1963	228	228	228	228
1924	207	207	209	207	1964	221	228	228	228
1925	228	228	228	228	1965	228	228	228	228
1926	220	224	228	222	1966	228	228	228	228
1927	228	228	228	228	1967	228	228	228	228
1928	228	228	228	228	1968	225	228	228	228
1929	221	217	228	221	1969	228	228	228	228
1930	195	205	228	202	1970	228	228	228	228
1931	*171*	173	205	173	1971	228	228	228	228
1932	228	228	228	228	1972	228	228	228	228
1933	214	228	228	223	1973	228	228	228	228
1934	184	209	220	186	1974	228	228	228	228
1935	228	228	228	228	1975	228	228	228	228
1936	228	228	228	228	1976	208	208	214	208
1937	228	228	228	228	1977	*171*	*171*	*171*	*171*
1938	228	228	228	228	1978	**79**	**61**	*169*	**61**
1939	217	224	228	221	1979	*171*	179	182	176
1940	228	228	228	228	1980	228	228	228	228
1941	228	228	228	228	1981	219	226	228	222
1942	228	228	228	228	1982	228	228	228	228
1943	228	228	228	228	1983	228	228	228	228
1944	228	228	228	228	1984	228	228	228	228
1945	228	228	228	228	1985	228	228	228	228
1946	228	228	228	228	1986	228	228	228	228
1947	228	228	228	228	1987	210	211	220	210
1948	228	228	228	228	1988	*171*	*171*	185	*171*
1949	228	228	228	228	1989	178	189	191	184
1950	228	228	228	228	1990	177	182	190	179
1951	228	228	228	228	1991	*171*	*171*	182	*171*
1952	228	228	228	228	1992	*171*			
1953	228	228	228	228	1993	228			
1954	228	228	228	228	1994	210			
1955	228	228	228	228	1995	228			
1956	228	228	228	228					
1957	228	228	228	228	**Ave**	215.4	217.5	221.5	216.6
1958	228	228	228	228	**Max**	228	228	228	228
1959	216	225	222	222	**Min**	79	61	169	61
1960	187	191	208	190					

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Attachment E

Historical Unimpaired Mokelumne River Runoff

Calendar Year	Mokelumne Hill Runoff (TAF)	Three-Year Total Runoff (TAF)	Calendar Year	Mokelumne Hill Runoff (TAF)	Three-Year Total Runoff (TAF)	Calendar Year	Mokelumne Hill Runoff (TAF)	Three-Year Total Runoff (TAF)
1906	1429		1938	1136	2850	1970	905	2712
1907	1660		1939	326	2278	1971	742	3006
1908	467	3556	1940	881	2343	1972	545	2191
1909	1304	3431	1941	882	2088	1973	894	2180
1910	800	2571	1942	999	2762	1974	860	2298
1911	1516	3620	1943	930	2811	1975	819	2572
1912	428	2744	1944	499	2429	1976	192	1871
1913	416	2359	1945	832	2262	1977	155	1166
1914	1083	1926	1946	664	1996	1978	941	1288
1915	842	2340	1947	386	1882	1979	715	1811
1916	1068	2992	1948	614	1664	1980	1107	2763
1917	833	2743	1949	512	1511	1981	572	2394
1918	554	2455	1950	1287	2412	1982	1524	3203
1919	579	1966	1951	686	2484	1983	1929	4025
1920	521	1655	1952	1281	3254	1984	708	4161
1921	824	1924	1953	676	2643	1985	441	3078
1922	984	2329	1954	532	2489	1986	1171	2321
1923	654	2461	1955	657	1865	1987	264	1876
1924	221	1858	1956	1030	2219	1988	257	1692
1925	811	1686	1957	605	2292	1989	575	1096
1926	421	1453	1958	1050	2685	1990	302	1133
1927	875	2107	1959	366	2020	1991	353	1229
1928	601	1898	1960	418	1833	1992	292	946
1929	355	1831	1961	281	1064	1993	994	1638
1930	448	1404	1962	669	1368	1994	295	1580
1931	225	1028	1963	894	1845	1995	1561	2850
1932	726	1399	1964	676	2240	1996	1085	2941
1933	450	1400	1965	939	2510	1997	1004	3651
1934	292	1467	1966	488	2103	1998	1302	3392
1935	690	1432	1967	1071	2498			
1936	898	1880	1968	448	2007	Average	757	2230
1937	816	2404	1969	1360	2879			

Data Source: CDEC Mokelumne Hill Unimpaired Runoff

Mr. Ladensack and Mr. Schroeder
CCWD's Comments on the October 2000 Draft SWSP REIR/SEIS
November 20, 2000
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Attachment F

March 29, 2000 Letter from Reclamation Regional Director Lester Snow to EBMUD General Manager Dennis Diemer Encouraging EBMUD to Seek a Bay-Delta Regional Solution

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY REFER TO:

MP-100

March 29, 2000

Mr. Dennis M. Diemer
General Manager
East Bay Municipal Utility District
375 Eleventh Street
Oakland, California 94607

Dear Mr. Diemer:

This responds to your March 17, 2000, letter regarding future water management on the American River. You requested that Reclamation finalize the Environmental Impact Statement that addresses diversions for the East Bay Municipal Utility District (EBMUD) and issue a Record of Decision that supports an amendatory contract which has been negotiated over the past 2 years.

While Reclamation recognizes the many years of effort EBMUD has invested in this project, we cannot accommodate your request to finalize the Environmental Impact Statement and issue a Record of Decision. There are still significant local and regional issues which must be addressed before we can proceed with our decision-making process.

As you are aware, Reclamation has engaged in an alternate dispute resolution process and has received a report outlining several possible courses of action. Simultaneously, Reclamation has been working within the CALFED process to find regional solutions to problems that can serve a wide set of stakeholders by leveraging and packaging multiple resource options. CALFED is closing in on some very promising territory in relation to this approach.

We urge EBMUD to reconsider its position of going it alone on the American River. We see opportunities for solving EBMUD's dry year water supply problems while also meeting other water user needs within the range of options presently being considered. With cooperation and a sense of fair play, it may be possible to address EBMUD's dry year water supply shortage with less overall cost to EBMUD's customers, and less stakeholder conflict, than going it alone. To this end, we urge EBMUD to join Reclamation in an effort to quickly evaluate potential BayArea regional strategies which may address your water resource issues and remain open to continuing the alternate dispute resolution process should such be required.

Sincerely,

Lester A. Snow
Regional Director

Mr. Ladensack and Mr. Schroeder
CCWD's Comments on the October 2000 Draft SWSP REIR/SEIS
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Attachment G

CCWD Operations and Facilities

The Contra Costa Water District (CCWD) serves approximately 430,000 people throughout north-central and east Contra Costa County. Its clients also include 10 major industries, 36 smaller industries and businesses, and 50 agricultural users. CCWD operates raw water distribution facilities, water treatment plants, and treated water distribution facilities. CCWD supplies raw and treated water to Antioch, Concord, Diablo Water District (serving Oakley), Pittsburg, Southern California Water Company (serving Bay Point), Martinez, and parts of Pleasant Hill and Walnut Creek.

CCWD's treated water service area encompasses all or part of the cities of Concord, Clayton, Clyde, Pleasant Hill, Walnut Creek, Martinez, and Port Costa. Treated water for this service area is provided from the District's Bollman Water Treatment Plant in Concord. The 75 MGD Bollman facility uses chlorination for pre-oxidation and intermediate ozonation. CCWD also supplies treated water to the Diablo Water District (DWD), which serves customers in Oakley from a plant jointly owned by CCWD and DWD. This Randall-Bold Water Treatment Plant is a 40 MGD direct/deep-bed filtration plant and utilizes both pre- and post-ozonation to provide a high quality drinking water to the customers in its service area.

CCWD is entirely dependent on the Delta for its water supply. The Contra Costa Canal and the recently completed Los Vaqueros Project make up CCWD's principal water supply and delivery system. CCWD diverts unregulated flows and regulated flows from storage releases from Shasta, Folsom, and Clair Engle reservoirs into the Sacramento River as a contractor of the United States Bureau of Reclamation's (Bureau) Central Valley Project (CVP). Under Water Service Contract I75r-3401 (amended) with the Bureau, CCWD can divert and re-divert up to 195,000 acre-feet annually (AFA) of water from Rock Slough and the new Old River intake. Currently, CCWD uses between 125,000 and 140,000 AFA. CCWD can also divert up to 26,780 AFA of water from Mallard Slough under its own water rights (Water Rights License No. 3167 and Permit No. 19856). The City of Antioch and Gaylord Container, both customers of the District, also have water rights permits to divert water from the Delta.

CCWD has obtained its water supply from the Delta since 1940. Delta water is subject to large variations in salinity and mineral concentrations. This water supply has also made CCWD and its customers vulnerable to any man-made or natural sources that could degrade Delta water quality. Degradation in water quality is objectionable to CCWD customers, costly to residential and industrial users, and increases public health risk. The most recent federal drinking water regulations promulgated in December 1998 impose stringent limits on disinfection by-products in treated water. To ensure that the bromate and total trihalomethanes (the principal disinfection by-products) standards are met, a low bromide level in the source water is critical. Bromide level is directly proportional to the chloride concentration in Delta water.

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Contra Costa Water District is committed to supplying its customers with the highest quality water practicable and providing all reasonable protection of the supply from any known or potential source of hazardous contamination. CCWD Resolution No. 88-45 states in part that:

> *"CCWD is committed to reducing the concentration of sodium and chloride in the District's water, thereby reducing household and landscape irrigation concerns and industrial and manufacturing costs caused by the fluctuating sodium and chloride level of CCWD's Delta source...."*

In May 1987, CCWD's Board of Directors adopted water quality objectives for water distributed within its service area. The acceptable concentration levels for sodium and chloride were established at 50 milligrams per liter (mg/L) and 65 mg/L, respectively. In 1988, the voter-constituents of CCWD approved the issuance of bonds to finance the $450,000,000 Los Vaqueros Project. The primary purposes of the Los Vaqueros Project are to improve the quality of water supplied to CCWD customers and minimize seasonal quality changes, and to improve the reliability of the emergency water supply available to CCWD. The Los Vaqueros Project consists of a reservoir with 100,000 acre-feet of storage, a new point of diversion (at Old River south of the Highway 4 crossing) which operates in conjunction with the current Rock Slough diversion point, water conveyance and delivery facilities, pumping plants, and other facilities.

On June 2, 1994, the State Water Resources Control Board issued Decision 1629 which gives CCWD additional rights to divert and store water for beneficial uses. The State Board subsequently issued Water Rights Permits No. 20749 and 20750 for filling Los Vaqueros Reservoir from the new intake at Old River near Highway 4 and diversion and storage of the water of Kellogg Creek. These rights are in addition to the contractual rights to divert and store water furnished through the CVP. Construction of the reservoir began in September 1994 and was completed in January 1998. Diversion from the Old River intake for delivery to CCWD's service area began in the summer of 1997. Up to 95,850 AFA may be diverted for storage between November 1 of each year to June 30 of the succeeding year under Water Rights Permit No. 20749. On January 28, 1999, the Los Vaqueros Reservoir was filled to 100,000 acre-feet for the first time. In February 1999, CCWD released water from the reservoir for the first time for use in the District's service area. These releases were also scheduled to allow CCWD to cease all diversions during fish sensitive periods and provide benefits to the Delta ecosystem.

A key to successful performance of the Los Vaqueros Project is the District's ability to fill and continue to refill the reservoir from Old River with high quality water, and to use that water for blending when salinity at the District's Delta intakes exceed the 65 mg/L chloride goal. Any increases in Delta salinity caused by new Bay-Delta projects increase the demand for blending water releases from Los Vaqueros Reservoir and at the same time reduce the availability of high quality water for refilling. The District and its 430,000 customers will be impacted through higher pumping costs to replace the extra blending water that is released, through additional treatment costs, and through the increased corrosion and health risks of a higher salinity water supply.

Responses to Comments of the Contra Costa Water District

Note: Contra Costa Water District's (CCWD's) comments on the 2000 REIR/SEIS are contained in a comment letter with supporting attachments. Attachment A provides CCWD's detailed comments. The remaining attachments provide supporting information for those comments but raise no separate comments. Responses are therefore provided to CCWD's cover letter and to Attachment A.

RL 11-1, Richard Denton, Contra Costa Water District
This comment generally addresses the need for the project, its potential environmental impacts, and water quality issues. See responses to detailed comments below that address each of these issues.

RL 11-2, Richard Denton, Contra Costa Water District
See response to Comment L20-2 in Chapter 6 of this document. In addition, Reclamation has conducted a detailed needs analysis as part of its Long Term Contract Renewal process and has determined that EBMUD's need for a supplemental water contract is 150,000 acre-feet (see Appendix C to this document).

RL 11-3, Richard Denton, Contra Costa Water District
The Supplemental Water Supply Project alternatives, with a capacity of 155 to 35 cubic feet per second (cfs), cannot be compared to alternatives considered during the CALFED planning process, which included alternatives with much greater capacities (over 10,000 cfs) and which were being considered to meet entirely different objectives involving statewide water supply. The environmental effects of the Supplemental Water Supply alternatives are fully described in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RL 11-4, Richard Denton, Contra Costa Water District
See response to Comment L20-1 in Chapter 6 of this document and response to Comment RL 11-2 above. The District's conceptual ideas described in this comment are at a planning level only, and there is no evidence that any can be implemented at this time. These alternatives would also not meet EBMUD's Supplemental Water Supply Project objectives and are therefore not considered feasible alternatives.

RL 11-5, Richard Denton, Contra Costa Water District
EBMUD's project objectives are described on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. The alternatives considered have the potential to meet all or most of the project objectives. The project objectives do not include meeting EBMUD's full drought need for water. See also response to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document.

RL 11-6, Richard Denton, Contra Costa Water District
See response to "Delta and Sacramento River" major issue in Chapter 3 of this document. All of the alternatives considered in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS would be compatible with projects to store surplus water, should such feasible projects be identified in the future.

RL 11-7, Richard Denton, Contra Costa Water District
As clearly described in the 2000 REIR/SEIS on pages 4-4 and 4-5, modeled changes to salinity at CCWD's intakes are essentially undetectable (-0.01 to 0 mg/L chloride, depending on the alternative) and do not vary substantially. This information clearly supports the finding that the impacts of the Supplemental Water Supply Project alternatives on CCWD's operations would be less than significant. Detailed modeling information has been requested by and provided to CCWD.

RL 11-8, Richard Denton, Contra Costa Water District
The impacts of the alternatives are described in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. Very few impacts were determined to be significant and unavoidable. The groundwater projects mentioned in this comment are in the preliminary planning stages and may or may not be feasible. In addition, these projects would not meet EBMUD's Supplemental Water Supply Project objectives.

RL 11-9, Richard Denton, Contra Costa Water District
See response to Comment L20-4 in Chapter 6 of this document. Pardee Reservoir is one of the older major facilities in the state and may require significant maintenance or repair in the future.

RL 11-10, Richard Denton, Contra Costa Water District
See responses to detailed water treatment Comments RL 11-48 through RL 11-55 below.

RL 11-11, Richard Denton, Contra Costa Water District
EBMUD adds chlorine in the Mokelumne Aqueducts to achieve needed pathogen removal. In accordance with the federal Surface Water Treatment Rule, the California Department of Health Services (DoHS) requires that EBMUD provide 3.0-log reduction of *Giardia* cysts and 4.0-log reduction of viruses. However, as shown in the following table, none of the District's water treatment plants have been credited by DoHS with this level of removal. Therefore, chlorination within the Mokelumne Aqueducts has been practiced to make up the difference between regulatory requirements and the removal credit granted to the District's water treatment plants.

	Log removal credit granted by DoHS	
Treatment Plant	*Giardia* cysts	Viruses
Orinda	2.6	1.0
Walnut Creek	2.0	1.0
Lafayette	2.0	1.0
El Sobrante	2.5	2.0
Upper San Leandro	2.5	2.0

In an effort to reduce the formation of disinfection byproducts in the Mokelumne Aqueducts, while still achieving pathogen removal and acceptable reliability, EBMUD is reviewing its operation of the Mokelumne Aqueducts. Options under consideration and current testing are addition of chlorine monitoring points along the Mokelumne Aqueducts to facilitate optimizing chlorine addition, reduction in the number of locations at which chlorine is added, and alternative disinfectants.

The District's El Sobrante and Upper San Leandro water treatment plants provide full conventional treatment with ozonation. However, their combined sustainable capacity currently is 65 mgd, less than the flow rate of any of the supplemental supply alternatives evaluated in the 2000 REIR/SEIS (100–226 mgd). In addition to the capacity limitations of the District's conventional treatment plants, there are also capacity constraints imposed by the District's raw water conveyance to these facilities and the associated treated water distribution piping. Additionally, these facilities are used to treat local water sources that are important to maintaining adequate treated water supplies during drought,

further reducing their capacity to treat water from a supplemental source.

RL 11-12, Richard Denton, Contra Costa Water District
See response to Comments L20-1, L20-2, and L20-3 in Chapter 6 of this document.

RL 11-13, Richard Denton, Contra Costa Water District
See response to Comment L20-4 in Chapter 6 of this document.

RL 11-14, Richard Denton, Contra Costa Water District
As stated on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, EBMUD's project objective is, in part, to "allow EBMUD to make use of its water service contract with Reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge Decision." Providing increased storage in EBMUD's Mokelumne River system would not achieve this basic project purpose, nor, based on substantial work conducted by EBMUD during the last decade, is such a project clearly feasible or likely to have fewer environmental impacts. Alternatives 2 and 4 help reduce EBMUD customer deficiencies and therefore achieve EBMUD's project objectives.

RL 11-15, Richard Denton, Contra Costa Water District
EBMUD's demands and the basis for its planning are described in Chapter 1 of the 1997 Draft EIR/EIS. A detailed description of EBMUD's Mokelumne River operations is provided in Chapter 3 of the 1997 Draft EIR/EIS and is not repeated in the 2000 REIR/SEIS. More detailed information is highly technical and is not required for an adequate analysis of impacts. This information is available, and, as indicated in the response to Comment RL 11-7 above, has been provided to CCWD. Alternatives 2 and 4 are stand-alone projects that would meet EBMUD's project objectives. These alternatives would provide additional benefits if a storage project were developed. However, no feasible storage project has been identified by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required at that time. It would be very speculative to conduct a project-level analysis at this time and, thus, is not required by CEQA or NEPA. See also response to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document.

RL 11-16, Richard Denton, Contra Costa Water District
EBMUD's project objectives are provided on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. These objectives are legitimate water supply planning objectives. In the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, a wide range of alternatives that meet all or most of the project objectives has been addressed, including alternatives that do not involve the "export" of American River water (Alternatives 5, 6, 7, and 8 in the 2000 REIR/SEIS). Alternatives involving new storage of Mokelumne River water would not meet the basic project objectives and are therefore not considered.

RL 11-17, Richard Denton, Contra Costa Water District
See response to Comment L20-5 in Chapter 6 of this document.

RL 11-18, Richard Denton, Contra Costa Water District
EBMUD's project objectives are provided on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. These objectives are legitimate water supply planning objectives. In the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, a wide range of alternatives that meet all or most of the project objectives has been addressed. The alternatives discussed in this comment would not meet the basic project purpose as defined by EBMUD's project objectives. See also response to Comment RL 11-3 above. The "changed conditions" listed in this comment do not result in important changes to the impact analysis methodology or impact conclusions.

RL 11-19, Richard Denton, Contra Costa Water District
The timing criterion by itself has not precluded any alternatives and was merely one of many factors considered. A timing criterion remains valid. None of the alternatives that did not meet the timing criterion are considered to be feasible alternatives at this time. See also response to the "Alternatives Considered" major issue in Chapter 3 of this document.

RL 11-20, Richard Denton, Contra Costa Water District
EBMUD's project objectives are provided on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. These objectives are legitimate water supply planning objectives. It is not the purpose of the Supplemental Water Supply Project to find additional water and fish flows for the Mokelumne River system; rather, current and future constraints on that system require that EBMUD secure additional supplemental water supplies to meet the needs of its over 1.2 million customers. Alternatives involving deliveries from Nimbus are clearly subject to the conditions of the Hodge Decision, which precludes sale of water to third parties. EBMUD has no current plans to sell water under any of the alternatives. Should a project be constructed and should such sales be contemplated in the future, additional environmental documentation and approval from Reclamation would be required, as for all CVP contractors.

RL 11-21, Richard Denton, Contra Costa Water District
See response to Comment L20-6 in Chapter 6 of this document. See also response to the "Alternatives Considered," "Delta and Sacramento River Alternatives," and "Relationship to CALFED" major issues in Chapter 3 of this document. In the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, a wide range of alternatives that meet all or most of the project objectives was addressed. The alternatives discussed in this comment would not meet the basic project purpose as defined by EBMUD's project objectives.

RL 11-22, Richard Denton, Contra Costa Water District
See response to Comment RL 11-16 above and the "Relationship to CALFED" major issue in Chapter 3 of this document. EBMUD and Reclamation remain committed to working with CCWD and other agencies to further refine such conceptual programs. Should a feasible and acceptable program be identified at some future time, additional environmental documentation would be required. Implementation of the Supplemental Water Supply Project would not preclude EBMUD participation in other regional beneficial programs, and EBMUD is actively engaged in helping to define such programs.

RL 11-23, Richard Denton, Contra Costa Water District
See response to Comment RL 11-16 above. EBMUD and Reclamation remain committed to working with CCWD and other agencies to further refine such conceptual programs. Should a feasible and acceptable program be identified at some future time, additional environmental documentation would be required prior to approval. Implementation of the Supplemental Water Supply Project would not preclude EBMUD participation in other regional beneficial programs, and EBMUD is actively engaged in helping to define such programs. See also the response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 11-24, Richard Denton, Contra Costa Water District
See response to Comment RL 11-16 above and response to Comment L20-10 in Chapter 6 of this document.

RL 11-25, Richard Denton, Contra Costa Water District
See response to Comment RL 11-16 above and response to Comment L20-11 in Chapter 6 of this document.

RL 11-26, Richard Denton, Contra Costa Water District
The divestiture by PG&E of its Mokelumne River facilities is highly speculative. The process for divestiture, should it in fact continue

to be pursued, is complex, time-consuming, and uncertain. While EBMUD is closely monitoring these proceedings and has substantial interest in the outcome, this alternative is speculative and would not meet EBMUD's project objectives. It is therefore not considered a feasible alternative for the Supplemental Water Supply Project.

RL 11-27, Richard Denton, Contra Costa Water District
The operations of Alternatives 3, 5, 6, 7, and 8 are based on the draft amendatory contract negotiated by Reclamation and EBMUD. These conditions provide EBMUD with a substantial supply to reduce customer deficiencies while minimizing water supply effects on the CVP. A Delta alternative formulated as described in this alternative would likely result in reduced impacts as compared to Alternative 8, as analyzed in the 2000 REIR/SEIS, but would also provide less benefit to EBMUD. Alternative 8 would already result in few significant and unavoidable environmental impacts. Therefore, inclusion of an alternative such as described in this comment would result in little environmental benefit, while also reducing benefits of the project.

RL 11-28, Richard Denton, Contra Costa Water District
See response to Comment RL 11-16 above. The alternatives described by the commenter would not achieve the basic project objectives are therefore not considered. In addition, each of these alternatives would likely have substantial environmental effects on existing uses of the reservoirs and on downstream aquatic resources.

RL 11-29, Richard Denton, Contra Costa Water District
See response to Comment RL 11-28 above.

RL 11-30, Richard Denton, Contra Costa Water District
See response to Comments RL 11-21 through RL 11-29 above.

RL 11-31, Richard Denton, Contra Costa Water District
See response to Comment L20-54 in Chapter 6 of this document.

RL 11-32, Richard Denton, Contra Costa Water District
See response to Comment L20-18 in Chapter 6 of this document.

RL 11-33, Richard Denton, Contra Costa Water District
The number of pages devoted to the description of alternatives does not determine whether a project description is "project-level." The alternatives share many similar features, and the reader is referred to previous descriptions of facilities and operations under alternatives that appear later in Chapter 2 to reduce redundancy. Alternatives 2 and 4 are stand-alone alternatives that are potentially feasible and could be implemented without any other project elements. See also response to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document. The City of Sacramento and County of Sacramento have indicated their opposition to Alternative 3. The analysis for Alternatives 5, 6, 7, and 8 is complete and consistent with the level of detail provided for Alternatives 2, 3, and 4. Again, only new information is contained in the 2000 REIR/SEIS, and the reader is frequently referred to analyses described earlier to reduce redundancy.

RL 11-34, Richard Denton, Contra Costa Water District
EBMUD and Reclamation have negotiated a draft amendatory contract (Appendix A to this document) that would provide supplemental water supplies to EBMUD while minimizing water supply effects on the CVP. The analysis for Alternatives 3, 5, 6, 7, and 8 are consistent with the terms of this draft amendatory contract. During a severe drought, Reclamation would be responsible for determining the allocation of water, consistent with CVP contract requirements.

RL 11-35, Richard Denton, Contra Costa Water District
The analyses conducted for both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS fully take into account the actions discussed in this comment. See Appendix B to this document.

RL 11-36, Richard Denton, Contra Costa Water District
Cumulative impacts are described in Chapter 18 of the 1997 Draft EIR/EIS. The CALFED program is a major statewide effort that, if fully implemented, will occur over a period of decades. Each of the significant CALFED actions is in itself a major project that will require substantial environmental and regulatory compliance and is subject to substantial change and refinement during those processes. To the extent that cumulative impacts would result from CALFED implementation, these impacts are fully addressed in the CALFED EIR/EIS. By comparison, the scale of the Supplemental Water Supply is small and would not contribute substantially to the cumulative impacts identified by the CALFED program. The Supplemental Water Supply Project is not in conflict with CALFED program objectives and in fact is complementary to CALFED program goals. Therefore, recirculation is not required. See also the response to "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 11-37, Richard Denton, Contra Costa Water District
As stated on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, EBMUD's project objective is, in part, to "allow EBMUD to make use of its water service contract with Reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge Decision. " The alternatives considered in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS have the potential to achieve all or most of EBMUD's project objectives. See also response to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document.

RL 11-38, Richard Denton, Contra Costa Water District
See responses to Comments RL 11-1 through RL 11-37 above.

RL 11-39, Richard Denton, Contra Costa Water District
As stated on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, EBMUD's project objective is, in part, to "allow EBMUD to make use of its water service contract with Reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge Decision." Alternative 2 is a stand-alone project that would meet EBMUD's project objectives. This alternative would provide additional benefits if a groundwater storage project were developed. However, as clearly described in Chapter 1 of the 1997 Draft EIR/EIS and Chapter 18 of the 2000 REIR/SEIS, no feasible groundwater storage project has been identified despite over a decade of effort by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required prior to approval.

RL 11-40, Richard Denton, Contra Costa Water District
See response to Comment L20-14 in Chapter 6 of this document. Implementation of Alternative 3 would require cooperation with the City and County of Sacramento. These agencies expressed their opposition to Alternative 3 subsequent to publication of the 1997 Draft EIR/EIS. The 1997 Draft EIR/EIS fully analyzes the potential environmental effects of Alternative 3 and is consistent with the draft amendatory contract negotiated between Reclamation and EBMUD.

RL 11-41, Richard Denton, Contra Costa Water District
Alternative 4 is a feasible stand-alone alternative and does not require implementation of a groundwater storage component. This alternative would provide additional benefits if a groundwater storage project were developed. However, as clearly described in Chapter 1 of the 1997 Draft EIR/EIS and Chapter 18 of the 2000 REIR/SEIS, no feasible groundwater storage project has been

identified, despite over a decade of effort by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required prior to approval.

RL 11-42, Richard Denton, Contra Costa Water District
See response to Comment RL 11-33 above. The evaluation of Alternatives 5 through 8 is appropriate and adequate under both CEQA and NEPA. The modeling approach displays a "worst-case" analysis for American River resources under these alternatives. EBMUD and Reclamation determined that modeling results downstream of the American River would be identical regardless of the location of an EBMUD delivery facility. As shown in Figure 3-4 and Tables 3-3 and 3-4, these alternatives had almost no discernible effect on American River resources even when the delivery was made from the American River. Based on professional judgment and agency expertise, the analysis is considered appropriate.

RL 11-43, Richard Denton, Contra Costa Water District
See responses to Comments L20-30 through L20-39 in Chapter 6 of this document. Water quality-related impacts of the alternatives are fully disclosed in Chapter 4 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS and are negligible. As noted in this comment, the State Water Resources Control Board is responsible for establishing water quality standards that protect all beneficial uses, and it has determined that standards that range from 150 mg/L to 250 mg/L are protective of all beneficial uses, including drinking water supplies (SWRCB Decision 1641). The Supplemental Water Supply Project alternatives would not result in any violations of these standards, and water quality conditions following implementation of any of the alternatives would be essentially indistinguishable from no-action-conditions.

RL 11-44, Richard Denton, Contra Costa Water District
See responses to Comments L20-34 and L20-35 in Chapter 6 of this document. The analyses conducted for the Supplemental Water Supply Project alternatives clearly demonstrate that any changes would be minor, less than significant under any reasonable significance criteria, and likely indistinguishable from no-action conditions.

RL 11-45, Richard Denton, Contra Costa Water District
As described in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS and restated above, the impacts on CCWD and Delta water quality are not significant. Therefore, no mitigation is required. See also response to Comment RL 11-22 above.

RL 11-46, Richard Denton, Contra Costa Water District
See response to Comment L20-15 in Chapter 6 of this document.

RL 11-47, Richard Denton, Contra Costa Water District
See responses to Comments RL 11-43, RL 11-44, and RL 11-45, above. See also response to Comment L20-39 in Chapter 6 of this document.

RL 11-48, Richard Denton, Contra Costa Water District
The 2000 REIR/SEIS treats each of the unprotected river sources, including the American River source, as higher risk for microbial contamination than the more protected Mokelumne River source, and the document includes appropriate treatment technology to reduce these risks. An examination of how microbial risk is currently determined for surface water sources by DoHS and the U.S. Environmental Protection Agency (EPA) will support the approach used by EBMUD in the 2000 REIR/SEIS.

Since the unfortunate incident of Cryptosporidiosis in Milwaukee that occurred in 1993, as well as other such recorded incidents during the last decade, risk of contamination by *Cryptosporidium* and other protozoa such as *Giardia* has become one of the primary

determinants of microbial risk. The U.S. EPA's Federal Advisory Committee Act (FACA) agreement places surface waters in various "bins" to indicate microbial risk levels. These bins are based on the *Cryptosporidium* levels to be detected in these waters during a two-year period following promulgation of the new rules, expected in 2002, using new analytical methods for *Cryptosporidium* that have only recently been developed. By U.S. EPA' own admission (in presentations given to the FACA), the new analytical methods are significantly more reliable than the analytical methods that have been used to date to collect such data in compliance with the Information Collection Rule.

EBMUD did not, therefore, rely on currently available protozoan data alone to assess the microbial risk of the surface waters relevant to the 2000 REIR/SEIS, as this would not have been an adequate measure of microbial quality or risk. The most reasonable and responsible method for gauging overall microbial quality is to look at all data available on the source. Such data include total and fecal coliform counts, which are indicators of warm-blooded animal contamination, the level of agricultural and industrial activity along the source, and the level of protection of the source from such activity. This is the approach used by EBMUD in the 2000 REIR/SEIS. Reliance on this time-tested approach results in a clearly lower level of risk for EBMUD's Mokelumne River source as compared to the others.

The approach to assessing microbial risk is fully supported by DoHS. In their October 25, 2000 letter to Richard Sykes of EBMUD (see Appendix D to this document), they state:

> *"The Department's current policy is to use a number of factors to determine the adequacy of [a] surface water source as a drinking water supply and [the] treatment that will be necessary to comply with state requirements: 1) source water quality (total coliform, fecal coliform, turbidity, etc.); 2) actual and potential impacts of domestic, agricultural, recreational, and commercial activities on the watershed; 3) watershed management and protection activities. The three water source alternatives being considered by District, the American River, Sacramento River and the Delta, have lower water quality than the Mokelumne Aqueduct water due to agricultural and urban runoff and wastewater discharges in these water bodies. Total coliforms and fecal coliform levels are significantly higher in the American River, Sacramento River and Delta diversion sites than the Mokelumne Aqueduct water. These sources will require a higher level of pathogen protection via disinfection and/or pathogen removal."*

RL 11-49, Richard Denton, Contra Costa Water District
See response to Comment RL 11-48 above.

RL 11-50, Richard Denton, Contra Costa Water District
The levels of treatment prescribed in the 2000 REIR/SEIS are not overstated. They are based on treatment required to reduce the risk of disease from microbial contaminants, including *Cryptosporidium*, that would reasonably be associated with the relevant surface water sources following an objective analysis of microbial risk based on all data and information available.

RL 11-51, Richard Denton, Contra Costa Water District
The 90th percentile values were selected as reasonable criteria for treatment process design, in recognition that the source water quality of rivers and the Delta generally have greater variability than lakes/reservoirs and that monitoring data likely underestimate the actual range of variability. A domestic water supplier must be capable of consistently and reliably treating the range of likely source water quality and hydrological conditions. While there is some ability to avoid the most extreme water-quality conditions for a supplemental supply, there are limited windows when water is available. Wet-year alternatives (Alternatives 2 and 4) are limited by the occurrence of flows greater than the minimum

set by the Hodge Decision. Dry-year alternatives (Alternatives 3, 5, 6, 7 and 8) are limited by the availability of water during droughts.

The comment that the 90th percentile values of salinity and turbidity, for example, do not coincide is correct. High values of turbidity are typically seen in wet conditions, while high values of salinity are normally seen in dry conditions. The only source that is significantly affected by salinity is the Delta. Delta water would be taken during dry years, so water would likely be taken under the conditions of highest salinity from this source. Water from the American River could only be taken under wet-weather conditions, so water taken from this source would likely be high in turbidity and could be high in pathogens, etc. The 90th percentile water quality values, as well as the prescribed treatment, reflect this likelihood.

While water from the Delta and the Sacramento River would typically be taken under dry, low-turbidity conditions, a rainfall following a dry period can cause extremely high turbidity as well as non-point source runoff containing pathogens, agricultural chemicals, and organic material. The prescribed treatment processes reflect the ability to handle a swing in water quality due to rainfall-runoff. The treatment goal of producing water that consistently protects the public from health risk due to pathogens in surface waters requires treatment processes that deliver significant reliability over the full range of water quality that can reasonably be expected.

RL 11-52, Richard Denton, Contra Costa Water District
The full conventional treatment plants operated by EBMUD (Sobrante and Upper San Leandro) have a combined sustainable treatment capacity of 65 mgd, which is significantly less than the desired 100 mgd capacity of the supplemental water source. These local water sources are important to maintaining adequate treated water supplies during drought, further reducing their capacity to treat water from a supplemental source. The complexities and costs of retrofitting both of these plants and conveying water to them from the supplemental source in order to treat only a part of the supplemental water supply render such an alternative highly infeasible.

RL 11-53, Richard Denton, Contra Costa Water District
The commenter's assertion that EBMUD's existing in-line treatment plants have more treatment flexibility to treat water of lower quality than Mokelumne River water is inaccurate. The time-tested and regulatory agency-approved water treatment approach for protection of public health from microbial contaminants is the multiple-barrier approach. Barriers include coagulation/sedimentation, filtration, and disinfection. Watershed protection, depending on the specifics of the watershed, can also be considered as a barrier to microbial contamination. The in-line plants operated by EBMUD were designed and approved to treat water from the Mokelumne River, a highly protected watershed, which provides one barrier to microbial risk. The treatment that has been approved by DoHS for the "in-line" plants consists of coagulant chemical addition without sedimentation, application of the chemically treated water on sand filters, and disinfection. This in-line filtration process does not provide full multiple barriers against microbial contamination. Such multiple barriers are reasonable and prudent for waters from unprotected watersheds with significantly higher microbial risk. While it may be true that EBMUD has treated higher turbidity waters for short periods of time at reduced flow rates in these in-line plants, this procedure is inherently risky from a microbial risk standpoint and should not be relied upon for even short-term operation. Protection from contamination by protozoans, which are much more resistant to disinfection than are bacteria and viruses, requires consistent treatment reliability. Such reliability cannot be measured by averaged or time-weighted quality goals.

DoHS, as stated in their letter of October 25, 2000 to EBMUD (see Appendix D to this document), also rules out the flexibility of treatment in the in-line plants suggested by the commenter:

> *"The District's in-line treatment facilities are currently approved for treating exclusively Mokelumne Aqueduct water... Before the Department would consider approving any proposal using the existing in-line treatment facilities to treat a blend of American River, Sacramento River, or Delta water with Mokelumne River water without a coagulation/sedimentation (pretreatment) step, the District would have to meet the following conditions: 1) conduct [a] demonstration study over a 12 month period to show that the treatment facilities can meet the removal requirements for Giardia, Cryptosporidium, and viruses specified by the SWTR/IESWTR for alternative treatment technologies; 2) maintain a minimum blending or dilution ration of 20:1 (Mokelumne Aqueduct water to American River/Sacramento River/Delta water) before filtration treatment at the existing in-line facilities."*

RL 11-54, Richard Denton, Contra Costa Water District
Flexibility of scheduling deliveries is restricted by the availability of the supplemental supply. Wet-year-take alternatives (Alternatives 2 and 4) are limited by the occurrence of flows greater than the minimum set by the Hodge Decision. Dry-year-take alternatives (Alternatives 3, 5, 6, 7 and 8) are limited by the availability of water during droughts. Further restricting the ability to utilize a supplemental supply by imposing complex treatment constraints would make these alternatives impractical and infeasible.

RL 11-55, Richard Denton, Contra Costa Water District
In all treatment alternatives except for Alternative 8b, water from the supplemental source is pretreated, blended with Mokelumne water, conveyed to the in-line filtration plants, and then distributed to EBMUD customers. For dry-year-take alternatives (Alternatives 3, 5, 6, 7, and 8), it is expected that during periods when the supplemental supply is used, the supplemental supply would comprise between 50 to 70 percent of the flow delivered to EBMUD via the Mokelumne Aqueducts. For wet-year-take alternatives (Alternatives 2 and 4), the proportion of supplemental supply in the Mokelumne Aqueducts would have a wider range. For example, for Alternative 2, during periods when supplemental supply is used, the 10th, 50th and 90th percentile proportions of American River water in the Mokelumne Aqueducts would be 99 percent, 65 percent, and 14 percent, respectively. Delivered water quality is expected to meet the goals identified for each alternative process, as presented in Appendix B to the 2000 REIR/SEIS. Monthly differences in water quality parameters are not significant enough to require change in the design of the prescribed treatment processes or the costs of treatment.

RL 11-56, Richard Denton, Contra Costa Water District
See responses to Comments L20-42 and L20-C-FR28 in Chapter 6 of this document.

RL 11-57, Richard Denton, Contra Costa Water District
See response to Comment L20-44 in Chapter 6 of this document.

RL 11-58, Richard Denton, Contra Costa Water District
The operations of the lower American River are controlled by releases from Reclamation's Folsom and Nimbus dams. The Supplemental Water Supply Project alternatives do not have the potential to result in substantial daily or weekly flow changes. An examination of Reclamation's past operations of its facilities in response to a wide range of hydrologic and demand conditions clearly shows that, except in response to flood-control requirements during significant storm events (when temperature conditions are not important), lower American River flows do not fluctuate substantially on a daily basis.

RL 11-59 Richard Denton, Contra Costa Water District
See responses to Comments L20-42 and L20-C-FR28 in Chapter 6 of this document.

RL 11-60, Richard Denton, Contra Costa Water District
Potential effects on Sacramento River fishery resources are described on pages 5-17 and 5-18 of the 2000 REIR/SEIS. Flow-related impacts on upper Sacramento River fishery resources are discussed in Chapter 5 of the 1997 Draft EIR/EIS. Appendix C to the 1997 Draft EIR/EIS, Table C-15, shows that releases from Keswick Dam are essentially unchanged under the alternatives. There is no information to indicate that delta smelt are substantially affected by temperature conditions in the lower Sacramento River or the Delta, nor do the project alternatives have the potential to substantially affect temperatures at these locations.

RL 11-61, Richard Denton, Contra Costa Water District
The 2000 REIR/SEIS recognizes that the Delta is important habitat (in fact, designated critical habitat) for delta smelt, steelhead, and chinook salmon, as well as splittail, and supports larger populations of these species than does the American River.

RL 11-62, Richard Denton, Contra Costa Water District
Changes to Delta exports and Central Valley reservoir storage that may result from alternatives considered in the 2000 REIR/SEIS are shown in Tables 3-3 and 3-4. As shown in those tables, the alternatives would not result in any significant changes to Delta exports. All of the changes identified that relate to EBMUD deliveries are small. Continually refining modeling approaches will not result in changes to impact conclusions. Reclamation and EBMUD have jointly prepared and reviewed the hydrological modeling and have determined that it is appropriate to address potential environmental effects.

RL 11-63, Richard Denton, Contra Costa Water District
See response to Comment RL 11-15 above.

RL 11-64, Richard Denton, Contra Costa Water District
It is recognized that, at times, turbidity levels among various sources may be similar. However, implementation of the Supplemental Water Supply Project would substantially improve EBMUD's ability to manage water-quality related issues. EBMUD's water quality and supply needs are fully described in Chapter 1 of the 1997 Draft EIR/EIS and are confirmed by Reclamation's water needs analysis (see Appendix C to this document). No further analyses are therefore required.

RL 11-65, Richard Denton, Contra Costa Water District
The analyses of Alternatives 5, 6, 7, and 8 are complete and fully comply with CEQA and NEPA requirements. See also response to Comment RL 11-33 above. Land use, traffic, air quality, and visual impacts are fully and appropriately evaluated in Chapters 10, 12, 13, and 16, respectively, of the 2000 REIR/SEIS. Neither CEQA nor NEPA requires specific survey methodology or timing. As described in Chapters 7 and 8, surveys were conducted by qualified biologists with local expertise and are appropriate for purposes of impact analysis. As noted in Chapters 7 and 8, all of the pipeline alignments cross similar habitat areas and would be of similar magnitude. In addition, nearly all impacts would be relatively minor and temporary. Finally, mitigation measures can be employed to ensure that impacts are reduced to less-than-significant levels.

RL 11-66, Richard Denton, Contra Costa Water District
The operations of facilities under Alternative 8 are fully and appropriately described in the 2000 REIR/SEIS. This comment refers to an operational scenario that is not part of the proposed alternative operations. One of the treatment options described in the 2000 REIR/SEIS would include a reverse-osmosis process to

provide finished water that reasonably matches current EBMUD finished water quality. Under this treatment option, brine would be produced and would require disposal at a suitable location. No recirculation of the 2000 REIR/SEIS is therefore required.

RL 11-67, Richard Denton, Contra Costa Water District
See response to Comment L20-51 in Chapter 6 of this document. See also response to Comment RL 11-15 above. The 1997 Draft EIR/EIS does not tier off of the WSMP EIR. The discussion in Chapter 18 of the 1997 Draft EIR/EIS fully addresses growth-inducing and cumulative impacts.

RL 11-68, Richard Denton, Contra Costa Water District
See responses to Comments L20-47, L20-48, and L20-49 in Chapter 6 of this document. See also response to Comment RL 11-67 above.

RL 11-69, Richard Denton, Contra Costa Water District
See response to Comment L20-46 in Chapter 6 of this document.

RL 11-70, Richard Denton, Contra Costa Water District
CEQA and NEPA do not require lead agencies to identify a least environmentally damaging practicable alternative. The analysis in the 1997 Draft EIR/EIS and 2000 REIR/SEIS is adequate to serve as the environmental compliance for the U.S. Army Corps of Engineers. Additional information, including a formal wetland delineation, will also be required as part of the Section 404 permitting process. Mitigation measures can only be adopted and approved by the lead agencies. The EIR/EIS simply provides the range of possible measures to reduce impacts to less-than-significant levels.

RL 11-71, Richard Denton, Contra Costa Water District
See response to Comment L20-42 in Chapter 6 of this document.

RL12

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November 20, 2000

VIA FAX: 510-287-1295

Mr. Kurt Ladensack
EBMUD
P.O. Box 24055, MS #305
Oakland, CA 94623

SUBJECT: Draft Recirculated EIR – American River

Dear Mr. Ladensack:

I am writing as directed by North San Joaquin Water Conservation District (NSJWCD) Board action of November 20, 2000.

NSJWCD believes the DEIR/SEIS to be grossly inadequate because it does not consider an alternative comprising extension of the Folsom South Canal (FSC). Without such consideration, the DEIR/SEIS ignores the substantial impacts which would result in southern Sacramento and San Joaquin Counties if any of the present alternatives were implemented.

Extension of the Folsom South Canal has always been intended for ultimate supply to EBMUD, and the above areas for correction of a critical groundwater overdraft. In fact, EBMUD committed in its January 27, 1959 letter to San Joaquin County that:

> We wish to repeat that we also are directly interested in the extension of the Folsom South Canal into San Joaquin County. We will cooperate to the fullest extent to an endeavor not only to secure such extension, but also to bring about the construction of that canal by the Federal Government as soon as possible.

This commitment was the sole basis for San Joaquin County dismissing its litigation against EBMUD regarding diversions from the Mokelumne River. Failure to even consider extension in this DEIR/SEIS is unconscionable and a breach of that commitment. Should EBMUD take its supply without extension of the Folsom South Canal, the local area financial burden for canal extension would be increased substantially. This impact must be analyzed.

RL12-1

An alternative comprising extension of the Folsom South Canal cannot be discarded from evaluation simply because it may not be supported by some elements in Sacramento County. Its construction and its positive impact upon overdrafted groundwater basins must be evaluated.

RL12-2

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An extended FSC would convey only that water surplus to the needs of the Lower American River and the Delta. By definition, therefore, the extended FSC could not impact the River or Delta.

Finally, the DEIR/SEIS must include discussion of the original reasons for construction of the existing FSC and for extension to San Joaquin County to enable satisfaction of Water Code Section 11460.

RL12-3

Thank you for the opportunity to comment.

Ed Steffani
General Manager
North San Joaquin Water Conservation District

ES/pkh

cc: Congressman Richard Pombo
Harry M. Schueller, SWRCB
Thomas Hannigan, Director, DWR
Lester Snow, Director, USBR
Board of Supervisors, San Joaquin County
Assemblyman Anthony Peschetti
Assemblyman Mike Machado

Responses to Comments of the North San Joaquin Water Conservation District

RL 12-1, Ed Steffani, North San Joaquin Water Conservation District

In 1959, it was anticipated that the Folsom South Canal would be extended as a federal project, and EBMUD expressed its support for bringing about construction of the canal by the federal government. In the absence of a federal project, the 1997 Draft EIS/EIR describes alternative pipeline routings for connecting the existing Folsom South Canal to the Mokelumne Aqueducts, including a pipeline extending from the terminus of the canal. During the scoping process for the EIS/EIR, comments were received urging that EBMUD consider constructing a canal facility to deliver American River water from the terminus to the aqueducts. That alternative was considered and subsequently screened out on the basis that it would result in greater environmental impacts than those attributable to a pipeline extension.

RL 12-2, Ed Steffani, North San Joaquin Water Conservation District

An alternative involving an extension of the Folsom South Canal was evaluated in the Alternatives Screening Report (Appendix B to the 1997 Draft EIR/EIS). While such an alternative was determined to be less costly, it was also determined that it would result in unacceptable environmental impacts, including incompatibility with surrounding land uses, greater property severance and property-related effects, public safety issues, impacts on wildlife, and increased water-quality concerns. Based on that analysis, this conveyance alternative was not carried forward into the EIR/EIS process.

RL 12-3, Ed Steffani, North San Joaquin Water Conservation District

See response to the "Area of Origin" major issue in Chapter 3 of this document.

RL 13

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November 20, 2000

Kurt Ladensack
Water Supply Improvements Division
East Bay Municipal Utility District
P. O. Box 24055, MS #305
Oakland, CA 94623-1055

Re: **EBMUD Supplemental Water Supply Project Recirculated Draft EIR/EIS**

Dear Mr. Ladensack:

This letter provides comments on EBMUD's recirculated draft EIR/EIS (the "RDEIR") for the above project, submitted on behalf of the City of Sacramento (City). The City submitted written comments dated March 18, 1998, on the DEIR for this project that was issued for public review in November of 1997 (the "DEIR"). Changes in the scope of EBMUD's alternatives analysis, in addition to changes in circumstances relative to the proposed project since the City's prior comments were submitted, have necessitated some corresponding changes to the City's prior comments. To avoid potential confusion between the City's 2 sets of comments, this letter includes both the City's comments on the RDEIR, as well as the City's prior comments on the DEIR, revised where appropriate to reflect changes that have occured since the City's prior comments were submitted over 2 ½ years ago.

General Comments on the DEIR and RDEIR

1. The DEIR considered two alternative projects, in addition to the "no action" alternative (Alternative 1). Alternative 2 is the proposed Folsom South Canal connection and Alternative 3 is a proposed joint project involving EBMUD, the City, and Sacramento County. The specific comments provided by the City in 1998 on the DEIR, and restated below with some revisions, generally were focused on the DEIR's analysis of Alternative 3. When the DEIR was issued, the City supported this alternative, provided that a specific project could be developed RL13-1

and agreed to by EBMUD and Sacramento area parties. The City no longer supports this alternative, because agreement on a mutually acceptable project was never reached, and because the RDEIR now includes consideration of additional alternatives that are preferable to locating an EBMUD diversion of the Lower American River and constructing a pipeline from this diversion through the City. The City remains opposed to Alternative 2, because of the potential impact of Folsom South Canal diversions upon the City's diversions at the Fairbairn Water Treatment Plant downstream on the lower American River, as well as the potential adverse environmental impacts of this alternative on the lower American River itself, by unnecessarily depleting end-of-season and or carry-over storage at Folsom Reservoir. Since any use of American River water by EBMUD involves the export of water from the Sacramento region, the City believes such exports should only occur after this water has flowed down the lower American River, as envisioned by Alternatives 6, 7 and 8 in the RDEIR.

2. In June, 1999, the City and Sacramento County proposed a "Modified Proposal," included in Appendix A to the RDEIR and analyzed as "Alternative 4" in the RDEIR, which proposal subsequently was rejected by EBMUD. Due to the potentially significant impacts of this alternative on the City and City residents, which would be similar to the water intake and pipeline impacts associated with implementing Alternative 3, the City believes that the alternatives that would avoid substantially all of these impacts are environmentally preferable (Alternatives 6, 7 and 8). RL13-2

3. Due to the permanent nature of the diversion and pumpback facilities included in Alternatives 3, 4 and 5, and these facilities' significant potential for disruption and impacts to the areas where they will be located, at least in the short term, these alternatives would need to provide for a much greater level of community involvement and mitigation for disruptive impacts upon the community, than is described in the DEIR and RDEIR. RL13-3

4. To the extent that the DEIR and RDEIR are intended to be project-level documents, many of the subject areas do not contain sufficient detail and specificity to provide an adequate project-level analysis of potentially significant environmental effects. One example of this is the analysis of the alternative intake/pipeline locations for Alternative 3, which carries over into the analysis of Alternatives 4 and 5. This analysis does not provide a detailed discussion of the existing or proposed future conditions in the proposed locations or the potential impacts of constructing facilities in these locations, nor does the analysis identify specific measures that could be implemented to avoid or mitigate potential impacts -- all of this information must be available to decision makers before a preferred location can be identified. Specific examples of inadequate project-level analysis are indicated in our specific comments on the DEIR and RDEIR, below. RL13-4

Specific Comments on the RDEIR

- Page S-5: The discussion of Alternative 3, the "Joint Water Supply," is outdated. As noted in the City's 1998 comments, EBMUD, the City and Sacramento County had not developed or agreed upon a specific mutually acceptable joint project for EBMUD's diversion of American River water when the DEIR was issued in 1997, and no agreement has been reached since that time. Accordingly, the statement made at the end of this discussion on p. S-7, that "the City and County have determined that they do not wish to participate" in Alternative 3 is misleading to the extent it suggests that EBMUD and the Sacramento parties ever did anything more than agree to consider the feasibility of this alternative. As discussed in the general comments, above, the Modified Proposal submitted to EBMUD in June of 1999, was rejected by EBMUD. Due to the potentially significant impacts of this alternative (Alternative 4) on the City and City residents, which would be similar to the water intake and pipeline impacts associated with implementing Alternative 3, the City believes that the alternatives identified in the RDEIR that would avoid substantially all of these impacts are environmentally preferable (Alternatives 6, 7 and 8). RL13-5

- Page 2-11: The reference to a Fairbairn Intake option under Alternative 4 should be deleted. The Modified Proposal did not include any provisions for the use of the City's Fairbairn WTP facilities to divert water for EBMUD, nor is any such use presently anticipated by the City. Accordingly, all references to the use of the Fairbairn WTP facilities for this purpose in the DEIR and RDEIR should be deleted. RL13-6

- Page 4-1: The statement in the Introduction that the factors influencing river water quality conditions and the conditions that could be affected by the proposed project alternatives was "fully described" in the DEIR is in error. The very brief description that was included in the DEIR focused on references to potential impacts to Delta export water quality. There is no mention of the baseline parameters supposedly important to the District such as THM precursors, taste and odor components, dissolved solids, nutrients, or turbidity. If these are important criteria that will play a major role in the selection of a preferred project, it should be explained as to why they are of importance and the relative differences between alternative diversion locations explored. Appendix B also does not fully address this subject. RL13-7

- Page 4-1: Under "Sacramento-San Joaquin River Delta," the statement that constituents of concern in the Delta include potentially harmful disinfection byproducts is in error. The constituents of concern are the precursors that help form these byproducts. RL13-8

- Page 4-2: Under "Significance Criteria," the criteria listed only refer to construction disturbances, changes in water quality in terminal reservoirs due to water from the RL13-9

American River, and changes as a result of decreased Delta outflow. What about the terminal reservoirs if they received Sacramento or Delta water? What about impacts to other downstream diverters?

- Page 4-3: Under "Increased Frequency or Duration of Taste and Odor Events," it is stated that transport of American River water that may have a higher content of biostimulatory nutrients could increase frequency or duration of taste and odor events in EBMUD's terminal reservoirs. What is basis for this statement? Appendix B also does not fully explain why this might occur. What substances cause biostimulation in the District's reservoirs? What are the comparative levels considering potential blending that would occur with the Mokelumne source? Isn't a "taste and odor event in the District's reservoirs" a misnomer? The taste and odor event would potentially apply to water treated and delivered to customers that complained about it rather than an event in reservoirs. RL13-10

- Alternative 4: The City's prior specific comments on Alternative 3, restated below, include numerous comments regarding the DEIR's analysis of the proposed construction of a new water intake at the "Intake Alternative 5" site on the Lower American River, 12,000 feet upstream of the I-5 American River Bridge (Site 5), and the construction of a pipeline from Site 5 to the Folsom South Canal (FSC). These comments also apply fully to the analysis presented in the RDEIR for Alternative 4, since Alternative 4 proposes the construction of a new water intake at Site 5, with the construction of a pipeline connecting Site 5 to the FSC following the same potential alignments that were considered for Alternative 3 in the DEIR, and the RDEIR's analysis of Alternative 4 essentially repeats the analysis done for the Site 5 intake and pipeline in the DEIR. Accordingly, all of the specific comments on the DEIR set forth below that relate to EBMUD's analysis of the proposed construction of a new water intake at Site 5, and the construction of a pipeline from Site 5 to the FSC, also should be considered applicable to EBMUD's consideration of Alternative 4 in the RDEIR. RL13-11

- Alternative 5 Pipeline: The City's prior specific comments on Alternative 3, restated below, include numerous comments regarding the DEIR's analysis of the proposed construction of a pipeline from the proposed new water intake at the "Intake Alternative 1" site on the Lower American River, 600 feet upstream of the I-5 American River Bridge, to the FSC. These comments also apply fully to the analysis presented in the RDEIR for the pipeline proposed in Alternative 5, to connect a proposed new intake located on the Sacramento River, immediately below its confluence with the American River, to the FSC, since Alternative 5 proposes the construction of a pipeline connecting this proposed new Sacramento River intake to the FSC following the same potential alignments that were considered for the pipeline connecting "Intake Alternative 1" to the FSC in the DEIR, and the RDEIR's analysis of the Alternative 5 pipeline essentially repeats the analysis done RL13-12

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for Alternative 4, which, in turn, repeats the analysis already done for Alternative 3 in the DEIR. Accordingly, all the specific comments on the DEIR set forth below that relate to EBMUD's analysis of the proposed construction of a new pipeline connecting "Intake Alternative 1" to the FSC, also should be considered applicable to EBMUD's consideration of a new pipeline for Alternative 5 in the RDEIR. As with Intake Alternative 1 under Alternative 3, Alternative 5 is problematic due to potentially significant impacts on City streets and residents from pipeline construction, which likely will be greater than any other alternative since Alternative 5 would require the longest pipeline to reach the Fairbairn WTP site, and also due to uncertainty over potential impacts on the City's Sacramento River WTP operations (discussed below).

- Alternative 5 Intake: The RDEIR describes Alternative 5 as including the construction of a new water intake on the Sacramento River immediately downstream of its confluence with the American River and upstream of the City's Sacramento River WTP. Although this is a new intake location that was not analyzed in the DEIR, and also would include a segment of pipeline connecting the new intake to the pipeline alignment considered for Intake Alternative 1 in the DEIR, the RDEIR does not contain any detailed analysis or discussion of site-specific impacts potentially associated with these facilities. In addition, the RDEIR does not appear to contain any detailed consideration of whether the construction and operation of a new intake immediately upstream of the City's Sacramento River WTP might adversely affect water quality immediately downstream or any other aspect of the operation of the City's facilities. More detailed analysis regarding potential effects associated with this proposed new intake location is needed to provide the information needed for an informed selection of project components. RL13-13

- Alternatives 6 and 7: The Sacramento River-Freeport alternatives (Alternatives 6 and 7), avoid the potentially significant construction, pipeline alignment and water quality impacts associated with Alternatives 3, 4 and 5, would provide a higher level of water deliveries than these alternatives, and currently appear to provide the most realistic opportunity for developing a joint project supported by the Sacramento parties. Accordingly, the Sacramento River-Freeport alternatives are environmentally preferable to Alternatives 3, 4 and 5. RL13-14

Specific Comments on DEIR

- Page S-1: We suggest deleting the fourth paragraph, as EBMUD is not a party to the Water Forum Agreement, which was approved by the City and Sacramento County in November of 1999. RL13-15

The meaning of the reference in the following paragraph to a "guarantee" of water even in the driest years is not clear. Any facilities constructed to provide water to

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EBMUD would be limited to such water as is available under EBMUD's USBR contract, which, to our knowledge, would be subject to applicable CVP deficiencies and does not provide any "guarantee" of water availability.

- Page S-2: Protection of lower American River resources also should be one of the project objectives listed on this page. RL13-16

- Page S-5: Contrary to the statement made in the first sentence under the heading "Alternative 3: Joint Water Supply," EBMUD, the City and Sacramento County have never developed or agreed to a "mutually acceptable" joint project. In 1999, the City and Sacramento County offered a "Modified Proposal" that is the basis for Alternative 4 in EBMUD's RDEIR, which EBMUD rejected. As noted above, the project alternatives that will avoid potentially significant impacts on the City and City residents (Alternatives 6, 7 and 8) are environmentally preferable to the other alternatives, including the Modified Proposal. Neither the Modified Proposal, nor any other option presently anticipated by the City, involve any use of the City's Fairbairn WTP facilities to wheel water to EBMUD. Accordingly, there currently is no basis for including the City's proposed expansion of the Fairbairn WTP in EBMUD's analysis of its project, although the City's project should be included in EBMUD's cumulative analysis. See also the City's comments on p. S-5 and p. 2-11 of the RDEIR, above. RL13-17

- Page S - 7: Due to the DEIR's failure to fully identify and address potentially significant impacts, as discussed in these comments, the summary of significant impacts and mitigation measures set forth on Table S-1 is deficient in the following subject areas: hydrology; water quality; fisheries; recreation; vegetation; wildlife; soils, seismicity and groundwater; land use; transportation and circulation; noise; public health and safety; visual and cultural resources; cumulative impacts. RL13-18

- Page 1-5: The discussion of the Hodge decision also should refer to the requirement to maintain 60,000 acre feet of water in reserve for instream purposes. RL13-19

- Page 1-17: In Table 1-3, for related activities of the City of Sacramento, the City's proposed rehabilitation and expansion of its Sacramento River Water Treatment Plant should be added. There currently is no basis for including the City's proposed expansion of the Fairbairn WTP in EBMUD's analysis of its project (see comment on page S-5, above.) In addition, Table 1-3 should include the City's pending rehabilitation of the fish screens at the Fairbairn Water Treatment Plant and Sacramento River Water Treatment Plant intakes. RL13-20

- Pages 2-3 to 2-7: The Summary of Environmental Commitments outlined on pages 2-3 to 2-7 are considered part of the project and, as such, are relied upon elsewhere in the RL13-21

DEIR to determine that no significant impacts will occur, so that no mitigation is needed. This approach fails to identify the project's specific potential impacts, as required by CEQA. Moreover, even if such impacts were adequately disclosed, the measures described on these pages are not described in sufficient detail to allow any determination to be made as to whether these measures will mitigate potential impacts (which are not identified at a project level) to a less-than-significant level. Specific examples follow.

Traffic Control Plan

The DEIR references a traffic control plan, but no details are provided concerning where the traffic will be obstructed or re-routed, the expected duration of lane closures or traffic re-routings in specific areas, and the impacts likely to result in these areas in terms of parking, traffic circulation and delay, access, and use by emergency service vehicles. For example, one of the general elements described for the traffic control plan is to maintain access to driveways and private roads outside the immediate construction zone. However, the 35-37 foot construction area shown on the trench detail, figure 2-11, would appear to eliminate or restrict driveway access for both residential and commercial lots at various locations along the pipeline alignment. This potential elimination or restriction of access to residential and commercial driveways is a land use conflict that is not adequately described or addressed in the transportation section or land use section of the DEIR. This loss of access or restricted access to business would not only inconvenience businesses, but also result in loss of revenue. In order to constitute an adequate project-level analysis, additional information should be provided identifying all locations where access may be restricted or eliminated, when such impacts may occur and for how long, and describing actions that can be taken to provide these residents or business owners/customers access to these locations. RL13-22

Development of the detailed traffic control plan also should address potential impacts on emergency response in areas impacted by project construction, and should contain the following requirements to aid emergency response providers:

A. No more than 150 feet of street should be closed at one time.

B. 24 hours prior notice should be given to all emergency response providers before closing any street.

Erosion and Sediment Control Plan/Stormwater Pollution Prevention Plan

The references to an erosion and sediment control plan and a stormwater pollution prevention plan should indicate that, if Alternative 3 were implemented, EBMUD would comply with all requirements of Chapter 15.88 (formerly Chapters 9.31 et seq.), and RL13-23

Chapter 13.16 (formerly Title 87) of the Sacramento City Code, which establish erosion and sediment control, and stormwater requirements in the City of Sacramento.

Trench Safety Plan

The Trench Safety Plan indicates that trench safety precautionary measures include: "All open trenches shall be closed within 24 hours." The document should indicate if this refers to permanent or temporary closure, and if it is the latter, when trenches will be permanently closed. RL13-24

Project Planning, Coordination and Communication Plan RL13-25

The text for this section should be revised to read: "EBMUD and the appropriate City and County agencies will coordinate planning, engineering, ~~and design~~, traffic control and construction phases of the project."

- Page 2-15: We reference our previous comments (on pages S-5) regarding the descriptions in the first paragraph under the heading "Alternative 3: Joint Water Supply" of "the mutually acceptable proposal" and "mutually acceptable alternative" developed by EBMUD, the City and Sacramento County, and the statement including the City's proposed expansions of its WTP facilities in EBMUD's analysis of its project. The following paragraphs also should be revised accordingly. RL13-26

- Page 2-16: The general description and discussion of the proposed intake structure located near I-5, set forth here and elsewhere in the document, is not sufficiently detailed for an adequate project-level analysis. As noted in our comments on Chapter 16, below, we recommend a thorough consideration of various possible designs for a new intake facility, with an opportunity for community review and comment on these proposed design alternatives, before a final design is selected. RL13-27

- Page 2-17: As noted in our general comments, above, the City currently does not support Alternative 3, as the project alternatives (Alternatives 6,7 and 8) that would not involve potentially significant impacts to the City and City residents are environmentally preferable. With respect to the five proposed intake locations and pipeline alignments considered as part of Alternative 3, however, intake Alternative 5 would be the least problematic, because this alternative eliminates construction-related impacts to property owners, public facilities and traffic circulation west of 23rd Street, and also reduces the visual impacts that Alternatives 3 or 4 would have in an area that will be transitioning to residential land uses. Intake Alternative 5 also presents potential pipeline alignment options which minimize street construction and thereby reduce impacts to the public and traffic operations in City streets (e.g., the C Street bypass option, the Elvas Avenue RL13-28

bypass option and the Folsom Boulevard bypass option). Selection of the C Street bypass option also would avoid potentially significant impacts to the large tree canopy along C Street resulting from the use of large construction equipment and excavation.

However, because implementation of Alternative 5 and/or the C Street bypass option would be located on or adjacent to the site of a former landfill, these alternatives potentially raise significant issues pertaining to differential settling and special compaction techniques, excavation of waste or hazardous materials, compliance with requirements set forth in the City's landfill closure/ post closure plan, and compliance with applicable regulatory requirements of the California Integrated Waste Management Board and/or the Regional Water Quality Control Board, in addition to potentially significant long-term liability issues that may be presented. Additionally, the C Street bypass option raises issues concerning the compatibility of this alignment with the planned extension of Richards Boulevard.

The foregoing issues must be addressed with specificity and detail in the DEIR, in order to provide a fully informative document. For example, if issues pertaining to the C Street bypass option cannot be resolved, it may then become necessary to consider installing install the pipeline in C Street, but in a manner that avoids the significant impacts of open trenching EBMUD (e.g., tunneling). However, the DEIR does not provide any basis for making this determination, because it fails to identify or analyze either the specific issues raised by the C Street bypass option or the specific impacts likely to result if open trenching is allowed in C Street. In order to provide an adequate project-level analysis, EBMUD must disclose and address these types of issues. Only then can an informed selection of project components occur. The DEIR also should indicate whether pipelines constructed outside of street right-of-ways would be installed above or below grade.

- Page 2-18: The discussion on this page following the subheading "Fairbairn Water Treatment Plant Expansion," characterizing the City's proposed expansion of the Fairbairn WTP as part of EBMUD's project (Alternative 3), is outdated and incorrect, as discussed in our comments on p. S-5, above, and should be revised accordingly. Information regarding the City's proposed expansion project is provided in the Draft EIR issued by the City for this project in September, 2000. In addition, the reference to the City's proposed expansion of the Sacramento River Water Treatment Plant treatment capacity should be changed to 60 mgd (93 cfs). This change also should be made to other references in the document to the City's proposed Sacramento River Water Treatment Plant capacity expansion. The last sentence of this paragraph should be revised to read "A new diversion structure including a fish screen design to meet current DFG, NMFS and USFWS criteria, also would be constructed." RL13-29

- Page 2-20: We suggest providing a more detailed discussion of the requirements of the Hodge Decision to support the assumption, set forth in the second paragraph of the "Operations" section (and also at page 3-14), that the Decision's limitations would not apply to the proposed I-5 diversions.

  The second sentence under the heading "City of Sacramento" should be revised to read as follows: RL13-30

  > The City currently has a mechanical pumping capacity of 128 mgd (198 cfs) from the American River. However, the original constructed capacity of the river diversion, both in terms of fish screening necessary to meet then-existing DFG criteria and actual structural capacity, was 200 mgd (310 cfs).

- Figure 2-10: Although these figures are entitled "Typical Pattern and Frequency of Deliveries for Alternative 3," no frequency of deliveries is shown. Is the "typical pattern" shown for a specific year? How was the anticipated pattern of deliveries to the City derived? RL13-31

- Page 2-22: The discussion of construction considerations beginning on this page should include some discussion of potential conflicts/crossings with existing underground infrastructure. For example, in several locations, there are crossings of major drainage mains and sewer interceptors (e.g., C Street, between 33rd Street and Elvas Avenue, has an 8-inch water main, a 36-inch to 84-inch storm drain, a 10-inch to 22-inch sanitary sewer, a 24-inch to 39-inch sanitary sewer, 22 D.I. leads and 36 manholes located under the paved street.) As another example, the proposed pipeline route for intake alternative 5 would cross the underground pipeline carrying methane from the former landfill to the Almond Growers facility on C Street. In order to provide a complete and accurate project-level discussion of Alternative 3's potential impacts and associated mitigation measures, all significant conflicts of this nature must be identified to the greatest extent feasible. RL13-32

  As noted in the Railroad and Roadway Crossings section, the proposed pipeline would cross and be constructed in many roadways within the City. For open cut trenches, EBMUD would be required to pay the City's trench cut cost recovery fee or reconstruct the street to current City standards, as applicable. If any City above ground or underground facilities (including but not limited to street lights, traffic signals, sidewalks, electrical facilities, storm drain and sanitary sewer lines, water lines) are damaged, EBMUD would be required to repair or replace them to the City's satisfaction. Figure 2-6a shows the locations where tunneling or boring would be required for crossing streets in the pipeline alignment. Additional locations where trenchless construction would be

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needed to cross arterials with high traffic volumes are 16th and D Streets, J Street between 57th Street and Elvas Avenue, Power Inn Road and Folsom Boulevard, and Florin-Perkins Road and Kiefer Boulevard. Additional locations also may require trenchless construction once all potential impacts of the pipeline construction are identified, as discussed in our comment on page 2-17, above. In addition, Figure 2-6a should be consistent with the information provided on Table 12-6 (at page 12-7).

- Page 2-23: The Access Roads and Staging Areas section does not address the number or locations of construction staging areas that would be required for the project. However, the number and locations of the construction staging areas could significantly affect traffic volumes on some streets, resulting in potentially significant impacts, contrary to the conclusion set forth in the Transportation section of the DEIR that the proposed joint project would not result in any significant traffic impacts. Without a more detailed project-level analysis of the staging areas, the document's subsequent conclusions concerning potential traffic impacts lack adequate support. More information also should be provided concerning the number of truck trips related to construction staging locations.

The Construction Schedule section states that the I-5 to Fairbairn pipeline would be constructed at a rate of 150 feet per day and require between 55 and 60 weeks over a span of 16 months. It also states that the Fairbairn to FSC pipeline would be constructed at an average rate of 100 to 150 feet per day over a 15 month period. Minimizing the time to construct obviously is very important in areas where access has been restricted or eliminated, and to minimize the numerous other disruptive effects of pipeline construction. However, the rate of construction also must be realistic, and the DEIR must disclose the potentially adverse effects of project construction based on a realistic construction schedule. In City staff's view, the rate of construction stated in this section of the DEIR is overly optimistic. As part of an adequate project-level analysis, EBMUD should consult with Public Works/Utilities staff for the City and Sacramento County to determine a realistic schedule for the construction of such a pipeline. In addition to identifying specific measures that will be taken to mitigate impacts anticipated on the basis of a realistic schedule, the DEIR also should identify measures (such as shifting to trenchless construction in specific locations) that could be taken to mitigate additional impacts that could result if this schedule is not met. RL13-33

- Page 2-29: The text under "Analysis of Full-Use Scenario" refers to possible subsequent or supplemental environmental documentation. To the extent feasible, analysis of impacts resulting from full use of the facilities constructed by EBMUD should be included in the DEIR's modeling and analysis, to provide a complete and accurate forecast of future conditions. RL13-34

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- Figure 2-12: As with Figure 2-10, Figure 2-12 does not identify any frequency of deliveries, nor does it indicate what year, or type of year the pattern shown represents. City water deliveries should not be included in Figure 2-12. RL13-35

- Page 3-1: The first paragraph of the second column indicates that the impacts of the project alternatives were determined by comparing the alternatives' impacts with the impacts of the "no project" alternative (Alternative 1). This methodology does not comport with CEQA, which requires that the impacts of various alternatives considered in an EIR be determined by comparing conditions resulting from each of the alternatives to existing conditions. Use of the "no project" alternative as a baseline for evaluating the project's impacts creates a significant potential for understating these impacts, because the "no project" condition may include impacts that have not yet occurred under existing conditions, which are then never identified or analyzed, under the methodology described on page 3-1. See CEQA Guidelines, Section 15126.6(e)(1); Christward Ministry v. Superior Court (1986) 184 Cal.App.3d 180, 190-191. RL13-36

- Pages 3-5 and 3-6: The City does not understand the basis for the projected 2030 demands set forth for the City of Sacramento in Table 3-2. At Node 16, the City's demand under Alternative 2 is 100,000 acre feet, whereas the demand listed under Alternative 3 is 140,900 acre feet. The City does not understand the basis for these numbers, nor why there should be any difference under Alternatives 2 and 3 for the City, since the joint diversion capacity proposed in the document does not divert City water. The City also notes that its entitlement for American River water in the year 2030 is 245,000 acre feet. RL13-37

For Node 17, the City notes that its entitlement under the City's Sacramento River water right permit is 81,800 acre feet (not 81,200), and also questions why different delivery amounts are projected under Alternatives 2 and 3. RL13-38

The City does not understand the relationship of the projected EBMUD demand at Node 16 of 35,000 acre feet to EBMUD's expressed desire to receive assurances that it can divert 70,000 acre feet during extremely dry years and 112,000 acre feet in all other years. RL13-39

The City also does not understand the basis for the cumulative projected demand for the City at Nodes 16 and 17 in Table 3-3. For example, the "dry year" projection for the City at Node 16 is 67,000 acre feet, even though the City's in the Water Forum Agreement allows the City to divert 90,000 acre feet at the Fairbairn Water Treatment Plant in a dry year. RL13-40

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- Page 3-8: The second paragraph under "American River Demands" indicates that the City of Sacramento diverts 80,000 acre feet downstream of the mouth of the American River on the Sacramento River under its American River water rights. The primary basis for the City's diversions at the existing Sacramento River Water Treatment Plant is a water right permit for 81,800 acre feet of Sacramento River water, and a pre-1914 claim at the same location. Two of the City's four American River water right permits also authorize diversions at the Sacramento River Water Treatment Plant. RL13-41

- Page 3-12: What is the basis for the conclusion that resolution of the PROSIM inconsistency described in the last paragraph on this page probably will not significantly affect the modeling results? RL13-42

- Page 3-14: For a project-level analysis, the discussion of hydrologic modeling for the proposed I-5 diversion should identify the modeling assumptions used for this facility, including an explanation of how potential requirements for bypass flows to the mouth of the American River were addressed. RL13-43

- Figure 3-3: The City does not understand the basis for the "annual City deliveries" shown on Figure 3-3, which appear to vary from zero to approximately 69,000 acre feet. The City's USBR contract authorizes maximum diversions in the year 2030 of 245,000 acre feet, with no deficiencies. The City's Water Forum Agreement would authorize full use of the City's Fairbairn Water Treatment Plant facilities when flows exceed the Hodge standards, and diversions of up to 90,000 acre feet in drier years. What is the basis for the projected deliveries shown in Figure 3-3? RL13-44

- Page 4-3: We suggest adding the following to the list of "significance criteria" identified at the end of this page:

  Diversions would cause significant change in water quality (especially TOC, temperature and turbidity) to other diverters." RL13-45

- Page 4-6: As indicated in the previous comment, the DEIR should analyze whether EBMUD's proposed diversion will have an impact on the water quality available to other diverters, particularly during dry periods. Such water quality impacts could occur at both the Fairbairn Water Treatment Plant and the Sacramento River Water Treatment Plant as a result of reduced dilution capacity resulting from EBMUD's diversions of American River water, and at the Sacramento River Water Treatment Plant as a result of construction/operation of the proposed I-5 diversion facility. This analysis must be conducted before reaching any conclusion that implementation of the project alternatives will have no significant impacts on water quality. The same comment applies to the discussion of cumulative impacts on this page. RL13-46

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- Page 5-2: The discussion of the Hodge decision also should refer to the requirement to maintain 60,000 acre feet of water in reserve for instream purposes. RL13-47

- Page 5-19 to 5-22: The cursory discussion of potential fisheries impacts attributable to the proposed joint project alternative fails to provide an adequate basis for the conclusions of no significant impact. In particular, the discussion of impacts attributable to EBMUD's planned outage needs is too vague and ill-defined to be of any use to decision makers considering the impacts of committing future diversion capacities for this purpose. RL13-48

- Page 6-12: The adopted Richards Boulevard Area Plan (copy submitted with prior City comments) calls for the development of passive recreational uses on the south bank of the American River between the confluence with the American River on the west and North 16th Street on the east. The proposed improvements include a bike trail to be constructed on the crown of the levee and access points where the north/south numbered streets (i.e., North 5th, North 7th, etc.) terminate at the levee. Additionally, a public street is planned for construction along the toe of the levee from the future North 5th Street to Highway 160, to provide public access to all points along the river in this area. The discussion of impacts to recreation opportunities on the lower American River should indicate whether the construction of the intake pipeline over the top of the levee will interfere with development of a contiguous bike trail along the levee or with access to such trail from adjacent streets. The document also should identify any measures that could be implemented to avoid such impacts, such as construction of a ramp over the pipeline or other means of allowing recreational users to pass east/west along the levee. RL13-49

- Pages 7-18 to 7-19: The impact assessment is inadequate in that it fails to provide a sufficiently detailed discussion of potential impacts to street trees in the C Street, Elvas Boulevard corridor, nor do the actions listed under mitigation measure 7-6 provide adequate mitigation for potentially significant impacts to trees in the pipeline corridor from I-5 to the FSC. Instead of merely indicating that tree removal permits would be obtained and complied with, specific potential impacts must be identified, and every effort must be made to avoid the impacts by protecting trees during construction, and by utilizing alternative siting and construction techniques, such as tunneling. Attached hereto and incorporated herein are comments submitted by the City's Trees Services Division regarding actions necessary to mitigate impacts to trees in the pipeline corridor. The feasibility and effectiveness of such actions for excavation of the magnitude proposed can only be determined after a thorough examination of specific street tree impacts likely to result from the pipeline construction. Additionally, the loss of trees or portions of the tree canopy presents potential land use and visual impacts, and should be analyzed appropriately in those sections of the DEIR as well. RL13-50

- Chapter 8: Mitigation identified for potential impacts to raptor species includes conducting surveys to identify their location prior to construction. Since the proposed intake locations are known, these surveys should be performed and the location of these species near the proposed intake locations should be described in the DEIR, so that a selection of the preferred location can be made with an understanding of the project's potential impacts to raptor species, if any. RL13-51

- Chapter 9: This chapter should include discussion of potential impacts related to soils, seismicity and groundwater for the various I-5 intake and pipeline routing alternatives, including intake alternative number 5, which will involve the installation of pipeline at a former landfill site, as noted above. RL13-52

- Page 10-16: The first complete sentence at the top of column 2 should be revised to read: "Construction of the pipelines also could temporarily affect access to the Blue Diamond Growers Plant, Cannery Business Park, other businesses and residents along this corridor." The Blue Diamond facility has a high seasonal peak of both truck traffic and employee traffic, which should be addressed in both the traffic control plan and the pipeline construction schedule. In addition, land use conflicts may result from the elimination or restriction of access to residential and commercial driveways at locations along the alignment, and from the use of construction staging areas, as discussed above. The document should identify these potentially significant impacts and describe appropriate mitigation actions, as discussed above.

  Notwithstanding the Land Use section's conclusion that none of the joint project alternatives would result in significant land use impacts, it appears that all of the proposed alignments for the proposed joint project, with the possible exception of alignment 5, will have potentially significant land use impacts, applying the significance criteria set forth on page 10-13. These impacts become apparent upon consideration of the Richards Boulevard Area Plan (RBAP), which was adopted by the City in December, 1994 (copy submitted with prior City comments). The brief reference to the RBAP on page 10-11 should be expanded to describe in more detail the RBAP's plan for the long term transition of land uses within the area to include up to six million square feet of new office uses and 3,800 residential units. More specifically, the area immediately south of the American River, in the vicinity of Intake Alternatives 3 and 4, is planned for residential land uses, a 10 acre park at North 7th Street and the river, and a new street called Riverfront Drive that will provide public access to the American River from the future North 5th Street to Highway 160. The DEIR contains no analysis of the potentially significant impacts of constructing the pipeline, under alternatives 1 through 4, through areas planned for both residential and commercial office development in the RBAP. In addition to the pipeline, the potential location of the chemical conditioning facility RL13-53

(described on page 2-16) at the intake location for alignments 1 through 4, poses a potentially significant conflict with future residential development proposed for the area north of Richards Boulevard.

Pipeline alignments 1 through 4 also present the potential to directly impact a number of residential uses located between North 12th and North 16th Streets, A Street and the Union Pacific mainline rail tracks. The existing residential uses that may be impacted include the Salvation Army's 80-bed transitional housing facility and the 60-unit Francis Quinn cottage housing project, as well as numerous existing social service programs operated in the vicinity of North 12th and A Streets on land owned by the Sacramento Housing and Redevelopment Agency (SHRA) and leased to publicly funded social service providers. The section of pipeline proposed to run south on North 14th Street will cut through the center of the City's proposed consolidated social service complex. The SHRA has completed conceptional design of this complex and is developing an implementation plan for construction. Other facilities that potentially may be affected include the Public Inebriate Center located at 700 North 5th Street, which includes alcohol treatment and overnight, transitional housing services, and the transitional housing facility operated at 470 Bannon Street.

The foregoing existing and future proposed land uses for the area where intake and pipeline alternatives 1 through 4 would be located raise the potential for potentially significant impacts, applying four of the significance criteria set forth on page 10-13.[1] These potential impacts should be analyzed at a project-specific level, so that all feasible measures to mitigate these impacts can be identified and the environmental document will provide a meaningful basis for comparing project alternatives.

- Page 10-17: In the first full paragraph on this page, the following statement is made: "Because the proposed intake pipelines would generally follow existing roadway corridors, potential direct conflicts with existing residential, commercial, and industrial uses are expected to be minimal." As discussed in more detail in our comments on pages 2-3 to 2-7, and page 12-6, without a project-level analysis of the effect of the construction on property access and traffic circulation, this statement is not supportable. RL13-54

[1]These criteria state that land use impacts are considered significant if implementation of a project alternative would: (1) require removal or relocation of structures or facilities used for residential, commercial or industrial purposes; (2) result in permanent incompatibilities with existing of proposed land uses; (3) result in substantial construction nuisances or conflicts in residential or commercial areas; and (4) result in inconsistencies with adopted plan and policies.

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The first paragraph under "Conflicts with Proposed or Planned Projects in the City or County of Sacramento" refers to the future proposed extension of Richards Boulevard, but the DEIR fails to indicate whether the alignment of the proposed C Street Bypass option for Intake Alternative 5 would conflict or interfere with the future proposed alignment of the Richards Boulevard extension. This information is vital to an informed selection of project components.

The beginning of the second paragraph should be revised to read: "The proposed C Street closure between 17th and 19th Streets and the C Street reconstruction project would occur along the EBMUD pipeline alignment for Intake Pipelines 1 through 4; the City will delay the C Street reconstruction project if necessary to allow for completion of EBMUD project facilities first. The proposed C Street closure would need to reserve public utility easements authorizing subsequent installation of the EBMUD pipeline."

- Page 12-2: Table 12-3 should be revised as follows:

  - 10th Street should be called North 10th Street.
  - Per Figure 2-6a and text, 24th Street should be 23rd Street.
  - 14th Avenue should be 14th Street.
  - Per Figure 2-6a and text, 56th Avenue is not involved.
  - North 7th Street should be added.
  - * at bottom, the reference to Table 11-4 should be to Table 12-4.

RL13-55

- Page 12-3: Table 12-4 should be corrected to indicate that the roadways listed from Watt Avenue to Eagles Nest Road are Sacramento County roads. In the first paragraph of the second column, the reference to Figures 2-7a and 2-7b should be to 2-6a and 2-6b. The discussion under Rail Lines should note that permits will be required for all railroad crossings or right-of-way encroachments.

RL13-56

- Page 12-4: We suggest adding two additional standards to the listed "Significance Criteria":

  - affect the City of Sacramento's Level of Service (LOS) standards, such that the LOS on detour routes degrades from LOS A, B, or C to D or worse, or the delay increases by more than 5 seconds on a detour route already at LOS D or worse.
  - increase the response time of emergency vehicles in the project area to more than four and one-half minutes.

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In the City, 97 percent of emergency responses are consistently on-site within four and one-half minutes. A decrease in this percentage as a result of the project should be considered a significant impact.

The first full paragraph in column 2 discusses the criteria used for screening of traffic impacts. For impacts on City of Sacramento streets, the City's Interim Traffic Impact Analysis Guidelines should be used (copy attached and incorporated herein by this reference). Please note that the City considers re-routed trips as projected generated trips for impacts on detour routes.

- Page 12-6: The DEIR's discussion of potential Transportation and Circulation impacts for Alternative 3 does not adequately identify or discuss at a project-specific level the changes to present patterns of traffic circulation, traffic/parking impacts, or the effects of restricted or eliminated parcel access. In some instances, the installation of the pipe may require entire street closures (specifically C Street, Kiefer Blvd., and 57th Street) or one way traffic on streets that are presently two way, resulting in the diversion of traffic/parking to other streets. The DEIR should analyze the potential impacts of such actions, and should identify all feasible measures to address and minimize such impacts. For example, in nonresidential areas where the pipeline construction will result in complete street closures, night time construction may be a potential mitigating action.

As part of the foregoing analysis, a table should be provided identifying all affected street segments; the anticipated level of access restriction during construction on each segment (e.g. closed; one travel lane serving both directions; one lane, one-way; one-lane, each direction); the anticipated duration of the access restriction for each segment (based on a realistic construction schedule); the existing Average Daily Traffic (ADT); the existing peak hour traffic volume; the percent of diverted ADT; the percent of diverted peak hour traffic; and the potential for delay on each segment.

RL13-58

Construction along 28th Street or C Street also could adversely impact the City's 28th Street Corporation Yard, which is the vehicle dispatch and maintenance facility for the City's solid waste operations. Over 100 City vehicles must enter and exit this site on a daily basis to conduct solid waste collection and recycling operations. The only ingress and egress to this site is 28th Street. Pipeline construction also could impact solid waste collection schedules by creating conditions that prevent access to solid waste containers and yard waste placed at the curb. Additionally, because both C Street and Kiefer Boulevard are designated truck routes, temporary truck routes will need to be established to handle existing truck traffic, as well as additional construction-related truck traffic.

The discussion of transportation and circulation impacts of the proposed joint project also should consider potentially significant impacts on future transportation and circulation

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improvements identified in the Facility Element of the Railyards Specific Plan and Richards Boulevard Area Plan (copy submitted with prior comments), which contains proposed infrastructure elements to serve the buildout of the adopted Richards Boulevard and Railyards land use plans. For example, intake option 2 would be located in the rail spur that runs east of North 3rd Street. The Facility Element identifies this former rail right of way as a location for the future alignment of the Natomas light rail line. The DEIR should identify any potential conflict between the pipeline and the future light rail line at this location, as well as specific actions to avoid such potential conflict, if one exists. Further, although the DEIR notes a potential conflict between intake alternative 2 and the proposed light rail crossing of the American River between Truxel Avenue and Richards Boulevard (at page 2-16), no discussion of this potential conflict is included in the Transportation and Circulation analysis. The DEIR should specifically describe the likelihood of construction of two separate bridge structures, if any, and the potential impacts of an additional bridge structure, if feasible.

To constitute an adequate project-level analysis, the DEIR must identify the full range of potential transportation and circulation impacts such as those described above, and also should describe specific measures that could be implemented to mitigate these impacts. As noted in our comments on pages 2-3 to 2-7, above, such analysis cannot rely upon a traffic control plan that does not yet exist.

- Page 12-7: The discussion under "Deterioration of Roadway Surfaces" fails to address in sufficient detail the potential damage and/or shortened life span that could result to pavement of streets used for detoured traffic and truck trips generated by the project. This section relies upon implementation of a roadway surface repair plan, "as described in Chapter 2," for its conclusion that no significant impacts will result. However, no details are provided concerning such plan in Chapter 2 of the DEIR.

The analysis provided under "Impact: Increase in Traffic" is flawed in that is fails to include in the trips generated by the project the existing trips on the pipeline corridor that will be re-routed on other streets that also will serve the truck trips generated by this project. As nearly all of the streets on the pipeline corridor have more than 100 trips in the peak hour, moving these trips to an adjacent street will likely require a traffic impact study to identify project-specific impacts and mitigations, in accordance with the attached Interim Traffic Impact Analysis Guidelines. The project also appears to meet other criteria set forth in the Guidelines that would trigger the requirement for such a study, because the project may create a hazard to public safety, and may substantially change the off-site transportation system or connections to it. RL13-59

Kurt Ladensack
Re: EBMUD Supplemental Water Supply Project Recirculated DEIR
November 20, 2000
Page - 20 -

Table 12-6 should be revised as follows:

C Street between 16th ~~Avenue~~ Street ~~and 29th Avenue~~ 21st Street
C Street between 29th ~~Avenue~~ Street and 33rd ~~Avenue~~ Street
~~56th Avenue~~ 57th Street

- Page 12-8: The analysis provided under "Impact: Interference with Emergency Response Routes" doesn't provide enough detail to determine potential increases to response time or whether such increases would significantly impact existing response times in view of the City's proposed standard of significance (see comment on page 12-4, above). As discussed above, reliance upon a traffic control plan that does not yet exist for a conclusion of no significant impacts is not adequate. Additionally, this paragraph seems to assume that all streets along the pipeline corridor will remain accessible to vehicular traffic. Since this is not likely to be the case, how will emergency vehicles access property when a street is closed during pipeline construction? RL13-60

- Page 14-2: The discussion of land uses in the vicinity of the proposed joint project does not identify the potentially sensitive residential uses in the vicinity of North 12th and A Streets. The DEIR should indicate whether noise impacts on existing residential uses will be significant at these locations. RL13-61

- Page 15-5: The recommended assessments of potentially hazardous sites should be conducted prior to the completion of project design to provide for an informed decision on the preferred pipeline alignment, as required by CEQA. In addition, EBMUD should identify actions that will be taken to avoid a potential public health hazard if sewer, water or drainage service is severed during pipeline construction. RL13-62

- Chapter 16: In order to mitigate any adverse visual impacts of a new intake facility to the maximum extent possible, we recommend a thorough consideration of various possible designs for a new intake facility, with an opportunity for community review and comment on these proposed design alternatives, before a final design is selected. RL13-63

  In addition, once an adequate project-level analysis of street tree impacts in the Central City/East Sacramento areas is performed (see comments on pages 7-18 to 7-19, above), this chapter must assess any visual impacts resulting from damage to trees in these areas.

- Chapter 17: The assessment of impacts to cultural resources should be more specific in its surveys and assessments of the potential impacts of project construction. The assessment provided fails to identify known historic structures adjacent to City streets as a resource that potentially could be affected by construction activity. For example, the Blue Diamond Growers building at 17th and C Streets is a registered historic structure. RL13-64

Numerous other buildings in this corridor potentially could be affected by construction activity. In addition, the surveys for cultural resources for this area fail to address potential impacts to features which may be located in the street right-of-way, such as granite curbing used in many parts of the Central City. Finally, the project will pass through, or adjacent to, certain historic districts in the Central City area. Impacts to the historic character of these areas and/or to the structural integrity of historic buildings could result in significant impacts to cultural resources, which should be considered in the DEIR.

- Page 18-1: The DEIR indicates that a "quantitative" cumulative impacts analysis was included in the previous chapters discussing hydrology, water quality, fisheries, recreation, vegetation and visual resources. In many cases, however, the referenced analysis concludes that there is no significant cumulative impact without providing adequate modeling or other analysis to support this conclusion. In addition, to the extent that cumulative impacts to aquatic resources were quantitatively modeled, will the results be affected by resolution of the PROSIM "inconsistency" referenced on page 3-12? RL13-65

- Pages 18-2 to 18-4: The "qualitative" discussion of cumulative impacts is too generalized to be of any use to decision makers, and fails to provide any meaningful guidance in determining whether the project will have any significant contribution to projected cumulative impacts. RL13-66

- Page 18-6: The first sentence under the heading "City of Sacramento" indicates that the City's service area includes potential water purveyor service areas outside the City's place of use that could receive City water through wheeling contracts. The City is not authorized to supply City water outside of its place of use, and may only enter into wheeling contracts to provide water to such areas if the surface water being wheeled is diverted under a separate water right that allows the water to be delivered to such areas. RL13-67

- Page 18-9: What is the source of the capacity and demand figures set forth in the second paragraph under the heading "City of Sacramento Service Area?" RL13-68

- Page 18-10: This page states that the amount and geographic extent of potential City wholesale and water wheeling contracts are unknown at this time. This is not entirely true, as the City has executed a wholesale contract for delivery of surface water to Citizens Utilities Company's Southgate Service Area, and also has executed a wheeling agreement with Sacramento County for the diversion and treatment of surface water supplies obtained by the County, including the water service contract authorized under Public Law 101-514. RL13-69

Thank you for the opportunity to review and comment upon these documents.

Very truly yours,

SAMUEL L. JACKSON
City Attorney

JOE ROBINSON
Deputy City Attorney

c: Rob Schroeder, USBR
Robert Thomas, City Manager
Jim Sequeira, Utilities Director

Response to Comments of the City of Sacramento

RL 13-1, Samuel L. Jackson and Joe Robinson, City of Sacramento
The City's opposition to Alternatives 2 and 3 and stated preference for Alternatives 6, 7, and 8 is noted.

RL 13-2, Samuel L. Jackson and Joe Robinson, City of Sacramento
The City's preference for Alternatives 6, 7, and 8 over Alternative 4 is noted. All of the alternatives considered would result in construction-related impacts at various locations.

RL 13-3, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 13-4, Samuel L. Jackson and Joe Robinson, City of Sacramento
The 1997 Draft EIR/EIS and the 2000 REIR/SEIS both provide an appropriate level of site-specific information to conduct an adequate evaluation of potential environmental impacts. See also responses to the "Construction-Related Environmental Commitments and Mitigation" and "C Street Pipeline Routing" major issues in Chapter 3 of this document.

RL 13-5, Samuel L. Jackson and Joe Robinson, City of Sacramento
The 2000 REIR/SEIS describes the formulation of Alternative 3 to provide context for why the alternative has been included in the environmental review process. The City's preference for Alternatives 6, 7, and 8 is noted.

RL 13-6, Samuel L. Jackson and Joe Robinson, City of Sacramento
Comment noted. The Fairbairn intake option is not under consideration.

RL 13-7, Samuel L. Jackson and Joe Robinson, City of Sacramento
Attachment A to Appendix B of the 1997 Draft EIR/EIS and Appendix B to the 2000 REIR/SEIS together provide substantial information regarding the quality of the different source waters under consideration. The focus of Chapter 4 in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS is on the potential impacts on water quality that could be caused by the construction and operation of the alternatives. This analysis is appropriate and complete.

RL 13-8, Samuel L. Jackson and Joe Robinson, City of Sacramento
Comment noted. The subject sentence was intended to briefly describe the process by which disinfection byproducts are formed.

RL 13-9, Samuel L. Jackson and Joe Robinson, City of Sacramento
The significance criterion discussed in this comment was used to examine the potential effects of all sources of water, not just American River water. Impacts on other Delta water users were represented in the analysis through potential effects on Contra Costa Water District's water quality. These impacts were determined to be extremely minimal and less than significant.

RL 13-10, Samuel L. Jackson and Joe Robinson, City of Sacramento
Potential differences in taste and odor event probability between different water sources are discussed in Attachment A to Appendix B of the 1997 Draft EIR/EIS. Generally, as water moves downstream from the Sierra and foothills into the Central Valley

and Delta, it gains nutrients (biostimulatory substances) and thereby increased risk of algal growth. Objectionable taste and odor in surface waters generally result from metabolic by-products of several species of algae and blue-green bacteria. Taste and odor episodes are difficult to predict, as are the possible effects of various blends of different water qualities. Generally, the addition of sources with higher nutrient content would be expected to increase the frequency of taste and odor events. Taste and odor events are a result of biological activity in the water body coupled with water treatment processes and are measured by customer response to finished water quality.

RL 13-11, Samuel L. Jackson and Joe Robinson, City of Sacramento
The applicability of the City's comments on Alternative 3 to the nearly identical features of Alternative 4 is noted. See responses to Comments RL 13-13 through RL 13-69 below.

RL 13-12, Samuel L. Jackson and Joe Robinson, City of Sacramento
The applicability of the City's comments on Alternative 3 to the similar features of Alternative 5 is noted. See responses to Comments RL 13-13 through RL 13-69 below.

RL 13-13, Samuel L. Jackson and Joe Robinson, City of Sacramento
The impacts of pipeline facilities associated with Alternative 5 would be very similar to those described for Alternatives 3 and 4. The pipeline alignment is essentially identical to that described in the 1997 Draft EIR/EIS for Alternative 3, intake Site 1. A relatively short segment of previously not analyzed pipeline would be required under this alternative to connect to a Sacramento River intake facility. As described in the 2000 REIR/SEIS, this pipeline would be routed through City streets and vacant land, and all construction-related impacts would be temporary and less than significant. The 2000 REIR/SEIS recognizes that the construction-related impacts of this alternative would be greater than under Alternative 3 or 4 because of the increased length of pipeline construction. No adverse impacts on the City's water treatment or intake facilities are anticipated given the relatively small capacity of the intake under this alternative (155 cfs) as compared to average flows in the Sacramento River.

RL 13-14, Samuel L. Jackson and Joe Robinson, City of Sacramento
The City's position regarding its preference for Alternatives 6, 7, and 8 is noted. However, while Alternatives 6, 7, and 8 may have less impact on facilities and areas within the City's jurisdiction than do Alternatives 3, 4, and 5, the overall degree of environmental impact is very similar; only the locations of these effects are substantially different.

The remainder of the City's November 20, 2000 comments are generally identical to comments submitted by the City on March 18, 1998 in response to the 1997 Draft EIR/EIS, modified in some areas to reflect updated descriptions of City facilities, proposals, and the City's opposition to Alternative 3. Therefore, the responses below generally refer to responses to the March 18, 1998 letter with additional responses added where necessary.

RL 13-15, Samuel L. Jackson and Joe Robinson, City of Sacramento
See responses to Comment L15-5 and L15-6 in Volume 1, Chapter 6 of this document.

RL 13-16, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-7 in Volume 1, Chapter 6 of this document.

RL 13-17, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-8 in Volume 1, Chapter 6 of this document and responses to Comments RL 13-5 and RL 13-6 above.

RL 13-18, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-9 in Volume 1, Chapter 6 of this document. The summary accurately reflects the information contained in the EIR/EIS.

RL 13-19, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-10 in Volume 1, Chapter 6 of this document.

RL 13-20, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-11 in Volume 1, Chapter 6 of this document, and response to Comment RL 13-5 above.

RL 13-21, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-12 in Volume 1, Chapter 6 of this document.

RL 13-22, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-13 in Volume 1, Chapter 6 of this document.

RL 13-23, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-14 in Volume 1, Chapter 6 of this document.

RL 13-24, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-15 in Volume 1, Chapter 6 of this document.

RL 13-25, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-16 in Volume 1, Chapter 6 of this document.

RL 13-26, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-17 in Volume 1, Chapter 6 of this document.

RL 13-27, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-18 in Volume 1, Chapter 6 of this document.

RL 13-28, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-19 in Volume 1, Chapter 6 of this document. The City's preference for Alternatives 6, 7, and 8 is noted.

RL 13-29, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-20 and L15-21 in Volume 1, Chapter 6 of this document. The slight changes in the description of the City's expansion of its facilities identified in this comment do not affect the environmental analysis.

RL 13-30, Samuel L. Jackson and Joe Robinson, City of Sacramento
See responses to Comments L15-22 and L15-23 in Volume 1, Chapter 6 of this document.

RL 13-31, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-24 in Volume 1, Chapter 6 of this document.

RL 13-32, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-25 in Volume 1, Chapter 6 of this document.

RL 13-33, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-26 in Volume 1, Chapter 6 of this document.

RL 13-34, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-27 in Volume 1, Chapter 6 of this document.

RL 13-35, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-28 in Volume 1, Chapter 6 of this document.

RL 13-36, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-29 in Volume 1, Chapter 6 of this document.

RL 13-37, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-30 in Volume 1, Chapter 6 of this document.

RL 13-38, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-31 in Volume 1, Chapter 6 of this document.

RL 13-39, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-32 in Volume 1, Chapter 6 of this document.

RL 13-40, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-33 in Volume 1, Chapter 6 of this document.

RL 13-41, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-34 in Volume 1, Chapter 6 of this document.

RL 13-42, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-35 in Volume 1, Chapter 6 of this document.

RL 13-43, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-36 in Volume 1, Chapter 6 of this document.

RL 13-44, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-37 in Volume 1, Chapter 6 of this document.

RL 13-45, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-38 in Volume 1, Chapter 6 of this document.

RL 13-46, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-39 in Volume 1, Chapter 6 of this document.

RL 13-47, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-40 in Volume 1, Chapter 6 of this document.

RL 13-48, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-41 in Volume 1, Chapter 6 of this document.

RL 13-49, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-42 in Volume 1, Chapter 6 of this document.

RL 13-50, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-43 in Volume 1, Chapter 6 of this document.

RL 13-51, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-44 in Volume 1, Chapter 6 of this document.

RL 13-52, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-45 in Volume 1, Chapter 6 of this document.

RL 13-53, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-46 in Volume 1, Chapter 6 of this document.

RL 13-54, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-47 in Volume 1, Chapter 6 of this document.

RL 13-55, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-48 in Volume 1, Chapter 6 of this document.

RL 13-56, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-49 in Volume 1, Chapter 6 of this document.

RL 13-57, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-50 in Volume 1, Chapter 6 of this document.

RL 13-58, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-51 in Volume 1, Chapter 6 of this document.

RL 13-59, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-52 in Volume 1, Chapter 6 of this document.

RL 13-60, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-53 in Volume 1, Chapter 6 of this document.

RL 13-61, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-54 in Volume 1, Chapter 6 of this document.

RL 13-62, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-55 in Volume 1, Chapter 6 of this document.

RL 13-63, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-56 in Volume 1, Chapter 6 of this document.

RL 13-64, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-57 in Volume 1, Chapter 6 of this document.

RL 13-65, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-58 in Volume 1, Chapter 6 of this document.

RL 13-66, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-59 in Volume 1, Chapter 6 of this document.

RL 13-67, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-60 in Volume 1, Chapter 6 of this document.

RL 13-68, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-61 in Volume 1, Chapter 6 of this document.

RL 13-69, Samuel L. Jackson and Joe Robinson, City of Sacramento
See response to Comment L15-62 in Volume 1, Chapter 6 of this document.

RL14

November 20, 2000

HAND DELIVERED

Kirk C. Rodgers
Bureau of Reclamation
2800 Cottage Way, MP-105
Sacramento, CA 95825

Robert Schroeder
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, CA 95630

Kurt Ladensack
East Bay Municipal
Utility District
P.O. Box 24055
375 Eleventh Street, Mail Slot 305
Oakland, CA 94623-1055

Re: Comments on the Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement and Where Relevant the Draft Environmental Impact Report/Draft Environmental Impact Statement for the East Bay Municipal Utility District Proposed Supplemental Water Supply Project

Dear Messrs. Rodgers, Schroeder and Ladensack:

This firm serves as special legal counsel to the County of Sacramento and the Sacramento County Water Agency (hereinafter collectively "Sacramento County"). This letter is submitted on behalf of Sacramento County, and provides comments regarding the Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement ("REIR/SEIS") and where relevant the Draft Environmental Impact Report/Draft Environmental Impact Statement ("DEIR/DEIS") for EBMUD's Supplemental Water Supply

Project. In particular, these comments demonstrate the insufficiency of the DEIR/DEIS and REIR/SEIS to support any decision by EBMUD to proceed with Project Alternatives 2, 3, 4 and 5. Sacramento County believes that a Delta diversion, such as described in Project Alternative 8, is the alternative that best achieves EBMUD's purpose and need for the Project, while taking into account the serious environmental consequences of the Project. As indicated below, Sacramento County could also support Alternatives 6 and 7. RL14-1

Initially, and in the way of a general comment, Sacramento County notes that EBMUD has all but abandoned the option of maximizing its Mokelumne River resources. This decision does not seem prudent in light of the REIR/SEIS's disclosure that the existing Mokelumne River supply is treated in three in-line filtration plants and that in-line filtration is not considered an "approved" technology in California. (See Appendix B to Draft REIR/SEIS at pp. 1-2.) EBMUD's in-line filtration plants are operated under a permit that is specific to the high quality Mokelumne River source water. (*Id.*) To the extent that there are any modifications, either in regulatory limits associated with treatment or the quality of water within the Mokelumne River watershed, EBMUD will face a significant water treatment crisis. In this light, EBMUD should again consider an option that focuses on the improvement and optimization of its existing system rather than expending the time, effort and money associated with stretching its limited resources to encompass an American River alternative. RL14-2

To the extent the Modified Proposal (Alternative 4) is considered, the County reiterates what has been written and said a number of times. Assuming EBMUD's and the USBR's own needs analysis, EBMUD only "needs" a supplemental supply in certain dry years. Indeed, that analysis shows a surplus of 256,300 acre feet in other years. As a consequence, in order for an alternative to meet the identified need, it must make water available during dry years. None of the American River alternatives do this, including the Modified Proposal. RL14-3

As we have noted, the Sacramento Parties' Modified Proposal included a storage/conjunctive use component that would allow wet year water to be stored for use in dry years. Alternative 4 does not include this as an integrated essential element of the alternative. Without storage/conjunctive use, the alternative makes no sense. Moreover, without full analysis of the storage/conjunctive use component, other aspects and impacts of the alternative cannot be known. Thus, selecting Alternative 4, without a storage/conjunctive use element, means that EBMUD will have selected an alternative that cannot be implemented until and unless the storage component is fully analyzed. This is a classic "piecemealing" of a project and project analysis that is impermissible under CEQA and NEPA. RL14-4

The REIR/SEIS contains within it an astounding change in circumstances that has yet to be focused upon. All previous discussions of American River alternatives assumed that American River water would be treated essentially as would Mokelumne River water. However, this is not the case.

"Since the draft EIR/EIS was published in 1997, EPA . . . [has adopted new rules which require that] American River diversions will now need to include clarification and disinfection." (See Appendix B to Draft REIR/SEIS at p. 14.) This means that the American River diversion will be subject to the same level of treatment as the Sacramento River alternatives. (*Id.*) This, of course, means that there is no longer a reasonable water quality distinction between the American River and Sacramento River alternatives. In this regard, there has been no evaluation of this changed circumstance with respect to Alternative 2. RL14-5

In this context, other factors must come into play. These factors include costs, construction impacts, operational flexibility and impacts to the American River fishery. All of these factors argue against an American River alternative and instead focus on the Sacramento River at Freeport – Sacramento Conveyance (Alternatives 6 and 7) as the proper preferred alternative.

- Costs. Total costs of Alternatives 6 and 7 range from $368M to $435M, with the American River alternatives ranging from $237M (Nimbus low-end cost) to $409M (Modified Proposal high-end cost). Without further analysis, the costs are, of course, comparable. However, as noted above, the American River alternatives all require a storage component - the costs of which are not analyzed but which will be high. Thus, any of the American River alternatives will be much more costly than even the most expensive Alternatives 6 and 7 scenarios. Moreover, construction on the Sacramento River–Freeport alternative can begin immediately upon project approval, while the American River alternative cannot begin until more work, including supplemental environmental review, is completed on the storage elements of the alternative. RL14-6

- Construction Impacts. The Sacramento River–Freeport South Conveyance alternative avoids almost all of the significant construction-related impacts associated with the American River Modified Proposal (Alternative 4) or the Sacramento River WTP option (Alternative 5). There will be no need, under Alternatives 6 or 7, to dig up City/County streets and disrupt local business. RL14-7

- Flexibility. As noted within the DEIR/DEIS, Alternatives 6 and 7 provide a greater degree of flexibility than do the American River alternatives. This includes flexibility with respect to when EBMUD can divert its water since the "Hodge Decision flows would not apply to this alternative . . . ." (See REIR/SEIS at p. 2-21.) It also includes flexibility in Reclamation's operations since "with EBMUD deliveries made downstream for alternative . . . 7 . . . Reclamation would have somewhat greater flexibility to supply water in response to EBMUD demands from either Folsom or Shasta storage." (See REIR/SEIS at p. 3-7.) Alternatives 6 and 7 also represent the highest yield of EBMUD deliveries among the options dealt with in the REIR/SEIS. (*Id.*) RL14-8

- Fishery Impacts. Assuming the adequacy of the REIR/SEIS analysis of impacts to fishery resources, it is clear that only diversions from the Sacramento River or the Delta have the potential of driving EBMUD diversion-related fishery impacts in a positive direction. RL14-9

Based upon the foregoing, it is our view that the Preferred Alternatives, in order of descending preference, should be Alternatives 8, 7 and 6. We know that when all of the information available to you is reviewed in an objective manner, you will reach the same conclusion. RL14-10

In undertaking our review of the REIR/SEIS, we have been frustrated by the failure of that document to adequately respond to previous comments that we have made to the DEIR/DEIS. This is a point that has been raised often during our meetings with you over the past year. Despite our repeated requests, you have refused to provide us with direct responses to our previous comments. Instead you have promised that the REIR/SEIS would indirectly deal with our comments. The simple truth, however, is that the REIR/SEIS does not respond to many of our prior comments, but only creates confusion about what exactly EBMUD and Reclamation will rely upon as they proceed with the finalization of environmental review. This confusion has created the need on our part to again review the DEIR/DEIS comments that we previously provided to attempt ourselves to make some sense out of what you have done. RL14-11

Accordingly, enclosed are Sacramento County's detailed comments on the REIR/SEIS ("Attachment 1"). We have enclosed within our detailed comments on the REIR/SEIS references to our prior comments on the DEIR/DEIS ("Attachment 2"). We have, for your information and convenience, also enclosed our prior comments on the DEIR/DEIS. In this regard and to the extent that these comments have not been responded to, we resubmit them as comments on the REIR/SEIS. We believe that these comments must be addressed because they are relevant not only to the DEIR/DEIS, but also to the REIR/SEIS.

Kirk C. Rodgers
Robert Schroeder
Kurt Ladensack
November 20, 2000
Page 5

Please do not hesitate to contact Nick Jacobs, of this office, or me if you have any question or need additional information.

Sincerely,

Stuart L. Somach
Attorney

SLS/jlp

cc: David J. Hayes
Lester Snow
Anson B. Moran
Terry Schutten
Robert A. Ryan
Robert P. Thomas
Keith DeVore
Robert F. Shanks
Jim Sequeira
Dennis Diemer
Randy Kanouse

Attachment 1

Sacramento County's Comments on the Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement

Summary Chapter

REIR/SEIS, pp. S-1 to S-22

A. General Comments

Project Objectives

High raw water quality implies only American River water will do. Actually, 20 million people drink Sacramento River and other Delta water supplies.

System reliability will not be greatly improved by connecting to the American River because history has shown that drought conditions often occur in both watersheds simultaneously. Catastrophic events are much more likely to occur downstream of any the Folsom South Canal extension and connection. A Sacramento River diversion would provide greater assurances against plumbing failure.

Operational flexibility is the greatest with a Sacramento River diversion.

A Sacramento River diversion has the greatest positive affect toward reducing deficiencies. An American River diversion only slightly reduces deficiencies.

Enhancement of Mokelumne River flows should not occur at the expense of the federal and state designated Wild and Scenic American River.

EBMUD's WSMP objectives will not be met with an American River diversion.

RL14-12

B. Specific Comments

- Pages S-18 and 21:
  On page S-18 visual resource impacts at the American River intake structure are identified as significant. No mitigation measures are proposed. However, on page S-21 these same visual resource impacts are identified as less than significant with no mitigation required. Which is it? Visual impacts can and must be mitigated through proper design features.

RL14-13

- Page S-1:
  The discussion leaves the reader with the impression that EBMUD has all the plumbing in place between the Folsom South Canal and the Mokelumne Aqueducts. The fact is that there is a 17-mile gap in facilities. There has never been any physical connection between the two.
  The American River alternative does not meet EBMUD's needs because water is only available when the Hodge flow criteria have been met.

RL14-14

- Page S-2:
  The American River alternative does not meet EBMUD's purpose and need because American River supplies are not available to EBMUD when they need the water.

RL14-15

CHAPTER 1 - Purpose and Need for the Supplemental Water Supply Project

REIR/SEIS, pp. 1-1 to 1-2

B. Specific Comments

- Page 1-1, paragraph 2:
  Not amending the EBMUD's Bureau water supply contract means diversions and a pipeline from the EBMUD turnout at Grantline Road instead of from the end of the Folsom South Canal. This alternative means constructing a pipeline parallel to the Folsom South Canal for a distance of 17 additional miles creating many additional impacts. RL14-16

CHAPTER 2 - Project Objectives and Alternatives Under Consideration

REIR/SEIS, pp. 2-1 to 2-26

A. General Comments

The description of the Modified Proposal is defective because it does not integrate groundwater/storage as an essential element of the alternative. This is not a new comment. The following is suggested language that should be included within the REIR/SEIS.

"The June 8, 1999 Modified Proposal offered by the Sacramento Parties contains twenty-two elements each one of which is critical to the Modified Proposal. Among the proposal elements is a diversion and pipeline project that would enable EBMUD to take delivery of water at Site 5, when flows at the mouth of the Lower American River meet the threshold requirements imposed under Judge Hodge's decision in *EDF, et al. V. EBMUD*. While EBMUD needs Lower American River water to meet its dry year requirements, the Modified Proposal allows for only wet year diversions. As a consequence, groundwater storage and conjunctive use (or other storage) of water diverted in wet years is an essential aspect of the Modified Proposal.

"In light of the time constraints in developing a project level description of the groundwater/storage element of the Modified Proposal the instant EIR/EIS deals with these aspects of the Modified Proposal only on a programmatic basis. Prior to the time that construction commences on any aspect of the Modified Proposal a project level EIR/EIS fully analyzing the groundwater/storage elements of the Modified Proposal will be completed. RL14-17

"In the event that, after full environmental review, it is believed that the groundwater/storage elements of the Modified Proposal cannot be accomplished then EBMUD and USBR shall meet with the Sacramento Parties and other interested parties to discuss the propriety of proceeding with the Modified Proposal without its groundwater/storage elements. No construction will take place on the diversion and pipeline elements of the Modified Proposal until agreement is reached to proceed with these portions of the Modified Proposal without its groundwater/storage elements."

The American River alternatives, as described, do not meet the needs identified by Reclamation as its justification for contracting with EBMUD. That needs analysis, as described to us twice, establishes a need only in dry years. The American River alternatives contained within the REIR/SEIS and within the prior documents are wet year direct diversion projects. They are, therefore, alternatives that do not meet EBMUD's identified need.

The so-called "Fairbairn intake option" must be deleted from the REIR/SEIS. The City will not cooperate with EBMUD on any aspect of this option nor will the City allow this "option" to be implemented. RL14-18

B. Specific Comments

- Page 2-1,2:
  Environmental Commitments: the items listed have not been clearly defined, although they are indicated as "part of the project" and not mitigation measures. RL14-19

- Page 2-2:
  Number 7 had an important footnote that should be included for clarity. It is included in Appendix A. RL14-20

- Page 2-3:
  Sacramento's Modified Proposal always envisioned groundwater banking as part of the project, not some future promise. Without groundwater banking, the project does not meet EBMUD's needs. RL14-21

- Page 2-8:
  A new high school (Rosemont) will be constructed on Kiefer Blvd near Bradshaw/Mayhew Roads. No recognition of this fact can be found in the document. Certainly mitigation issues are needed. RL14-22

- Page 2-11:
  EBMUD has not demonstrated the need for 150,000 acre-feet annually.
  EBMUD should identify other methods of supplying water if Pardee must be taken off-line.
  A Fairbairn intake option was deleted from the document because is was not politically feasible. This reference should be deleted also.
  Construction Considerations lack the necessary specificity. Only loose commitments have been made. RL14-23

- Page 2-12:
  EBMUD shall be required to submit Improvement Plans to the Sacramento County Public Works Agency for approval. This will insure consistency with the other construction projects within the County. Standard construction specifications and special provisions shall be complied with. Payment of fees, inspections, etc. must be included. Trench cut fees or T-section construction are new requirements for work within paved right-of-ways. RL14-24

- Page 2-19:
  The Freeport East Alternative proposed a pipeline north through developed areas as opposed to proceeding east through underdeveloped areas. The County/Agency have long-term plans to construct a diversion structure and treatment plant at Freeport. There is the possibility of partnering or conflict depending on the approach. RL14-25

- Page 2-21:
  At the eastern terminus of Gerber Road (at Excelsior Road) is a housing development behind which is a sensitive environmental area with numerous vernal pools. This is generally known as the Klotz property. The proposed pipeline routing through this area will require a Corps of Engineer's section 404 permit. RL14-26

  All proposed CVP contract triggers are based on information provided by EBMUD. This creates a situation where, for instance, EBMUD's 500,000 acre-foot system storage amount is projected based almost entirely on data input by EBMUD. In addition, EBMUD operates the Mokelumne system.
  Throughout this document EBMUD has assumed water will be delivered in accordance with the Draft CVP Water Supply Contract. This draft contract was controversial because it provided EBMUD with water supplies far in excess of their needs as well as diversions from the Folsom South Canal. RL14-27

C. Comments on Appendix B, Supplemental Water Supply Project – Proposed Diversion Scenarios

- Page 2, 2nd paragraph:
  Given the statement that in-line filtration is not an "approved" technology in California, the District's primary treatment facilities are violating the stated primary goal of all drinking water treatment - to use accepted technology (p. 8, 1st paragraph). Why is the District ignoring this while focusing on source water quality? RL14-28

- Page 2, second full paragraph:
  This paragraph should mention that all domestic water diverters on the American River have treatment plants with unit processes that provide equivalent treatment to a conventional treatment plant. RL14-29

- Page 3:
  What is the basis for using 90th percentile values as criteria for treatment process design when the California Department of Health Services ("DOHS") generally looks at 50th percentile values? Use of 90th percentile values bias the water quality analysis when comparing the water quality of the American River or Sacramento River to the Mokelumne source (Pardee Reservoir) because river sources typically experience more water quality variability than lake sources. Further, use of 90th percentile values does not make sense given the fact that EBMUD is attempting to develop a supplemental water supply, not a primary water supply. Operation of a supplemental water supply should plan for supply outage periods during bad raw water quality conditions. During dry years, when the supplemental water supply is needed, raw water quality should be better than in wet years. RL14-30

- Page 4, Table 1:
  There is no reference identifying where the data were obtained. Revised values for the American River at EAFWTP and the Sacramento River at SRWTP using City water quality data are given below. Due to the above issue regarding EBMUD's use of 90th percentile values to compare water quality, median values are also provided below. Comparing median values of the American River or RL14-31

Sacramento River to Pardee Reservoir is more meaningful because a supplemental water supply can be shutdown to remedy water quality variability on the river sources. EBMUD data represents a lake intake that provides a buffer to fluctuations in water quality. Thus, the EBMUD median values will likely be very similar to the EBMUD 90th percentile values.

The information below was obtained from research done as part of the American River Watershed Sanitary Survey - 1998 Update (December 1998) and the Sacramento River Watershed Sanitary Survey - 2000 Update (final in December 2000).

EBMUD uses units of cfu/100 mL for coliform while the City's data is in MPN/100 mL. Also, the City does not monitor for phosphate at either intake. EBMUD did not show *E. Coli* data but it is included below for information because USEPA will increasingly rely on this constituent as a potential indicator for pathogens.

Constituent	American River at EAFWTP		Sacramento River at SRWTP	
	90th Percentile	Median	90th Percentile	Median
Turbidity, NTU	7.4	1.5	23.4	8.2
TOC, mg/L	2.1	1.5	2.8	1.6
TDS, mg/L	48	39	86.6	71.5
Bromide, ug/L	<20	<20	<20	<20
Constituent	**American River at EAFWTP**		**Sacramento River at SRWTP**	
	90th Percentile	**Median**	**90th Percentile**	**Median**
Hardness, mg/L	24	15	53	31
Phosphate, mg/l	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Nitrate as N, mg/L	0.14	0.08	0.45	0.33
Total Coliform, MPN/100 mL	2400	790	5000	800
Fecal Coliform, MPN/100 mL	230	33	294	50
E. Coli, MPN/100 mL	130	30	130	19

- Page 4, Item No. 4:
  The TM states that no bromide data are available at the Sacramento diversion sites. This is not true. Bromide data were collected at both the EAFWTP and the SRWTP as part of the ICR project. Bromide was not detected at either location. This data has been included above. RL14-32

- Pages 4 and 5:
  Water quality comparisons are made between EBMUD's Mokelumne supply and the American River, Sacramento River and Delta options. The comparison should be between a blended Mokelumne/American River, Mokelumne/Sacramento River or Mokelumne/Delta water with a Mokelumne only. RL14-33

- Page 5, Item No. 7:
  The TM states that a higher level of pathogen protection would be required. It is important to note that the American River and Sacramento River provide source water in Sacramento which is required to be treated to 3/4-log reduction, as per DOHS requirements and the Surface Water Treatment Rule. RL14-34

- Page 5, Paragraph 2:
  The last sentence of this paragraph assumes that since there are urban and agricultural runoff and wastewater discharges, the American and Sacramento Rivers will have significantly higher levels of *Cryptosporidium* and *Giardia* than the Mokelumne River. This assumption is not supported by data as there have been extensive monitoring efforts on both rivers with few pathogens detected, in both frequency and concentration. It is more correct to say that the rivers "may have" or "are expected to have" higher levels of these pathogens than the Mokelumne River. RL14-35

- Page 5 - Re: Fecal coliform levels vs. *Cryptosporidium*:
  The assumption is made that because of the influences of urban and agricultural runoff and wastewater discharges, there are "significantly higher levels of *cryptosporidium* and *Giardia* than the Mokelumne River." What scientific studies support this statement given that the available existing data show little or no detection of these pathogens? RL14-36

- Page 5 - Re: Nutrients:
  Are phosphorus and nitrogen the limiting nutrients for primary productivity in EBMUD's terminal reservoirs? If yes, at what levels? Are these levels expected given the fact that blending with the Mokelumne supply and pre-treatment will occur prior to transmission to EBMUD's reservoirs? Most phosphorus present in the source water can be easily removed if a ferric salt is used as the primary coagulant in the pre-treatment process. RL14-37

- Page 7, Table 2:
  This table is a qualitative comparison of the risk of various categories to each of the alternative sites. The categories are not clearly defined and the basis for classification is not explained. For example, for the categories of new and existing DBP precursors and nutrients, the Freeport alternatives have been qualified as high. If a diversion is upstream of the Sacramento Regional Wastewater Treatment Plant, there should not be a significant difference in these constituents between SRWTP and Freeport. There will be some additional urban runoff load and the potential for accidental releases, but not of such a significant difference as represented in the TM. EBMUD should either provide data to support this conclusion or reduce the classification to Low or Moderate. Also, the new/emerging contaminants and pathogens categories are very difficult to evaluate due to their vagueness. There are no data, either water quality or contaminant source evaluation, to support any of these qualifications, since no constituents are identified. Also, the lower American River diversion, Alternatives 3 and 4, have been qualified as "low" even though there is the RL14-38

potential for urban runoff, recreation, emergency spills and other potential contaminating activities.

- Page 7, Table 2:
  Why is "Impacts to Customers" rated "low" for American River and "moderate" for Sacramento River sources when taste and odor producing compounds, such as geosmin, are generally more prevalent in the American River?
  Why is there a difference in "nutrients" ratings between Sacramento River diversion alternatives?
  Why is there a difference in ratings based on level of activity (new-emerging contaminants) between American River and Sacramento River alternatives given the urbanization in the American River Basin?
  Same question as above for "New-Emerging Pathogens"?
  What are considered as "new-emerging pathogens"?
  No reference is made to the City of Sacramento's sanitary surveys for both the American and Sacramento Rivers. How do these surveys compare to what is presented in REIR/SEIS? RL14-39

- Page 8, Paragraph 3:
  This discussion of the upcoming Long Term 2 ESWTR is unclear and misleading. As stated in the quote by Roberson, each water source will be classified into a "bin." This classification will be based on the average levels of *Cryptosporidium* determined by source water monitoring. The source waters will not be ranked by their watershed characteristics. The watershed characteristics might be expected to impact the source water concentration, but in sentence 6, paragraph 3, the TM states that source waters will be ranked according to the risk associated with their watersheds. This sentence is misleading and should be revised to indicate that source waters will be classified according to average source water concentrations of *Cryptosporidium*. RL14-40

- Pages 8 and 9, Paragraph 4:
  The TM states that the American and Sacramento Rivers will be in a different bin than the Mokelumne River. Since the source water monitoring has not been conducted, there is no basis for this statement. The TM may state that the rivers are "expected" to be in different bins based on watershed characteristics. RL14-41

- Page 9 – Paragraph 1:
  Does the California Department of Health Services require pretreatment of all waters diverted from the American and Sacramento Rivers considering the fact that these diversions will be blended with EBMUD's Mokelumne source prior to in-line filtration? RL14-42

- Page 9, Paragraphs 3 and 4:
  There is a detailed discussion of fecal coliform densities in this TM. First, EBMUD needs to review the data to be sure that consistent and comparable data are provided (do a units check). Second, these two paragraphs are seemingly unrelated and unimportant to the overall discussion since classification into bins under the Long Term 2 ESWTR will be done based on average *Cryptosporidium* levels, not fecal coliform levels. Also, there is no proven correlation between fecal coliform and pathogens. Table 3 uses 90th percentile values to calculate mixing ratios. This is also unfair as this number is representative of only a limited time period, primarily the winter months. This data should not be included since it neither represents any real diversion situations nor regulatory concerns. RL14-43

- Page 9, Paragraph 4:
  The statement that blending cannot achieve the "desired risk reduction" is confusing. What is the desired reduction? The paragraph then goes on to mix fecal coliform densities to conclude that it is not possible to have a "reduction to achieve any significant control of pathogens." Again, what scientific evidence is there that equates fecal coliform levels on the American and Sacramento Rivers to pathogen densities? RL14-44

- Page 9, Re: Turbidity:
  What is the basis for the need to reduce turbidities of American River, Sacramento River and Delta Water by a factor of 5 - 8? What maximum levels of turbidity have the District's in-line filtration plants handled during the winters of 1995 and 1997 in meeting DOHS standards? RL14-45

- Page 10, Table 3:
  This table assumes undisinfected raw water blending. The District expects to disinfect all diversions at source. Fecal coliform levels will thus drop to zero. What is the purpose of this table? RL14-46

- Page 10, last paragraph:
  What is the basis for the statement that there is "increased vulnerability of Sacramento River and Delta source waters to wastewater discharges"? Isn't the opposite true - that clean water efforts are increasing in terms of effectiveness? RL14-47

- Page 11, Paragraph 1:
  There are multiple references to wastewater discharges in the Sacramento and American Rivers. It is important to note that the major wastewater discharge is Sacramento Regional Wastewater Treatment Plant, which is downstream of EAFWTP, SRWTP and Freeport. There are two small wastewater systems in the American River watershed, upstream of Folsom Lake. There are 32 small wastewater systems and two medium systems in the Sacramento River watershed, most of which are significantly upstream in the watershed. RL14-48

- Page 11, Re: Taste and odor:
  See previous comments on nutrients. RL14-49

- Page 11, Paragraphs 3 and 4: RL14-50

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There is a discussion of secondary regulations for thiobencarb and MTBE. No data are presented or discussed. Data are available for both constituents at the SRWTP and for MTBE on the American River. MTBE has been detected at ultra-low levels in both source waters, well below regulatory levels of concern. The source appears to be boating recreation in Folsom Lake. Thiobencarb is used only during the spring months and has not been detected above 1 ug/L at SRWTP over the past five years. It is important to note that MTBE is being phased out of California's gasoline. Also, any taste and odor incidents are generally seasonal and very short term.

- Page 12, Table 4:
  This table should be recalculated based on the new data provided for TDS at SRWTP. RL14-51

- Page 14, Re: Alt 2, 3 and 4:
  What is pathogenic risk posed by municipal wastewater discharges on the American River? What are the municipal discharges on the river? RL14-52

- Page 15, First Bullet Item:
  The second sentence refers to blending American River water with Mokelumne. This should indicate blending Sacramento River water since the discussion concerns Alternatives 5, 6 and 7. RL14-53

- Page 15, Treatment Scenario A:
  Why would fecal coliform content require modification to in-line filtration facilities if disinfection at source reduces levels to zero? Again, if in-line filtration plants are not using "approved technology," why not invest in modification or replacement? RL14-54

- Page 15, Re: Conventional clarification and sand filtration at Brandt and blending with Mokelumne:
  Does this alternative include sedimentation as a unit process? It is unclear as the term "conventional clarification" is used.
  Where is "Brandt"?
  The statement that, "A failure in the pretreatment filtration step would likely be accompanied by a failure at the in-line plants, because both rely on the same type of treatment process," is not true. Other process factors are involved. If the coagulant feed system fails on the pretreatment step, causing filtration to be ineffective, that does not mean the in-line treatment filters will also fail?
  Why is rapid sand used rather than dual media filtration?
  What is the proposed disinfection process? RL14-55

- Page 15, Re: High rate clarification, rapid sand filtration, and chlorination:
  Why is a proprietary high rate clarification system suggested as opposed to conventional (coagulation, flocculation, sedimentation) unit processes?
  Where is "Brandt"? RL14-56

  Why is this alternative considered as having a lower barrier than the previous alternative?
  Again, why is rapid sand used rather than dual media filtration?
  It is unclear why this alternative incorporates a new treated water pipeline to the EBMUD service area, as it does not reflect the District's concern relative to the need of "pretreating" non-Mokelumne source waters. A more reasonable alternative would be conventional treatment, dual media filters, UV disinfection and then blending with the Mokelumne supply.

- Page 15, Re: High rate clarification and ozonation at Brandt, and blending with Mokelumne source:
  Again, why high rate clarification? Why is ozone selected, given concerns over brominated THMs and operational costs? Why is there such a narrow focus on *Cryptosporidium* rather than meeting other treatment standards? Does this alternative include filtration?
  Where is "Brandt"? RL14-57

- Page 15, Re: High rate clarification and UV disinfection at Brandt, and blending with Mokelumne source water:
  Again, why high rate clarification? There are no other unit processes mentioned other than high rate clarification and disinfection. Does this alternative include filtration? RL14-58

- Page 15, Treatment Scenario A:
  Cost comparisons (Table 9) are on page 30 rather than 29. RL14-59

- Page 15, Treatment Designs Considered:
  It would be more practical and accurate in selecting alternative treatment schemes to utilize unit processes currently in place by those purveyors who utilize the American and Sacramento Rivers as well as the Delta (i.e. City of Sacramento, Contra Costa WD and Metropolitan Water District). RL14-60

- Page 16, Selected Process:
  Again, where are data to support the statement regarding "increased risk from pathogens"?
  Re: Alternative 5 - Is Brandt the same as the Mokelumne Treatment Plant shown in Chapter 2? RL14-61

- Page 16, Treatment Scenario A:
  Has DOHS defined how treatment of Sacramento River must occur? Are they requiring a disinfection step to achieve at least a 2 - log inactivation of pathogens? Is this inactivation requirement based on actual *Cryptosporidium* monitoring data. RL14-62

- Page 17, High Rate Clarification Using Actiflo:
  Is Actiflo more prone to upset and potential process failure than conventional coagulation, flocculation and sedimentation? RL14-63

- Page 18, Treatment Scenario B:
  The fact that nutrients are higher in the Sacramento River than the American does not necessarily mean they "will cause increased algal growth that will in turn produce compounds that impart objectionable taste and odor to the water." Here again, comparisons to other purveyors who utilize the Sacramento River and whether they utilize treatment for taste and odor is unimportant. The City of Sacramento, the closest diverter for Alternatives 5,6 and 7, does not use additional treatment for taste and odor control. RL14-64
  Why would one utilize ozone and UV processes in series? What is role of UV in this scenario? Why is ozone not relied on for disinfection credit?
- Page 19, Process Concerns:
  What is scientific reference for concern over using chemical flocculation for both pretreatment and EBMUD's existing in-line filters? RL14-65
- Page 21, Table 5:
  The statement is made that "in-line EBMUD plants cannot effectively treat water with turbidity >2." How do plants operate then when turbidities >2 are experienced? Ineffectively? RL14-66
- Page 30, Table 9:
  What is the basis for the O&M costs? RL14-67
- Page 32, Table 11:
  The Fairbairn Intake is listed under Alternative 4. That reference should be deleted. RL14-68

CHAPTER 3 - Hydrology, Water Supply, and Power

REIR/SEIS, pp. 3-1 to 3-13

A. General Comments

The REIR/SEIS states (Page 3-1), "*Since publication of the 1997 DEIR/DEIS, Reclamation updated PROSIM, incorporating revisions to CVP operating conditions and several program logic functions. PROSIM was updated to facilitate the iterative use of a monthly time series of EBMUD demands generated by the EBMUDSIM model. The model's simulation of EBMUD deliveries from the American River basin and the complex return flow pattern arising from the Supplemental Water Supply Project alternatives was also enhanced.*" However, the REIR/SEIS needs to be more specific in providing the specific revisions that were made to PROSIM (e.g., CVP operating conditions and program logic functions). Furthermore, the REIR/SEIS neglects to specify the manner in which PROSIM was updated to facilitate the iterative use of monthly time series of EBMUD generated by the EBMUDSIM model. The REIR/SEIS must be specific and concise in explaining how the model's simulation of EBMUD deliveries from the American River basin and the return flow patterns arising from the alternatives were enhanced. RL14-69

The REIR/SEIS states (Page 3-1), "*The modeling was also modified to incorporate the terms included in the Draft Amendatory Water Service Contract negotiated between Reclamation and EBMUD. Although these terms are draft only, they are considered to be representative of terms that may ultimately be approved by Reclamation and EBMUD.*" The Draft Amendatory Water Service Contract referred to has been withdrawn by Reclamation. If, however, EBMUD intends to base its operations on some or all of the provisions of that Draft, a copy of the Draft Amendatory Water Service Contract should be provided in the REIR/SEIS as part of an appendix. RL14-70

The REIR/SEIS (Page 3-1), "*The most recent PROSIM 99 run of the Folsom South Canal Connection Alternative (Alternative 2 in the 1997 DEIR/DEIS) was "post-processed" to estimate the changes in lower American River flows that could be expected under Alternative 4. For Alternatives 5 through 8, a PROSIM 99 model run of EBMUD-only operations with EBMUD deliveries at Node 16 (Fairbairn WTP) was used to represent changes in system operations that could be expected.*" The appropriateness of post-processing the Folsom South Canal Connection Alternative to estimate lower American River flow changes that could be expected under Alternative 4 must be addressed as to method and assumptions. Similarly, the post-processing methods and assumptions used to translate the Node 16 EBMUD-only simulation results to Alternatives 5 through 8 must be described. Folsom storage and flow changes in the American and Sacramento rivers not captured by the post-processing methodology should be discussed with respect to all resource categories. RL14-71

The REIR/SEIS states (Page 3-1), "*PROSIM 99 modeling results are not substantively different from the results that were presented in the 1997 DEIR/DEIS based on previous versions of PROSIM.*" Nonetheless, the REIR/SEIS neglects to provide the data sets that support this information. Granted, the REIR/SEIS notes (Page 3-1), "*PROSIM 99 modeling data were* RL14-72

provided to the Sacramento parties and others. The data are available on request from EBMUD at (510) 287-1197." Nevertheless, the data should have been included as part of the REIR/SEIS Appendices to allow the public to make an informed decision regarding the validity of the statement that PROSIM 99 modeling results are not substantively different from the results presented in the 1997 DEIR/DEIS.

The REIR/SEIS states (Page 3-1), "*The presentation of some data, including reservoir storage and statistical distributions was modified from the 1997 DEIR/DEIS based on comments requesting clarification. The hydrologic variables of particular interest for this analysis include Folsom Reservoir storage, lower American River streamflow at Nimbus and intake Site 5, and Sacramento River flows at Freeport.*" The REIR/SEIS must assess how Folsom Reservoir storage, lower American River stream flow at Nimbus and intake Site 5, and Sacramento River flows would change the analysis done for the DEIR/DEIS. Were impacts to aquatic resources of the lower American River, Sacramento River and the Delta underestimated or overestimated prior to these modifications? RL14-73

The REIR/SEIS states (Page 3-3), "*Revised PROSIM 99 modeling was conducted for the No Action Alternative.*" The REIR/SEIS must be more specific and convey to the reader specific types of revisions that were made under the No Action Alternative, and how these revisions may affect the comparisons made between the No Action Alternative and the alternatives provided. Furthermore, the DEIR/DEIS must assess the possibility of impacts being underestimated for the alternatives discussed in the DEIR/DEIS that have not been compared to the No Action Alternative created with a revised PROSIM 99. RL14-74

The REIR/SEIS states (Page 3-3), "*For Alternatives 5, 6, 7, and 8, PROSIM 99 modeling that assumed EBMUD deliveries from model Node 16 on the American River was used to provide information representative of deliveries from the alternative downstream locations.*" The REIR/SEIS must substantiate the above statement by explaining the reasons that allow Node 16 on the American River to be representative of deliveries along the Sacramento River and the Delta. RL14-75

The REIR/SEIS states (Page 3-3), "*No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/DEIS under Alternative 3 cumulative conditions.*" The above statement is insufficient to justify the exclusion of cumulative analysis for the newly added alternatives. First, as the March 19, 1998, comments from the County suggest, assumptions under existing conditions must be revised to agree with Water Forum and DWR demands. Second, cumulative condition for the newly added alternatives must be assessed because cumulative impacts may be different under the newly added alternatives (potentially fewer) and Alternative 3. The inclusion of cumulative analysis for the newly added alternatives would allow an understanding of which of the alternatives would have fewer potential cumulative impacts. RL14-76

Under the section Affected Environment, the REIR/SEIS omits the following quote from the DEIR/DEIS (Page 3-5), "*Hydropower, a vital component of the operations of Central Valley reservoirs, is also described.*" This is important because the REIR/SEIS failed to discuss hydropower information for the newly added alternatives. By omitting hydropower information, the REIR/SEIS fails to provide an understanding as to which alternative has the greater impact to hydropower production. RL14-77

The REIR/SEIS states (Page 3-5) "*However, EBMUD's average annual take under Scenario 1 would be 15,100 acre-feet, which is about 14,000 acre-feet lower than EBMUD's yield from Folsom South Canal Connection alternative evaluated in the 1997 DEIR/DEIS. A maximum take of 56,400 acre-feet was projected in year 1963. During the 1928-1934 dry-year period, the annual average EBMUD deliveries would be 14,000 acre-feet.*

EBMUD annual average delivery for Scenario 2 would be 11,200 acre-feet, which is approximately 18,000 acre-feet less than for the Folsom South Canal Connection alternative evaluated in the 1997 DEIR/DEIS. A maximum delivery of 46,000 acre-feet was projected in year 1954, and the average delivery during the 1928-1934 dry-year period would be 10,200 acre-feet. Under both scenarios, a portion of the decreased deliveries to EBMUD are a result of the revisions that were made to PROSIM 99 as compared to the version of PROSIM that was used in the 1997 DEIR/DEIS." The last sentence of this quote states that decreased deliveries to EBMUD are a result of revisions made to PROSIM 99 compared to the version used in the DEIR/DEIS. Since the REIR/SEIS used a revised version of the PROSIM model used in the DEIR/DEIS, decreased deliveries to EBMUD under the Folsom South Canal Alternative should have also been provided. By not providing the revised EBMUD deliveries under Alternative 2, the REIR/SEIS misleads the public by implying that Alternative 4 is more deficient and constrained than Alternative 2 in meeting EBMUD demands. RL14-78

The REIR/SEIS states (Page 3-7), "*Annual average EBMUD deliveries for these supplemental alternatives would be 21,300 acre-feet, which is 13,300 acre-feet less than the EBMUD deliveries in the 1997 DEIR/DEIS joint project (Alternative 3). This difference is a result of changes in the PROSIM model since publication of the 1997 DEIR/DEIS and, more importantly, incorporation of the draft Amendatory Contract terms into the modeling.*" PROSIM changes and revisions should have also been made to Alternative 3 to provide for a fair comparison. Furthermore, Amendatory Contract restrictions should also have been modeled for both Alternatives 2 and 3 of the DEIR/DEIS. If the Amendatory Contract terms did not apply or exclude Alternatives 2 and 3, then a separate set of comparisons with deliveries for these Alternatives being zero should have been presented in the REIR/SEIS. RL14-79

The REIR/SEIS fails to assess if under the PROSIM 99 revision, Folsom carryover storage differences would change for Alternatives 2 and 3 when compared to Alternative 1. RL14-80

The REIR/SEIS is extremely flawed because it neglected to provide cumulative impact analyses for the newly added alternatives. The REIR/SEIS states (Page 3-3), "*No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/DEIS under Alternative 3-Cumulative Conditions.*" This statement is not satisfactory because it implies that the public should accept an argument based on faith. In addition, the DEIR/DEIS did not provide Sacramento River cumulative analysis, and this analysis was also not included in the REIR/SEIS. This is extremely puzzling since most of the RL14-81

alternatives discussed in the REIR/SEIS include diversions along the Sacramento River. Specifically, for the water supply impact analysis, the DEIR/DEIS should have assessed the alternatives' contribution to the cumulative condition regarding decreases in deliveries to SWP and CVP customers. The DEIR/DEIS provides very limited information regarding CVP deliveries cumulative impacts and does not provide any information regarding SWP deliveries cumulative impacts. Furthermore, particularly for the power supply analysis, the DEIR/DEIS did not include cumulative modeling for assessing decreased CVP hydropower capacity or increased energy requirements for diverters pumping from the Folsom Reservoir. Finally, the DEIR/DEIS failed to consider if the proposed project would contribute to the cumulative condition regarding increases in the frequency that Trinity River instream flow requirements will not be met, and did not assess how this deficiency will affect exports to the Sacramento River. Trinity River flows, in accordance with Reclamation recent policy direction, are proposed to increase from existing levels to 390,000 AFA in drier years, and to 750,000 AFA in wetter years. Because the REIR/SEIS relied on the DEIR/DEIS' previous cumulative impact analysis, the REIR/SEIS also provides flawed cumulative impact analysis assessment.

The REIR/SEIS states (Page 3-7), "*However, because deliveries under these alternatives would occur primarily during dry years, carryover storage for the 1928-1934 dry-period would be approximately 9,400 acre-feet lower than under Alternative 1. Because the downstream delivery locations for Alternatives 5, 6, 7, and 8 are simulated at PROSIM Node 16 on the American River, rather than on the Sacramento River or in the Delta, these simulated effects on Folsom storage may be high.*" The REIR/SEIS is correct to assert that these simulated effects on Folsom storage may be high. Thus, modeling should be simulated directly from the Sacramento River and the Delta. RL14-82

The REIR/SEIS states (Page 3-13), "*The fact that PROSIM reports larger changes in flow volume than can be accounted for by average annual EBMUD deliveries indicates that the model may be overly sensitive to relatively small changes in water supply demands.*" It is unclear how this statement is justified. Given the lack of information provided within the REIR/SEIS, it is impossible to confirm or deny this statement. Sufficient information (data) to draw the conclusion should be provided, particularly because of the combination of simulations post-processed to represent a condition. RL14-83

The REIR/SEIS states (Page 3-13), "*For Alternative 8, EBMUD delivery at Bixler in the Delta was not specifically modeled. Therefore, the anticipated changes in flows at Freeport can only be assessed qualitatively.*" The REIR/SEIS should explain why EBMUD delivery at Bixler Delta was not specifically modeled for Alternative 8. RL14-84

The REIR/SEIS did not address Delta inflow for the newly added alternatives. RL14-85

The REIR/SEIS failed to address water supply for the newly added alternatives. The REIR/SEIS must address how the new alternatives will impact Central Valley Project and State Water Project water supplies in order to allow for a comparison with alternatives discussed in the DEIR/DEIS. RL14-86

The DEIR/DEIS states "*Compared to Alternative 2, the Alternative 3 deliveries are simulated in response to EBMUD's system demands, resulting in a pattern of regular monthly deliveries only in years when combined storage projections are less than 500,000 AF.*" The constraint of storage projections applied to Alternative 3 is confusing. These storage projections put additional constraints on alternatives 5 through 8 analyzed in the REIR/SEIS. This assumption underestimates the potential for Sacramento and Delta deliveries to be the supplemental source of water for EBMUD. RL14-87

B. Specific Comments

- Page 3-1:
  The existing condition does not appear to reflect the Sacramento County Water Agency's new 22,000 acre- foot CVP contract (Fazio water) secured after 1997. RL14-88

- Page 3-5:
  Sacramento does not agree with EBMUD assumptions and Hodge Decision interpretation that provide for individual monthly diversions of water from the American River during drought periods. RL14-89

- Page 3-6:
  EBMUD fails to acknowledge and describe that water deliveries from the Sacramento River would meet their water supply needs while the American River deliveries would not. These are masked by averages instead of aligning months when supply is available with months when EBMUD needs water. RL14-90

- DEIR/DEIS, Page 3-1, REIR/SEIS, Page 3-1:
  An incorrect baseline was used to assess the potential for significant environmental effects of the proposed project and, therefore, the DEIR/DEIS does not meet CEQA and NEPA requirements. As discussed previously, existing conditions, rather than the No-Action Alternative, should have been used as the baseline for comparison.
  The hydrologic data analyses are described on p. 3-1 of the DEIR/DEIS. Existing conditions, the No-Action Alternative, and Project Alternatives 2 and 3 are presented. The basis for assessing the environmental effects of the alternatives is also presented, including an explanation that two baseline conditions were used in the evaluations. The document states in paragraph 4 that the hydrologic data served as the primary assessment tool for the evaluation of effects on Water Supply, power production, water quality, fisheries, and recreation. RL14-91
  Paragraph 5 on p. 3-1 states that "*Alternative 1, which is the No-Action Alternative, was used as the baseline for assessing effects of the project alternatives and existing conditions was used as the baseline for assessing cumulative effects.*" CEQA and NEPA, however, require that the No-Action Alternative be analyzed relative to existing conditions in the same manner as project alternatives so that decision makers can compare the impacts of approving the project with the impacts to not approving the project.

Use of incorrect baselines for analyzing impacts of the alternatives misrepresents the potential environmental consequences of both the proposed action and the No-Action Alternative. In this regard, the DEIR/DEIS does not meet CEQA or NEPA requirements. To correct these deficiencies, the environmental effects of the project alternatives (Alternative 2 and Alternative 3) should be analyzed relative to the existing conditions, and the No-Action Alternative (Alternative 1) should also be analyzed relative to existing conditions. The differences in impacts among the alternatives should then be compared to allow the public and decision makers to clearly understand the potential consequences of the alternatives. This was not done in the DEIR/DEIS.

REIR/SEIS Applicability: As with the DEIR/DEIS, the REIR/SEIS also utilizes the No-Action Alternative to evaluate the project alternatives. The REIR/SEIS states (Page 3-1), "*The general process of hydrologic modeling of existing conditions, No Action and project alternatives with the current version of PROSIM 99 was unchanged from the 1997 DEIR/DEIS.... The major changes consist of the alternatives considered, which are briefly described below.*" This statement clearly reflects the carryover of the incorrect baseline, which does not satisfy CEQA. CEQA mandates that existing conditions be used as the baseline to evaluate the considered alternatives, or at least there must be a satisfactory explanation why the baseline used is not the existing conditions. Furthermore, both the DEIR/DEIS and the REIR/SEIS are deficient in that they do not approach the No-Action Alternative as a viable alternative to EBMUD supplemental Water Supply objective.

DEIR/DEIS, Page 3-1, REIR/SEIS, Page 3-1:

The statement that "*EBMUD has used available technology to extensively model hydrologic and water quality conditions*" is misleading and inaccurate. For example, numerous environmental documents recently prepared have utilized USBR's water temperature model for the American River to assess potential water temperature-related impacts. It is insufficient for EBMUD to fail to utilize this readily available and previously accepted technology, and instead develop a complex and uncertain suite of modeling exercises, which have not been subject to review, in order to perform water temperature impact assessments for the DEIR/DEIS. RL14-92

REIR/SEIS Applicability: The previous comment was not fully addressed in the REIR/SEIS. Granted, the REIR does assert that (Page 3-1), "*PROSIM was updated to facilitate the iterative use of a monthly time series of EBMUD demands generated by the EBMUDSIM model. The model's simulation of EBMUD deliveries from the American River basin and the complex return flow pattern arising from the Supplemental Water Supply Project alternatives was also enhanced.*" Furthermore the REIR/SEIS also states (Page 5-17), "*For this REIR/SEIS, additional temperature modeling was conducted using the Reclamation temperature model as modified with the Automated Temperature Selection Procedure (multispecies). This temperature assessment was conducted as a verification of the approach used in the 1997 DEIR/DEIS. Based on this additional modeling effort, the conclusions presented in the 1997 DEIR/DEIS for Alternatives 2 and 3 (based on PROSIM 99 modeling output) are considered valid.*" RL14-93 However, the Reclamation water-temperature model was only used for verification purposes and the incorrect assumptions used in the previous models were not changed. Furthermore, the REIR/SEIS failed to provide detailed information regarding the assumptions used when applying the Reclamation water-temperature model and failed to present the complete data that resulted from the model.

- DEIR/DEIS, Pages 3-3, 3-8, 3-13, REIR/SEIS, Page 3-21:

On page 3-3, the DEIR/DEIS shows that modified D-1400 was used to characterize the existing instream flow conditions on the American River. This is reiterated on p. 3-13. However, on page 3-8 the DEIR/DEIS acknowledges that USBR has, in recent years, operated Folsom Dam to attempt to meet flows specified in the AFRP. Clearly, the wrong instream flow requirement was used in analyzing impacts on the lower American River, thereby underestimating the potential significant impacts to aquatic resources. RL14-94

REIR/SEIS Applicability: The previous comment still applies because the REIR/SEIS Primary Assumptions used in the EBMUD PROSIM Modeling table still used modified D-1400 American River instream flows instead of using AFRP flows.

- DEIR/DEIS, Page 3-3, REIR/SEIS Page 3-2:

The DEIR/DEIS presents the 1995 SWP demands as 3,998,000 AF. Assuming these represent south of Delta demands only, these demands are greater than demands used by DWR (3,6000,000 AF) for existing level studies. The SWP future (2030) level demands of 4,222,000 AF are consistent with the DWR future level studies. The exaggerated existing level demands used in the DEIR/DEIS diminishes the difference in available Water Supply between the 1995 and 2030 scenarios, again resulting in the inappropriate minimization of all water-related cumulative impacts. RL14-95

REIR/SEIS Applicability: The above comment still applies because Table 3-1 Primary Assumptions used in EBMUD PROSIM modeling of the REIR/SEIS still uses SWP demands for Existing Conditions that are higher than DWR studies.

- DEIR/DEIS, Page 3-4, REIR/SEIS, Page 3-4:

Demands upstream from Folsom Reservoir are not included in this table. It is unclear what is assumed for upstream diversions. This is an important consideration regarding inflow to Folsom Reservoir, water availability, and subsequent impact assessments. RL14-96

REIR/SEIS Applicability: The above comment still applies because Table 3-2-Comparison of American River Demands (AF) of the REIR/SEIS did not include demands upstream from Folsom Reservoir.

- DEIR/DEIS, Page 3-6: RL14-97

A portion of the demands for El Dorado County are diverted directly from Folsom Dam. It is unclear how this is accounted for in the modeling.

REIR/SEIS Applicability:: The REIR/SEIS did not provide Table 3-3-Cumulative Impact Analysis Assumed Demands (AF). This omission translates in the unchanged status of the table. Furthermore, the REIR/SEIS states (Page 3-3), "*No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/DEIS under Alternative 3-Cumulative Conditions.*" The above quote reiterates that the DEIS/DEIR is unclear in accounting El Dorado County water demand diversions directly from Folsom Dam.

- DEIR/DEIS, Page 3-8:

The DEIR/DEIS states that, in general, AFRP criteria require larger instream flows than the Water Forum F-pattern. Presumably, this statement is based upon data on storage-flow relationships for AFRP and Water Forum instream flows included in Appendix C, Tables C-1 and C-2. However, the criteria presented in Table C-1 are obsolete, and do not adequately represent the implementation of the AFRP flow requirements. Storage-flow relationships, as well as flow stabilization criteria, have been revised from that which is presented. The Water Forum F-Pattern storage-flow relationship is influenced by demands on the American River. The "trigger" values presented in Table C-2 are not consistent with the American River demands specified in Table 3-3. This will result in a flow regime in the lower American River that will differ from the intent of the F-Pattern. Also, the flow regime for the lower American River prescribed by the F-Pattern will differ from the regime prescribed by the AFRP. The monthly flow patterns will vary, although the total average annual flow released to the lower American River will remain relatively constant. Given that the storage-flow relationships used for the analysis in the DEIR/DEIS contain inconsistencies, resulting flows used in the impact assessment for the lower American River are not appropriate. RL14-98

REIR/SEIS Applicability: The previous comment still applies because Appendix C was not revised in the REIR/SEIS, therefore, the obsolete analyses presented in the DEIR/DEIS are still used to assess impacts of the different alternatives for an EBMUD diversion.

- DEIR/DEIS, Page 3-10:

The reference to the "Kern Canal" should be changed to the Friant-Kern Canal.

REIR/SEIS Applicability: The reference to "Kern Canal" still needs to be changed to the Friant-Kern Canal because that correction was not made in the REIR/SEIS. RL14-99

- DEIR/DEIS, Pages 3-10, 3-11:

The DEIR/DEIS incorrectly refers to Yolo Bypass inflows to the Delta as deliveries when, in reality, they are overflows. RL14-100

REIR/SEIS Applicability: The REIR/SEIS failed to correct the reference to Yolo Bypass inflows to the Delta as deliveries, when in reality, they are overflows.

- DEIR/DEIS, Page 3-12:

The DEIR/DEIS must explain, in much greater detail, the "*inconsistency in the PROSIM input hydrology*" and how this could affect the impact analysis. In particular, if the original hydrologic analysis was in error with regard to water deliveries, the DEIR/DEIS must explain what it is relying on to prove that the Alternative 2 meets project objectives. The DEIR/DEIS must also fully explain the basis for its conclusion that corrected hydrology would not change its impact analysis. This modeling error also begs the question of whether the PROSIM simulations have, in fact, been updated, and if so, whether they have been utilized by EBMUD. This should be fully explained to the public.

REIR/SEIS Applicability: The REIR/SEIS did not correct the deficiencies presented in the DEIR/DEIS (Page 3-12), therefore, EBMUD is still deficient because it neglects to provide detailed information regarding the inconsistency of PROSIM input hydrology and how this could affect the impact analyses. EBMUD is also still fails to describe what it is relying on to prove that Alternative 2 meets project objectives, as well as to fully explain the basis for its conclusion that corrected hydrology would not change its impact. Granted, the REIR/SEIS implies that PROSIM revisions would apply to all the alternatives, therefore, relative differences between the alternatives would not be over/under stated. However, data must be provided that confirms the veracity of this implication. Finally, the REIR/SEIS informs that PROSIM has been updated and that revisions were made to analyses shown in the 1997 DEIR/DEIS. According to the REIR/SEIS these revisions lead to the decreased deliveries under both scenarios of Alternative 4 when compared to the Folsom South Canal Connection (REIR/SEIS, Page 3-5). However, the REIR/SEIS is deficient because it did not include the revised PROSIM analyses for Alternative 2, which could have meant decreased deliveries to EBMUD under Alternative 2, and a correction of the overestimation of potential deliveries that would be made under Alternative 2. RL14-101

- DEIR/DEIS, Page 3-13; REIR/SEIS, Page 3-13:

In its discussion of deliveries from the American River, the DEIR/DEIS states that deliveries to EBMUD would be made during periods when Hodge flows are exceeded in the American River. It is not clear, however, how these diversions would be implemented. For example, would EBMUD take its entire demand when Hodge flows are exceeded in the river, or is the demand limited by the amount of water flowing down the river in excess of the Hodge Decision, or is water withdrawn from storage in Folsom Reservoir when Hodge flows are exceeded? These questions should be addressed. RL14-102

REIR/SEIS Applicability: The previous comment was not fully addressed in the REIR/SEIS. Granted, the REIR/SEIS states (Page 5-19), "*Under this alternative, EBMUD would meet its planned outage needs by taking delivery of up to 350 cfs of water from the FSC. This planned outage would be scheduled to occur in a wet year when flows in the lower American River exceed Hodge Decision flows. EBMUD needs under the planned outage scenario would require the ability to take delivery of up to 350 cfs of water for a 6-month period during a wet year.*" However, the REIR/SEIS fails to assess how EBMUD would schedule its diversions, and how much water it would take per diversion. The REIR/SEIS also fails in clarifying how diversions would be made under Alternative 4 when Hodge flows are exceeded in the American River. For example, would EBMUD take its entire demand when Hodge Flows are exceeded in the river, or is the demand limited by the amount of water flowing down the river in excess of the Hodge Decision, or is water withdrawn from Folsom Reservoir when Hodge flows are exceeded? As stated in the comment, these questions should be addressed for each of the alternatives subject to Hodge flows.

- DEIR/DEIS, Page 3-13:

The DEIR/DEIS states that the 1928-34 period is considered the representative period for dry conditions. This statement is incorrect. Several other known drought series have occurred throughout the 70-year period of record, as well as numerous individual dry years that collectively represent dry conditions. RL14-103

REIR/SEIS Applicability: The REIR/SEIS still did not correct the erroneous usage of the 1928-1934 period as representative of dry conditions.

- DEIR/DEIS, Page 3-14; REIR/SEIS, Page 3-3:

For Alternative 2, cumulative conditions, the DEIR/DEIS assumed that water would be delivered to EBMUD whenever water was available under the Hodge Decision criteria and would be limited only by available capacity in the Folsom South Canal pipeline (up to 350 cfs). This implies that CVP-imposed deficiencies, which are imposed on CVP contractors during dry years, were incorrectly assumed not to apply to the EBMUD-CVP contract. This should be clarified and fully explained. RL14-104

REIR/SEIS Applicability: The REIR/SEIS did not correct the erroneous implication conveyed in the DEIR/DEIS under cumulative condition of Alternative 2 that CVP imposed deficiencies do not apply to the EBMUD/CVP contract. In addition, the REIR/SEIS failed to clarify that under the cumulative condition for Alternative 4, EBMUD diversions will be limited under both the Hodge Decision criteria and CVP-imposed deficiencies.

- DEIR/DEIS, Page 3-15:

The DEIR/DEIS states that project alternatives would negligibly affect Folsom Reservoir elevations throughout the year, and therefore it is assumed that generating capacity would be negligibly affected because project deliveries would not result in substantial lake elevation fluctuations compared to existing conditions. However, the DEIR/DEIS does not provide technical information for individual years to substantiate this assertion. RL14-105

REIR/SEIS Applicability: The above comment remains applicable because the information regarding negligible annual Folsom Reservoir elevation fluctuations presented in the DEIR/DEIS was not addressed in the REIR/SEIS, which means that the information remains unchanged. Furthermore, the REIR/SEIS failed to provide a Hydropower Resources and Energy Production Section for the new alternatives analyzed. This omission prevents an understanding of any impacts to energy production as a consequence of the proposed alternatives.

- DEIR/DEIS, Page 3-15:

The operations and energy use by pumping operations from Folsom Reservoir to EID and the City of Folsom depend on the Folsom Reservoir elevation, which is governed by storage and releases. The DEIR/DEIS should explain why other entities such as San Juan Water District and the City of Roseville were excluded from this discussion. RL14-106

REIR/SEIS Applicability: The above comment still maintains its urgency because the REIR/SEIS fails to include information that explains why entities such as the San Juan Water District and the City of Roseville were not included as entities that depend on the lake elevation.

- DEIR/DEIS, Page 3-16:

The DEIR/DEIS discussion of the PROSIM's simulation of monthly operations suggests that accumulated EBMUD deliveries may trigger a threshold effect that in turn, may cause different instream flow requirements and Folsom Reservoir storage differences, which are greater than the "original" difference. The discussion also states that, in general, agency personnel operating the Water Supply and delivery control systems have more flexibility in controlling operations than the monthly model would suggest and, therefore, the maximum delivery rates of 350 cfs (Alternative 2) and 381 cfs (Alternative 3) would not affect operations. This conclusion is not supported by the information presented in the DEIR/DEIS. RL14-107

REIR/SEIS Applicability: The previous comment is still applicable because the REIR/SEIS failed to provide information that would substantiate the conclusion stated in the DEIR/DEIR (Page 3-16), "*Generally, agency personnel operating the water supply and delivery control systems have more flexibility in controlling these interactions between the criteria than the monthly model results would suggest. In general, operators of the major storage, delivery, and conveyance facilities would not be affected by the relatively small maximum daily delivery rates of 350 cfs for Alternative 2 or 381 cfs (in July) for Alternative 3.*"

- DEIR/DEIS, Page 3-17:

The Folsom Reservoir discussion states that end-of-month storage values are somewhat higher in July through December, and lower in January through June, under RL14-108

Alternative 1 when compared to the existing conditions, primarily as a result of reserving storage for higher release flows for fish in late fall and winter (November-March). This discussion implies that large releases would be made during January under Alternative 1. It would appear that these flows contradict AFRP goals of providing spawning flows in the fall for chinook salmon. The DEIR/DEIS fails to provide sufficient information to support these conclusions regarding flow changes in the lower American River.

REIR/SEIS Applicability: The previous comment is still applicable because the information that appeared to contradict AFRP goals in the DEIR/DEIS was not addressed in the REIR/SEIS.

- DEIR/DEIS, Page 3-17; REIR/SEIS, Page 3-3:

The DEIR/DEIS states that under cumulative conditions, average Folsom reservoir carryover storage values are 61,000 AF higher for Alternative 2 and 70,000 AF higher for Alternative 3, relative to existing conditions. The data presented, however, contradicts these conclusions.

REIR/SEIS Applicability: The data presented in the DEIR/DEIS regarding Alternatives 2 and 3 Folsom Reservoir carryover storage values relative to existing conditions were not revised in the REIR/SEIS. As a result, the data still contradicts the DEIR/DEIS conclusion that average Folsom Reservoir carryover storage values are 61,000 AF higher for Alternative 2 and 70,000 AF higher for Alternative 3, relative to existing conditions. Furthermore, even though the REIR/SEIS states "*No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/DEIS under Alternative 3 cumulative conditions,*" the cumulative discussion for each of the newly added alternatives should have been included in the REIR/SEIS. For example, average Folsom Reservoir carryover storage values under cumulative conditions for Alternatives 4-8 were not provided. Also, mean annual flow at Nimbus reductions under cumulative conditions for the newly added alternatives was not discussed. RL14-109

- DEIR/DEIS, Page 3-17:

The DEIR/DEIS fails to reference any data or output which substantiates the claimed reductions in Folsom Reservoir water surface elevation changes. RL14-110

REIR/SEIS Applicability: As with the DEIR/DEIS, the REIR/SEIS also fails to reference any data or output which substantiates the alleged reductions in Folsom Reservoir water surface evaluation changes.

- DEIR/DEIS, Page 3-17:

Based upon the hydrologic modeling that was conducted, the DEIR/DEIS concludes that the mean annual flow at Nimbus Dam under Alternative 1 is reduced by 27,000 AF under Alternative 2, and by 2,000 AF under Alternative 3. Given that the DEIR/DEIS states that the mean annual delivery to EBMUD under Alternative 2 (FSC diversion) is 29,000 AF, it is unclear how this discrepancy can be accounted for. Moreover, a more detailed explanation must be provided as to why a difference in mean annual flow at Nimbus Dam occurs under Alternative 3, given that water would not be delivered under this alternative until it reaches the intake structure near the mouth of the American River. The DEIR/DEIS does not provide sufficient technical information to support these conclusionary statements. RL14-110

REIR/SEIS Applicability: The above comment still applies to the REIR/SEIS because it failed to account for discrepancy presented in the DEIR/DEIS regarding the reduction of mean annual flow at Nimbus Dam by 27,000 AF under Alternative 2, and the alleged mean annual delivery to EBMUD under Alternative 2 of 29,000 AF. How can flow reduction of Nimbus Dam under Alternative 2 not equal deliveries to EBMUD? Furthermore, the REIR/SEIS is also deficient because it fails to provide a detailed explanation as to why a difference in mean annual flows at Nimbus Dam occurs under Alternative 3, given that water would not be delivered under this Alternative until it reaches the intake structure near the mouth of the American River.

- DEIR/DEIS, Page 3-18:

The discussion of Figure 3-9 includes the statement that flows are reduced in summer and increased in winter. Figure 3-9, however, is a cumulative probability distribution of flows, and it is impossible to make any conclusions regarding seasonality of flows from this information. RL14-112

REIR/SEIS Applicability: The above comment is still applicable because Figure 3-9 was not modified in the REIR/SEIS, therefore, it is impossible to make any conclusions regarding seasonality of flows from information conveyed in a cumulative distribution of flows figure (Figure 3-9)

- DEIR/DEIS, Page 3-18:

The DEIR/DEIS states that "*[m]ean annual flow at Nimbus is reduced by 291,000 AF and 191,000 AF, respectively, under Alternative 2 and Alternative 3 cumulative conditions, compared to existing conditions.*" The difference between 291,00 AF and 191,000 AF would be understandable if the diversion under Alternative 2 is 100,000 AF. However, the estimated 191,000 AF change in Nimbus flow under Alternative 3 relative to the existing conditions is not clear. The DEIR/DEIS reported increase in diversion upstream from Nimbus is less than 191,000. Sufficient information is not provided to ascertain diversions upstream from Folsom Reservoir, although the increase in diversions from Nimbus and Folsom Reservoir are approximately 107,000 AF. For these reasons, the DEIR/DEIS must explain how the mean annual flows at Nimbus can vary so greatly. RL14-113

REIR/SEIS Applicability: The previous comment remains applicable because the REIR/SEIS failed to provide an explanation of how the mean annual flows at Nimbus can vary so greatly.

- DEIR/DEIS, Page 3-19: RL14-114

The DEIR/DEIS discussion regarding flows in the Sacramento River is inadequate, and lacks supporting technical reference. For example, no discussion is provided regarding the extent of flow changes below Keswick Dam in the future, which would be expected to be significant, due to the nature of system-wide integrated operations.

REIR/SEIS Applicability: The REIR/SEIS fails to address the inadequacy of the DEIR/DEIS discussion regarding the flows in the Sacramento River. Furthermore, as with the DEIR/DEIS, the REIR/SEIS did not include a discussion of flow changes below Keswick Dam.

- DEIR/DEIS, Page 3-19; REIR/SEIS, Pages 3-12, 3-13:

The discussion of the Trinity River system lacks technical support for its conclusionary statements. In this regard, the DEIR/DEIS states "*CVP operations of Trinity River do change appreciably under Alternative 1. Under Alternatives 2 and 3, reductions in mean storage and carryover storage are small.*" These statements apparently contradict the modeling assumptions, which increase flows in the Trinity River from a requirement of 340,000 AFA under existing conditions to requirements of 390,000 to 720,000 AFA under future conditions. RL14-115

REIR/SEIS Applicability: The REIR/SEIS fails to include technical support for the conclusion noted in DEIR/DEIS that CVP operations of Trinity River do not change appreciably under Alternative 1, and changes are small under Alternatives 2 and 3. Furthermore, these conclusionary statements seemingly contradict the modeling assumptions. In addition, even though Table 3-4, Difference in Hydrologic Conditions Between Alternative 1 and Alternatives 5, 6, 7 and 8 shows relative differences for the Trinity River System, detailed discussion of impacts to Trinity River is lacking for all alternatives, and no discussion at all is provided for Alternative 4.

- DEIR/DEIS, Page 3-19; REIR/SEIS, Pages 3-12, 3-13:

The discussion of the Sacramento-San Joaquin River Delta is nonsensical. The first sentence in the paragraph relates to Water Supply deliveries and should be deleted. The remainder of the paragraph only refers to Delta outflow, and fails to even address Delta inflow. RL14-116

REIR/SEIS Applicability: Both the DEIR/DEIS and the REIR/SEIS failed to address Delta inflow impacts under the proposed alternatives for the EBMUD Supplemental Water Supply Project. For the REIR/SEIS, not even a table that presents Delta inflow information is provided.

- DEIR/DEIS, Pages 3-20, 3-21:

Table 3-4 contains apparent inconsistencies. For example, under Lake Shasta storage, the first row is listed as Alternative 1 minus No-Action, when it probably should be listed as existing condition. Also, the headings for Sacramento River flows at Keswick and Freeport indicate that values are expressed in terms of cfs. These figures appear RL14-117 incorrect. Also, it is unclear whether these figures are expressed as 70-year average values.

REIR/SEIS Applicability: The REIR/SEIS fails to provide a revised table that would show the corrected information that was mislabeled on the original table. Therefore, the original table with mislabeled conditions and measurement units is still being used in the environmental documentation.

- DEIR/DEIS, Page 3-21:

Although not discussed in the text (as previously mentioned), Table 3-4 contains information on total Delta inflow. This is problematic. For example, the reduction in total Delta inflow for Alternative 2 minus No-Action is a plus 1,000 AF, yet the Freeport flow for Alternative 2 minus No-Action is a minus 24,000 AF. This does not seem to correspond. Also, total Delta inflow for Alternative 3 minus No-Action is shown to be minus 30,000 AF, yet the Sacramento River flow at Freeport for Alternative 3 minus No-Action is shown to be a minus 133,000 AF. This would indicate that 100,000 AF of additional flow is entering between Freeport and the Delta. It is unclear where that water could be coming from. RL14-118

REIR/SEIS Applicability: As discussed in the previous comment, the REIR/SEIS failed to include a revised table summary of mean changes in Hydrologic Characteristics for Selected Central Valley locations for Alternatives 2 and 3 that would show corrections to the original table presented in the DEIR/DEIS. Thus, it is still unclear from where the additional 100,000 AF allegedly entering between Freeport and the Delta would be coming from.

- DEIR/DEIS, Page 3-22:

The DEIR/DEIS states that the "*distributions for Alternatives 2 and 3 indicate that the small quantity of project deliveries should not appreciably affect the timing or quantity or water available to meet SWP demands.*" However, the distribution shown in Figure 3-19 (which was referenced for this conclusion) does not contain any information regarding the timing or quantity of water available. It is unclear whether that information exists elsewhere in the document. RL14-119

REIR/SEIS Applicability: The previous comment remains valid because the REIR/SEIS does not include a revised figure 3-19 that would show timing or quantity of water available, supporting the text in the DEIR/DEIS (Page 3-22), "*...distributions for Alternatives 2 and 3 indicate that the small quantity of project deliveries should not appreciably affect the timing or quantity or water available to meet SWP demands.*" Furthermore, the REIR/SEIS is also deficient because it fails to discuss how diversions for Alternatives 4, 5, 6, 7 and 8 would affect Delta Export Deliveries.

- DEIR/DEIS, Page 3-22:

The section on hydropower and energy production is woefully inadequate. There is no discussion of capacity impacts, there is no discussion of individual year impacts to RL14-120

energy or capacity production, and there is no discussion of effects on pumping for EID or for the pumping plant at Folsom Dam. None of this data appears to be available in the DEIR/DEIS.

REIR/SEIS Applicability: The above comment remains valid, as the REIR/SEIS fails to provide a discussion of capacity impacts and individual years' impacts to energy or capacity production. Further, there is no discussion of effects on pumping for EID or the pumping plant at Folsom Dam to correct the significant omission of the DEIR/DEIS regarding the above mentioned impact criteria. In addition, the REIR/SEIS is also defective because it does not provide a section on hydropower and energy production under the additional Alternatives discussed in this document.

C. Specific Comments for Appendix C

- Appendix C, Page 4, Note 6:
  The AFRP flow requirements used in the PEIS Alternative 1 have been significantly modified over the past years. This may result in different flows in the Sacramento River, Clear Creek, and the American River, than the flows used for impact assessment in the DEIR/DEIS.

  REIR/SEIS Applicability: Since the REIR/SEIS did not include a revised Appendix C for the additional alternatives presented, and for the alternatives discussed previously in the DEIR/DEIS, the above comments remain valid. (Appendix C, Page 4, Note 6) The REIR/SEIS did not revise the notes included in Appendix C of the DEIR/DEIS, therefore, the environmental documentation for the EBMUD Supplemental Water Supply Project is still using the outdated stream flow standards for the Sacramento and American rivers and Clear Creek. RL14-121

- Appendix C, Page 4, Note 7:
  It appears that 35 TAF was subtracted from Folsom Reservoir inflow. PCWA's existing diversion from the upper American River is 8.5 TAF, and this diversion has been accounted for in the upstream simulation. It appears that in PROSIM simulations where 35 TAF was removed, the resulting PCWA upstream diversion is 35 TAF plus 8.5 TAF, which equates to a 43.5 TAF diversion for PCWA. This will alter the water supply in Folsom Reservoir, flows in the lower American River, and water supplies throughout the entire CVP. It is unclear how other changes in upstream diversions were accounted for. RL14-122

  REIR/SEIS Applicability: Since the Appendix C was not revised in the REIR/SEIS, it remains unclear how other changes in upstream diversions were not accounted for.

- Appendix C, Page 5, Note 11:
  This note states that the reservoir file was adjusted to account for differences in PROSIM versions. It is not clear which PROSIM version was used in the analysis, or if any modifications were made to PROSIM for this analysis. RL14-123

  REIR/SEIS Applicability: The previous comment is still applicable because Appendix C context was not revised in the REIR/SEIS. Therefore, it remains unclear which PROSIM version was used in the analysis, or if any modifications were made to PROSIM for this particular project.

- Appendix C, Page 6, Table 3:
  American River demands are presented for the future conditions only. It is unclear what specific demands were included in the existing conditions. RL14-124

  REIR/SEIS Applicability: The above comment is still applicable because Table 3 Comparison of American River Demands was not revised in the REIR/SEIS. It is still unclear what specific demands were included in the existing conditions.

- Appendix C, Page 7, Table 4:
  This table shows the demand used for Alternative 2 is 28.9 TAF, and the demand used for Alternative 3 is 112 TAF. The DEIR/DEIS, however, states on page 3-13 that the simulated delivery under Alternative 2 was 29,000 AF, with a maximum take of 105,000 AF. There appears to be an inconsistency, therefore, between demand and delivery, that must be explained. RL14-125

  REIR/SEIS Applicability: The REIR/SEIS does not explain inconsistencies presented within the DEIR/DEIS Alternative 2 and 3 demands.

- Appendix C, Table C-3:
  The existing condition for the City of Sacramento's American River diversion is stated as 85,000 AFA. This is higher than current City of Sacramento American River diversions. For example, the Water Forum uses 50,000 AFA for the American River diversion for the City of Sacramento. This discrepancy should be explained. RL14-126

  REIR/SEIS Applicability: This discrepancy remains unexplained.

- Appendix C, Table C-4:
  It is unclear what criteria were used to decrease water right deliveries to the City of Sacramento. RL14-127

  REIR/SEIS Applicability: It remains unclear what criteria were used to decrease Water Rights deliveries to the City of Sacramento; Table C-5 Deliveries to EBMUD from American River for Alternative 2 (cfs) was not presented in the REIR/SEIS.

- Appendix C, Table C-6, and Table C-9:

  These tables represent the delivery to EBMUD, City of Sacramento, and the County of Sacramento from the American River. The annual delivery is as low as 45 TAF in seven years. This discrepancy should be explained, given the City's demand at 100 TAF, the County's demand at 27.7 TAF, and EBMUD's demand at 112 TAF.

  REIR/SEIS Applicability: This discrepancy remains unexplained. RL14-128

CHAPTER 4 - Water Quality

The County of Sacramento cross-references the comments submitted by the City of Sacramento. RL14-129

CHAPTER 5 – Fisheries

REIR/SEIS, pp. 5-1 to 5-18

A. General Comments

The 2000 REIR/SEIS (Page 5-2) states that "*...This REIR/SEIS does not present a comprehensive re-analysis of the Supplemental Water Supply project but rather supplements the information presented in the 1997 DEIR/EIS. Together, this REIR/SEIS and the 1997 DEIR/EIS provide the complete draft EIR/EIS analysis of potential environmental effects of the Supplemental Water Supply Project in compliance with CEQA and NEPA.*" Unfortunately, a complete re-analysis, as well as additional analyses, were not conducted. The 2000 REIR/SEIS, as well as the 1997 DEIR/DEIS, still neither identifies nor fully discloses potential impacts due to numerous methodological flaws in the analyses, incomplete information, lack of factual information, omission of potentially affected resources and inappropriate significance criteria (particularly as they pertain to water temperature issues). Therefore, many of the comments on the DEIR/DEIS pertaining to Fisheries submitted on behalf of Sacramento County (DeCuir and Somach, March 19, 1998) are still applicable; they are cross-referenced and reiterated as appropriate in this document. RL14-130

Additional alternatives are included in the 2000 REIR/SEIS. According to the 2000 REIR/SEIS, inclusion of additional alternatives is based in large part on comments and suggestions made by the City of Sacramento, the County of Sacramento, and other Sacramento area interests during the 1997 DEIR/DEIS public review period, and during subsequent discussions since the completion of that public review period. The alternatives added include: Alternative 4, **EBMUD-Only Lower American River Delivery**; Alternative 5, **Sacramento River Delivery**; Alternative 6, **Freeport East Delivery**; Alternative 7, **Freeport South Delivery**; and Alternative 8, **Bixler Delivery**. Furthermore, the City and County no longer anticipate participating in the previous joint water supply project. Thus, Alternative 3, **Joint Water Supply** is no longer a viable option. Comments provided in this document regarding methodological flaws, inappropriate significance criteria, inadequate analyses, and unsupportable conclusions generally pertain to all alternatives. RL14-131

An important difference between the 2000 REIR/SEIS and the 1997 DEIR/DEIS is that the 2000 REIR/SEIS uses a PROSIM model that has been updated since the publication of the 1997 DEIR/DEIS. However, the 2000 REIR/SEIS needs to be more explicit in providing the specific revisions that were made to PROSIM. This information is important because flow evaluation and related water temperature evaluations are key components of fisheries impact analysis. Revisions to the model can greatly affect the outcome of the fisheries impact analysis. RL14-132

For the 2000 REIR/SEIS, additional temperature modeling is conducted using the Reclamation water temperature model, as modified with the multi-species Automated Temperature Selection Procedure. Reclamation's salmon mortality model also was used for Alternatives 2 and 3 based on PROSIM 99 modeling output. However, as demonstrated in following comments, the REIR/SEIS does not provide complete and detailed information regarding these models' assumptions and the applicability of those assumptions. Furthermore, the 2000 REIR/SEIS states that water temperature assessment was conducted as a verification of the approach used in the 1997 DEIR/DEIS. Not only is this statement misleading and incorrect, it implies that the flawed methodology used in the DEIR/DEIS is still the basis of the fisheries impact analysis. RL14-133

As the 2000 REIR/SEIS states, since the 1997 DEIR/DEIS was released three additional fish species have been listed as threatened under the federal Endangered Species Act: Central Valley steelhead ESU, splittail, and Central Valley spring-run chinook salmon ESU. In addition, spring-run chinook salmon was listed as threatened under the California Endangered Species Act. The 2000 REIR/SEIS (Page 5-1) contends that "*...Impacts on these species were fully evaluated in the 1997 DEIR/EIS.*" This statement is blatantly incorrect. In fact, the 1997 DEIR/EIS:

- completely fails to even address potential impacts to spring-run chinook salmon resulting from water temperature increases and resultant increases in mortality in the Sacramento River associated with integrated CVP operations;
- inadequately addresses potential temperature-related impacts to steelhead in the lower American River due to methodological flaws and inappropriate significance criteria, and fails to even address temperature-related impacts in the Sacramento River; and
- inadequately addresses potential impacts to splittail in the lower American River by failing to discuss changes in habitat availability.

RL14-134

Assumption Inconsistencies and Incomplete Information

The 2000 REIR/SEIS is seriously flawed due to inconsistent assumptions applied to the various alternatives, and lack of information presented. The task of assessing the information contained within the 2000 REIR/SEIS is frustrated by the necessity of tracking down references to the 1997 DEIR/DEIS, a document that is fundamentally flawed in its present state. Review of the 2000 REIR/SEIS is further hampered by the lack of information actually presented in this document. Decision makers from the lead agencies will find it difficult, if not impossible, to make an informed decision on the selection of a preferred alternative, given that the technical data are a bewildering array of mismatched assumptions and post-processed results. Please refer to the comments on hydrology and modeling for additional specific comments. RL14-135

Major Fisheries Concerns

Review of Chapter 5 of the REIR/SEIS indicates that the document:

- fails to adequately describe and characterize the existing baseline condition from which potential impacts are measured. Existing conditions should be, but are not, used as a baseline for comparison rather than the described No-Action Alternative (Alternative 1) in order to satisfy CEQA's requirements. Using the No-Action Alternative as the only baseline against which the other EBMUD SWSP alternatives are compared underestimates potentially significant impacts to the aquatic resources of the lower American River, as well as other locations (e.g., the Sacramento River, Delta) in the project impact area; RL14-136
- inappropriately employs truncated AFRP flows as impact significance criteria; RL14-137
- employs inappropriate water temperature impact significance criteria; RL14-138
- inappropriately masks potential water temperature impacts by only disclosing average temperatures for the entire 69-year period included in the analysis; RL14-139
- inappropriately concludes less-than-significant impacts to federal ESA threatened salmonids (e.g., spring-run chinook salmon) on the Sacramento River; RL14-140
- fails to address temperature impacts to Nimbus Fish Hatchery operations and fish production; RL14-141
- neglects to provide cumulative impact analysis for the newly added alternatives; RL14-142
- fails to appropriately assess potential impacts to Delta fish resources; RL14-143
- insufficiently addresses construction-related impacts; RL14-144
- neglects to propose mitigation for cumulative impacts; RL14-145
- fails to identify potentially significant impacts to juvenile striped bass in the lower American River, according to criteria established in the REIR/SEIS; RL14-146
- illogically contends that additional modeling conducted for the REIR/SEIS serves as a verification of the approach used in the 1997 DEIR/DEIS; RL14-147
- requires significant revisions to the impact assessment approach and methodology in order to allow accurate impact assessments and decision-making. RL14-148

The REIR/SEIS fails to appropriately assess impacts to the Sacramento River fisheries. The REIR/SEIS does not provide factual information to support the conclusion that flow-related impacts to the Sacramento River fish resources are less-than-significant. The unsupported statements are conclusionary and therefore do not conform to CEQA requirements. Moreover, the REIR/SEIS simply refers to the upper Sacramento River flow-related analysis performed in the DEIR/DEIS. However, the only statement that conveyed any information regarding potential flow-related impacts to the upper Sacramento river refers to Table 5-8, which does not even address Sacramento River flows. RL14-149

The REIR/SEIS does not disclose sufficient factual information regarding water temperature-related impacts to Sacramento River fish resources. First, absolutely no water temperature model output is provided. Second, statements regarding salmon mortality are unclear. Presumably, statements in the REIR/SEIS (Page 5-18) regarding chinook salmon mortality refer to average mortality over the entire 69-year period modeled. Simple disclosure of the average mortality is not sufficient for impact assessment purposes, particularly for species listed under the federal ESA. Modeled output must be further examined to determine if several consecutive years exhibit a substantial reduction in survival. Substantial reductions in survival, if they occur in four or more consecutive years, would encompass a lifecycle for chinook salmon. If that occurred, impacts could be promulgated in future generations. RL14-150

The REIR/SEIS fails to identify or disclose potentially significant impacts to spring-run chinook salmon, a species listed as threatened under the federal ESA. No analysis, justification or citation was provided to support the conclusionary statement that impacts to spring-run chinook salmon are less-than-significant. In consideration of the fact that spring-run chinook salmon is listed as threatened under the federal ESA, additional justification must be provided to support the conclusion. Moreover, through lack of full disclosure, the REIR/SEIS underrepresents the severity of the potentially significant impact to spring-run chinook salmon. The REIR/SEIS acknowledges an increase of 1.7 percent mortality of spring-run chinook salmon for Alternative 2, and a 3.0 percent increase in mortality for Alternative 3 relative to the No-Action Alternative. However, the REIR/SEIS fails to acknowledge that increases in mortality would be even more significant if they are compared to existing conditions. In addition, as previously stated, modeled output must be further examined to determine if several consecutive years exhibit a substantial reduction in survival. Substantial reductions in survival, if they occur in four or more consecutive years, would encompass a lifecycle for chinook salmon. If that occurred, impacts could be promulgated in future generations. RL14-151

The REIR/SEIS fails to consider appropriate Trinity River instream flow requirements when assessing impacts of the proposed alternatives for EBMUD's SWSP. The Flow Evaluation Alternative, which has been identified as the preferred alternative, was developed to provide variable amounts of water according to water year type. The annual volume under the preferred alternative for the Trinity River would be 369,000 acre-feet and a peak flow of 1,500 acre-feet during critically dry years; 453,000 acre-feet and a peak flow of 4,500 during dry years; 636,000 acre-feet and a peak flow of 6,000 during normal years; 701,000 acre-feet and a peak flow of 8,500 during wet years; and 815,000 acre-feet and a peak flow of 11,000 during extremely wet years. However, the REIR/SEIS does not use the Trinity River preferred alternative in hydrologic characterization of the CVP. Rather, the REIR/SEIS assumed a variable annual Trinity River flow requirement of 390,000-750,000 acre-feet. Utilization of outdated hydrologic assumptions in the REIR/SEIS may result in unidentified potentially significant impacts to resources in the remainder of the CVP. RL14-152

The REIR/SEIS and the DEIR/DEIS neglect to address impacts to the warmwater and coldwater fisheries of Lake Natoma, and fail to address temperature impacts to Nimbus Fish Hatchery operations and fish production. RL14-153

The REIR/SEIS fails to provide sufficient factual information, and fails to identify specific months with temperature increases to allow an assessment of the magnitude of the potential impact, particularly for Alternative 2. Regarding Alternative 2, the REIR/SEIS (Page 5-17) states "*...Average monthly increases of 0.1°F would be expected in five months, with similar decreases in one month. No changes would be expected in six months.*" The REIR/SEIS should be more specific with regard to months with temperature increases. Temperature increases may be more damaging to aquatic resources in specific months that correlate to sensitive lifestages of the specific species. Moreover, as previously stated, simple disclosure of averages is not sufficient for impact assessment purposes, particularly for the federally threatened steelhead in the lower American River. RL14-154

The REIR/SEIS relies on the DEIR/DEIS fisheries impact assessment's flawed methodology. The REIR/SEIS (Page 5-10) states "*...Assessment of the supplemental alternatives' effects on fish species and their habitats is essentially identical to the approaches and methodologies used in the 1997 DEIR/EIS. In addition to the impact assessment tools used in that document, the results of additional analyses using Reclamation's temperature model and salmon mortality model are also reported below.*" The above statement reiterates that the flawed methodology, incorrect assumptions, and inappropriate significance criteria that are used in the DEIR/DEIS remain applicable in the REIR/SEIS. Granted, the REIR/SEIS also included Reclamation's water temperature model and the salmon mortality model in the analysis. However, the assumptions used for these models are not explained in sufficient detail to allow for independent review. Furthermore, hardly any data from the new analyses are provided to allow an understanding or determination of the veracity of the models' results presented in the REIR/SEIS. RL14-155

Both the REIR/SEIS and the DEIR/DEIS are flawed and inappropriate in their fisheries impact evaluations. The DEIR/DEIS (Page 5-14) states "*...the daily water temperature model developed for this EIR/EIS accurately simulates water temperatures as a function of flow and meteorological conditions.*" However, this statement is incorrect for reasons outlined in the comments submitted on *March 19, 1998*, and which are reiterated, below. RL14-156

Because of the hydrological assessment inconsistencies and inadequacies, all flow-related impact assessments are of questionable value. As stated in comments submitted on Chapter 3, the hydrological analysis fails to include upstream Folsom Reservoir modeling, fails to include all of the water purveyors and entities demands on Folsom Reservoir, and fails to evaluate important parameters. Furthermore, the hydrological analysis for both the DEIR/DEIS and the REIR/SEIS utilize several unreliable assumptions, contain storage-flow relationship inconsistencies for the American River system, and contain contradictory data. RL14-157

The REIR/SEIS is deceptive because it emphasizes the status of federally listed species in the Delta and the Sacramento River, and de-emphasizes listed species in the lower American River. The REIR/SEIS appears to attempt to discount the Sacramento River and Delta alternatives while promoting the American River alternatives, because it provides detailed background information for federally listed species in the Sacramento River and the Delta, but not for the American River. In addition, the REIR/SEIS (Page 5-8) states "*...Alternatives 5, 6, 7, and 8 would involve EBMUD taking delivery of water from the Sacramento River (Alternatives 5 through 7) or in the Delta (Alternative 8). A greater number of protected species and individuals would likely be subject to entrainment effects at these locations.*" This statement is disingenuous because it implies impact, whereas the inherent assumption by the Public Trust resource agencies is that compliance with current screening criteria would obviate potential entrainment impacts. RL14-158

The REIR/SEIS is fundamentally flawed because it neglects to provide cumulative impact analysis for the newly added alternatives. The REIR/SEIS (Page 3-3) states "*...No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/EIS under Alternative 3-Cumulative Conditions.*" The REIR/SEIS does not provide factual information to support this statement. This statement is therefore conclusionary and does not satisfy CEQA requirements. Because the REIR/SEIS relied upon the fundamentally flawed cumulative impact analysis presented in the DEIR/DEIS, the REIR/SEIS remains deficient regarding cumulative impact analysis. Also, the cumulative impact analysis in the DEIR/DEIS does not reflect PROSIM 99 revisions, rendering the cumulative impact analysis obsolete. Furthermore, the cumulative impact analysis conducted for the alternatives that were included in the DEIR/DEIS is inadequate and incomplete. Specifically, Sacramento River fish resources cumulative impact analysis is not provided in the DEIR/DEIS and, therefore, also is not included in the REIR/SEIS. This is extremely puzzling because most of the newly added alternatives discussed in the REIR/SEIS include diversions along the Sacramento River. The Sacramento River cumulative impact assessment should include flow and temperature-related impacts to upper and lower Sacramento River fisheries. In addition, the DEIR/DEIS cumulative impact analysis fails to address: seasonal availability of littoral habitat for Folsom Reservoir's warmwater fisheries; impacts to warmwater and coldwater fisheries of Lake Natoma; temperature impacts to Nimbus Fish Hatchery operations and fish production; flow and temperature-related impacts to splittail; temperature-related impacts to American shad and striped bass; littoral habitat availability for both Trinity and Shasta reservoirs; and Delta fish populations. Moreover, neither the REIR/SEIS nor the DEIR/DEIS evaluates the incremental contribution to the cumulative condition. RL14-159

The REIR/SEIS does not evaluate cumulative impacts for any resource category, rather, it relies upon information presented in the DEIR/DEIS. The DEIR/DEIS does not even attempt to evaluate the incremental contribution of the EBMUD alternatives to potentially significant cumulative impacts, including fisheries. The DEIR/DEIS refers to the Habitat Mitigation Element of the Water Forum. The DEIR/DEIS (Page 5-25) states "*...As one approach to mitigation for cumulative impacts, EBMUD could contribute an appropriate share to these overall mitigation efforts in the form of money or in-kind services. The proportional share should be determined based on the amount of contribution to the overall cumulative impact.*" However, these statements in the DEIR/DEIS are confusing because incremental contributions to significant cumulative impacts are not assessed. RL14-160

Analysis of construction-related impacts is insufficient for a project-level document. Construction considerations presented in the REIR/SEIS for Alternative 4, EBMUD-only Lower American River Delivery, require the installation of sheet pilings and dewatering of the construction location in order to construct the new lower American River intake facilities. However, the REIR/SEIS is not detailed in the environmental protection measures EBMUD would implement to minimize construction impacts to aquatic resources. Most likely, a cofferdam would be built to allow the construction of the intake structure in a dry-site. However, the REIR/SEIS and DEIR/DEIS fail to provide protective aquatic measures to ensure protection of fish that become enclosed behind the cofferdam prior to completion. For example, the discussion fails to include construction via sequential placement of sheet piles from the upstream to the downstream end of the portion of the intake structure to minimize any potential of drawing fish into the construction area as sheet piles are placed. In addition, prior to completion of the downstream end of the cofferdam, seining should be conducted with a small mesh seine to herd fish out of the cofferdam. Once seining is completed, exclusionary nets should be placed in the river to prevent fish from entering the cofferdam during the final stages of completion prior to dewatering. Low-flow pumps should be used to dewater the cofferdam to minimize fish mortality. When the cofferdam is partially dewatered, a final seining effort should be conducted within the cofferdam. The final stages of the cofferdam should be completed in less than a week to minimize the amount of time available for fish to move into the cofferdam. Finally, when construction is completed, removal of the sheet piles should be conducted sequentially from the downstream end to the upstream end to minimize any potential of drawing fish into the construction area as sheet piles are removed. In addition to the above-listed protective measures needed as a result of the instream construction, the discussion should include a mechanism (e.g., desilting basins) to mitigate the potential increase in turbidity associated with the in-stream construction.

RL14-161

Regarding Alternative 5, the REIR/SEIS (Page 2-19) states "*...Construction considerations are essentially identical to those described for Alternative 4,* "EBMUD-only Lower American River Delivery." The above statement implies that the lack of specificity and detail presented in the discussion of impact considerations under Alternative 4 also applies to Alternative 5. Similar statements are made in the REIR/SEIS for the remaining alternatives. As a result of this lack of detail and omission of environmental protective measures, the suggested measures provided in the above comment for Alternative 4 remain applicable to Alternatives 5, 6, 7, and 8, and should be taken into account when discussing construction impact considerations.

RL14-162

The REIR/SEIS fails to identify potentially significant impacts to juvenile striped bass in the lower American River. The REIR/SEIS does not directly address potential impacts to striped bass, rather, it refers to the DEIR/DEIS. Cumulative impacts to juvenile striped bass under Alternatives 2 and 3 should be considered significant, according to criteria established in the REIR/SEIS. The REIR/SEIS (Page 5-9) states "*...For fisheries resources, a 10 percent or greater change in the frequency of a particular impact relative to baseline conditions was used to identify a potentially significant impact.*" The REIR/SEIS (Page 5-9) further states that "*...An environmental change that occurs 10 percent of the time or more was considered large enough to substantiate a conclusion that an adverse or beneficial effect is significant, given the quantity and quality of available fisheries data and the precision and accuracy of available impact assessment tools.*" Given the establishment of these criteria, it is impossible to justify the conclusion of less-than-significant impacts to juvenile striped bass in the lower American River presented in the DEIR/DEIS. The DEIR/DEIS (Page 5-24) states "*...The average reduction in flow would exceed 10% (-14% to -28%) during months in which striped bass are present below Fairbairn WTP, but the significance of this change cannot be determined because of the lack of information on the flow requirement of juvenile striped bass.*"

RL14-163

Statements presented in the REIR/SEIS (Page 5-17) regarding verification of the DEIR/DEIS water temperature analysis approach are misleading, inaccurate and illogical. The REIR/SEIS contends that utilization of Reclamation's water temperature model "*...was conducted as a verification of the approach used in the 1997 DEIR/EIS.*" This statement is unsupported and completely illogical. Rather, the REIR/SEIS attempts to manufacture support for the conclusions presented in the DEIR/DEIS, which are based on flawed methodology and, perhaps more importantly, inappropriate significance criteria. The methodology utilized in the DEIR/DEIS is incomplete, obsolete and incorrect. The methodology is fundamentally flawed (see **Temperature Assessment Methodology, Comments**), does not consider all resources and possible impacts to those resources, does not reflect the updated PROSIM version, and does not provide year-to-year data but only monthly composites of data, which are insufficient to evaluate potentially significant impacts, particularly to federally listed species. Moreover, the DEIR/DEIS utilizes inappropriate and extremely generous impact significance criteria in order to conclude that water temperature impacts are less-than-significant.

RL14-164

The REIR/SEIS and the DEIR/DEIS present different results for the evaluation of water temperature impacts. Yet, the REIR/SEIS contends that both analyses reach the same conclusions. For example, the factual information in the DEIR/DEIS pertaining to water temperature impacts in the lower American River is presented in Table 5-30. However, Table 5-30 merely presents the percentage of the [unspecified] period of record included in the assessment, by month, that water temperature changes of more than 1°F would occur. No factual information is provided regarding actual magnitude of change. The same type of presentation is included in the REIR/SEIS (Page 5-16). The REIR/SEIS also presents very limited discussion of change in water temperatures, averaged over the [unspecified] period of record, by month. No actual month-by-month or year-by-year comparison of results is made between the REIR/SEIS and DEIR/DEIS. However, by applying different results to the inappropriate and extremely generous significance criteria, the REIR/SEIS manufactures consistency of conclusionary statements, which actually has no relevancy to verification of the different methodological approaches.

RL14-165

Moreover, the REIR/SEIS (Page 5-17) states that Reclamation's water temperature model was only applied to Alternatives 2 and 3. No mention is made whether the model also was applied to the No-Action Alternative. It is impossible, therefore, to ascertain what actually serves as the basis of comparison in this questionable assessment.

RL14-166

Absolutely no information is provided for Delta outflow resulting from application of the updated PROSIM model in the REIR/SEIS. The REIR/SEIS (Page 5-17) refers to the DEIR/DEIS for discussion of Delta outflow. The DEIR/DEIS simply refers to Table 5-31 for factual information to support its conclusions regarding Delta outflow. However, Table 5-31 is insufficient because it does not assess the newly added alternatives. This information is necessary because the newly added alternatives occur along the Sacramento River and the Delta, and their impacts on Delta outflow should be assessed. Furthermore, Table 5-31 also is inadequate because it simply presents the number and percentage of months during the simulated 70-year period when the minimum Delta outflow requirements are met. This information, by itself, is woefully inadequate for impact assessment purposes. Simple reference to a minimum requirement and changes relative to that minimum requirement does not, in fact, characterize environmental conditions. For example, a significant change from a base condition could occur and still be above a specified minimum level. RL14-167

The REIR/SEIS (Page 5-17) also defers to the DEIR/DEIS regarding potential impacts associated with change in X2 location. However, absolutely no factual information is provided to support the conclusion that minimal to no changes in the location of X2 would occur under the proposed alternatives. The DEIR/DEIS (Page 5-18 and 5-21) refers to table 5-31 and 5-32 for factual information to support conclusions regarding potential impacts associated with change in X2 location. However, these tables do not even address the subject of X2 location. Therefore, statements regarding less-than-significant impacts to Delta fish resources are unsupported, conclusionary and do not conform to CEQA requirements. RL14-168

The REIR/SEIS (Page 5-6) states "*...Juveniles migrating upstream to spawn. Spawning occurs rear in quiescent areax, moving to open water as summer progresses (Wang 1986).*" Apparently, a misprint occurred and the words "*...migrating upstream to spawn. Spawning occurs*" should be deleted. RL14-169

Continued Applicability of DEIR/DEIS Submitted Comments

As previously stated, most of the *March 19, 1998* comments on Chapter 5, Fisheries, of the 1997 DEIR/DEIS, are still applicable. Granted, the 2000 REIR/SEIS (Page 5-2) states "*...This REIR/EIS does not include formal responses to comments on the 1997 DEIR/EIS, although it does address several issues raised in those comments. Formal responses to all comments on the 1997 DEIR/DEIS will be presented in the final environmental impact report/environmental impact statement (FEIR/EIS) on the Supplemental Water Supply Project along with responses to comments on this REIR/SEIS. Comments submitted on the1997 DEIR/EIS do not need to be resubmitted. They will be responded to in the FEIR/EIS.*" Nonetheless, fundamentally flawed methodologies and incomplete information presented in the 1997 DEIR/DEIS are not even addressed in the 2000 REIR/SEIS. Meanwhile, these same fundamentally flawed methodologies and incomplete sets of information are reasserted in the 2000 REIR/SEIS. Furthermore, because the 2000 REIR/SEIS and the 1997 DEIR/DEIS combined constitute the complete draft EIR/EIS, it is impractical to provide comments on the REIR/SEIS without including previously submitted comments that are still pertinent. For these reasons, the *March 1998 DEIR/DEIS* comments are reiterated, and their continued applicability to the 2000 REIR/SEIS is discussed.

Temperature Assessment Methodology

The following comments pertain to the lower American River Water Temperature Assessment contained in Chapter 5 and Appendix D of the DEIR/DEIS. These comments remain applicable to the REIR/SEIS because the REIR/SEIS repeatedly refers to analyses and results presented in the DEIR/DEIS and, perhaps more importantly, the REIR/SEIS continues to rely on the flawed methodology and inappropriate significance criteria utilized as the basis for the conclusions presented in the DEIR/DEIS. Therefore, the comments regarding water temperature impact assessment methodology are reiterated, followed by statements addressing their continued applicability to the REIR/SEIS.

1. Methodologic Statement 1 - DEIR/DEIS, pp. 5-11, Appendix D-1: The effect of storage on Nimbus release temperatures was estimated based on regressions developed using the historical storage and temperature data.

Based upon a number of qualifying assumptions, linear regression equations relating historical end-of-month Folsom Reservoir storage and historical "end-of-month" Nimbus Hatchery inflow temperatures were developed. The slopes of the regression equations (one for each of twelve months in units of °F/100 TAF) are then used to calculate temperature impacts corresponding to an alternative's impact on Folsom storage (Tables 5-4 and D-1). This temperature impact, due to storage only, is then combined with another flow only temperature impact to determine the overall impact of an alternative.

An examination of Table D-1 and Figures D-6 through D-17, evidences that the use of the regression equations developed will fail to identify temperature impacts related to simulated alternatives. In the months for which regressions show the highest statistical significance (P value < 0.001; June - October), from 30% up to 70% of the variability in hatchery intake temperatures remains unaccounted for, due to Folsom Reservoir storage conditions. Table D-1 does not identify the confidence interval associated with either temperature estimates at the 200 TAF or 1000 TAF Folsom Reservoir storage levels, or the error associated with the estimate of the regression slope. After analyzing the related figures, especially in October, it appears that the confidence interval associated with a range of Folsom Reservoir storage conditions would be rather wide compared to the associated slope used to identify the impact of a storage change. In illustrating the regression equations it is important to note that the maximum temperature determined by the regression equations (based on minimum Folsom Reservoir storage of approximately 150 TAF) will never exceed 64.7°, 69.2°, 71.3°, 70.0°, and 64.6° F in June through October, respectively. The actual maximums based on the 1959-1995 historic record are approximately 68°, 70°, 73°, 71°, and 68° for those respective months. Based on a 70-year record consistent with the period of record used in the PROSIM analysis, the frequency and magnitude of values exceeding those estimated by the regression equations are certain to increase. Because temperature-related impacts to fisheries are largely determined by the exceedance of physiologically important temperature thresholds, and given the failure of the regression equations to adequately describe the means by which Folsom Reservoir operations cause temperature conditions to RL14-170

exceed those estimated by the regressions, the analysis will fail to identify significant temperature impacts of the alternatives.

The DEIR/DEIS, moreover, makes the following sequence of assumptions: (1) historic high Folsom Reservoir storage conditions relate to historic high Folsom Dam releases; (2) historic low Folsom Reservoir storage conditions relate to historic low Folsom Dam releases; (3) simulated conditions do not differ [in this respect] greatly from the historic conditions; and therefore (4) the regressions used, even though based *solely* on Folsom Reservoir end-of-month storage conditions, adequately serve to assess the *combined* Folsom Reservoir storage and Folsom Dam release impacts of Folsom operations on Nimbus Hatchery intake temperatures. (DEIR/DEIS, p. 5-11, and Appendix D-2.)

This logic is flawed. After the above assumptions, the DEIR/DEIS recognizes that future "Folsom Reservoir operations may allow the monthly reservoir release temperatures to be less dependent on storage than the historical Nimbus Dam temperatures, but states that the methodology of determining impacts at the Nimbus Hatchery remains adequate for impact assessment purposes (pg. 5-12). At Appendix D-7, the DEIR/DEIS states that "*...the comparisons of the PROSIM flow and storage values show that a simulated reduction in storage does not necessarily cause a simulated reduction in flow*," thereby agreeing with the statement on DEIR/DEIS, p. 5-12, but contradicting both the statement on p. 5-11 and the conclusion drawn on p. 5-12. Of course, Folsom Reservoir operations will vary from historic operations in at least the following ways: (1) application of AFRP or F-Pattern storage-release flow relationships; (2) change in magnitude and pattern of future demands; (3) operation of Folsom Dam shutters and associated Coldwater Pool Management; (4) changes in Delta requirements for which coordinated Folsom and Shasta Dam releases may be required; and (5) changes in Folsom Dam flood control-related operations, and (6) changes in future level hydrologies. EBMUD actions will contribute to the modification of Folsom Reservoir operations. Failure to properly consider the dynamics of the coldwater pool in Folsom Reservoir and its efficient management, in both project and non-project (No-Action) scenarios, will lead to serious misinterpretation of lower American River temperature changes. Figures D-6 through D-17 illustrate this serious concern. The bottom of these figures contain plots comparing historic and No-Action simulated Folsom Reservoir storage versus Nimbus Dam releases. Every one of the months plotted demonstrate substantial operation changes at Folsom Dam. A No-Action scenario that fails to recognize these future changes will cause the project alternative scenarios to indicate benefits that will not actually be realized, and impacts that would be, perhaps grossly, underestimated. Use of historic data as the basis for all simulations ignores what is evidenced in the data presented.

REIR/SEIS Applicability - Because, according to the REIR/SEIS (Page 5-17), the limited utilization of Reclamation's water temperature model was conducted only "*...as a verification of the approach used in the 1997 DEIR/EIS*," the incorrect assumptions and models used in the DEIR/DEIS remain as the basis of the water temperature impact analysis performed for the fishery resources that would be affected as a result of EBMUD's proposed diversions. Thus, the criticisms provided in the *March 19, 1998* comments remain applicable.

2. Methodologic Statement 2 - DEIR/DEIS, p. 5-12, Appendix D-1: Temperature changes resulting from flow changes in the lower American River are estimated using a daily river temperature model.

The DEIR/DEIS utilizes a daily riverine temperature model to evaluate potential temperature-related impacts. The daily model is calibrated for the years 1986 - 1989 and verified for the years 1990 - 1994 using historic meteorological conditions, historic Nimbus Hatchery intake temperatures, and historic Nimbus Dam release flows. Similar to the use of the regression equation slopes discussed earlier, "slopes" were developed relating temperature decrease to flow increase at various locations in the lower American River. These "slopes" are defined for each month by comparing the daily results of two simulations. One simulation used the Hodge flows instead of the historic flows. The other simulation used the Hodge flows plus 500 cfs, instead of the historic flows. The two simulations were compared, and for each month at various locations the largest maximum daily difference was computed. "Slopes" in the units of °F / 500 cfs (one for each of twelve months) were computed (Tables 5-5, D-2). These slopes were then used to calculate temperature impacts corresponding to EBMUD diversions in a particular month of the PROSIM simulation. This temperature change, due to flow only, was combined with another temperature change [storage-only] to determine the overall impact of an alternative.

After analyzing Table D-2 and Figures D-25 through D-44, it appears that the determination of the "largest maximum daily difference" for a flow change from Hodge to Hodge + 500 cfs may have some utility for determining the *maximum potential* temperature increase related to some reduction of flow (e.g., 312 cfs reduction), *as long as the remaining flow in the river is above the Hodge criteria*, and as long as Nimbus Dam release temperatures and meteorological conditions remain within the range used in the daily simulations. The calibration period of the daily model appears to have a wide variety of hydrologic, meteorological and operational conditions to provide a sufficient dataset to calibrate a daily model.

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The DEIR/DEIS (Page 5-12) states that "*...Hodge Decision flows were chosen as the lower flow level for the simulations because EBMUD is not permitted to take delivery of water at the FSC when diversions would reduce Nimbus Dam releases to below Hodge Decision flows.*" Apparently, the impact assessment approach assumes that temperature impacts in the lower American River need only be considered if EBMUD is taking a diversion in the same month, and therefore, the determination of the "largest maximum daily difference," as described, may be sufficient because there would be no temperature impacts considered when flows are below the Hodge criteria.

This assumption is problematic, however, because it does not accurately reflect operational changes at Folsom Reservoir due to the EBMUD's diversions. EBMUD's action of diverting off the system will change the operations of Folsom Reservoir in subsequent months which, in turn, may change allocations to other CVP contractors, minimum flow requirements (because of storage changes), requirements for Delta water quality standards, and Delta exports. Flow changes in the lower American River and storage changes in Folsom Reservoir will occur as a direct result of EBMUD's action, even if EBMUD is not taking

water in the particular month in question. If, indeed, temperature impacts in non-diversion months were ignored, which appears to be the case, then the water temperature assessment is fundamentally flawed and the DEIR/DEIS is technically deficient regarding temperature-related impacts in the lower American River.

The DEIR/DEIS states that "*...PROSIM results may indicate changes in American River flows under Alternatives 2 and 3. The monthly change in temperature associated with these simulated changes in river flow are calculated for each alternative using the monthly maximum temperature change[s]...*" This statement indicates that the DEIR/DEIS apparently recognized the issues in the previous comment. If so, then the DEIR/DEIS applied the "largest maximum daily difference" per 500 cfs "slope" values previously determined for flow changes above the Hodge criteria to flow changes actually *below* the Hodge criteria. Applying these "slope" calculations, regardless of the magnitude of flow, will substantially underestimate the temperature-related impact due to a flow change when the resulting flow is lower than the Hodge criteria. The actual temperature-flow relationship is non-linear. Temperatures increase at higher rates as flow is reduced. A 500 cfs *reduction* from the Hodge criteria, in a typical July for example, may result in a temperature increase more than twice as much as what would be determined by reducing the flow from Hodge + 500 cfs to the Hodge criteria. If impacts were actually considered in months in which EBMUD was not diverting, the actual impacts from the proposed action are grossly understated because of the error in determining the "largest maximum daily difference" per 500 cfs.

REIR/SEIS Applicability - The incorrect assumption that temperature impacts in the lower American River need to be considered only in months in which EBMUD diverts water is not corrected in the REIR/SEIS. The REIR/SEIS continues to use the same unreliable model and assumptions as the DEIR/DEIS. Therefore, the REIR/SEIS is not considering the change in operations of Folsom Reservoir in subsequent months after an EBMUD diversion. This change in Folsom Reservoir operations may, in turn, change allocations to other CVP contractors, minimum flow requirements, requirements for Delta water quality standards, and Delta exports. Moreover, the REIR/SEIS continues to grossly understate water temperature impacts because of the error in determining the "largest maximum daily difference" per 500 cfs.

3. Methodologic Statement 3 - DEIR/DEIS, p. 5-11, Appendix D-1: The temperature assessment methodology estimates the monthly risk of temperature increases in the lower American River of greater than 1° F caused by simulated hydrology changes for each project alternative. The DEIR/DEIS states that "*...[f]or each reach and month in which the potential for temperature impacts existed, an incremental warming of 1 °F was used to evaluate temperature impacts, because a change of less than this magnitude cannot be differentiated from other sources of natural variability.*"

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This statement reveals a fundamental flaw in the DEIR/DEIS analysis of water temperature-related impacts. Obviously, future meteorological conditions will vary from historical conditions. Also, future hydrologic, regulatory and operational conditions will vary from historical conditions. However, by using datasets that are developed through a rational, defensible process in which the sources of variability can be understood, the impacts of that variability can also be understood. It is insufficient to simply excuse variability as irrelevant to the process of assessing the potential impacts related to a proposed action. Because of the rational basis of assumptions that the analysis is built upon, variability must be fully considered and explained. If this cannot be done, then either the assumptions are not rational and defensible, or the analyst does not adequately understand the assumptions involved in the modeling process. Clearly, the analysis in the DEIR/DEIS did not appropriately identify the impacts of the proposed action.

The DEIR/DEIS (Pages 5-14, and 5-15) states that "*...PROSIM reasonably simulates river and Delta flows and reservoir storage effects under existing conditions and alternatives.*" The DEIR/DEIS also states (at p. 5-15) "*...that the natural variation in hydrologic conditions is substantially larger than hydrologic changes associated with the alternatives.*" These statements are susceptible to the critique in the previous comment. Consider the scenario in which PROSIM identifies a 312 cfs reduction in lower American River flow during July, and Folsom Reservoir end-of-month storage is reduced by 17 TAF as a result of the proposed action. The approach used in the DEIR/EIS indicates, based solely on this information, that there is a potential warming of 0.62° F at Goethe Park and 0.99° F at the Fairbairn WTP. According to the approach in the DEIR/DEIS, there is assumed to be no temperature impact at Goethe Park or the Fairbairn WTP because "natural variation" means this < 1° F change really doesn't happen, and can be arbitrarily dismissed. Moreover, as additional constraints have been and will be imposed on Folsom Reservoir operations, flexibility in operating Folsom Reservoir is decreased. For example, increase of a minimum flow requirement may be associated with a decrease in variability in river flows during that same time, as is illustrated in Figures D-6 through D-17. Again, the DEIR/DEIS misrepresents potential impacts resulting from the proposed actions due to inappropriate analytical procedures and arbitrary dismissal of actual, potentially significant impacts.

REIR/SEIS Applicability - The REIR/SEIS fails to correct the deficient and inappropriate significance criteria, and continues to arbitrarily dismiss potentially significant water temperature impacts.

4. Methodologic Statement 4 - Appendix D-1: The DEIR/DEIS states that the possible effects of the modified temperature control panels (shutters) "*...are not specifically included in the EBMUD temperature assessment.*" The DEIR/DEIS, however, also states that there "*...are several ongoing efforts within the American River Basin that could mitigate the cumulative impacts ... For example ... install a temperature control device on the Folsom Dam raw water inlet to various northern Sacramento County water users and to implement a coldwater management approach that attempts to most efficiently use the available cold water for fishery purposes.*" (DEIR/DEIS, p. 5-25.)

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Although the DEIR/DEIS fails to simulate coldwater pool management via shutter manipulation, the document acknowledges that there may be some temperature benefits to the lower American River derived from operating the Temperature Control Device (TCD) and Folsom shutters for coldwater pool management purposes. Shutters are being operated currently to enhance temperature conditions in the lower American River. These actions (shutter changes) are being determined and implemented by the USBR through efforts of the lower American River Operations Work Group. To adequately model the existing conditions, the temperature assessment must consider shutter operations representative of the current actions taken by the USBR in support of the lower American River Operations Work Group. Future conditions must consider shutter operations representative of a more sophisticated coldwater pool management strategy. This failure to consider coldwater pool management in the temperature assessment, potentially mislabels actual temperature impacts as non-impacts.

As illustrated in Appendix D, a comparison is made between the EBMUD regression approach for assessing temperature impacts due to Folsom Reservoir storage changes, and the USBR Temperature Model. The comparison is based upon an analysis of the No-Action alternative. Figures D-45 through D-50 compare the resulting Nimbus Dam release temperatures computed by the USBR based on results from PROSIM, against the regression equations developed based on historic data. The DEIR/DEIS states that "*...[t]hese differences may be caused by the relatively high summer target temperatures in the Reclamation model and other differences between the simulated conditions under Alternative 1 and historical conditions.*" (Appendix D-6.) It is interesting to note that the temperature targets used in the comparison to drive the temperature simulation with the USBR model are the Folsom Dam release targets from the CVPIA PEIS. These target temperature release objectives, however, are obsolete. Frequently, simulations based on these target temperature release objectives will result in a depleted coldwater condition by mid-summer. Meanwhile, river temperatures will reflect flow release variations during times when Folsom Dam is able to release water of a specified target temperature. This is the dynamic that is documented in this section of Appendix D. This, however, is not the methodology of cold water pool management.

The DEIR/DEIS asserts that "*...incremental temperature changes in the lower American River associated with each alternative will not change under future changes in the operations of other facilities (e.g. Folsom Reservoir temperature control device).*" (DEIR/DEIS, Page 5-15.) This statement is not substantiated and, more importantly, is not correct. The DEIR/DEIS failure to model the Folsom shutters or the TCD in the future constitutes a failure to consider the full range of impacts of EBMUD's action on the lower American River temperature conditions.

REIR/SEIS Applicability - The REIR/SEIS is deficient because it does not correct the failure to consider shutter operations representative of the current actions taken by Reclamation in support of the lower AROWG. Furthermore, the REIS/SEIS should consider shutter operations representative of a more sophisticated coldwater pool management strategy when modeling existing or future conditions. The failure to consider coldwater pool management in the temperature assessment potentially mislabels actual temperature impacts as non-impacts. Moreover, the DEIR/DEIS water temperature assessment methodology is even more flawed than previously indicated because Reclamation currently includes a temperature control device at the urban water intake structure at Folsom Dam - not only to characterize future cumulative conditions, but to characterize existing and No-Action conditions as well.

5. Methodologic Statement 5 - DEIR/DEIS, p. 5-11, Appendix D-1: Changes to Folsom Reservoir release elevations may allow increased flexibility in the timing of coldwater releases. However, changes in release temperatures resulting from such modifications will probably be less than 5° F for any particular month and, because there is a limited supply of cold water, seasonal temperature patterns in the future are expected to be similar to historic patterns.

The foregoing statement regarding seasonal temperature patterns is unsubstantiated, and incorrect. Data used in the daily riverine temperature analysis shows a dramatic drop in temperature at the confluence of the American and Sacramento Rivers on July 8, 1992. (Figure D-22.) The DEIR/DEIS correctly identified this as the removal of temperature control shutters at Folsom Dam. All shutters were pulled because of insufficient water elevations in Folsom Reservoir. However, this took place under the old shutter configuration (configuration 1-1-7; *see* Figure D-58) that no longer exists.

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Presently, Folsom Dam has a new shutter configuration (configuration 3-2-4; *see* Figure D-58). The DEIR/DEIS correctly concludes that the 1-1-7 configuration left very little flexibility. The new configuration, however, which has been in place in recent years, provides an opportunity to improve the management of Folsom Reservoir's coldwater pool. The July 8, 1992 condition was a rather abrupt and drastic change in river temperature conditions. Under this scenario, the coldwater was used up very quickly.

Coldwater pool management is the efficient use of coldwater from Folsom Reservoir for the greatest benefit to lower American River fisheries. To achieve a desired temperature suitable for fish resources in the lower American River, an appropriate water temperature needs to be released from Folsom Reservoir. A given temperature release from Folsom Dam will cost a specific amount of the coldwater reserve in Folsom Reservoir. The actual temperatures achieved during May-November are dependent on (1) inflows, (2) the amount of coldwater in storage at the beginning of the season, (3) the rate at which coldwater is released from or lost through the thermodynamics of Folsom Reservoir, and (4) the duration of coldwater releases from Folsom Dam.

If a proposed action such Alternative 2 adds to the losses of Folsom Reservoir's coldwater reserve, then temperature goals in the lower American River may not be achieved. Because of the failure to conduct a coldwater pool management analysis of the project alternatives, the full impacts of the proposed action have not been adequately considered, and it is likely that the impacts of the proposed action are understated. In any case, lack of coldwater pool management using the current shutter configuration to characterize the

existing condition, and the failure to include more sophisticated coldwater pool management strategies and tools (e.g., TCD) to characterize future conditions, also renders this section (and all dependent sections) of the DEIR/DEIS deficient.

REIR/SEIS Applicability - The REIR/SEIS fails to correct the omission of coldwater pool management analyses or the inclusion of a Temperature Control Device in the assessment of the proposed alternatives. Thus, the full impacts of the proposed action have not been adequately considered, and it is likely that the impacts of the proposed actions are understated. Appendix D of the DEIR/DEIS (Page D-9) states "*...The TCD and temperature panels will be beneficial for temperature management of American River temperatures, but they will not likely cause the monthly range of Nimbus temperatures to shift dramatically from the historical range that has been used for the EBMUD risk of warming assessment.*" However, the above quote is unsubstantiated, conclusionary, and insufficient to excuse the lack of consideration of a Temperature Control Device and coldwater pool management analysis. In fact, inclusion of the modified Folsom Dam shutter configuration, a Temperature Control Device at the urban water intake structure at Folsom Dam, and updated coldwater pool management strategies do, indeed, result in significantly different water temperatures in the lower American River than those which were used for the EBMUD "risk of warming" assessment.

B. Specific Comments

Page 5-4 REIR/SEIS, DEIR/DEIS Page 5-2:

The DEIR/DEIS should clarify that the County of Sacramento and CDFG did *not* recommend during *EDF et al. v. EBMUD* that EBMUD take water at Nimbus, or that any such diversion should be conditioned on specific flows. The text is extremely misleading in this regard.

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REIR/SEIS Applicability - Both the REIR/SEIS and the DEIR/DEIS are misleading because they fail to clarify that the county of Sacramento and CDFG did not recommend during *EDF et al. v. EBMUD* that EBMUD take water at Nimbus, or that any such diversion should be conditioned on specific flows. Both documents contain the exact wording referring to the Hodge Decision.

DEIR/DEIS Pages 5-7, 5-16, and 5-18:

The DEIR/EIS emphasizes the importance of the Delta, including the statement that the Delta is the primary habitat for several euryhaline species, including the delta smelt. However, the impact assessment conducted for Delta fishes, including delta smelt, is contradictory and technically deficient. For example, the DEIR/DEIS states that impacts would be considered significant with "*...substantial reductions in . . . Delta outflows and exports . . . and/or substantial changes in the location of X2.*" (DEIR/DEIS, p. 5-16.)

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The DEIR/DEIS concludes less than significant impacts on Delta fishes for Alternative 2 because of "*[m]inimal to no changes in Delta outflow, exports, or location of X2....*" (DEIR/DEIS, p. 5-18; Tables 5-31 and 5-32.) However, Tables 5-31 and 5-32 do not contain information on the location of X2 whatsoever, nor does it appear that the location of X2 is even evaluated in the DEIR/EIS. Similarly, the DEIR/EIS states that "*...monthly Delta outflow, exports, and X2 under the full-use scenario would be essentially the same as under Alternative 3 (Tables 5-54 and 5-55).*" (DEIR/DEIS, p. 5-26.) However, Table 5-54 does not even refer to Delta parameters (it only presents limited information on lower American River temperatures) and Table 5-55 presents only limited outflow information.

REIR/SEIS Applicability - The REIR/SEIS remains defective because it does not provide sufficient factual information on Delta parameters used to assess potential impacts to Delta fishes. Change in X2 position is not provided in any of the environmental documentation provided so far to evaluate the alternatives considered in the EBMUD SWSP, and only limited Delta outflow information is provided. Therefore, the information provided in both the DEIR/DEIS and the REIR/SEIS is insufficient to support the conclusion that less than significant impacts would occur under Alternative 2, or the other newly proposed alternatives.

REIR/SEIS Page 5-8, DEIR/DEIS Page 5-8:

The DEIR/DEIS acknowledges that one of the factors affecting fish populations in the Sacramento River is "*...unfavorable water temperatures during incubation, rearing, and emigration phases.*" However, the DEIR/DEIS does not even evaluate water temperatures in the Sacramento River, and concomitant impacts to fish resources. The DEIR/DEIS failure to assess potential water temperature-related impacts to fisheries in the upper Sacramento River is a fundamental flaw. Of particular importance are potential impacts to winter-run chinook salmon, although impacts to other runs of chinook salmon should also be evaluated.

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REIR/SEIS Applicability - Because the DEIR/DEIS and the REIR/SEIS contain the exact wording regarding factors affecting fish populations in the Sacramento River, and the evaluation of water temperature-related impacts to Sacramento River fish resources is inadequate for reasons stated in previous comments, both are fundamentally flawed.

REIR/SEIS Page 5-8, DEIR/DEIS Page 5-8:

EBMUD's diversions have the potential to affect operations of Folsom Reservoir and other CVP reservoirs, including Shasta Reservoir. The Reasonable and Prudent Alternative ("RPA") in the winter-run chinook salmon biological opinion specifies water temperature objectives for sections of the upper Sacramento River to provide suitable conditions for winter-run chinook salmon spawning, egg incubation and juvenile rearing. Complying with the RPA is strongly influenced by storage levels in Shasta Reservoir. Because EBMUD's diversions may affect CVP operations, the proposed project could impact water temperature conditions for winter-run chinook salmon in the upper Sacramento River in two ways. First, the proposed project may increase the frequency of occurrence of water temperature violations in the upper Sacramento River. Second, even if the proposed project did not increase the frequency of occurrence water temperature violations, it likely would result in higher water temperatures in years when water temperatures exceed the criteria. Depending on the frequency of occurrence and magnitude of water temperature increase, potentially significant impacts to winter-run chinook salmon could occur.

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REIR/SEIS Applicability - The above comment remains applicable because neither the DEIR/DEIS nor the REIR/SEIS assess the potential for increased frequency of winter-run chinook salmon RPA water temperature violations, or the magnitude of increase in water temperatures during years when water temperatures exceed the criteria. Thus, the REIR/SEIS is deficient because it fails to sufficiently assess impacts to winter-run chinook salmon, a federally threatened species.

DEIR/DEIS, Page 5-10:

The DEIR/DEIS states that "*...Flow-related impact thresholds for physical habitat in the lower American River were the minimum flows stipulated in the Hodge Decision and minimum flows established by the AFRP during below-normal and above-normal water year types.*" The DEIR/DEIS fails to note that these minimum flows under the AFRP for the stated year types are synonymous. The DEIR/DEIS artificially and inappropriately constrained all analyses by not evaluating "wet" conditions. This results in minimizing/eliminating potential impacts that would be expected to result, particularly from Alternative 2.

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As part of the AFRP development process, technical teams consisting of fishery biologists with expertise on anadromous fishes in each of the Central Valley Project (CVP) streams were assembled. These technical teams developed specific recommendations for each stream to achieve the "doubling goal" of the AFRP. As part of this effort, flow levels were recommended for chinook salmon and steelhead in the lower American River. The flow recommendations for the lower American River vary by water year type, in contrast to the "Hodge flows" which do not vary. Relative to the Hodge flows, the AFRP recommendations provide higher flows in wet years, similar flows for chinook salmon spawning and rearing during normal water years, and lower flows during dry and critically dry years. These flow recommendations were developed using the best available information on the flow and temperature requirements of anadromous salmonids in the lower American River, as well as information on water availability.

The AFRP flow recommendations recognized an increase in physical habitat availability for anadromous salmonids for some flow levels above "Hodge flows," and the fishery biologists involved in the AFRP development regarded this greater physical habitat availability as biologically significant for anadromous salmonids. Based on the flow recommendations in the AFRP, diversions that reduce flow levels could reduce physical habitat availability, and thereby impact anadromous salmonids even if flow levels exceed "Hodge flows." Therefore, the DEIR/DEIS assertion that alterations in flow under the proposed project would result in less-than-significant impacts to fishery resources, as long as flows exceed "Hodge flow" levels, is not supported with the currently available information. An adequate assessment of potential fishery impacts necessitates an evaluation of the frequency and magnitude of flow and temperature alterations under the proposed project in consideration of all AFRP recommendations, not just an arbitrarily constrained subset.

REIR/SEIS Applicability - The above comment remains applicable because the REIR/SEIS fails to make the correction to the mistake outlined in the previous comment, resulting in the continuance of an artificially constrained analysis.

DEIR/DEIS, Page 5-15:

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The DEIR/DEIS states that one of the assumptions upon which the fisheries impact evaluation is based included "*...the carryover storage criterion of 1.9 million AF for water temperature control in the upper Sacramento River will always be met (specified by NMFS in its 1993 biological opinion for winter-run chinook salmon).*" This assumption is false. Not only will 1.9 MAF carryover storage in Shasta Reservoir not always be met under any future scenario, it is not even always met under the existing condition, according to information presented in DEIR/DEIS Appendix C, Table C-14.

REIR/SEIS Applicability - The REIR/SEIS does not correct this erroneous assumption.

DEIR/DEIS, Pages 5-11 and 5-15:

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The DEIR/DEIS states that one of the assumptions upon which the fisheries impact evaluation was based included "*...incremental temperature changes in the lower American River associated with each alternative will not change under future changes in the operations of other facilities (e.g., Folsom Reservoir temperature control device).*" No defensible basis is provided in the DEIR/DEIS to support this assumption.

REIR/SEIS Applicability - The REIR/SEIS also fails to provide a defensible basis to support this assumption.

REIR/SEIS Page 5-9, DEIR/DEIS Page 5-16:

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One of the significance criteria used for fisheries impact determination included the situation when "*...a temperature increase of at least 1°F would occur at least 10% of the time in months when baseline temperatures are likely to exceed acceptable levels for the evaluation species and life stages.*" The DEIR/DEIS also states that relative to the existing condition "*...[h]igh water temperature in summer and fall also is a major limiting factor for natural steelhead production.*" (DEIR/DEIS, p. 5-4.) This situation will be exacerbated with increased water demands in the future, including the future No-Action alternative, and particularly Alternative 2. The DEIR/DEIS briefly acknowledged this with its statement that "*...[f]low differences are of the most interest during summer when the differences have the greatest impact on water temperatures. The largest flow difference occurs in August when average flows under Alternative 1 at Nimbus Dam are 866 cfs less than flows under existing conditions.*" (DEIR/DEIS, p. 5-17.)

Use of this 1° F significance criteria, particularly within the context of the foregoing DEIR/DEIS statements, is very problematic. The impact assessment focused on the incremental change in water temperature in the lower American River between the proposed action alternatives and the future (2030) No-Action alternative. Even with such a constrained assessment, elevated water temperatures are predicted. Given the foregoing discussion, and in consideration of the recent listing of steelhead as "threatened" under the

Federal Endangered Species Act, additional justification must be provided for establishment of a 1°F incremental increase (at least 10% of the time) in temperature as significance criteria, and for the findings of less-than-significant impacts. In fact, fishery agencies have concluded that *any* increase in summertime water temperatures represents a potentially significant adverse impact to steelhead.

REIR/SEIS Applicability - The REIR/SEIS fails to correct, or even further address, the continued use of this inappropriate significance criteria.

DEIR/DEIS, Page 5-19:

The technical evaluation of Alternative 2's potential effects on fish resources in the lower Sacramento River is deficient. The assessment approach is restricted to potential reductions in flow (given the foregoing limitations on the methodology, as previously discussed.). However, potential impacts in the lower Sacramento River would most likely be water temperature-related, which is not even addressed in the DEIR/DEIS.

The DEIR/DEIS discussion of the planned outage needs is confounding due to a lack of clarity, lack of specificity, and lack of impact assessment. The DEIR/DEIS states that EBMUD would meet its planned outage needs by taking delivery of up to 350 cfs for a 6-month period during a wet year from the FSC. The DEIR/DEIS also states that "*...Because it is not possible to determine when such a planned outage might occur, detailed modeling and analysis is not practical. However, this operation would be similar in scope and magnitude to operations included in the detailed impact analysis [of Alternative 2]*" and "*...[b]ased on the finding that no significant impacts would result from typical project operations, any impacts resulting from planned outage operations are also less than significant.*"

RL14-183

Several concerns arise from this cursory discussion. First, the DEIR/DEIS must clarify the amount of water that the planned outage would represent. A 350 cfs delivery for a 6-month period could be as much as nearly 125,000 AF. Second, detailed modeling and analysis should have been conducted based on reasonable assumptions as to the timing (e.g., "wet" years) and frequency (e.g., "no more than 12 months in a 20-year period." p. 2-12) in order to at least address an impact evaluation. Third, no basis is provided to support the stated assumption that "*...this operation would be similar in scope and magnitude to operations included in the detailed impact analysis . . .*" (DEIR/DEIS, p. 5-19.) Fourth, appropriate analyses were not conducted to support the conclusion that "*...any impacts resulting from planned outage operations are also less than significant.*"

REIR/SEIS Applicability - The REIR/SEIS is defective, as is the DEIR/DEIS, when assessing potential impacts on Sacramento River fish resources. The REIR/SEIS incorrectly and inadequately assesses water temperature-related impacts in the Sacramento River, as previously discussed. Additionally, while the DEIR/DEIS is deficient in its discussion of deliveries to meet EBMUD's Planned Outage Needs Impacts, the REIR/SEIS fails to even address the topic. Therefore, both the DEIR/DEIS and the REIR/SEIS fail to clarify the amount of water that the planned outage would represent, to conduct detailed modeling and analysis, to provide bases for support of the assumption that the planned outages operation would be similar to the operation included in the detailed impact analyses, and, to provide appropriate analysis that justifies the conclusion that impacts resulting from planned outage operations are less than significant.

CHAPTER 6 – Recreation

REIR/SEIS, pp. 6-1 to 6-6

A. General Comments

The REIR/SEIS is deficient because it fails to provide a reanalysis of the alternatives discussed in the DEIR/DEIS. The REIR/SEIS (Page 6-4) acknowledges that the revised PROSIM modeling resulted in baseline figures that vary from the figures presented in the DEIR/DEIS, in the following statement: "*...Since publication of the 1997 DEIR/EIS, several updates to PROSIM have occurred, including the model's enhanced ability to simulate EBMUD deliveries from the American River basin. As a result, the alternative comparisons in this document are based on the most current PROSIM 99 modeling results and may present baseline figures that vary slightly from those presented in the DEIR/SEIS.*" However, the REIR/SEIS fails to apply the modeling revisions to the alternatives previously considered in the DEIR/DEIS. In order to allow a fair comparison, the REIR/SEIS must apply the revised modeling exercise consistently to all of the alternatives. Failure to do so may underestimate potential recreational impacts of the alternatives considered in the DEIR/DEIS. RL14-184

Both the REIR/SEIS and the DEIR/DEIS neglect to provide impact assessments regarding recreational opportunities for Lake Natoma, Whiskeytown Reservoir and Keswick Reservoir. Impacts to Sacramento-San Joaquin Delta (Delta) recreational opportunities are also not assessed in either the REIR/SEIS or the DEIR/EIS. The Delta is a very important recreation resource that provides a variety of water-dependent activities including fishing and boating (Water Forum DEIR 1999). Recreation visits exceed 12 million user-days per year (DWR 1995). It is puzzling that potential recreational impacts as a result of the proposed project are not addressed, given the importance of the Delta for recreational purposes and, furthermore, that impacts to the Delta are not addressed, even though Alternative 8: **The Bixler Delivery** proposes to divert water directly from the Delta. In addition, potential recreational impacts to the Delta resulting from all the other alternatives should also be evaluated. If no recreational impacts to the Delta resulting from the proposed alternatives are identified, a statement to this effect should be included. RL14-185

The Folsom Reservoir boating opportunities recreational impact assessment is incomplete and inadequate in both documents. Potential impacts to Folsom Reservoir boating opportunities were assessed and presented in **Table 6-2, Comparison of Lake Level Exceedence Frequencies for Recreation Opportunities Occurring at Folsom Reservoir** (DEIR/DEIS, Page 6-8). This table does not present monthly percentage changes under the project-related or cumulative scenarios, for storage that would fall outside of the optimum range for high quality recreational activities (435 to 455 feet). It also does not present month/percentage change under the project-related or cumulative scenario, for storage that would not allow all boat ramps within Folsom Reservoir to be useable (420 feet or higher), or when at least one of the low-water ramps is useable on both the east and west sides of the lake (375 feet or higher) (Water Forum DEIR 1999). Even further, Table 6-2 fails to document the sources of the thresholds that it presents. The impact analysis provided for water-dependent and water-enhanced recreational opportunities at Folsom Reservoir is also insufficient because the reduced availability of Folsom Reservoir's swimming beaches was not addressed in the analysis. Swimming beaches are useable in Folsom Reservoir when storage elevation is within 420 to 455 feet. This assessment is important because swimming represents approximately 27% of Folsom Reservoir recreational activities (Water Forum DEIR 1999). Additionally, the REIR/SEIS neglects to provide a table that would correspond to Table 6-2 and reflect updated PROSIM 99 revisions, and assess all of the alternatives currently being considered in the REIR/SEIS. RL14-186

The REIR/SEIS fails to include a table that corresponds to **Table 6-4, Comparison of Lake Level and River Flow Exceedence Frequencies for Recreation Opportunities at Other Important Recreational Sites Presented in the DEIR/DEIS.** A similar table should be included because Table 6-4 presents recreation thresholds and month/percent change under project-related and cumulative scenarios. The new table that should be included in the REIR/SEIS should reflect PROSIM 99 revisions, as well as evaluate all of the alternatives considered for the REIR/SEIS. Contrary to the table presented in the DEIR/DEIS, the new table should document the source of their thresholds relative to Trinity Lake and the Sacramento River. Furthermore, the new table should assess the month/percentage change of elevation for the project and cumulative scenarios, in regard to full use of boat ramps in Trinity Lake (2370 feet) (Water Forum DEIR 1999). RL14-187

Both documents fail to consider if the project alternative diversions would be consistent with existing ordinances and policies related to the Lower American River. For example, the documents fail to assess if the proposed alternatives would be consistent with the **American River Parkway Plan** and the **Lower American River's Recreational River Designation.** RL14-188

The REIR/SEIS is fundamentally flawed because it does not provide a recreational cumulative impact analysis. Granted, the REIR/SEIS (Page 3-3) states, "*...No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/EIS under Alternative 3-Cumulative Conditions.*" However, because the location of the newly added alternative's diversion is different from the original alternatives considered in the DEIR/DEIS, the cumulative impact analysis provided in the DEIR/DEIS does not reflect the breadth of alternatives considered for the EBMUD SWSP, proving the analysis inadequate and incomplete. In addition, the cumulative impact analysis does not include recreational impacts to Lake Natoma, Whiskeytown Reservoir, and Keswick Reservoir; furthermore, the cumulative impact analysis performed for Folsom Reservoir, Trinity Reservoir and Sacramento River is erroneous for the same reasons previously pointed out for the project-related recreational impact analysis executed for these resources. Also, if the REIR/SEIS was to rely in its entirety upon the DEIR/DEIS cumulative impact analysis, then the DEIR/DEIS cumulative impact analysis should include impact assessment for the Delta recreational opportunities. Moreover, the DEIR/DEIS cumulative impact analysis is outdated because it does not reflect the revised PROSIM 99 version. Finally, neither the DEIR/DEIS nor the REIR/SEIS assess the incremental contribution of the proposed alternatives to the cumulative condition. RL14-189

The REIR/SEIS (Page 6-5) fails to include a table that corresponds to **Table 6-3, Comparison of River Flow Exceedence Frequencies for Recreational Opportunities on the lower American River** that is presented in the DEIR/DEIS. Table 6-3 shows the thresholds for water-based recreation and the number of months/percentage change that would occur under project-related and cumulative scenarios. This table is necessary because all of the alternatives considered for the EBMUD SWSP should be assessed equally. Furthermore, the new table should reflect PROSIM 99 revisions, which are not reflected in the original table presented in the 1997 DEIR/DEIS. Finally, this table is also needed to allow for verification of the conclusionary statement presented in the REIR/SEIS (Page 6-5): "*...The impacts on recreational opportunities that would result from implementing Alternative 4 are very minor and essentially identical to those outlined in the 1997 DEIR/EIS for both Alternative 2, "Folsom South Canal Connection," and Alternative 3, "Joint Water Supply." These minor effects include:...Changes in water-dependent recreational opportunities in the lower American River below Nimbus Dam.*" Failure to include an updated and complete table that corresponds to Table 6-3 represents a significant omission in the REIR/SEIS. RL14-190

The REIR/SEIS fails to include a detailed service area recreational impact analysis. True, the REIR/SEIS includes limited information regarding potential recreational impacts to the main reservoirs (e.g., Pardee and Camanche reservoirs) operated by EBMUD. Additionally, the REIR/SEIS provides very limited information in regard to potential impacts to the lower Mokelumne River. However, as previously noted, the information included is insufficient to review the accuracy of the assessment; furthermore, the REIR/SEIS does not include impact assessment for the entire EBMUD's service area. RL14-191

As with the DEIR/DEIS, the REIR/SEIS fails to reference a technical appendix where all the hydrologic modeling output relied upon for **Chapter 6: Recreation** is presented. As a consequence of this omission, correlation of the appropriate quantitative data proves cumbersome, if not impossible. RL14-192

B. Specific Comments

- DEIR/DEIS, Pages 6-7:

The DEIR/DEIS does not assess the significance of impacts under the **No Action Alternative**. In addition, analysis under this alternative is extremely cursory relative to the other alternatives analysis discussed in the document. The **No-Action Alternative** must be considered a viable alternative under the environmental analysis. Failure to provide the same level of analysis for the **No-Action Alternative,** as is provided for the other alternatives, precludes this alternative from being fairly considered as the preferred alternative for EBMUD SWSP. RL14-193

REIR/SEIS Applicability - The REIR/SEIS does not provide analysis for the No-Action Alternative

- DEIR/DEIS,Page 6-7: RL14-194

It is unclear how the terms "substantial" and "long-term" are defined within the significance criteria.

REIR/SEIS Applicability - The REIR/SEIS continues to employ the same ambiguity relative to the terms "substantial" and "long-term" as does the DEIR/DEIS. The REIR/SEIS (Page 6-5) states "*...As described in the 1997 DEIR/EIS, impact on both water-dependent and water-enhanced recreational opportunities were considered significant if changes in river flows or reservoir surface elevations would result in substantial changes in recreational opportunities when compared to Alternative 1, "No Action," or if operation or construction activities related to the placement of project facilities would cause a substantial long-term disruption of any institutionally recognized recreational activities [emphasis added].*" The REIR/SEIS fails to define these terms within the significance criterion.

- DEIR/DEIS, Page 6-10, Table 6-4:

The DEIR/DEIS, as mentioned previously, does not assess the potential impacts of the proposed project under Existing Conditions. This a major fatal flaw of the document.

REIR/SEIS Applicability - As previously noted, both the REIR/SEIS and the DEIR/DEIS are fundamentally flawed because they do not provide a comparison between the proposed project's alternatives with the existing conditions. Instead the documents assess project impacts by comparing the proposed project alternatives with the **No Action Alternative**. This comparison is insufficient, and does not satisfy CEQA requirements. By employing an insufficient and incorrect comparison to the baseline, both documents' impact assessments underestimate potential impacts that may result from the proposed diversions. Thus, the DEIR/DEIS and the REIR/SEIS impact analyses are incorrect and unreliable. RL14-195

- DEIR/DEIS, Page 6-10, Table 6-4:

The DEIR/EIS identifies 2,500-12,000 cfs as representing the optimal boating range for the Sacramento River. There is, however, no documented source of this recreation threshold. If it was developed by EBMUD, the DEIR/DEIS should explain the specific assumptions and rationale behind its development. Additionally, the information should state specifically where along the Sacramento River the flows would apply.

REIR/SEIS Applicability - The Water Forum EIR uses the California Water Plan Update (DWR, 1994) threshold of 5,000 cfs as a minimum recreation flow for the Sacramento River (Sacramento City-County Office Metropolitan Water Planning, Draft EIR for the Water Forum Proposal, 1999). This threshold is well above the 2,500 minimum threshold used in the DEIR/DEIS. As previously noted, the DEIR/DEIS fails to document the source of its recreational minimum threshold. Because the REIR/SEIS relies upon the DEIR/DEIS regarding Sacramento River thresholds for recreational activities, the REIR/SEIS also neglects to document the source of the optimal boating range for the Sacramento River presented in the DEIR/DEIS. In addition, the REIR/SEIS also neglects to identify to which stretches of the Sacramento River this optimal boating range applies. RL14-196

- DEIR/DEIS, Page 6-11:

The DEIR/DEIS should identify and discuss the potential for recreation impacts along any of the proposed 4 conveyance alignments from the FSC to the Mokelumne River. RL14-197

REIR/SEIS Applicability - Impacts along any of the proposed four alignments from the FSC to the Mokelumne River are not assessed in either the DEIR/DEIS, or the REIR/SEIS.

- DEIR/DEIS, Pages 6-11 and 6-12:

The impact analysis presented in the DEIR/DEIS **Chapter 6: Recreation** would benefit if impacts for the upper and lower Sacramento River are separately assessed. This separation would provide for a more thorough analysis. Flows below Keswick Dam are good indicators of recreation effects on the upper Sacramento River, and flows at Freeport are good indicators of recreational effects on the lower Sacramento River (Water Forum DEIR 1999). This assessment is important because most of the newly added alternatives occur along the Sacramento River. RL14-198

REIR/SEIS Applicability - The REIR/SEIS does not separately assess recreational impacts for the upper and lower Sacramento River.

- DEIR/DEIS, Page 6-13:

The DEIR/DEIS states that "*...[u]nder Alternatives 2 and 3, river flows in the reach from Nimbus Dam to Fairbairn WTP would be above the minimum necessary for boating more frequently than under existing conditions.*" This statement should be revised. Since the comparison upon which this statement is made is based on the existing condition, and the DEIR/SEIS makes it clear that all cumulative impact assessments were made by comparing the project alternatives to the existing condition, it is assumed that the evaluation and conclusion represents a cumulative impacts analysis. The results of the comparison using the CVPIA threshold of 1,750 cfs for minimum boating flows showed that in 48 additional months, relative to the existing condition, Alternative 2 would be unable to meet this threshold. RL14-199

REIR/SEIS Applicability - The incorrect statement presented above is not revised in the REIR/SEIS.

- DEIR/DEIS, Page 6-13:

The DEIR/DEIS states that "*...[n]o mitigation is available to reduce this impact (water development recreation in the lower American River) to a less-than-significant level.*" This conclusion needs further explanation. The DEIR/DEIS should state what specific mitigation measures were considered in coming to this conclusion, and whether reduced project withdrawals would have any effect on this cumulative impact and, if so, to what extent. The DEIR/DEIS is clearly deficient by lacking the analysis to support the claim that no mitigation is available. RL14-200

REIR/SEIS Applicability - The REIR/SEIS does not provide a cumulative impact section, consequently, the reasoning for the lack of mitigation to reduce impacts to water development recreation in the lower American River to a less-than-significant level under the cumulative condition is not provided.

- DEIR/DEIS, Page 6-13:

The DEIR/DEIS contains seemingly contradictory statements. For example, the DEIR/DEIS states that the proposed alternatives would be above the minimum necessary for boating both more and less frequently than under existing conditions. The DEIR/DEIS (Page 6-13) states, "*...Under Alternatives 2 and 3, river flows in the reach from Nimbus Dam to Fairbairn WTP would be above the minimum necessary for boating more frequently than under existing conditions. River flows would be inside the optimum ranges for boating and swimming and above the minimum flow for boating much less frequently under Alternatives 2 and 3 than under existing conditions.*" These statements are contradictory. RL14-201

REIR/SEIS Applicability - The REIR/SEIS does not correct the above-noted contradictions.

- DEIR/DEIS, Page 6-14:

The DEIR/DEIS states that "*...[f]or the lower American River, the frequency river flows would be above minimum flows or within optimum ranges would not change substantially compared to conditions under Alternative 1.*" This appears to be inconsistent with at least some of the data presented in Table 6-6. For example, the minimum boating threshold range of 1,500 - 2,000 cfs for either the portion of the LAR from Nimbus to the Fairbairn WTP or Fairbairn WTP to I-5 showed that with the proposed project these flows would be less than the No-Action in 10 additional months (or 17% less). Incrementally, this would represent a 14% reduction in the number of months that the river flow would be above the minimum threshold, relative to Alternative 1. RL14-202

REIR/SEIS Applicability - The inconsistencies between the text and **Table 6-6, Comparison of River Flow Exceedance Frequencies for Recreation Opportunities on the lower American River Full-Use Scenario- Alternative 3** are not corrected in the REIR/SEIS.

- DEIR/DEIS, Page 6-16:

The DEIR/DEIS contains a mistake in **Table 6-7, Comparison of Lake Level and River Flow Exceedence Frequencies for Recreation Opportunities at Other Important Recreation Sites Full-Use Scenario- Alternative 3.** Under the off-season 1,017 msl threshold for Shasta Lake, the full-use scenario months decline by seven months (from 258 to 251); however, the percentage of time that the lake level is above the indicated threshold increases from 34% to 51%. RL14-203

REIR/SEIS Applicability - The REIR/SEIS does not include a revised Table 6-7.

CHAPTER 7 - Vegetation and Wetland Resources

REIR/SEIS, pp. 7-1 to 7-7

A. General Comments

Throughout **Chapter 7: Vegetation and Wetland Resources** of the DEIR/DEIS and the REIR/SEIS, mitigation measures are described for those impacts to vegetation and wetland resources deemed significant. The language used to describe these measures consistently states the actions that EBMUD "can" perform. This language suggests that other alternative mitigation that could be undertaken may be described in the DEIR/DEIS and the REIR/SEIS. However, these measures are not described in the documents. Further, the term "can" does not represent a strong commitment to performing the described mitigation should that mitigation be required under the selected alternative. Greater assurance should be provided to the public by stating the measures that EBMUD "will" or "shall" undertake to mitigate for impacts to biological species and their habitats. RL14-204

Throughout Chapter 7, both documents analyze potential flow-related impacts to vegetation and wetland resources along the lower American River using Hodge flows of 3,000 cfs for the period of March through June. The biological communities associated with river hydrology along the lower American River are reliant on adequate flow and appropriate ramping of flows throughout the year to ensure growth and minimal maintenance of those habitats. Other flow criteria are available for use in such analyses and have been used widely in the analysis of effects of water diversion projects affecting the lower American River. Analysis should also include review of flow throughout the summer and early fall relative to the establishment of new cottonwood and other seedlings. Specifically, the Water Forum utilized the following criteria to analyze the effects of flows in the lower American River and on habitats immediately adjacent to the river, as well as those backwater areas dependant on adequate river hydrology for recharge and maintenance of suitable riparian-wetland habitat values. RL14-205

Table 1 Lower American River Flow Criteria for Riparian Vegetation and Backwater Pond Recharge

	Flow Criteria (cfs)				
	RIPARIAN VEGETATION			Backwater Pond Recharge	
	Minimum	Optimal	Maximum	Minimum	Optimal
Hodge[1]	3,000	n/a	n/a	3,000	n/a
USFWS[2]	2,000	3,000-4,500	4,500	2,700	4,000
Stromberg[3]	1,765	n/a	8,000	n/a	n/a
Sands[4]	n/a	n/a	n/a	2,750	4,000

[1]Environmental Defense Fund, et. al., v. East Bay Municipal Utilities District. 1989. Superior Court of the State of California, County of Alameda. No. 425955

[2]USFWS. 1996. American River Water Resources Investigation, Draft Fish and Wildlife Coordination Act Report: A Detailed Report on Fish and Wildlife Resources. Ecological Services, Sacramento Field Office.

[3]Stromberg, J.C. 1995. Fremont cottonwood growth in relation to American River stream flow and groundwater depth. Submitted to the USFWS. Arizona State University, Tempe. Center for Environmental Studies. Oct. 1995

[4]Sands, A., S.D. Sanders, E.C. Beedy, R.F. Holland, and V. Dains. 1985. Vegetation and wildlife resources along the lower American River and their relationships to instream flows. Report prepared for Mc. Donough, Holland, and Allen, Sacramento.

The REIR/SEIS should include a more detailed discussion in regard to potential impacts to riparian communities under Alternative 2. The discussion regarding riparian communities presented in the DEIR/DEIS does not assess potential impacts to lower American River riparian vegetation. Riparian zones are extremely important because they support a greater abundance and diversity of wildlife than any other terrestrial habitat in California. This is especially true of the American River Parkway because it is virtually surrounded by urban development (Water Forum DEIR 1999).

Both documents fail to assess potential impacts to lower American River backwater ponds. Backwater ponds are important because the water is slow-moving and the ponds are isolated from human disturbance. Thus, these areas tend to be of high value to wildlife (Water Forum DEIR 1999). Criteria for adequately achieving lower American River Backwater Pond Recharge is presented on Table 1. RL14-206

The REIR/SEIS should be more emphatic in determining the impact significance of the additional information presented under **Alternative 8: Bixler Delivery**. For the information pertinent to Alternatives 4, 5, and 6, the REIR/SEIS clearly states the significance of the impacts discussed in the information presented. Although the information included for Alternative 8 is discussed under the REIR/SEIS **Significant Impacts and Mitigation** section, the REIR/SEIS does not clearly state if the information provided would constitute a detrimental impact. Therefore, the lack of impact reiteration under Alternative 8 is confusing. RL14-207

Both documents fail to adequately address potential impacts to vegetation associated with the Sacramento-San Joaquin Delta. Native habitats of the Delta include remnant riparian vegetation that persists in some areas, with brackish and freshwater marshes, and saline wetlands also being present. These wetlands are very sensitive to fluctuations in water salinity, which are determined by water flows into the Delta (Water Forum DEIR 1999). As stated in the previous comment, although some information is provided under Alternative 8 regarding disturbance of Delta habitats, the REIR/SEIS does not assess the significance of this disturbance. Furthermore, both documents fail to assess potential impacts to Delta vegetation for the rest of the considered alternatives. If no impacts will result from the identified alternatives, a statement to this effect must be included. RL14-208

The REIR/SEIS fails to assess potential impacts to vegetation associated with Folsom, Shasta and Trinity reservoirs. The REIR/SEIS should address the typical vegetation of the drawdown zone (e.g., native versus non-native, contiguous versus non-contiguous). If the vegetation value associated with these reservoirs is low, a statement to this effect must be included. RL14-209

The REIR/SEIS is defective because it does not provide cumulative impact assessment to assess the newly added alternatives. Granted, the REIR/SEIS (Page 3-3) states, "*...No additional PROSIM modeling was conducted for the cumulative conditions because EBMUD's relative contribution to hydrologic changes under cumulative conditions would be similar to those described in the 1997 DEIR/EIS under Alternative 3 cumulative conditions.*" However, the DEIR/DEIS cumulative impact analysis does not adequately reflect the breadth of all the alternatives considered because of differences between the alternatives discussed in previous comments. In addition, the cumulative impact analysis done for the DEIR/DEIS does not reflect the PROSIM 99 revisions that were part of the modeling exercise executed for the REIR/SEIS. The cumulative impact analyses performed for the DEIR/DEIS is also incomplete and inadequate. It does not address cumulative impact to riparian vegetation associated with the Sacramento River and Sacramento-San Joaquin Delta. The cumulative impact analysis also fails to address cumulative impacts to vegetation associated with reservoirs. Moreover, the cumulative impact analysis should describe the proposed project's incremental contribution to the cumulative condition relative to vegetation and wetland impacts. RL14-210

Both documents neglect to include impact assessment for vegetation associated with the Upper Sacramento River during the riparian vegetation's growing season under the proposed alternatives. The peak growing season for riparian vegetation is typically March through July, with the remaining growing season occurring from August through October (Water Forum DEIR 1999). RL14-211

The allotment of time assigned to perform reconnaissance surveys referenced in the REIR/SEIS is insufficient to provide a thorough identification of potential species of special concern in the affected area. The draft REIR/SEIS (Page 7-1) indicates that "*...Reconnaissance surveys of the propose facilities and alignments were performed on August 16 an 22, 2000. These surveys consisted mostly of visual observations from public roads and other accessible areas.*" The allotment of two days to perform such surveys would not be adequate to identify, in any detail, the locations of rare plant species in accessible areas or the locations of rare species and their habitats in proposed project areas not visible from public roads. Surveys of this type serve solely to define general habitat types and report opportunistic encounters with specific biological resources and should be presented as such. RL14-212

The REIR/SEIS (Page 7-6) fails to determine the significance for the impact assessment information provided for **Alternative 7: Freeport South Delivery**. Under the discussion of significant impacts for the different alternatives, the REIR/SEIS provides additional information for Alternative 7. However, the REIR/SEIS is unclear in regard to significance of the potential impacts associated with this information. For example, the REIR/SEIS (Page 7-7) states "*...Freshwater marsh habitats occur adjacent to I-5 in the Stone Lakes area, on some privately owned land, and along Thornton Road near the Mokelumne River crossing. Potential for special-status plant species in this area is low along the roadside. However, additional detailed surveys of the area during appropriate bloom periods would be necessary to assess special-status plant habitat and occurrence.*" From the above statement, it may be interpreted that less-than-significant impacts to freshwater marsh habitat special-status plant species would occur under Alternative 7. RL14-213

Although the REIR/SEIS statements (Pages 7-6 and 7-8) regarding impacts of Alternative 7 are "*similar*" to those of Alternatives 4, 5, and 6, the reader should be provided with a discussion of significance of those impacts relative to the specifics of this new alternative. This will aid the reader in developing conclusions leading to an environmentally superior alternative. RL14-214

The REIR/SEIS fails to provide a table corresponding to **Table 7-1, Acres of Plant Communities and Habitats in the Study Area Adversely Affected by Alternatives 2 and 3** that was presented in the DEIR/DEIS (Page 7-2). A similar table is needed in the REIR/SEIS assessing affected acres of plant communities and habitats in the study area under all the alternatives considered for EBMUD SWSP. RL14-215

The REIR/SEIS fails to provide a table corresponding to **Table 7-2, Summary of Plant Communities and Other Habitat in the Study Area** that was presented in the DEIR/DEIS. This table is important because it shows which plant communities are present under the different alternatives. However, the newly added alternatives are not assessed in this manner because the REIR/SEIS fails to include a similar table. RL14-216

Continued Applicability of DEIR/DEIS Submitted Comments

1. General Comment 1:
The analysis and discussion of potential impacts to vegetation and wetland resources does not include an evaluation of service area affects within the EBMUD's service area, or otherwise as a result of Alternative 2. This is a major omission of the DEIR/DEIS. RL14-217

REIR/SEIS Applicability - The REIR/SEIS fails to include impact assessment for EBMUD's service area.

2. General Comment 2:

This chapter also fails to provide a sufficient hydrological analysis. There is no impact evaluation presented relating lower Sacramento River flows downstream of the confluence with the American River. The integrated nature of the CVP/SWP and the manner and extent that Sacramento River flows would be influenced by additional American River diversions should at least be evaluated, and the results disclosed in the DEIR/DEIS. This is a major omission of the DEIR/DEIS. RL14-218

REIR/SEIS Applicability - The REIR/SEIS remains deficient in its assessment of impacts relating lower Sacramento River flows downstream of the confluence with the American River. Although impact evaluation is presented for the newly added alternatives, this assessment is cursory. Furthermore, as with the DEIR/DEIS, the REIR/SEIS neglects to provide evaluation of potential impacts to Sacramento River flows, and hence, to riparian communities along the Sacramento River that would result from implementation of Alternatives 2 and 3.

3. General Comment 3:

The Biological Assessment (when complete) should address EBMUD service area impacts of the proposed new water deliveries and specifically include assessment of historical land use conversions (with acreage of habitat loss), listing of special conservation projects and other "good faith" efforts by EBMUD at protecting and maintaining vegetation and wetland resources, and a record of past mitigation monitoring for development projects. Recent efforts by EBMUD alone, or in consultation with coordinated projects with Contra Costa and Alameda County Planning Departments, also need to be presented in the Biological Assessment. RL14-219

REIR/SEIS Applicability - The above comment's recommendations should be included in the Biological Assessment that is eventually written for the selected alternative under the EBMUD SWSP.

B. Specific Comments

- DEIR/DEIS, Page 7-1:

The DEIR/DEIS states that many of the areas potentially affected by the proposed project will affect sites where "*...the quality of many of these habitats are relatively low, however, and most of the areas potentially affected are within areas already proposed for development (Page 7-1).*" In those cases where development has been proposed, the DEIR/DEIS should discuss the level of analysis provided to those habitats and species of concern in the areas proposed for development. Indication should be provided regarding whether or not mitigation measures for any such impacts have been implemented or, if implementation has yet to occur, whether or not commitments for mitigation have been agreed upon by the developing interest and the appropriate resource agencies. RL14-220

REIR/SEIS Applicability - The REIR/SEIS does not discuss the level of analysis provided to the habitats and species of concern in the areas proposed for development that are located within the affected area.

- DEIR/DEIS, Page 7-1:

Although page 7-1 of the DEIR/DEIS indicates a 200-foot wide pipeline corridor, page 7-9 indicates that survey methods assumed a 130-foot corridor. This discrepancy should be rectified and surveys redone as necessary. RL14-221

REIR/SEIS Applicability -The REIR/SEIS does not rectify the discrepancy discussed in the previous comment.

- DEIR/DEIS, Page7-9:

No environmental setting descriptions are provided for Folsom, Camanche, or Pardee reservoirs. Similarly, no environmental setting descriptions are provided for the lower American River, lower Sacramento River, Folsom South Canal or any other watercourse/waterbody potentially affected by the proposed project. Without an identification of the appropriate environmental setting, the reader is unable to determine whether the DEIR/DEIS has adequately covered the breadth of resources and issues identified in the impact discussion. RL14-222

REIR/SEIS Applicability - The REIR/SEIS also fails to provide environmental setting descriptions for Folsom Reservoir, Camanche Reservoir, Pardee Reservoir, lower American River, lower Sacramento River, Folsom South Canal, the Sacramento-San Joaquin Delta and any other water course/water body potentially affected by the proposed project.

- DEIR/DEIS, Page 7-13:

The DEIR/DEIS states that "*...[c]hanges in river flows would be minor and would remain well within the typical seasonal and annual variations of these locations.*" Again, specificity is required regarding these typical seasonal and annual variations. RL14-223

REIR/SEIS Applicability - Because the REIR/SEIS relies upon the DEIR/DEIS to assess **Alternative 2: Folsom South Canal Connection** and **Alternative 3: Joint Water Supply** impacts, the lack of definition for "*a typical season*" remains unchanged, as well as the lack of specificity regarding what exactly "*annual variations*" entail.

- DEIR/DEIS, Page 7-13:

The DEIR/DEIS suggests that flows in the Mokelumne River would increase slightly under a FSC connection alternative. The DEIR/DEIS should describe the magnitudes of these increases. The public cannot confirm these conclusions without the data or specific reference(s) to the location where such data can be found. RL14-224

REIR/SEIS Applicability - The REIR/SEIS does not describe the magnitude of the Mokelumne River flow increases for any of the alternatives considered for the proposed project.

- DEIR/DEIS, Page 7-14:

Mitigation Measure 7-1c describes numerous measures that EBMUD "can" require of its contractor to return construction sites to their pre-construction state. There is no mention of monitoring for success of restoration of natural habitats in this measure. Monitoring should be indicated as a task to be required of the contractor or their designee. RL14-225

REIR/SEIS Applicability - The REIR/SEIS does not discuss monitoring for success of restoration of natural habitats under **Mitigation Measure 7-1c**.

- DEIR/DEIS, Page 7-15:

Mitigation Measure 7-3b indicates "*...Restoration can occur as close as possible to the areas affected, preferably along the same drainage that would sustain the impacts.*" This language is extremely soft and potentially allows for mitigation to be completed in areas completely unrelated to the area of impact. RL14-226

REIR/SEIS Applicability -The REIR/SEIS does not eliminate the potential that mitigation may be performed in areas unrelated to the area of impact.

CHAPTER 8 - Wildlife

REIR/SEIS, pp. 8-1 to 8-6

A. General Comments

For both the REIR/SEIS and DEIR/DEIS, the analysis and discussion of potential impacts to wildlife does not include an evaluation of EBMUD's service area potential impacts. RL14-227

Throughout the documents, mitigation measures are described for those impacts to wildlife and their habitats deemed significant. The language used to describe these measures consistently states the actions that EBMUD "can" perform. This suggests that other alternative mitigation that could be undertaken may be described although it is not. Further, the term "can" does not represent a strong commitment to performing the described mitigation should that mitigation be required under the selected alternative. Greater assurance should be provided to the public by stating the measures that EBMUD "will" or "shall" undertake to mitigate for impacts to biological species and their habitats. RL14-228

Federal and state listed and other species of concern commonly reviewed for potential impacts as part of the analysis of freshwater diversion projects affecting the lower American River, but not analyzed in either document include the bank swallow, yellow warbler, and yellow-breasted chat. These species should be included in a completed project analysis. RL14-229

Both the REIR/SEIS and the DEIR/DEIS neglect to assess potential impacts to the lower American River backwater ponds as result of the proposed alternatives. This assessment is important because backwater ponds tend to be of high value for wildlife. According to the Water Forum DEIR, wildlife species that are recorded in these areas include pied-billed grebe (*Podilymbus podiceps*), American bittern (*Botaurus lentiginosus*), green heron (*Butorides striatus*), common merganser (*Mergus merganser*), white-tailed kite (*Elanus leucurus*), wood duck (*Aix sponsa*), yellow warbler (*Dendroica petechia*), warbling vireo (*Vireo gilvus*), dusky-footed woodrat (*Neotoma fuscipes*), western gray squirrel, Pacific tree frog, and western toad. Furthermore, the special-status species that occur in these backwater ponds include Sanford's arrowhead, western pond turtle and tri-colored blackbirds (Water Forum 1999). A statement identifying these species as dependent on lower American River backwater habitat should be included in this section. Flows of at least 2,200 cfs are required to adequately recharge the ponds near the river, and flows of at least 4,000 cfs are necessary to recharge the ponds farthest from the river channel. RL14-230

Both documents fail to adequately address potential impacts to Sacramento-San Joaquin Delta (Delta) habitats of special-status species (non-fish). Although potential impacts to Delta habitats of special-status species are addressed under **Alternative 8: The Bixler Delivery**, both documents fail to assess potential impacts to Delta habitats under the rest of the considered alternatives. If no impacts will result from the identified alternatives, a statement to this effect must be included. RL14-231

Both the REIR/SEIS and the DEIR/DEIS neglect to provide environmental setting descriptions for the lower American River, lower Sacramento River and the Delta. Without an identification of the appropriate environmental setting, the public is unable to determine whether the DEIR/DEIS has adequately covered the breadth of potential wildlife occurring at these areas, and identified in the impact discussion. RL14-232

Both the REIR/SEIS and the DEIR/DEIS fail to assess which specific habitat types will occur under each separate alternative. This information proves important because it allows the public to compare potential effects to wildlife that would occur as a result of the implementation of the alternatives. RL14-233

The REIR/SEIS in **Table 8-1, Special-Status Wildlife Species with Potential to Occur in the Project Area** should also include the 25 special-status species that are assessed in the DEIR/EIS. The REIR/SEIS (Page 8-2) states, "*...The 1997 DEIR/EIS identified 25 special-status wildlife species that could potentially occur in the study area. In addition to these species, 11 additional special-status wildlife species were identified as potentially occurring in the project area for Alternatives 4 through 8.*" However, Table 8-1 only includes the additional 11 special-status species that are not discussed in the DEIR/DEIS, even though the previously discussed 25 special-status species may have the potential to occur in the newly added alternatives' affected areas. RL14-234

The REIR/SEIS (Page 8-6) fails to assess the significance of impacts to vernal pools present along the pipeline alignment for Alternative 7. The information addressing vernal pools under Alternative 7 is ambiguous and does not assess the impacts' significance. RL14-235

The REIR/SEIS and DEIR/DEIS should state that the **No-Action Alternative** would have less-than-significant impacts to wildlife. RL14-236

Although the REIR/SEIS (Page 7-6 and 8-6) the stated impacts of Alternative 7 are "*similar*" to those of Alternatives 4, 5, and 6, the reader should be provided with a discussion of significance of those impacts relative to the specifics of this new alternative. This will aid the reader in developing conclusions leading to an environmentally superior alternative. RL14-237

Continued Applicability of DEIR/DEIS Submitted Comments

1. General Comment 1:
The DEIR/DEIS lacks discussion of cumulative wildlife impacts.

REIR/SEIS Applicability - The REIR/SEIS remains deficient because it does not assess cumulative impact analysis for any of the alternatives considered for the proposed project. The cumulative impact analyses should assess potential cumulative impacts that would occur under each of the considered alternatives for special-status species associated with the lower American River, Sacramento River, and the Sacramento-San Joaquin Delta. In addition, potential cumulative impacts to lower American River backwater ponds and their associated special-status species should be addressed in the cumulative analysis. Also, the wildlife cumulative impact analysis should include the proposed project incremental contribution to the cumulative condition. RL14-238

B. Specific Comments

- DEIR/DEIS, Page 8-11:
The DEIR/DEIS states that "*...EBMUD is committed to working with local jurisdictions to ensure that county general plan policies are implemented and to assist in mitigating the impacts of growth on biological resources.*" Examples of EBMUD's recent commitment(s) on this matter should be provided to substantiate this statement. RL14-239

REIR/SEIS Applicability - The REIR/SEIS neglects to provide examples of EBMUD's recent commitments that would substantiate the statement presented in the above comment.

- DEIR/DEIS, Page 8-11:
The DEIR/DEIS does not provide an adequate indication of what the potential loss of this important habitat might be. The DEIR/DEIS should describe the anticipated magnitude of Swainson's hawk foraging habitat loss, even if this loss is only temporary. RL14-240

REIR/SEIS Applicability - Although the REIR/SEIS addresses disturbance to nesting raptors, it does not specifically address temporary loss of Swainson's hawk foraging habitat. Thus, the anticipated magnitude of Swainson's hawk foraging habitat loss from the proposed alternatives is not assessed in the REIR/SEIS.

- DEIR/DEIS, Page 8-12:
The DEIR/DEIS states in its discussion of Mitigation Measure 8-1 regarding tri-colored blackbirds and nesting raptors (Page 8-12), "*...If an active nest tree or colony cannot be avoided, the removal or disturbance of the marsh can occur outside the breeding season.*" Although removal of a nesting tree outside of nesting season could be appropriate with the proper mitigation to restore habitat values after construction, the removal of marshlands to facilitate avoidance of nesting tri-colored blackbirds is inappropriate for this project and would cause long-term harm to this sensitive species. RL14-241

REIR/SEIS Applicability - The REIR/SEIS does not discuss potential inadequacy of the removal of marshlands to facilitate avoidance of nesting tri-colored blackbirds for this project that was discussed under Mitigation Measure 8-1 in the DEIR/DEIS.

- DEIR/DEIS, Page 8-12:
Mitigation Measure 8-2 suggests that EBMUD "*can*" consult with CDFG if "*...an active Swainson's hawk nest is found or reported to exist within 0.5 mile of the pipeline construction corridor*" (DEIR/DEIS, Page 8-12), and "*...if construction is scheduled during the nesting season (March – June 15)*" (DEIR/DEIS, Page 8-12). The California Department of Fish and Game draft mitigation guidelines (CDFG 1994) indicate that "*...no intensive new disturbances...or other project related activities which may cause nest abandonment or forced fledging, should be initiated within _ mile (buffer zone) of an active nest between* RL14-242

March 1 – September 15 or until August 15 if a Management Authorization or Biological Opinion (or its current equivalent) *be obtained for the project. The buffer zone should be increased to _ mile in nesting areas away from urban development.*" Interpreted literally, CDFG should be contacted and appropriate avoidance procedures implemented, during both the nesting and fledgling period (March 1 through September 15). (CDFG, Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. Memorandum from Boyd Gibbons. November 8, 1994)

REIR/SEIS Applicability - The REIR/SEIS fails to indicate under Mitigation Measure 8-2 that CDFG should be contacted, and appropriate avoidance procedure implemented, during both the nesting and fledgling period of the Swainson's hawk.

- DEIR/DEIS, Page 8-13:

Mitigation Measure 8-4 should define the number of years required for project proponents to fulfill the requirement of "protocol-level invertebrate surveys (Page 8-13)." RL14-243

REIR/SEIS Applicability - The REIR/SEIS does not define the number of years required for project proponents to fulfill the requirement of "protocol-level invertebrate surveys."

- DEIR/DEIS, Page 8-14:

Mitigation measures presented in the DEIR/DEIS for significant impacts to the habitat of the valley elderberry longhorn beetle should be updated to reflect the requirements of the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999). This mitigation measure fails to include, among other things, protective measures, restoration, maintenance and transplantation rules directed in the above-referenced document. The DEIR/DEIS should also add that, according to the guidelines, monitoring of the transplanted shrubs and replacement plants is required for 10 years from the day of transplanting if surveys and reports are performed every year; or, monitoring is required for 15 years, with surveys and reports on years 1, 2, 3, 5, 7, 10 and 15. Moreover, the DEIR/DEIS (Page 8-14) is incorrect in stating that "*...The replacement ratio depends on the percentage of elderberry shrubs in the affected area that have beetle emergence holes.*" Although the quantity of beetle emergence holes in elderberry shrubs is important in determining the replacement ratio, location and stem diameter of elderberry shrubs also play an important role in determining the replacement ratio. The following table (Table 1) was obtained from the USFWS "Conservation Guidelines for the Valley Elderberry Longhorn Beetle" and presents the criteria necessary for determining the replacement ratio (USFWS, Conservation Guidelines for the Valley Elderberry Longhorn Beetle 1999) RL14-244

Table 1: Minimization of ratios based on location (riparian v. non-riparian), stem diameter of affected elderberry plants at ground level, and presence or absence of exit holes.

Location	Stems (maximum diameter at ground level	Exit Holes Y/N (quantify)	Elderberry Seeding Ratio[1]	Associated Native Plant Ratio[2]
non-riparian	stems ≥1" & ≤3"	No:	1:1	1:1
		Yes:	2:1	2:1
non-riparian	stems >3" & <5"	No:	2:1	1:1
		Yes:	4:1	2:1
non-riparian	stems ≥5"	No:	3:1	1:1
		Yes:	6:1	2:1
riparian	stems ≥1" & ≤3"	No:	2:1	1:1
		Yes:	4:1	2:1
riparian	stems >3" & <5"	No:	3:1	1:1
		Yes:	6:1	2:1
riparian	stems ≥5"	No:	4:1	1:1
		Yes:	8:1	2:1

[1]Ratios in the *Elderberry Seeding* Ration column correspond to the number of cuttings or seedlings to be planted per elderberry stem (one inch or greater in diameter at ground level) affected by a project.

[2]Ratios in the *Associated Native Plant Ratio* column correspond to the number of associated native species to be planted per elderberry (seedling or cutting) planted.

REIR/SEIS Applicability - The REIR/SEIS fails to present discussion under Mitigation Measure 8-6 that reflects the updated requirements of the "*Conservation Guidelines for the Valley Elderberry Longhorn Beetle*" (USFWS 1999).

- DEIR/DEIS, Page 8-14:

In the DEIR/DEIS, mitigation for impacts related to the Sacramento anthicid beetle, Sacramento valley tiger beetle, and northwestern pond turtle addresses mitigation for loss of habitat but does not address the potential for direct mortality to individuals of these species due to construction activities. Methods to survey for and avoid these species within appropriate areas of potential and known habitat should be described. RL14-245

REIR/SEIS Applicability - The REIR/SEIS does not provide methods to survey for and avoid the Sacramento anthicid beetle, Sacramento Valley tiger beetle, and the northwestern pond turtle within affected areas of potential and known habitat.

CHAPTER 10 - Land Use

REIR/SEIS, pp. 10-1 to 10-6

A. General Comments

The discussion of land uses in the vicinity of Alternatives 3 and 4 do not identify the potentially sensitive residential uses in the vicinity of North 12th and A Streets. In addition, no process for identifying and mitigating specific noise receptors at all alternative intake locations and along all alternative pipeline alignments have been outlined. The DEIR/DEIS or REIR/SEIS should provide detail on both of the above items. RL14-246

CHAPTER 16: VISUAL RESOURCES

REIR/SEIS, pp. 16-1 to 16-5

A. General Comments

In order to mitigate any adverse visual impacts of a new intake facility located within Sacramento County limits (Alternatives 3, 4, 5, 6, and 7), Sacramento County recommends a thorough consideration of various possible designs for a new intake facility, with an opportunity for community review and comment on these proposed design alternatives, before a final design is selected. At a minimum the following organizations must be involved in the design selection process: RL14-247

(a) Sacramento Area Bicycle Advocates
(b) Local Neighborhood Group (as appropriate for the intake facility location)
(c) Sacramento Commission of History and Sciences
(d) Old Sacramento Management Board (for Alternative 5)
(e) American River Parkway Advisory Committee (for Alternatives 3, 4, and 5)
(f) Sacramento Design Review and Preservation Board
(g) Sacramento City Council

In addition, at least one public workshop near the intake facility location should be held.

In addition to visual impacts related to the intake, any adverse visual impacts related to tree removal or damage along the alternative pipeline alignments must be mitigated.

CHAPTER 17 - Cultural Resources

REIR/SEIS, pp. 17-1 to 17-6

A. General Comments

The REIR/SEIS neglects to include Alternatives 4 and 5 in **Table 17-1, Inventory of Known Cultural Resources along Alternatives.** For a fair comparison between all the alternatives to occur, all the alternatives considered for the EBMUD SWSP should be presented in this table. Furthermore, both the DEIR/DEIS and the REIR/SEIS are vague when assessing the potential for prehistoric and historic resources to exist under Alternatives 2 and 4. For all the other alternatives, both documents state whether the potential for prehistoric and historic resources to occur is high, moderate or low. However, for Alternatives 2 and 4, the REIS/SEIS fails to state the level of sensitivity. Although the documents list potential cultural resources that are known to occur for each project alternative or alignment, they fail to assess the potential significance for occurrence of these cultural resources. RL14-248

The REIR/SEIS fails to address how Folsom Reservoir cultural resources would be affected by varying water levels under the newly added alternatives. If cultural resources within Folsom Reservoir will not be affected from varying water levels resulting from the newly added alternatives, a statement to this effect should be included. RL14-249

Both the REIR/SEIS and the DEIR/DEIS fail to include a cumulative impact assessment of cultural resources for the proposed alternatives, making the analysis incomplete and inadequate. The cumulative impact analysis should disclose the potential for physical deterioration of cultural resource sites in Folsom Reservoir, inundation or exposure of cultural resource sites in the lower American River, and inundation or exposure of cultural resource sites in the lower Sacramento River as a result increased project diversions above existing conditions. In addition, the documents should include an assessment of the proposed project incremental contribution to the cumulative condition. Failure to address the project alternatives contribution to the cumulative condition deems the **Cultural Resources** chapter insufficient to satisfy the EIR/EIS' requirements. RL14-250

- **Continued Applicability of DEIR/DEIS Submitted Comments**

1. General comment 1:
The DEIR/DEIS fails to provide any discussion regarding Indian Trust Assets (ITAs) in the potentially affected project area. Reclamation's policies require proper consideration and analysis of ITAs. RL14-251

REIR/SEIS Applicability - The REIR/SEIS remains deficient because it also neglects to provide discussion of ITAs for the potentially affected project area under any of the newly added alternatives. The discussion of ITAs for this project is crucial because the United States is charged by law to protect Indian Tribes and individuals. All federal bureaus share a duty to act responsibly to protect and maintain ITAs. The inclusion of sections discussing ITAs is required under Reclamation's procedures designed to carry out its ITA's responsibilities. When no ITAs are identified in or near the potentially affected area, a statement to this effect must be included (U.S. Bureau of Reclamation NEPA Handbook, 1997; Section 3.13.5).

2. General comment 2:
The DEIR/DEIS fails to provide any discussion or analysis regarding the potential for impacts to cultural resources (either exposed or submerged) along the lower American River or lower Sacramento River as a result of the additional diversions above existing conditions contemplated by the proposed project.

REIR/SEIS Applicability - As in the DEIR/DEIS, the REIR/SEIS fails to provide any impact analysis under the newly added alternative for cultural resources along the lower American River or the lower Sacramento River. The REIR/SEIS (Page 1-17) states, "*...Given to the proximity of this portion of this alternative [Alternative 5] to the confluence of the Sacramento and American Rivers, the potential for currently unknown historic and prehistoric period resources is high.*" This statement reflects the analysis provided in the REIR/SEIS, which does not sufficiently satisfy the cultural resources impact analysis' requirements for the lower American and Sacramento rivers. The cultural impact analysis for the lower American River should include the effect of varying flows/river stage on cultural resources along the American River bank near Nimbus Dam and near the mouth. For the lower Sacramento River, the cultural impact analysis should include the effect of varying flows/river stage on cultural resources along the lower Sacramento River bank near Freeport.

3. General comment 3:
The DEIR/DEIS fails to disclose the basis for only surveying approximately 35% of Alignment 4 under Alternative 2. Considering the potential/known sensitivity of the area, this percentage of survey coverage seems relatively low compared to the percentage of area surveyed for the other pipeline alignments. RL14-252

REIR/SEIS Applicability - The REIR/SEIS also fails to explain the DEIR/EIS grounds for only surveying approximately 35% of alignment 4 under Alternative 2.

CHAPTER 18 – Groundwater

REIR/SEIS, pp. 18-1 to 18-6

B. Specific Comments

- Page 18-2:
  EBMUD has spent ten years working a groundwater storage project in San Joaquin County yet there is no meaningful information in this chapter. It is clear that there is no commitment to pursuing groundwater storage. This analysis is woefully inadequate. RL14-253

Policy 81

The bare assertion of policy by EBMUD, without justification developed and supported as part of the CEQA/NEPA process cannot become the basis, either for EBMUD or Reclamation, of the selection of an alternative. To do so on the part of Reclamation would be to base its selection of alternatives on a policy that is alien to its own decision making process. To do so on the part of EBMUD would be to cause a pre-CEQA decision to control the selection of an alternative thereby replacing the analysis of alternatives found within the CEQA document with Policy 81. Policy 81 cannot be utilized as a "trump card" to justify the diversion of water from the American River when all evidence within the CEQA/NEPA analysis points in a contrary direction. RL14-254

Attachment 2

Sacramento County's Comments on the Draft Environmental Impact Report/Draft Environmental Impact Statement

Summary Chapter

DEIR/DEIS, pp. S-1 to S-18

A. General Comments

The DEIR/DEIS states that NEPA compliance is necessary solely to support any decision by the USBR to amend its water service contract with EBMUD in order to accommodate the proposed project. (DEIR/DEIS, p. S-2.) This is inaccurate and misleading. Instead, the USBR's original decision to execute its CVP water service contract with EBMUD was never subjected to environmental review as required by NEPA. NEPA compliance is necessary, therefore, to evaluate any and all potential environmental impacts resulting from EBMUD's CVP contract as a whole. As a related matter, the DEIR/DEIS has been circulated for comments prior to the USBR's completion of the Biological Assessment for the proposed project. This is inconsistent with NEPA's policy of encouraging the integration and coordination of Biological Assessments and EIS preparation for the same project. (*See* 40 C.F.R. §1502.25.) The DEIR/DEIS, moreover, should, at the very least, append a copy of the current draft contract amendments to the USBR/EBMUD CVP water supply contract, in order to adequately inform the public of the scope and nature of these proposed amendments.

The DEIR/DEIS fails to adequately disclose the relationship/integration of the proposed Project with the accomplishment of EBMUD's Water Supply Management Plan ("WSMP"), and the Project alternatives do not achieve common outcomes. The DEIR/DEIS provides a condensed description of the history of EBMUD's Water Supply Management Plan, and the decisions that have been made during the plan's implementation. (DEIR/DEIS, pp. 1-5 to 1-14.) In particular, the DEIR/DEIS is not entirely consistent with EBMUD's previous decisions regarding the WSMP, because the DEIR/DEIS evaluates "projects" that may not achieve "program" goals of the WSMP. In this regard, the DEIR/DEIS misleads the public by implying that the only decision to be made is which version of an American River supply option is best for EBMUD's WSMP.

The Project Objectives and the Purpose and Need for the project, as stated in the DEIR/DEIS (DEIR/DEIS, p. S-2), illustrate how EBMUD has cleverly attempted to reprioritize the American River supply from a WSMP option, which was almost previously abandoned due to its failure to achieve WSMP "program" goals, to the panacea for meeting EBMUD's future water supply needs. The WSMP history and EBMUD's decision to proceed with pursuing an American River supply can be summarized as follows:

- EBMUD adopted its Updated WSMP which included six alternative composite programs with elements that include seismic fixes to the Mokelumne Aqueduct, water conservation programs, a wastewater reclamation reuse program, a management plan for the lower Mokelumne River, and a supplemental water supply project. When it adopted the Updated WSMP, EBMUD's preferred supplemental water supply project involved the groundwater banking of Mokelumne River water in Eastern San Joaquin County. Other

options considered were enlargement of Pardee Reservoir, creating new storage in the Sierra, and connection to the American River.

- EBMUD then pursued the development of its preferred option through negotiations with San Joaquin County interests, but determined that the program would not be easily implemented. Program level analysis also concluded that significant impacts would be associated with the Pardee Project.

- EBMUD then adopted an Updated WSMP Action Plan to explore other water supply options. The Updated WSMP Action Plan called for four actions: (1) initiate preliminary analysis for a pipeline connection between the Folsom South Canal ("FSC") and the Mokelumne Aqueduct as a "stand alone project not dependent on any additional water supply components;" (2) continue negotiations with San Joaquin County on a joint EBMUD-San Joaquin County conjunctive use project; (3) initiate discussions with Sacramento area interests (and San Joaquin County interests) on a mutually acceptable project; and (4) initiate project level studies for raising Pardee, or other Sierra sites for reservoir storage.

- After further evaluation of the Pardee Reservoir enlargement project and continued unsuccessful efforts to implement a conjunctive use program, EBMUD then decided to make use of its Reclamation water service contract for American River water as a supplemental water supply, and released a Notice of Preparation for this DEIR/DEIS.

- EBMUD then formulated its Purpose and Need statement in this DEIR/DEIS to exclude all options that require use of the Mokelumne River diversion facilities (e.g., Pardee). This exclusion was framed in terms of requiring options that "provide an alternative water supply in case of planned or unplanned outages at EBMUD's Mokelumne River diversion facilities . . ." (DEIR/DEIS p. 1-2.) EBMUD then further modified its WSMP goals by narrowly pursuing its project objective to "allow EBMUD to make use of its water service contract with reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge decision." (DEIR/DEIS p. 2-1.)

This narrow articulation of the project objective evinces the disconnect in EBMUD's water supply planning process. In this regard, when reviewing the outcomes of EBMUD's alternatives within this project-level DEIR/DEIS, Alternative 2 clearly fails an underlying WSMP goal to eliminate unacceptable deficiencies during drought sequences. Specifically, EBMUD has indicated that its revised "need" for water amounts to 185,000 acre feet over its drought planning sequence. (DEIR/DEIS p. 1-10, 1-12.) Alternative 2 will not provide this amount of water. (*See* DEIR/DEIS, Figure 3-2, years 1976 and 1977 as depicted, and assume no water would be available during the third year of EBMUD's drought planning sequence).

The water available from each alternative is illustrated in Figure 3-2, for Alternative 2, and Figure 3-3, for Alternative 3. The operation assumption as to when water will be diverted is different for each of these Project alternatives. Due to the inability to take water at under Alternative 2 Nimbus (during low-flow months), EBMUD assumes it must divert the water whenever it is *available*. Under Alternative 3, however, the availability of allowable diversions greatly increases, and the diversion of water occurs when it is *needed* in EBMUD's system (according to a rule relating to EBMUD total system reservoir storage). The frequency and magnitude of diversion, therefore, is clearly different between the two alternatives. Most importantly, the alternatives greatly differ from each other as to the amount of water that could be diverted during EBMUD's drought planning sequence. In this regard, Figure 3-2 evidences that Alternative 2 results in EBMUD being able to divert approximately 50,000 acre feet at Nimbus during 1976, and nothing more during the drought planning sequence. Figure 3-3 evidences that Alternative 3 results in EBMUD being able to divert at least its "need for water," which is 185,000 acre feet during the drought planning sequence. This difference is significant in that Alternative 3 would meet EBMUD's WSMP planning goals, and Alternative 2 would not. The DEIR/DEIS, therefore, does not discuss alternatives that would accomplish common outcomes. In this regard, without disclosure as to the additional projects that would be needed to develop comparable projects with common outcomes, an informed decision cannot be made as to a preferred alternative. Although identified as a project objective, the differences between each alternatives in terms of "reliability" have not been adequately disclosed either. For instance, the DEIR/DEIS fails to disclose that the reliability of Alternative 2 to provide back up to the Pardee system during unplanned outages *must* be less than the reliability of Alternative 3.

Although Alternative 2 achieves the project objective (simply because the objective was framed to not exclude Alternative 2), Alternative 2 fails in respect to the overall goal of the WSMP to meet EBMUD's "need" for water. Alternative 2, therefore, could only achieve the WSMP program goals if it is combined with a storage facility.(e.g., groundwater basin or surface reservoir such as Pardee). Plainly stated, Alternative 2 is not consistent with the stated project objectives. The DEIR/DEIS states that EBMUD is proposing to take delivery of its American River entitlement "in order to decrease existing and future customer deficiencies during droughts and to enhance the reliability of the East Bay's water supply." (DEIR/DEIS, p. S-1.) (Emphasis added.) The DEIR/DEIS also acknowledges however, that delivery of water from the FSC under Alternative 2 would be subject to conditions set forth in the Hodge decision, which obviates EBMUD's ability to divert water in dry years if flows do not exceed specified levels. (DEIR/DEIS, p. S-2.) Based on average unimpaired annual inflow to Folsom Reservoir over the 70-year hydrologic period of record, the Hodge flows do not occur on the Lower American River ("LAR") approximately forty percent of the time. As a result, EBMUD would not be allowed to divert from the FSC in the driest approximately forty percent of the years. Alternative 2, therefore, does not meet the goal of providing drought or dry year flow augmentation, as stated in the objectives.

EBMUD covers this blatant attempt to frame the project to fit a desired outcome through a project objective that allows projects to "*contribute to* achieving EBMUD's planning objectives established as part of the Updated WSMP." (DEIR/DEIS, p. 2-1.) (Emphasis added.) However, the DEIR/DEIS does not clearly indicate that the alternatives do not achieve common outcomes. In fact, additional projects would be required for Alternative 2 to fully achieve the Updated WSMP goals. This piecemeal approach to the documentation is not adequate for an informed decision, and this piecemealing of the project violates both CEQA and NEPA.

B. Specific Comments

- Page S-1:

We suggest deleting the fourth paragraph, as it is our understanding that EBMUD is not a party to the proposed Water Forum Agreement at this time.

The meaning of the reference in the following paragraph to a "guarantee" of water even in the driest years is not clear. As discussed above, implementation of the proposed joint project would construct facilities for providing water to EBMUD only so long as such water is available under EBMUD's USBR contract, which, to our knowledge, would be subject to applicable CVP deficiencies and does not provide any "guarantee" of water availability. RL14-255

- Page S-2:

Protection of lower American River resources also should be one of the project objectives listed on this page. RL14-256

- Page S-3:

The DEIR/DEIS states that most of EBMUD's increasing demands for the next twenty years are for "increased flows for senior water rights holders and for resource protection in the Mokelumne River and the San Francisco Bay Sacramento-San Joaquin River Delta." Due to technical deficiencies in the impact analysis (as discussed *infra*), however, numerous potential adverse impacts to the American River and Sacramento River systems were not identified. In any event, the appropriateness of protecting resources in the Mokelumne River and Bay/Delta in exchange for incurring impacts on the American and Sacramento rivers is highly questionable. The DEIR/DEIS, moreover, should state whether the agreement to provide 20% of any actual yield of new water projects to Mokelumne River fishery flows would apply to the project alternatives. Any such operation, of course, would violate the Hodge Decision, and its prohibition on EBMUD using American River water outside its service area.

- Page S-5:

Contrary to the statement made in the first sentence under the heading "Alternative 3: Joint Water Supply," EBMUD, the City and Sacramento County have not yet developed or agreed to a "mutually acceptable" joint project. While there may be consensus in a general sense on the broad elements of the proposed joint project, a specific project has not yet been developed and agreed to by all parties. This sentence should be revised accordingly. The last sentence of this paragraph also should be revised, to clearly explain that the City's proposed expansions of facilities at the Fairbairn Water Treatment Plant and the Sacramento River Water Treatment Plant are part of the City's independent water supply expansion project, which also are being analyzed in the DEIR because some of this expanded capacity may be used to wheel EBMUD's water during the "planned outage" periods, if the joint project is implemented. Rather than stating that Alternative 3 would assist in meeting the objective of the City in providing a safe and reliable water supply for the City, as stated in the next paragraph, it is more accurate to state that the proposed expansions of City facilities are included in Alternative 3 because they would enable the City to better accommodate the need for City capacity to wheel EBMUD water during the planned outage periods. RL14-257

- Page S-6:

The DEIR/DEIS incorrectly states that neither action alternative is environmentally superior. In fact, Alternative 3 is clearly environmentally superior, but has not been identified as such due to the inaccurate, inappropriate, and incomplete analysis which did not correctly identify potential impacts associated with Alternative 2.

The DEIR/DEIS must clarify how "hydrologic simulation modeling and scour analysis" constitute mitigation measures, as stated.

- Page S-7:

Due to the DEIR's failure to fully identify and address potentially significant impacts, as discussed in our comments, below, the summary of significant impacts and mitigation measures set forth on Table S-1 is deficient in the following subject areas: hydrology; water quality; fisheries; recreation; vegetation; wildlife; soils, seismicity and groundwater; land use; transportation and circulation; noise; public health and safety; visual and cultural resources; cumulative impacts. RL14-258

Table S-1 is deficient because it fails to identify potentially adverse significant impacts associated with Alternative 2. As explained below, these impacts are not identified due to the insufficient impact analysis.

- Page S-8:

Mitigation measure 8-1, which simply states "conduct surveys for nesting raptors and tri-colored black-birds," does not constitute mitigation without some identified remedial action.

- Page S-11:

Table S-2 is deficient because it fails to identify potentially adverse significant impacts associated with Alternative 2. As explained below, these impacts are not identified due to the insufficient impact analysis.

- Page S-16:

Table S-3 is deficient because it fails to identify potentially adverse significant impacts associated with Alternative 2. As explained below, these impacts are not identified due to the insufficient impact analysis.

Under Fisheries, every one of the mitigation measures states that mitigation would be accomplished by contributing to ongoing regional fishery management efforts. This simple statement is not sufficient. It does not constitute appropriate mitigation because it does not specify the level of commitment, or identify the ongoing management efforts and specific mitigation elements within those efforts that would mitigate for significant impacts associated with the proposed project.

Under Recreation, the DEIR/DEIS incorrectly states that no mitigation is available for recreation opportunities in the lower American River or Trinity Lake.

- Page S-18:
  Table S-4 is deficient because it fails to identify potentially adverse significant impacts associated with Alternative 2. As explained below, these impacts are not identified due to the insufficient impact analysis.

CHAPTER 1 - Purpose and Need for the Supplemental Water Supply Project

DEIR/DEIS, pp. 1-1 to 1-18

A. General Comments

The demand projections and water conservation assumptions through 2020 are not well supported and require additional justification or, at the very least, some reference to the assumptions made in the WSMP or Updated WSMP. Additionally, summaries of the assumptions adopted from the WSMP or Updated WSMP, and relied upon in this DEIR/DEIS, would significantly clarify the ambiguity regarding the application of these assumptions in the DEIR/DEIS. Without those summaries, the DEIR/DEIS is deficient.

The DEIR/DEIS confirms that under the No-Action alternative, current water supplies can meet the ultimate buildout demands within EBMUD's Urban Services Boundary (USB) through 2020 even with the assumption of 25% deficiencies during dry years. This disclosure suggests that: (1) the No-Action Alternative could represent the environmentally preferable alternative; and (2) there is some question as to whether, or to what extent, a supplemental water need exists for EBMUD.

In the DEIR/DEIS, EBMUD's current level water conservation savings throughout their service area appear low (approximately 3.5%) compared to industry norms. (*See* DEIR/DEIS, p. 1-11, Table 1-2.) This raises the issue of how EBMUD rationalizes the need for this supplemental water supply project given this substandard water management objective.

B. Specific Comments

- Page 1-1:
  The DEIR/DEIS states that the two project alternatives were compared to the No-Action Alternative. Existing conditions, rather than the No-Action Alternative, however, should have been used as the baseline for comparison in order to satisfy CEQA and NEPA requirements. Further explanation of the deficiencies in the impact assessment approach is provided below in the comments referring to Chapter 3, p. 3-1.

- Page 1-2:
  In the Project Need statement, the DEIR/DEIS states that a supplemental water source is needed because existing water supplies are insufficient to meet existing and future customer demands in droughts. However, because Alternative 2 is subject to conditions set forth in the Hodge Decision, it does not and cannot meet the project need. On page 1-3, moreover, the DEIR/DEIS states that one of the intended functions of EBMUD's terminal reservoirs is for drought reserve to meet supply shortages in dry periods such as those which occurred in 1928-1934, 1976-1977, and 1987-1992. The DEIR/DEIS fails to provide a detailed explanation justifying the need for American River water, particularly in consideration of limitations imposed upon Alternative 2, and EBMUD's utilization of the terminal reservoirs during drought conditions.

- Page 1-5:

The DEIR/DEIS should explain its criteria for deciding whether and how to use case testimony and evidence from *EDF et al. v. EBMUD*. The County believes that all of the testimony and exhibits that it presented should be considered, and cited as appropriate.

The discussion of the Hodge decision also should refer to the requirement to maintain 60,000 acre feet of water in reserve for instream purposes. RL14-259

- Page 1-9:

The DEIR/DEIS fails to describe the implementation date and time line for EBMUD's Water Reclamation Implementation Plan (WRIP). The projected reclamation savings through 2030 would appear to be significantly influenced by the implementation of this plan. The DEIR/DEIS, therefore, should provide this information.

- Page 1-11, Table 1-2:

Assuming that the water conservation and water reclamation adjustments are additive, the row titled "Planning level of demand" does not appear to add up correctly. The planning levels of demand should be lower.

For current conditions (1995), water conservation (including water reclamation) savings appear to be 8 MGD (or approximately 3.5% of current customer demand). The DEIR/DEIS should discuss how this compares with current level water conservation (and water reclamation) savings of typical Central Valley municipal and industrial purveyors.

Regarding footnote "b", it is unclear how reliable the assumption is that linear savings can be realized from water conservation for the duration of the 26-year program. Have any external factors arisen that were unknown at the time of completion of the June 1994 Water Conservation Master Plan, and which could affect these original projections? The identification of the potential factors that could affect these projections would assist in verifying (and conditioning) these estimates.

EBMUD should explain how the 230 MGD figure for 1995 was derived. In footnote "a", EBMUD should explain why the average of FY 1984, 1985, and 1986 was used. The reliance on more recent or current data should provide a higher level of accuracy regarding EBMUD's current level demands.

- Page 1-12:

The DEIR/DEIS states that "EBMUD has determined that the instream flow requirements accounted for in the Mokelumne River Joint Settlement Agreement provide reasonable increases in flow to fulfill EBMUD's obligations in these other [Bay-Delta or implementation of CVPIA] proceedings." This statement is misleading and incorrect for the following reasons. First, the May 30, Revised Draft Restoration Plan ("Revised Draft") for the Anadromous Fish Restoration Program (AFRP) does not discuss flow recommendations for the Mokelumne River. As to flows on the Mokelumne River, the AFRP simply states that "[s]upplemental flows with water acquired from willing sellers consistent with applicable guidelines or negotiated agreements to improve conditions for all life stages of chinook salmon and steelhead." (*See* Revised Draft, p. 80.) Thus, there is no means of comparison to determine if instream flow requirements accounted for in the Mokelumne River Joint Settlement Agreement are "reasonable" to fulfill obligations under the CVPIA.

Second, the May 9, 1995 AFRP Working Paper on Restoration Needs of habitat restoration actions does discuss instream flow regimes that are recommended for the Mokelumne River, to be provided along its entirety to the San Joaquin River. These flow requirements outlined in the AFRP Working Paper are significantly higher than those discussed in the Joint Settlement Agreement for most months in all year types (i.e., wet, normal and dry years). For example, during normal and above normal year flows under the Joint Settlement Agreement, expected flows below Woodbridge Dam from October through February would be 33% of that recommended for the same period during normal years in the working draft AFRP. These significant differences in flow can greatly impact salmonid spawning, rearing, and emigration success. Thus, it is extremely difficult to conclude that flow requirements accounted for in the Mokelumne River Joint Settlement Agreement provide reasonable increases in flow to fulfill EBMUD's obligations under the CVPIA, as stated in the document.

The text is misleading in its characterization of EBMUD's WSMP actions in 1993. The DEIR/DEIS should state that the EBMUD Board of Directors specifically determined not to proceed with an American River project at that time.

The basis for the 2001 deadline for the completion of the project (and the use of this deadline as a screening criterion) is not explained, but should be. The relationship between this deadline and the assumed no-action condition (which assumes no impacts until 2030) should also be explained.

- Page 1-13:

The DEIR/DEIS should discuss in detail the progress of any negotiations for a mutually acceptable agreement with San Joaquin interests. This should include a discussion of whether EBMUD is still pursuing Mokelumne River conjunctive use. Without some continuing proactive effort at implementing a conjunctive use program(s), it is doubtful that the most effective water management strategies are being implemented by EBMUD, based on the information provided in the DEIR/DEIS.

The DEIR/DEIS should discuss, in detail, the status of the Reclamation contract modifications. Without a clear delineation of the federal agencies' (i.e., Reclamation) actions and more importantly, the potential impacts of these actions, Reclamation is unable to adequately discharge its responsibilities under NEPA to proceed with, let alone approve, the proposed project.

- Page 1-17, Table 1-3:

The City of Sacramento and the U.S. Bureau of Reclamation Fish Screen Replacement Project, jointly funded by the City of Sacramento and the Anadromous Fish Screen Program under the CVPIA, should be added to this table.

As to the P.L.101-514 water contracts, the table should acknowledge that there are two new contracts being negotiated, along with a subcontract with the City of Folsom.

The Sacramento County Water Agency, not the County of Sacramento, is the proposed contractor for the P.L. 101-514 water service contract.

In Table 1-3, for related activities of the City of Sacramento, the City's proposed rehabilitation and expansion of its Sacramento River Water Treatment Plant should be RL14-260

added. The "summary" concerning the City's proposed projects also should indicate where the relationship of the City's project to the other elements of Alternative 3 is accurately described (see comment on page S-5, above.) In addition, Table 1-3 should include the City's proposed rehabilitation of the fish screens at the Fairbairn Water Treatment Plant and Sacramento River Water Treatment Plant intakes. RL14-260

REIR/SEIS, pp. 1-1 to 1-2

- Page 1-1, paragraph 2:
  Not amending the EBMUD's Bureau water supply contract means diversions and a pipeline from the EBMUD turnout at Grantline Road instead of from the end of the Folsom South Canal. This alternative means constructing a pipeline parallel to the Folsom South Canal for a distance of 17 additional miles creating many additional impacts. RL14-261

CHAPTER 2 - Project Objectives and Alternatives Under Consideration

DEIR/DEIS, pp. 2-1 to 2-30

A. General Comments

The dismissal of downstream alternatives on the Sacramento River is a major deficiency in the DEIR/DEIS. An EIR must describe a reasonable range of alternatives to the proposed project, that could feasibly obtain most of the basic objectives of the project while avoiding adverse impacts. An EIR or other document in the record must describe the rationale for rejecting an alternative. Here, EBMUD has employed subjective criteria to reach a predetermined decision, and the criteria do not relate to whether or not the basic objectives of the project are achieved. The following are some examples:

- It is unclear how the alternatives analysis relates to EBMUD's overall water supply planning. For example, raising Pardee was a component of the Updated WSMP and related Action Plan. It is unclear what happened to that alternative, and how it would be subsequently coordinated with the proposed supplemental supply.

- Alternatives were screened out if they did not allow EBMUD to take its full 150,000 acre-foot contract amount consistent with the Hodge Decision. This can lead to misleading comparisons of the accomplishments and costs of alternatives, since the Hodge Decision does not apply to all alternatives.

- Alternatives were screened out if they did not meet EBMUD's Policy 81. (DEIR, Vol. II, p. 4-3.) Policy 81 was adopted in 1997 and is a rather obvious attempt to manufacture criteria to make certain alternatives fail the screening test. It is also full of subjective and vague pronouncements that give the screener free latitude to throw alternatives out based on an interpretation of the policy. CEQA and NEPA do not allow this. An agency must develop objective screening criteria to analyze alternatives. It is not permissible to develop criteria based on a desired outcome of the screening process. Similarly, it is arbitrary to require that an alternative *must* be completed by 2001 in order to be feasible. (DEIR, Vol. II, p. 4-8.)

- The discussion of the Sacramento River alternative overestimates the water treatment costs.

The descriptions and assumptions regarding how Alternative 2 will be implemented are inconsistent with the Hodge Decision. EBMUD's assumption that it will operate its diversion from Nimbus under Alternative 2 whenever it is allowed from a water availability perspective (i.e. whenever flows in the river are "above" Hodge flow levels) is inconsistent with the Physical Solution decreed by the Court in at least two ways. First, Condition 4 of the Physical Solution states that "EBMUD shall use its best efforts to divert as much water as possible during those times when instream flows are least required for the protection of environmental interests and public trust values." Condition 4, however, is not considered within the formulation of the

operations assumptions underlying Alternative 2, and therefore, the hydrologic analysis and impact assessment will be flawed. Second, Condition 6 of the Physical Solution states that EBMUD "shall not divert water except to meet the demands for customers within the EBMUD utility district." This condition appears to be blatantly ignored within the formulation of Alternative 2. As illustrated by DEIR/DEIS Figure 3-17 (Camanche Release Flows), EBMUD's operation to take water from the American River whenever it is allowed will result in more water diverted from the American River than will be needed for EBMUD's customers. This outcome is shown as increased releases to the Mokelumne River, including additional releases during critical years. When reviewed with flow impacts on the American River, the Mokelumne River will be improved at the expense of the American River. This circumstance is not consistent with the Hodge Decision, and further flaws the viability of Alternative 2.

Condition 7 of the Physical Solution, moreover, states that "EBMUD shall not market nor sell any part of its water diverted hereunder to any third party." Information and impact analysis disclosed in the DEIR/DEIS, however, implies the potential use of Alternative 2 facilities and water availability by parties other than EBMUD. This analysis is clearly inappropriate in view of the institutional hurdles presented by the Hodge Decision, and it appears that it is included within the DEIR/DEIS simply to provide incidental environmental documentation for a future aspect of the Project that is not clearly identified and disclosed. This violates both CEQA and NEPA.

The DEIR/DEIS fails to provide adequate cost information in order to support an informed decision. Cost information regarding the alternatives is not adequately disclosed to allow an informed decision on the differences between the alternatives. In particular, the non-comparability of Alternative 2 and Alternative 3 in terms of water supply and reliability make the cost comparisons almost useless. Comparable projects with associated costs must be developed and disclosed.

The DEIR/DEIS identifies EBMUD's planning objectives (listed on page 2-2) as part of the Project Objectives. It is uncertain, however, how the Folsom South Canal diversion (Alternative 2) could "protect and improve the biological resources . . ." The subsequent discussion of impacts associated with Alternative 2 evidences that this objective cannot be realistically met.

The DEIR/DEIS identifies environmental and biological protection and enhancement, as one of its alternatives screening criteria. (DEIR/DEIS, vol. II., p. 4-6, 4-7.) The description of this criterion, however, is focused on the Mokelumne River resources only with no consideration of Folsom Reservoir or the American River. As EBMUD is aware, the Hodge Decision specifically addresses the protection of the resources of the lower American River. This omission of the lower American River as part of this screening criterion represents a gross oversight, evidencing the inadequacy of the alternatives analyzed in the DEIR/DEIS.

In several places in Chapter 2, reference is made to the application of screening criteria for the selection of alternatives carried forward for detailed study in the DEIR/DEIS. Specifically, statements are made suggesting that failure of one or more screening criteria may eliminate an alternative from analysis in the DEIR/DEIS. Proper justifications for carrying forward certain alternatives is lacking in several instances.

The DEIR/DEIS fails to adequately discuss how the various environmental commitments (e.g., Hydrologic Simulation Modeling and Scour Analysis) identified as part of the proposed project would be integrated into the proposed project after it is approved. (DEIR/DEIS, pp. 2-3 to 2-7.) The results from these activities and other analyses may require project alteration or redefinition, depending on the conclusions reached in the analysis. The DEIR/DEIS provides no discussion or assurances as to how these commitments will be met. If these commitments are truly part of the proposed project and this DEIS/DEIR represents a project-level document, a much more defined relationship with elevated specificity is required.

B. Specific Comments

- Page 2-2:
  The EBMUD planning objectives differ from the Project Objectives on the previous page. The DEIR/DEIS should clarify whether both sets apply for the purposes of this environmental document, or just one of the two sets.

- Page 2-3:
  The DEIR/DEIS must clarify whether EBMUD intends to include all of the environmental commitments under both Alternatives 2 and 3. It is unclear whether all of the environmental commitments would also apply to Alternative 2. From an environmental protection perspective, implementing such plans (i.e., Dust Suppression, Phase I and II Hazardous Materials Studies, Hazardous Materials Management Plan, Storm Water Pollution Prevention Plan, etc.) for a FSC Connection alternative would be necessary.

- Pages 2-3 to 2-7:
  The Summary of Environmental Commitments outlined on pages 2-3 to 2-7 are considered part of the project and, as such, are relied upon elsewhere in the DEIR to determine that no significant impacts will occur, so that no mitigation is needed. This approach fails to identify the project's specific potential impacts, as required by CEQA. Moreover, even if such impacts were adequately disclosed, the measures described on these pages are not described in sufficient detail to allow any determination to be made as to whether these measures will mitigate potential impacts (which are not identified at a project level) to a less-than-significant level. Specific examples follow. RL14-262

- Page 2-7:
  The Project Planning Coordination and Communication Plan discussion is wholly deficient for the purposes of a project-level EIR. The DEIR/DEIS must explain the specifics of the Plan.
  The DEIR/DEIS states that "EBMUD would have no backup supply for use during scheduled or unplanned facility outages at Pardee Reservoir." This begs the question as to what is EBMUD's current operational strategy for scheduled or unplanned facility outages at Pardee Reservoir. The statement and discussion imply that under the

No-Action Alternative (i.e. no supplemental water supply project), no backup supply exists. The DEIR/DEIS does not adequately explain this scenario.

- Page 2-8:

The DEIR/DEIS should explain the implication in the text that even in the absence of new water supplies, local land use agencies would approve new development indefinitely.

The DEIR/DEIS acknowledges that the No-Action Alternative is "anticipated to be adequate to meet full buildout of the USB with implementation of water conservation and water reclamation programs and assuming up to 25% deficiencies in dry years, although at significant costs to ratepayers..." This implies that the No-Action Alternative might well represent the preferred alternative given that the other alternatives considered include those that are more costly.

- Page 2-11:

The DEIR/DEIS lacks detailed documentation confirming that the alternative pipeline alignment(s) have been routed to avoid structures, sensitive environmental resources, and other land use and environmental resource conflicts. As a purported project-level document, more detailed specifics regarding the pipeline alignments must be included in the DEIR/DEIS.

- Pages 2-11, 12:

The DEIR/DEIS states that diversions at the FSC would be permitted based on an instantaneous evaluation of whether instream flows exceeded "Hodge flows." Operationally, EBMUD assumed diversions at any time flow levels exceeded those of the Hodge Decision. These statements and assumptions in the evaluation are problematic for several reasons. First, EBMUD's diversions would remove water from the system that otherwise would have been available for meeting CVP-wide environmental or contract delivery obligations. The removal of water by EBMUD could, under some circumstances, require higher releases from Folsom Reservoir to simultaneously account for diversions by EBMUD and provide water for meeting other CVP-wide obligations. This circumstance would result in lower storage levels in Folsom Reservoir.

Second, with regard to potential impacts to fishery resources in the LAR, lower storage levels have several possible implications. EBMUD diversions may reduce storage levels such that in subsequent months, despite complete curtailment of EBMUD diversions, storage may be insufficient to maintain "Hodge flows" and meet target carryover storage in Folsom Reservoir. Under this circumstance, although EBMUD would not instantaneously violate the Hodge Decision as interpreted by EBMUD in the DEIR/DEIS, EBMUD's diversions could nonetheless result in flow levels below "Hodge flows" in subsequent months. In addition to potentially impacting flow levels in subsequent months, depending on the hydrologic conditions, storage levels could remain "depressed" in subsequent water years, resulting in lower flows than would have occurred without EBMUD's diversions.

Third, information pertaining to hydrologic modeling of the "Hodge criteria" is insufficient for evaluation, and the modeling of the Hodge Decision conditions appears to be deficient. For example, the Hodge Decision included a 60 TAF block of water dedicated for CDFG's discretionary utilization. There is no indication that this 60 TAF block was included in the assessment.

- Page 2-13:

The DEIR/DEIS fails to describe the specific strategy to ensure that sensitive resources are not disturbed or affected. A reference to the appropriate chapter would be of assistance. As a purported project-level document, detailed specifics regarding all proposed access roads and staging areas must be addressed in the DEIR/DEIS.

- Page 2-14:

Additional detail is required in the DEIR/DEIS to verify, confirm, or accept the capital costs numbers presented in Table 2-3. Since costs were identified as a screening criteria in the selection of the initial array of alternatives, detailed discussion and complete disclosure of all assumptions used in the estimation of capital costs must be included in the DEIR/DEIS. Without this important background information, the public is unable to properly assess the adequacy of the screening process, and the DEIR/DEIS is insufficient for informed decision-making.

The DEIR/DEIS should also explain why the ratepayer cost assessment for Alternative 2 was based on the assumption that total average annual deliveries would total 29,000 AF.

- Page 2-15:

We reference our previous comment (on page S-5) regarding the descriptions in the first paragraph under the heading "Alternative 3: Joint Water Supply" of "the mutually acceptable proposal" and "mutually acceptable alternative" developed by EBMUD, the City and Sacramento County. In the second paragraph on this page, we also recommend expanding the discussion of the City's proposed expansions of the Fairbairn Water Treatment Plant and the Sacramento River Water Treatment Plant to first indicate that the City is considering these elements as part of a separate project to provide increased capacity to meet the City's future water needs, and that such elements also are analyzed in the DEIR because such expanded capacity could be used to wheel EBMUD water during the planned outage periods, if the joint project is implemented. The following paragraphs also should be revised accordingly. RL14-263

- Page 2-16:

The general description and discussion of the proposed intake structure located near I-5, set forth here and elsewhere in the document, is not sufficiently detailed for an adequate project-level analysis. As noted in our comments on Chapter 16, below, we recommend a thorough consideration of various possible designs for a new intake facility, with an opportunity for community review and comment on these proposed design alternatives, before a final design is selected. RL14-264

- Page 2-17:

With respect to the five proposed intake locations and pipeline alignments considered as part of Alternative 3, the City generally supports intake Alternative 5, because this alternative eliminates construction-related impacts to property owners, RL14-265

public facilities and traffic circulation west of 23rd Street, and also reduces the visual impacts that Alternatives 3 or 4 would have in an area that will be transitioning to residential land uses. The City also supports the pipeline alignment options which minimize street construction and thereby reduce impacts to the public and traffic operations in City streets (e.g., the C Street bypass option, the Elvas Avenue bypass option and the Folsom Boulevard bypass option). Selection of the C Street bypass option also would avoid potentially significant impacts to the large tree canopy along C Street resulting from the use of large construction equipment and excavation.

However, despite the City's general support for intake Alternative 5 and the bypass options, because implementation of Alternative 5 and/or the C Street bypass option would be located on or adjacent to the site of a former landfill, these alternatives potentially raise significant issues pertaining to differential settling and special compaction techniques, excavation of waste or hazardous materials, compliance with requirements set forth in the City's landfill closure/ post closure plan, and compliance with applicable regulatory requirements of the California Integrated Waste Management Board and/or the Regional Water Quality Control Board, in addition to potentially significant long-term liability issues that may be presented. Additionally, the C Street bypass option raises issues concerning the compatibility of this alignment with the planned extension of Richards Boulevard.

The foregoing issues must be addressed with specificity and detail in the DEIR, in order to proceed with project planning and implementation. For example, if issues pertaining to the C Street bypass option cannot be resolved, it may then become preferable to install the pipeline in C Street, but in a manner that avoids the significant impacts of open trenching EBMUD (e.g., tunneling). However, the DEIR does not provide any basis for making this determination, because it fails to identify or analyze either the specific issues raised by the C Street bypass option or the specific impacts likely to result if open trenching is allowed in C Street. In order to provide an adequate project-level analysis, EBMUD must disclose and address these types of issues. Only then can an informed selection of the preferred intake location and pipeline alignment occur. The DEIR also should indicate whether pipelines constructed outside of street right-of-ways would be installed above or below grade.

- Page 2-18:

The discussion following the subheading "Fairbairn Water Treatment Plant Expansion" does not accurately describe the City's proposed project, and should be revised to read as follows:

> The City currently is analyzing improvements to its diversion structure at the Fairbairn Water Treatment Plant with adequate fish screening necessary to meet current DFG, NMFS, and USFWS standards, to return the rating capacity of the structure to its original constructed 200 mgd capacity. This modification would occur at the existing intake site and will involve constructing a new "arm" on the facility and installing additional pumps.

RL14-266

> As part of the of City's proposed water supply expansion project, the City also is considering a proposed expansion of the Fairbairn Water Treatment Plant's water treatment capacity from 100 mgd to 200 mgd. This expansion would be entirely contained within the existing Fairbairn Water Treatment Plant site and would be used to serve existing and projected municipal and industrial customers within the City's service area. A bypass pipeline would be provided to allow delivery from the river into the new pumping plant and into the Fairbairn to FSC pipeline during a planned outage. The conceptual lay out for these facilities is shown on Figure 2-8.
>
> The planned improvements to the Fairbairn Water Treatment Plant diversion and treatment facilities are included as part of Alternative 3, because the Fairbairn Water Treatment Plant diversion capacity could be used in combination with the proposed I-5 intake facility described above, to supply water to EBMUD during a planned outage of EBMUD's Mokelumni River Supply System.

In the following paragraph, the reference to the City's proposed expansion of the Sacramento River Water Treatment Plant treatment capacity should be changed to 60 mgd (93 cfs). This change also should be made to other references in the document to the City's proposed Sacramento River Water Treatment Plant capacity expansion. The last sentence of this paragraph should be revised to read "A new diversion structure including a fish screen design to meet current DFG, NMFS and USFWS criteria, also would be constructed similar in design to the proposed intake structure at the I-5 location described above."

- Page 2-20:

We suggest providing a more detailed discussion of the requirements of the Hodge Decision to support the assumption, set forth in the second paragraph of the "Operations" section (and also at page 3-14), that the Decision's limitations would not apply to the proposed I-5 diversions.

The second sentence under the heading "City of Sacramento" should be revised to read as follows:

RL14-267

> The City currently has a mechanical pumping capacity of 128 mgd (198 cfs) from the American River. However, the original constructed capacity of the river diversion, both in terms of fish screening necessary to meet then-existing DFG criteria and actual structural capacity, was 200 mgd (310 cfs).

- Figure 2-10:

Although these figures are entitled "Typical Pattern and Frequency of Deliveries for Alternative 3," no frequency of deliveries is shown. Is the "typical pattern" shown for a specific year? How was the anticipated pattern of deliveries to the City derived?

RL14-268

- Page 2-21:
  The DEIR/DEIS should clarify that the Sacramento County Water Agency's point of diversion under its proposed action is from the Sacramento River, although the new CVP contract that it is seeking under the authorization of P.L.101-514 is from Reclamation's American River Division water rights. The Sacramento County Water Agency would divert from the American River only as an alternative to the proposed action under P.L. 101-514.

- Page 2-22:
  The discussion of construction considerations beginning on this page should include some discussion of potential conflicts/crossings with existing underground infrastructure. For example, in several locations, there are crossings of major drainage mains and sewer interceptors (e.g., C Street, between 33rd Street and Elvas Avenue, has an 8-inch water main, a 36-inch to 84-inch storm drain, a 10-inch to 22-inch sanitary sewer, a 24-inch to 39-inch sanitary sewer, 22 D.I leads and 36 manholes located under the paved street.) As another example, the proposed pipeline route for intake alternative 5 would cross the underground pipeline carrying methane from the former landfill to the Almond Growers facility on C Street. In order to provide a complete and accurate project-level discussion of Alternative 3's potential impacts and associated mitigation measures, all significant conflicts of this nature must be identified to the extent feasible prior to selection of any preferred pipeline alignment.

  As noted in the Railroad and Roadway Crossings section, the proposed pipeline will cross and be constructed in many roadways within the City. For open cut trenches, EBMUD will be required to pay the City's trench cut cost recovery fee or reconstruct the street to current City standards, as applicable. If any City above ground or underground facilities (including but not limited to street lights, traffic signals, sidewalks, electrical facilities, storm drain and sanitary sewer lines, water lines) are damaged, EBMUD will be required to repair or replace them to the City's satisfaction. Figure 2-6a shows the locations where tunneling or boring will be required for crossing streets in the pipeline alignment. Additional locations where trenchless construction will be needed to cross arterials with high traffic volumes are 16th and D Streets, J Street between 57th Street and Elvas Avenue, Power Inn Road and Folsom Boulevard, and Florin-Perkins Road and Kiefer Boulevard. Additional locations also may require trenchless construction once all potential impacts of the pipeline construction are identified, as discussed in our comment on page 2-17, above. In addition, Figure 2-6a should be consistent with the information provided on Table 12-6 (at page 12-7).

- Page 2-23:
  The Access Roads and Staging Areas section does not address the number or locations of construction staging areas that would be required for the project. However, the number and locations of the construction staging areas could significantly affect traffic volumes on some streets, resulting in potentially significant impacts, contrary to the conclusion set forth in the Transportation section of the DEIR that the proposed joint project would not result in any significant traffic impacts. Without a more detailed project-level analysis of the staging areas, the document's subsequent conclusions concerning potential traffic impacts lack adequate support. More information also should be provided concerning the number of truck trips related to construction staging locations.

  The Construction Schedule section states that the I-5 to Fairbairn pipeline will be constructed at a rate of 150 feet per day and require between 55 and 60 weeks over a span of 16 months. It also states that the Fairbairn to FSC pipeline would be constructed at an average rate of 100 to 150 feet per day over a 15 month period. Minimizing the time to construct obviously is very important in areas where access has been restricted or eliminated, and to minimize the numerous other disruptive effects of pipeline construction. However, the rate of construction also must be realistic, and the DEIR must disclose the potentially adverse effects of project construction based on a realistic construction schedule. In City staff's view, the rate of construction stated in this section of the DEIR is overly optimistic. As part of an adequate project-level analysis, EBMUD should consult with Public Works/Utilities staff for the City and Sacramento County to determine a realistic construction schedule for the pipeline. In addition to identifying specific measures that will be taken to mitigate impacts anticipated on the basis of a realistic schedule, the DEIR also should identify measures (such as shifting to trenchless construction in specific locations) that could be taken to mitigate additional impacts that could result if this schedule is not met.

RL14-269

- Page 2-24:
  The DEIR/DEIS states that "[f]ailure of a potential alternative to substantially achieve one or more of the specific criteria resulted in elimination of the alternative from detailed consideration in this EIR/EIS." Table 2-8, on p. 2-29 indicates which alternatives met the screening *criteria* as a whole. (Emphasis added.) The DEIR/DEIS should further explain, however, whether any of these alternatives failed one or more of the individual criteria.

- Page 2-29:
  The text under "Analysis of Full-Use Scenario" refers to possible subsequent or supplemental environmental documentation. To the extent feasible, analysis of impacts resulting from full use of the facilities constructed by EBMUD should be included in the DEIR's modeling and analysis, to provide a complete and accurate forecast of future conditions.

RL14-271

- Figure 2-12:
  As with Figure 2-10, Figure 2-12 does not identify any frequency of deliveries, nor does it indicate what year, or type of year the pattern shown represents. We also believe that Sacramento County water use should be included in Figure 2-12, rather than City deliveries, because, as currently discussed, the capacity on the proposed joint diversion facility will not be used for diversions and deliveries of City water.

RL14-272

RL14-270

C. Comments on Appendix B, Alternatives Screening Report

- Page 4-1 re: Alternatives Screening Criteria:

The criterion addressing EBMUD's use of its Reclamation contract should clarify that Alternative 3, involving delivery of water from the lower American River *in the vicinity of* the Interstate 5 Bridge crossing, may not require compliance with the Hodge Decision's flow criteria. The Hodge Decision clearly applies to Alternative 2, which has a diversion point upstream of the I-5 crossing.

- Page 4-6 re: Environmental and Biological Criteria:
  The criterion states that an alternative must increase opportunities for protection and enhancement of Mokelumne River resources but makes no mention of the resources of Folsom Reservoir or the American River. This represents a significant omission in the breadth of the environmental and biological screening criteria used.

CHAPTER 3 - Hydrology, Water Supply, and Power

DEIR/DEIS, pp. 3-1 to 3-24

A. General Comments

In general, the DEIR/DEIS fails to provide a sufficient level of detail for a thorough evaluation of the appropriateness of the hydrologic modeling approach. It is clear, however, that the information provided is not sufficient to support the conclusions derived from the modeling results, which serve as the basis for all water-based (e.g., fisheries) impact assessments.

The DEIR/DEIS apparently ignores any discussion of impacts to CVP contractors north of the Delta which would include water settlement contractors, M&I contractors, and agricultural contractors, and what effect the proposed project has on those deliveries. Also, no discussion is provided regarding the effects of the proposed project on CVP contractors south of the Delta, which would include exchange contractors, M&I contractors and agricultural contractors receiving water through the export facilities at Tracy. In addition, no discussion or evaluation is presented regarding impacts to CVP contractors or other contractors along the American River, or of impacts of this project on State Water Project (SWP) contractors south of the Delta. The DEIR/DEIS is deficient because of its failure to evaluate the effects of the proposed project on those other users of CVP or SWP water.

No discussion is provided concerning modeling the American River upstream from Folsom Reservoir. Upstream operations have a tremendous influence on the operation of Folsom Reservoir. Upstream operations can affect the flood operation because storage in upstream reservoirs influences the flood control diagram for Folsom Reservoir. Folsom Reservoir inflow is affected by upstream diversions and upstream operations. It is not clear whether the inflow has been adjusted for changes in upstream operations or diversions other than for PCWA.

The DEIR/DEIS fails to provide an adequate evaluation of hydrologic alterations in the LAR to assess potential impacts to splittail. Splittail spawn over flooded vegetation and could be adversely affected if EBMUD's diversions reduce the frequency or extent of flooded vegetation along the Lower American River. Splittail, however, were not considered the development of "Hodge Flow" levels, and therefore, the Hodge Decision provides no basis for evaluating impacts to this species.

B. Specific Comments

- Page 3-1:
  An incorrect baseline was used to assess the potential for significant environmental effects of the proposed project and, therefore, the DEIR/DEIS does not meet CEQA and NEPA requirements. As discussed previously, existing conditions, rather than the No-Action Alternative, should have been used as the baseline for comparison.
  The hydrologic data analyses are described on p. 3-1 of the DEIR/DEIS. Existing conditions, the No-Action Alternative, and Project Alternatives 2 and 3 are presented. The basis for assessing the environmental effects of the alternatives is also presented, including an explanation that two baseline conditions were used in the evaluations. The document states in paragraph 4 that the hydrologic data served as the primary assessment tool for the evaluation of effects on water supply, power production, water quality, fisheries, and recreation.
  Paragraph 5 on pg. 3-1 states that "Alternative 1, which is the No-Action Alternative, was used as the baseline for assessing effects of the project alternatives and existing conditions was used as the baseline for assessing cumulative effects." CEQA and NEPA, however, requires that the No-Action Alternative be analyzed relative to existing conditions in the same manner as project alternatives so that decision makers can compare the impacts of approving the project with the impacts of not approving the project.
  Use of incorrect baselines for analyzing impacts of the alternatives misrepresents the potential environmental consequences of both the proposed action and the No-Action Alternative. In this regard, the DEIR/DEIS does not meet CEQA or NEPA requirements. To correct these deficiencies, the environmental effects of the project alternatives (Alternative 2 and Alternative 3) should be analyzed relative to the existing conditions, and the No-Action Alternative (Alternative 1) should also be analyzed relative to existing conditions. The differences in impacts among the alternatives should then be compared to allow the public and decision makers to clearly understand the potential consequences of the alternatives. This was not done in the DEIR/DEIS.
  The statement that "EBMUD has used available technology to extensively model hydrologic and water quality conditions" is misleading and inaccurate. For example, numerous environmental documents recently prepared have utilized USBR's water temperature model for the American River to assess potential water temperature-related impacts. It is insufficient for EBMUD to fail to utilize this readily available and previously accepted technology, and instead develop a complex and uncertain suite of modeling exercises, which have not been subject to review, in order to perform water temperature impact assessments for the DEIR/DEIS.
  The first paragraph of the second column indicates that the impacts of the project alternatives were determined by comparing the alternatives' impacts with the impacts of the "no project" alternative (Alternative 1). This methodology does not comport with CEQA, which requires that the impacts of various alternatives considered in an EIR be RL14-273

determined by comparing conditions resulting from each of the alternatives to existing conditions. Use of the "no project" alternative as a baseline for evaluating the project's impacts creates a significant potential for understating these impacts, because the "no project" condition may include impacts that have not yet occurred under existing conditions, which are then never identified or analyzed, under the methodology described on page 3-1. See, e.g., Christward Ministry v. Superior Court (1986) 184 Cal.App.3d 180, 190-191.

- Pages 3-3, 3-8, 3-13:

On p. 3-3, the DEIR/DEIS shows that modified D-1400 was used to characterize the existing instream flow conditions on the American River. This is reiterated on p. 3-13. However, on page 3-8 the DEIR/DEIS acknowledges that USBR has, in recent years, operated Folsom Dam to attempt to meet flows specified in the AFRP. Clearly, the wrong instream flow requirement was used in analyzing impacts on the LAR, which underestimates the potential significant impacts to aquatic resources.

- Page 3-3:

American River demands for both the 1995 level and 2030 level are inconsistent with the Water Forum. The DEIR/DEIS 1995 demand of 285,000 AF, assuming this does not include 35,000 AF for PCWA, is 56,000 AF higher than the 1995 level demand for the Water Forum. It is not clear where this demand is located. This increase in diversions for the existing condition will result in lower available supply, and tend to decrease cumulative impacts. The DEIR/DEIS 2030 American River demand of 368,000 AF is 124,000 AF lower than the 2030 Water Forum demand. This inconsistency similarly results in lesser cumulative impacts.

The DEIR/DEIS presents the 1995 SWP demands as 3,998,000 AF. Assuming these represent south of Delta demands only, these demands are greater than demands used by DWR (3,6000,000 AF) for existing level studies. The SWP future (2030) level demands of 4,222,000 AF are consistent with the DWR future level studies. The exaggerated existing level demands used in the DEIR/DEIS diminishes the difference in available water supply between the 1995 and 2030 scenarios, which again results in the inappropriate minimization of all water-related cumulative impacts.

- Page 3-4, Table 3-2:

Demands upstream from Folsom Reservoir are not included in this table. It is unclear what is assumed for upstream diversions. This is an important consideration regarding inflow to Folsom Reservoir, water availability, and subsequent impact assessments.

- Pages 3-5 and 3-6:

Sacramento County does not understand the basis for the projected 2030 demands set forth for the City of Sacramento in Table 3-2. At Node 16, the City's demand under Alternative 2 is 100,000 acre feet, whereas the demand listed under Alternative 3 is 140,900 acre feet. Sacramento County does not understand the basis for these numbers, nor why there should be any difference under Alternatives 2 and 3 for the City, since the proposed joint diversion capacity will not be used to divert City water. Sacramento County also notes that the City's entitlement for American River water in the year 2030 is 245,000 acre feet. RL14-274

For Node 17, the City's entitlement under the its Sacramento River water right permit is 81,800 acre feet (not 81,200). This raises questions regarding why different delivery amounts are projected under Alternatives 2 and 3. RL14-275

Sacramento County does not understand the relationship of the projected EBMUD demand at Node 16 of 35,000 acre feet to EBMUD's expressed desire to receive assurances that it can divert 70,000 acre feet during extremely dry years and 112,000 acre feet in all other years. RL14-276

Sacramento County also does not understand the basis for the cumulative projected demand for the City at Nodes 16 and 17 in Table 3-3. For example, the "dry year" projection for the City at Node 16 is 67,000 acre feet, even though the agreement proposed for the City in the Water Forum Agreement, if approved, will allow the City to divert 90,000 acre feet at the Fairbairn Water Treatment Plant in a dry year. RL14-277

- Page 3-6, Table 3-3:

A portion of the demands for El Dorado County are diverted directly from Folsom Dam. It is unclear how this is accounted for in the modeling.

- Page 3-8:

The DEIR/DEIS states that, in general, AFRP criteria require larger instream flows than the Water Forum F-pattern. Presumably, this statement is based upon data on storage-flow relationships for AFRP and Water Forum instream flows included in Appendix C, Tables C-1 and C-2. However, the criteria presented in Table C-1 are obsolete, and do not adequately represent the implementation of the AFRP flow requirements. Storage-flow relationships, as well as flow stabilization criteria, have been revised from that which is presented. The Water Forum F-Pattern storage-flow relationship is influenced by demands on the American River. The "trigger" values presented in Table C-2 are not consistent with the American River demands specified in Table 3-3. This will result in a flow regime in the LAR that will differ from the intent of the F-Pattern. Also, the flow regime for the LAR prescribed by the F-Pattern will differ from the regime prescribed by the AFRP. The monthly flow patterns will vary, although the total average annual flow released to the LAR will remain relatively constant. Given that the storage-flow relationships used for the analysis in the DEIR/DEIS contain inconsistencies, resulting flows used in the impact assessment for the LAR are not appropriate.

The DEIR/DEIS states that several entities divert water from Folsom Reservoir including San Juan Water District, City of Roseville, Folsom State Prison and El Dorado Irrigation District. The City of Folsom also diverts from Folsom Reservoir.

The second paragraph under "American River Demands" indicates that the City of Sacramento diverts 80,000 acre feet downstream of the mouth of the American River on the Sacramento River under its American River water rights. The primary basis for the City's diversions at the existing Sacramento River Water Treatment Plant is a water right permit for 81,800 acre feet of Sacramento River water, and a pre-1914 claim at the same location. Two of the City's four American River water right permits also authorize diversions at the Sacramento River Water Treatment Plant. RL14-278

- Page 3-10:
  The reference to the "Kern Canal" should be changed to the Friant-Kern Canal.

- Pages 3-10, 3-11:
  The DEIR/DEIS incorrectly refers to Yolo Bypass inflows to the Delta as deliveries when, in reality, they are overflows.

- Page 3-12:
  The DEIR/DEIS must explain, in much greater detail, the "inconsistency in the PROSIM input hydrology" and how this could affect the impact analysis. In particular, if the original hydrologic analysis was in error with regard to water deliveries, the DEIR/DEIS must explain what it is relying on to prove that the Alternative 2 meets project objectives. The DEIR/DEIS must also fully explain the basis for its conclusion that corrected hydrology would not change its impact analysis. This modeling error also begs the question of whether the PROSIM simulations have, in fact, been updated, and if so, whether they have been utilized by EBMUD. This should be fully explained to the public.
  What is the basis for the conclusion that resolution of the PROSIM inconsistency described in the last paragraph on this page probably will not significantly affect the modeling results? RL14-279

- Page 3-13:
  In its discussion of deliveries from the American River, the DEIR/DEIS states that deliveries to EBMUD would be made during periods when Hodge flows are exceeded in the American River. It is not clear, however, how these diversions would be implemented. For example, would EBMUD take its entire demand when Hodge flows are exceeded in the river, or is the demand limited by the amount of water flowing down the river in excess of the Hodge Decision, or is water withdrawn from storage in Folsom Reservoir when Hodge flows are exceeded? These questions should be addressed.
  The DEIR/DEIS states that the 1928-34 period is considered the representative period for dry conditions. This statement is incorrect. Several other known drought series have occurred throughout the 70-year period of record, as well as numerous individual dry years that collectively represent dry conditions.

- Page 3-14:
  For Alternative 2, cumulative conditions, the DEIR/DEIS assumed that water would be delivered to EBMUD whenever water was available under the Hodge Decision criteria and would be limited only by available capacity in the Folsom South Canal pipeline (up to 350 cfs). This implies that CVP-imposed deficiencies, which are imposed on CVP contractors during dry years were incorrectly assumed not to apply to the EBMUD-CVP contract. This should be clarified and fully explained.
  For a project-level analysis, the discussion of hydrologic modeling for the proposed I-5 diversion should identify the modeling assumptions used for this facility, including an explanation of how potential requirements for bypass flows to the mouth of the American River were addressed. RL14-280

- Figure 3-3:
  Sacremento County does not understand the basis for the "annual City deliveries" shown on Figure 3-3, which appear to vary from zero to approximately 69,000 acre feet. The City's USBR contract authorizes maximum diversions in the year 2030 of 245,000 acre feet, with no deficiencies. The agreement proposed for the City in the Water Forum Agreement would authorize full use of the City's Fairbairn Water Treatment Plant facilities when flows exceed the Hodge standards, and diversions of up to 90,000 acre feet in drier years. What is the basis for the projected deliveries shown in Figure 3-3? RL14-281

- Page 3-15:
  The DEIR/DEIS states that project alternatives would negligibly affect Folsom Reservoir elevations throughout the year, and therefore it is assumed that generating capacity would be negligibly affected because project deliveries would not result in substantial lake elevation fluctuations compared to existing conditions. However, the DEIR/DEIS does not provide technical information for individual years to substantiate this assertion.
  The operations and energy use by pumping operations from Folsom Reservoir to EID and the City of Folsom depend on the Folsom Reservoir elevation, which is governed by storage and releases. The DEIR/DEIS should explain why other entities such as San Juan Water District and the City of Roseville were excluded from this discussion.

- Page 3-16:
  The DEIR/DEIS discussion of the PROSIM's simulation of monthly operations suggests that accumulated EBMUD deliveries may trigger a threshold effect which in turn, may cause different instream flow requirements and Folsom Reservoir storage differences, which are greater than the "original" difference. The discussion also states that, in general, agency personnel operating the water supply and delivery control systems have more flexibility in controlling operations than the monthly model would suggest and, therefore, the maximum delivery rates of 350 cfs (Alternative 2) and 381 cfs (Alternative 3) would not affect operations. This conclusion is not supported by the information presented in the DEIR/DEIS.

- Page 3-17:
  The Folsom Reservoir discussion states that end-of-month storage values are somewhat higher in July through December, and lower in January through June, under Alternative 1 when compared to the existing conditions, primarily as a result of reserving storage for higher release flows for fish in late fall and winter (November-March). This discussion implies that large releases would be made during January under Alternative 1. It would appear that these flows contradict AFRP goals of providing spawning flows in the fall for chinook salmon. The DEIR/DEIS fails to provide sufficient information to support these conclusions regarding flow changes in the LAR.
  The DEIR/DEIS states that under cumulative conditions, average Folsom reservoir carryover storage values are 61,000 AF higher for Alternative 2 and 70,000 AF

higher for Alternative 3, relative to existing conditions. The data presented, however, contradicts these conclusions.

The DEIR/DEIS fails to reference any data or output which substantiates the claimed reductions in Folsom Reservoir water surface elevation changes.

Based upon the hydrologic modeling that was conducted, the DEIR/DEIS concludes that the mean annual flow at Nimbus Dam under Alternative 1 is reduced by 27,000 AF under Alternative 2, and by 2,000 AF under Alternative 3. Given that the DEIR/DEIS states that the mean annual delivery to EBMUD under Alternative 2 (FSC diversion) is 29,000 AF, it is unclear how this discrepancy can be accounted for. Moreover, a more detailed explanation must be provided as to why a difference in mean annual flow at Nimbus Dam occurs under Alternative 3, given that water would not be delivered under this alternative until it reaches the intake structure near the mouth of the American River. The DEIR/DEIS does not provide sufficient technical information to support these conclusionary statements.

- Page 3-18:

The discussion of Figure 3-9 includes the statement that flows are reduced in summer and increased in winter. Figure 3-9, however, is a cumulative probability distribution of flows, and it is impossible to make any conclusions regarding seasonality of flows from this information.

The DEIR/DEIS states that "[m]ean annual flow at Nimbus is reduced by 291,000 AF and 191,000 AF, respectively, under Alternative 2 and Alternative 3 cumulative conditions, compared to existing conditions." The difference between 291,00 AF and 191,000 AF would be understandable if the diversion under Alternative 2 is 100,000 AF. However, the estimated 191,000 AF change in Nimbus flow under Alternative 3 relative to the existing conditions is not clear. The DEIR/DEIS reported increase in diversion upstream from Nimbus is less than 191,000. Sufficient information is not provided to ascertain diversions upstream from Folsom Reservoir, although the increase in diversions from Nimbus and Folsom Reservoir are approximately 107,000 AF. For these reasons, the DEIR/DEIS must explain how the mean annual flows at Nimbus can vary so greatly.

- Page 3-19:

The DEIR/DEIS discussion regarding flows in the Sacramento River is inadequate, and lacks supporting technical reference. For example, no discussion is provided regarding the extent of flow changes below Keswick Dam in the future, which would be expected to be significant, due to the nature of system-wide integrated operations.

The discussion of the Trinity River system lacks technical support for its conclusionary statements. In this regard, the DEIR/DEIS states that "CVP operations of Trinity River do change appreciably under Alternative 1. Under Alternatives 2 and 3, reductions in mean storage and carryover storage are small." These statements apparently contradict the modeling assumptions, which increase flows in the Trinity River from a requirement of 340,000 AF per year under existing conditions to requirements of 390,000 to 720,000 AF annually under future conditions.

The discussion of the Sacramento-San Joaquin River Delta is nonsensical. The first sentence in the paragraph relates to water supply deliveries and should be deleted. The remainder of the paragraph only refers to Delta outflow, and fails to even address Delta inflow.

- Pages 3-20, 3-21:

Table 3-4 contains apparent inconsistencies. For example, under Lake Shasta storage, the first row is listed as Alternative 1 minus No-Action, when it probably should be listed as existing condition. Also, the headings for Sacramento River flows at Keswick and Freeport indicate that values are expressed in terms of cfs. These figures appear incorrect. Also, it is unclear whether these figures are expressed as 70-year average values.

- Page 3-21:

Although not discussed in the text (as previously mentioned), Table 3-4 contains information on total Delta inflow. This is problematic. For example, the reduction in total Delta inflow for Alternative 2 minus No-Action is a plus 1,000 AF, yet the Freeport flow for Alternative 2 minus No-Action is a minus 24,000 AF. This does not seem to correspond. Also, total Delta inflow for Alternative 3 minus No-Action is shown to be minus 30,000 AF, yet the Sacramento River flow at Freeport for Alternative 3 minus No-Action is shown to be a minus 133,000 AF. This would indicate that 100,000 AF of additional flow is entering between Freeport and the Delta. It is unclear where that water could be coming from.

- Page 3-22:

The DEIR/DEIS states that the "distributions for Alternatives 2 and 3 indicate that the small quantity of project deliveries should not appreciably affect the timing or quantity or water available to meet SWP demands." However, the distribution shown in Figure 3-19 (which was referenced for this conclusion) does not contain any information regarding the timing or quantity of water available. It is unclear whether that information exists elsewhere in the document.

The section on hydropower and energy production is woefully inadequate. There is no discussion of capacity impacts, there is no discussion of individual year impacts to energy or capacity production, and there is no discussion of effects on pumping for EID or for the pumping plant at Folsom Dam. None of this data appears to be available in the DEIR/DEIS.

C. Additional Comments On Volume II, Appendix C

1. General Comments

Appendix C presents results of PROSIM and EBMUDSIM modeling. With the exception of tables showing EBMUD deliveries and deliveries to the City and County from the American River, there are no detailed results from the modeling for other important parameters such as Folsom Reservoir and other CVP reservoir storages. The only information that appears to be available in the appendix are a number of tables which give only monthly minimum, maximum, and 70-year average values for the period of record. That information is insufficient to perform an analysis or to understand the impacts or the effects of this proposed project on the

various parameters. Also, modeling assumptions used in the entire analysis are not documented, and therefore, cannot be examined. There is merely a list of computer files used, and a list of changes to those computer files. It is not clear what is contained in the listed computer files.

2. Specific Comments

- Appendix C, Page 4, Note 6:
  The AFRP flow requirements used in the PEIS Alternative I have been significantly modified over the past years. This may result in different flows in the Sacramento River, Clear Creek, and the American River, than the flows used for impact assessment in the DEIR/DEIS.

- Appendix C, Page 4, Note 7:
  It appears that 35 TAF was subtracted from Folsom Reservoir inflow. PCWA's existing diversion from the upper American River is 8.5 TAF, and this diversion has been accounted for in the upstream simulation. It appears that in PROSIM simulations where 35 TAF was removed, the resulting PCWA upstream diversion is 35 TAF plus 8.5 TAF, which equates to a 43.5 TAF diversion for PCWA. This will alter the water supply in Folsom Reservoir, flows in the lower American River, and water supplies throughout the entire CVP. It is unclear how other changes in upstream diversions were accounted for.

- Appendix C, Page 5, Note 11:
  This note states that the reservoir file was adjusted to account for differences in PROSIM versions. It is not clear which PROSIM version was used in the analysis, or if any modifications were made to PROSIM for this analysis.

- Appendix C, Page 6, Table 3:
  American River demands are presented for the future conditions only. It is unclear what specific demands were included in the existing conditions.

- Appendix C, Page 7, Table 4:
  This Table shows the demand used for Alternative 2 is 28.9 TAF, and the demand used for Alternative 3 is 112 TAF. The DEIR/DEIS, however, states on page 3-13 that the simulated delivery under Alternative 2 was 29,000 AF, with a maximum take of 105,000 AF. There appears to be an inconsistency, therefore, between demand and delivery, and this must be explained

- Appendix C, Table C-3:
  The existing condition for the City of Sacramento's American River diversion is stated as 85,000 AF per year. This is higher than current City of Sacramento American River diversions. For example, the Water Forum uses 50,000 AF per year for the American River diversion for the City of Sacramento. This discrepancy should be explained.

- Appendix C, Table C-4:
  It is unclear what criteria were used to decrease water right deliveries to the City of Sacramento.

- Appendix C, Table C-6, and Table C-9:
  These tables represent the delivery to EBMUD, City of Sacramento, and the County of Sacramento from the American River. The annual delivery is as low as 45 TAF in seven years. This discrepancy should be explained, given the City's demand at 100 TAF, the County's demand at 27.7 TAF, and EBMUD's demand at 112 TAF.

CHAPTER 4 - Water Quality

DEIR/DEIS, pp. 4-1 to 4-6

A. General Comments

The water quality discussion makes determinations of less-than-significant impacts for a number of water quality issues without sufficient technical evaluations upon which to base such conclusions. In addition, the water quality discussion fails to evaluate all the relevant water quality issues that should be evaluated for this proposed project. For example, the impact assessment focused on impacts to water quality in terminal reservoirs and the Delta, but did not address potential water quality impacts to Folsom Reservoir, Lake Natoma, or the lower American and Sacramento Rivers. Moreover, it did not address potential impacts to parties discharging to or diverting from the lower Sacramento River (e.g., Sacramento Regional County Sanitation District). This chapter completely lacks any discussion of the State Antidegradation Policy (State Water Resources Control Board Resolution No. 68-16). Resolution No. 68-16 states that whenever the existing quality of water is better than that defined by State water quality objectives and policies, such existing high water quality will be maintained until it has been demonstrated to the State that any change will: (1) be consistent with the maximum benefit to the people of the State; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in water quality control plans or policies. Resolution No. 68-16 was not addressed at all in the DEIR/DEIS water quality section. The narrow focus taken for assessing impacts, the lack of technical data and assessments to support impact determinations, and the failure to address a key State water quality protection policy, renders this water quality section deficient under both CEQA and NEPA.

B. Specific Comments

- Page 4-1:

This subsection lacks any discussion of the State Antidegradation Policy. This is an important water quality protection policy that should be addressed in the context of this proposed project, since the proposed action will negatively change chloride and other water quality parameters in surface waters of the State. It is possible for the proposed project to result in significant water quality impacts, even if the project does not cause specific water quality parameters to exceed State water quality standards or objectives. Although water quality may comply with baseline State standards and/or objectives, substantial degradation of existing water quality may constitute a significant impact.

- Page 4-3:

The DEIR/DEIS fails to provide any discussion to indicate whether the proposed project will affect the ability to meet State water quality standards/objectives, or if it will further degrade existing water quality in Folsom Reservoir, Lake Natoma, or the lower American and Sacramento Rivers. Similarly, Delta water quality has not addressed in a comprehensive fashion. Instead, the entire assessment methodology discussion focused on Delta chloride levels at the Contra Costa intake only. Even if water quality impacts to these other water bodies are less than significant, the DEIR/DEIS must provide sufficient technical discussion to support such a conclusion. Without adequate assessment of potential water quality impacts to these other water bodies, and a more complete assessment of potential impacts to Delta water quality as defined by the 1995 Delta Water Quality Control Plan (which includes flow and electrical conductivity standards at various locations in addition to chloride standards), a full disclosure of potential water quality impacts to the Delta is not provided. For example, Delta water quality objectives for agricultural beneficial uses (i.e., Sacramento River at Emmaton and San Joaquin River at Jersey Point), as defined in the 1995 Water Quality Control Plan, have not been assessed at all. In addition, impacts to fish and wildlife beneficial uses were not addressed in this section, nor was there any reference to whether they are addressed in another section of the DEIR/DEIS, such as the fisheries section. Project-related impacts to Delta outflow and X2 position are critical in this regard.

We suggest adding the following to the list of "significance criteria" identified at the end of this page: RL14-282

"Diversions would cause significant change in water quality (especially TOC, temperature and turbidity) to other diverters."

- Pages 4-3, 4-4:

The DEIR/DEIS states that the primary water quality issues of the proposed project are: (1) surface soil and instream disturbances from construction of facilities; (2) changes to the water quality of terminal reservoirs that may receive water from the LAR; and (3) changes in ambient water quality variables in the Delta as a result of reduced Delta inflow.

Although these are relevant water quality issues, this chapter fails to address other relevant issues, including: (1) water quality impacts to Folsom Reservoir, Lake Natoma and the lower American and Sacramento Rivers due to reduced water volumes (i.e., storage/flows), and thus, reduced dilution capacity for contaminant input due to urban runoff, stormwater discharges, and effluent discharges from the Sacramento Regional Wastewater Treatment Plant (SRWTP) at Freeport; and (2) potential for increases in taste and odor problems for purveyors diverting raw municipal water supplies from Folsom Dam and the Fairbairn and Sacramento River Water Treatment Plants. These issues need to be addressed both in terms of State water quality standards and objectives, as well as the State's Antidegradation Policy (Resolution No. 68-16). Key assessment issues for the SRWTP would include effects of the proposed project on: (1) seasonal dilution ratios, particularly the frequency of when the minimum 14:1 dilution ratio for discharge to the river is not met, thereby preventing discharge for a period of time; (2) changes in receiving water quality that may result in more strict effluent limits in the future which could, in turn, result in higher treatment costs; (3) the ability of the SRWTP discharge to comply with current regulatory limits for temperature impacts to the Sacramento River; and (4) future TDS, TOC, and pathogen loading to the Sacramento River and Delta when this proposed project is in place, and the SRWTP is discharging at significantly higher rates, relative to existing conditions. The latter issue affects not only the SRWTP, but also municipal water purveyors diverting raw water supplies from the Sacramento River

and Delta. By not addressing these and related water quality issues, this section fails to fully address the potential water quality impacts that could result from implementation of the proposed project.

An insufficient technical basis and rationale are provided for the quantitative significance criteria for increases in average annual chloride levels at delivery points within the Delta (i.e., more than 3 mg/l or an increase of more than 30 mg/l in 10% of the months that were evaluated). Moreover, changes in chloride levels under the alternatives were not evaluated in light of the State's Antidegradation Policy. It should be noted that an increase of 30 mg/l represents a relative increase of more than 20% when chloride levels (under existing conditions) are below 150 mg/l. Increases of this magnitude are considered to be substantial. Hence, the timing of such occurrences (i.e., a single month occurring randomly among the 70+ years of assessment, or changes of this magnitude for several consecutive months during dry years) becomes important. The assessment performed, however, does not disclose the "pattern" or "timing" of changes in chloride levels in excess of 30 mg/l. The chloride impact assessment itself, therefore, is technically deficient.

- Page 4-4:

The DEIR/DEIS states that changes to conditions under Alternative 1 were compared to existing conditions; changes under Alternatives 2 and 3 were compared to no action. The next subheading immediately following this statement is "Alternative 1: No-Action." The first paragraph of this section reads as follows: "Reduction of annual flows in the lower American River as a result of deliveries from the basin under 2030 conditions could reduce Delta outflow compared to existing conditions. Figure 4-3 shows chloride concentrations under Alternative 1 and changes that would occur compared to existing conditions. Both sets of data are plotted against the corresponding existing condition value to show how values are distributed." It is unclear whether the Alternative 1 data presented in Figure 4-3 are at the existing, or 2030, level hydrology. This should be clarified.

The standard deviation represents the range of values in which approximately 68% of the monthly values would fall, not 70%. The DEIR/DEIS states that only 2% of the monthly differences in chloride levels exceed 30 mg/l. Although this may be true for the entire period of assessment, it is not disclosed whether this is true for all individual years. This assessment approach fails to identify when this 2% occurs. If it tends to occur during consecutive months during one or more dry years, there may be a significant adverse impact to Delta water quality during those years. Providing summary statistics for the entire period of assessment only, without also assessing individual years, does not provide the opportunity to identify impacts that may occur in individual years. This same comment applies to the chloride assessment performed for the cumulative condition (pg. 4-6).

The DEIR/DEIS states that "EBMUD and its contractors would obtain all required local permits, clearances, and NPDES permits from the CVRWQCB and implement appropriate BMPs to protect water resources from contamination. This impact is less than significant." Acquisition of necessary permits does not provide sufficient evidence to conclude that construction will result in less-than-significant water quality impacts. The specific BMPs that will be employed to assure that no significant impacts occur, as well as the parties responsible for implementing and monitoring their effectiveness, should be disclosed. Moreover, contingencies should be identified in the event that initial BMPs that are implemented prove to be inadequate to protect water quality. In addition, these discussions provide no information as to the timing of key activities such as coffer damming, which could affect the timing and magnitude of impacts (such as stranding juvenile fish). The technical assessment for these impacts is insufficient to support the impact determination of less than significant.

- Pages 4-5 and 4-6:

In the first paragraph on pg. 4-5, the DEIR/DEIS states that because "effective and environmentally safe methods of control are available for algae and taste and odor control, this impact is less than significant." The level of assessment performed and discussed for the algal taste and odor issue is insufficient, both technically and geographically for the following reasons. First, the foregoing statement suggests that controlling taste and odor problems in reservoirs used for raw drinking water supplies is rather simple; however, this is typically not the case. Control of and/or changes in watershed land use practices and control of nutrient-laden runoff within watersheds are difficult endeavors. Second, whether the terminal reservoirs in question have the physical facilities to divert water from multiple elevations and blend these waters is not stated. Folsom Reservoir, for example, lacks such facilities. Third, artificial circulation of large reservoirs can be logistically difficult and costly. Fourth, in the first paragraph on pg. 4-6, the DEIR/DEIS states that "it is difficult to predict the effect of the imported water on taste and odor." In other words, a great deal of uncertainty exists with regard to the potential for taste and odor impacts to occur in terminal reservoirs as a result of the proposed project. The lack of technical assessment provided and the fact that a great deal of uncertainty exists regarding this potential impact does not support the impact determination of less than significant. Without substantial technical evidence to indicate that this impact would be minimal, it should be concluded that a potentially significant impact exists. Finally, there should be a similar assessment for potential increases in taste and odor problems for purveyors diverting raw municipal water supplies from Folsom Dam and both the Fairbairn and the Sacramento River Water Treatment Plants.

- Page 4-6:

As indicated in the previous comment, the DEIR/DEIS should analyze whether EBMUD's proposed diversion will have an impact on the water quality available to other diverters, particularly during dry periods. Such water quality impacts could occur at both the Fairbairn Water Treatment Plant and the Sacramento River Water Treatment Plant as a result of reduced dilution capacity resulting from EBMUD's diversions of American River water, and at the Sacramento River Water Treatment Plant as a result of construction/operation of the proposed I-5 diversion facility. This analysis must be conducted before reaching any conclusion that implementation of the project alternatives will have no significant impacts on water quality. The same comment applies to the discussion of cumulative impacts on this page. RL14-283

CHAPTER 5 – Fisheries

DEIR/DEIS, pp. 5-1 to 5-79

This chapter on Fisheries contains numerous subtopics. Given the extreme importance of water temperature considerations with respect to fisheries impacts, comments on the Lower American River Water Temperature Assessment contained in the DEIR/DEIS, Vol. II, Appendix D, are provided separately below.

A. General Comments

The following comments are made with respect to the Lower American River Water Temperature Assessment contained in Chapter 5 and Appendix D. Additional comments are provided with respect to hydrologic modeling as they pertain to statements made in Chapter 5 and Appendix D. The DEIR/DEIS makes five broad methodologic statements that attempt to describe and justify the methodology used in assessing impacts caused by lower American River temperature changes that result from the project. The following comments are made in the context of these five statements.

1. Methodologic Statement 1 - DEIR/DEIS, pp. 5-11, Appendix D-1: The effect of storage on Nimbus release temperatures was estimated based on regressions developed using the historical storage and temperature data.

Based upon a number of qualifying assumptions, linear regression equations relating historical end-of-month Folsom Reservoir storage and historical "end-of-month" Nimbus Hatchery inflow temperatures were developed. The slopes of the regression equations (one for each of twelve months in units of °F/100 TAF) are then used to calculate temperature impacts corresponding to an alternative's impact on Folsom storage (Tables 5-4 and D-1). This temperature impact, due to storage only, is then combined with another flow only temperature impact to determine the overall impact of an alternative.

An examination of Table D-1 and Figures D-6 through D-17, evidences that the use of the regression equations developed will fail to identify temperature impacts related to simulated alternatives. In the months for which regressions show the highest statistical significance (P value < 0.001; June - October), from 30% up to 70% of the variability in hatchery intake temperatures remains unaccounted for, due to Folsom Reservoir storage conditions. Table D-1 does not identify the confidence interval associated with either temperature estimates at the 200 TAF or 1000 TAF Folsom Reservoir storage levels, or the error associated with the estimate of the regression slope. After analyzing the related figures, especially in October, it appears that the confidence interval associated with a range of Folsom Reservoir storage conditions would be rather wide compared to the associated slope used to identify the impact of a storage change. In illustrating the regression equations it is important to note that the maximum temperature ever determined by the regression equations (based on minimum Folsom Reservoir storage of approximately 150 TAF) will never exceed 64.7°, 69.2°, 71.3°, 70.0°, and 64.6° F in June through October, respectively. The actual maximums based on the 1959-1995 historic record are approximately 68°, 70°, 73°, 71°, and 68° for those respective months. Based on a 70-year record consistent with the period of record used in the PROSIM analysis, the frequency and magnitude of values exceeding those estimated by the regression equations are certain to increase. Because temperature-related impacts to fisheries are largely determined by the exceedance of physiologically important temperature thresholds, and given the failure of the regression equations to adequately describe the means by which Folsom Reservoir operations cause temperature conditions to exceed those estimated by the regressions, the analysis will fail to identify significant temperature impacts of the alternatives.

The DEIR/DEIS, moreover, makes the following sequence of assumptions : (1) historic high Folsom Reservoir storage conditions relate to historic high Folsom Dam releases; (2) historic low Folsom Reservoir storage conditions relate to historic low Folsom Dam releases; (3) simulated conditions do not differ [in this respect] greatly from the historic conditions; and therefore (4) the regressions used, even though based *solely* on Folsom Reservoir end-of-month storage conditions, adequately serve to assess the *combined* Folsom Reservoir storage and Folsom Dam release impacts of Folsom operations on Nimbus Hatchery intake temperatures. (DEIR/DEIS, p. 5-11, and Appendix D-2.)

This logic is flawed. After the above assumptions, the DEIR/DEIS recognizes that future "Folsom Reservoir operations may allow the monthly reservoir release temperatures to be less dependent on storage than the historical Nimbus Dam temperatures," but states that the methodology of determining impacts at the Nimbus Hatchery remains adequate for impact assessment purposes (pg. 5-12). At Appendix D-7, the DEIR/DEIS states that "the comparisons of the PROSIM flow and storage values show that a simulated reduction in storage does not necessarily cause a simulated reduction in flow," thereby agreeing with the statement on DEIR/DEIS, p. 5-12, but contradicting both the statement on p. 5-11 and the conclusion drawn on p. 5-12. Of course, Folsom Reservoir operations will vary from historic operations in at least the following ways: (1) application of AFRP or F-Pattern storage-release flow relationships, (2) change in magnitude and pattern of future demands, (3) operation of Folsom Dam shutters and associated Coldwater Pool Management, (4) changes in Delta requirements for which coordinated Folsom and Shasta Dam releases may be required, (5) changes in Folsom Dam flood control-related operations, and (6) changes in future level hydrologies. EBMUD actions will contribute to the modification of Folsom Reservoir operations. Failure to properly consider the dynamics of the coldwater pool in Folsom Reservoir and its efficient management, in both project and non-project (No-Action) scenarios, will lead to serious misinterpretation of lower American River temperature changes. Figures D-6 through D-17 illustrate this serious concern. The bottom of these figures contain plots comparing historic and No-Action simulated Folsom Reservoir storage versus Nimbus Dam releases. Every one of the months plotted demonstrate substantial operation changes at Folsom Dam. A No-Action scenario that fails to recognize these future changes will cause the project alternative scenarios to indicate benefits that will not actually be realized, and impacts that would be, perhaps grossly, underestimated. Use of historic data as the basis for all simulations ignores what is evidenced in the data presented.

2. Methodologic Statement 2 - DEIR/DEIS, p. 5-12, Appendix D-1: Temperature changes resulting from flow changes in the lower American River were estimated using a daily river temperature model.

The DEIR/DEIS utilizes a daily riverine temperature model to evaluate potential temperature-related impacts. The daily model was calibrated for the years 1986 - 1989 and verified for the years 1990 - 1994 using historic meteorological conditions, historic Nimbus Hatchery intake temperatures, and historic Nimbus Dam release flows. Similar to the use of the regression equation slopes discussed earlier, "slopes" were developed relating temperature decrease to flow increase at various locations in the LAR. These "slopes" were defined for each month by comparing the daily results of two simulations. One simulation used the Hodge flows instead of the historic flows. The other simulation used the Hodge flows plus 500 cfs, instead of the historic flows. The two simulations were compared, and for each month at various locations, the largest maximum daily difference was computed. "Slopes" in the units of °F / 500 cfs (one for each of twelve months) were computed (Tables 5-5, D-2). These slopes were then used to calculate temperature impacts corresponding to EBMUD diversions in a particular month of the PROSIM simulation. This temperature change, due to flow only, was combined with another temperature change [storage-only] to determine the overall impact of an alternative.

After analyzing Table D-2 and Figures D-25 through D-44, it appears that the determination of the "largest maximum daily difference" for a flow change from Hodge to Hodge + 500 cfs may have some utility for determining the *maximum potential* temperature increase related to some reduction of flow (e.g., 312 cfs reduction), *as long as the remaining flow in the river is above the Hodge criteria*, and as long as Nimbus Dam release temperatures and meteorological conditions remain within the range used in the daily simulations. The calibration period of the daily model appears to have a wide variety of hydrologic, meteorological and operational conditions to provide a sufficient dataset to calibrate a daily model.

- Page 5-12:

  The DEIR/DEIS states that "Hodge Decision flows were chosen as the lower flow level for the simulations because EBMUD is not permitted to take delivery of water at the FSC when diversions would reduce Nimbus Dam releases to below Hodge Decision flows." Apparently, the impact assessment approach assumed that temperature impacts in the lower American River need only be considered if EBMUD is taking a diversion in the same month, and therefore, the determination of the "largest maximum daily difference," as described, may be sufficient because there would be no temperature impacts considered when flows are below the Hodge criteria.

  This assumption is problematic, however, because it does not accurately reflect operational changes at Folsom Reservoir due to the EBMUD's diversions. EBMUD's action of diverting off the system will change the operations of Folsom Reservoir in subsequent months which, in turn, may change allocations to other CVP contractors, minimum flow requirements (because of storage changes), requirements for Delta water quality standards, and Delta exports. Flow changes in the lower American River and storage changes in Folsom Reservoir will occur as a direct result of EBMUD's action, even if EBMUD is not taking water in the particular month in question. If, indeed, temperature impacts in non-diversion months were ignored, which appears to be the case, then the water temperature assessment is fundamentally flawed and the DEIR/DEIS is technically deficient regarding temperature-related impacts in the lower American River.

  The DEIR/DEIS states that "PROSIM results may indicate changes in American River flows under Alternatives 2 and 3. The monthly change in temperature associated with these simulated changes in river flow are calculated for each alternative using the monthly maximum temperature change[s] . . ." This statement indicates that the DEIR/DEIS apparently recognized the issues in the previous comment. If so, then the DEIR/DEIS applied the "*largest maximum daily difference*" per 500 cfs "slope" values previously determined for flow changes above the Hodge criteria to flow changes actually *below* the Hodge criteria. Applying these "slope" calculations, regardless of the magnitude of flow, will substantially underestimate the temperature-related impact due to a flow change when the resulting flow is lower than the Hodge criteria. The actual temperature-flow relationship is non-linear. Temperatures increase at higher rates as flow is reduced. A 500 cfs *reduction* from the Hodge criteria, in a typical July for example, may result in a temperature increase more than twice as much as what would be determined by reducing the flow from Hodge + 500 cfs to the Hodge criteria. If impacts were actually considered in months in which EBMUD was not diverting, the actual impacts from the proposed action are grossly understated because of the error in determining the "largest maximum daily difference" per 500 cfs.

3. Methodologic Statement 3 - DEIR/DEIS, p. 5-11, Appendix D-1: The temperature assessment methodology estimates the monthly risk of temperature increases in the lower American River of greater than 1° F caused by simulated hydrology changes for each project alternative. The DEIR/DEIS states that "[f]or each reach and month in which the potential for temperature impacts existed, an incremental warming of 1° F was used to evaluate temperature impacts, because a change of less than this magnitude cannot be differentiated from other sources of natural variability."

This statement reveals a fundamental flaw in the DEIR/DEIS analysis of water temperature-related impacts. Obviously, future meteorological conditions will vary from historical conditions. Also, future hydrologic, regulatory and operational conditions will vary from historical conditions. However, by using datasets that are developed through a rational, defensible process in which the sources of variability can be understood, the impacts of that variability can also be understood. It is insufficient to simply excuse variability as irrelevant to the process of assessing the potential impacts related to a proposed action. Because of the rational basis of assumptions that the analysis is built upon, variability must be fully considered and explained. If this cannot be done, then either the assumptions are not rational and defensible, or the analyst does not adequately understand the assumptions involved in the modeling process. Clearly, the analysis in the DEIR/DEIS did not appropriately identify the impacts of the proposed action.

- Pages 5-14, 5-15:

The DEIR/DEIS states that "PROSIM reasonably simulates river and Delta flows and reservoir storage effects under existing conditions and alternatives." The DEIR/DEIS also states (at p. 5-15) "that the natural variation in hydrologic conditions is substantially larger than hydrologic changes associated with the alternatives." These statements are susceptible to the critique in the previous comment. Consider the scenario in which PROSIM identifies a 312 cfs reduction in lower American River flow during July, and Folsom Reservoir end-of-month storage is reduced by 17 TAF as a result of the proposed action. The approach used in the DEIR/DEIS indicates, based solely on this information, that there is a potential warming of 0.62° F at Goethe Park and 0.99° F at the Fairbairn WTP. According to the approach in the DEIR/DEIS, there is assumed to be no temperature impact at Goethe Park or the Fairbairn WTP because "natural variation" means this < 1° F change really doesn't happen, and can be arbitrarily dismissed. Moreover, as additional constraints have been and will be imposed on Folsom Reservoir operations, flexibility in operating Folsom Reservoir is decreased. For example, increase of a minimum flow requirement may be associated with a decrease in variability in river flows during that same time, as is illustrated in Figures D-6 through D-17. Again, the DEIR/DEIS misrepresents potential impacts resulting from the proposed actions due to inappropriate analytical procedures and arbitrary dismissal of actual, potentially significant impacts.

4. Methodologic Statement 4 - Appendix D-1: The DEIR/DEIS states that the possible effects of the modified temperature control panels (shutters) "are not specifically included in the EBMUD temperature assessment." The DEIR/DEIS, however, also states that there "are several ongoing efforts within the American River Basin that could mitigate the cumulative impacts ... For example ... install a temperature control device on the Folsom Dam raw water inlet to various northern Sacramento County water users and to implement a coldwater management approach that attempts to most efficiently use the available cold water for fishery purposes." (DEIR/DEIS, p. 5-25.)

Although the DEIR/DEIS failed to simulate coldwater pool management via shutter manipulation, the document acknowledges that there may be some temperature benefits to the lower American River derived from operating the temperature control device ("TCD") and Folsom shutters for coldwater pool management purposes. Shutters are being operated currently to enhance temperature conditions in the lower American River. These actions (shutter changes) are being determined and implemented by the USBR through efforts of the lower American River Operations Work Group. To adequately model the existing conditions, the temperature assessment must consider shutter operations representative of the current actions taken by the USBR in support of the lower American River Operations Work Group. Future conditions must consider shutter operations representative of a more sophisticated coldwater pool management strategy. This failure to consider coldwater pool management in the temperature assessment, potentially mislabels actual temperature impacts as non-impacts.

As illustrated in Appendix D, a comparison was made between the EBMUD regression approach for assessing temperature impacts due to Folsom Reservoir storage changes, and the USBR Temperature Model. The comparison was based upon an analysis of the No-Action alternative. Figures D-45 through D-50 compare the resulting Nimbus Dam release temperatures computed by the USBR based on results from PROSIM, against the regression equations developed based on historic data. The DEIR/DEIS states that "[t]hese differences may be caused by the relatively high summer target temperatures in the Reclamation model and other differences between the simulated conditions under Alternative 1 and historical conditions." (Appendix D-6.) It is interesting to note that the temperature targets used in the comparison to drive the temperature simulation with the USBR model are the Folsom Dam release targets from the CVPIA PEIS. These target temperature release objectives, however, are obsolete. Frequently, simulations based on these target temperature release objectives will result in a depleted coldwater condition by mid-summer. Meanwhile, river temperatures will reflect flow release variations during times when Folsom Dam is able to release water of a specified target temperature. This is the dynamic that is documented in this section of Appendix D. This, however, is not the methodology of cold water pool management.

The DEIR/DEIS asserts that "incremental temperature changes in the lower American River associated with each alternative will not change under future changes in the operations of other facilities (e.g. Folsom Reservoir temperature control device)." (DEIR/DEIS, p. 5-15.) This statement is not substantiated and, more importantly, is not correct. The DEIR/DEIS' failure to model the Folsom shutters or the TCD in the future constitutes a failure to consider the full range of impacts of EBMUD's action on the lower American River temperature conditions.

5. Methodologic Statement 5 - DEIR/DEIS, p. 5-11, Appendix D-1: Changes to Folsom Reservoir release elevations may allow increased flexibility in the timing of coldwater releases. However, changes in release temperatures resulting from such modifications will probably be less than 5° F for any particular month and, because there is a limited supply of cold water, seasonal temperature patterns in the future are expected to be similar to historic patterns.

The foregoing statement regarding seasonal temperature patterns is unsubstantiated, and incorrect. Data used in the daily riverine temperature analysis shows a dramatic drop in temperature at the confluence of the American and Sacramento Rivers on July 8, 1992. (Figure D-22.) The DEIR/DEIS correctly identified this as the removal of temperature control shutters at Folsom Dam. All shutters were pulled because of insufficient water elevations in Folsom Reservoir. However, this took place under the old shutter configuration (configuration 1-1-7; *see* Figure D-58), which no longer exists.

Presently, Folsom Dam has a new shutter configuration (configuration 3-2-4; *see* Figure D-58). The DEIR/DEIS correctly concludes that the 1-1-7 configuration left very little flexibility. The new configuration, however, which has been in place in recent years, provides an opportunity to improve the management of Folsom Reservoir's coldwater pool. The July 8, 1992 condition was a rather abrupt and drastic change in river temperature conditions. Under this scenario, the coldwater was used up very quickly.

Coldwater pool management is the efficient use of coldwater from Folsom Reservoir for the greatest benefit to lower American River fisheries. To achieve a desired temperature suitable for fish resources in the lower American River, an appropriate water temperature needs to be released from Folsom Reservoir. A given temperature release from Folsom Dam will cost a specific amount of the coldwater reserve in Folsom Reservoir. The actual temperatures achieved during May-November are dependent on (1) inflows, (2) the amount of coldwater in storage at the beginning of the season, (3) the rate at which coldwater is released from or lost through the thermodynamics of Folsom Reservoir, and (4) the duration of coldwater releases from Folsom Dam.

If a proposed action such Alternative 2 adds to the losses of Folsom Reservoir's coldwater reserve, then temperature goals in the LAR may not be achieved. Because of the failure to conduct a coldwater pool management analysis of the project alternatives, the full impacts of the proposed action have not been adequately considered, and it is likely that the impacts of the proposed action were understated. In any case, lack of coldwater pool management using the current shutter configuration to characterize the existing condition, and the failure to include more sophisticated coldwater pool management strategies and tools (e.g., TCD) to characterize future conditions, also renders this section (and all dependent sections) of the DEIR/DEIS deficient.

B. Specific Comments

- Page 5-1:

  The background description pertaining to special-status species is awkwardly phrased. It should be revised so that it does not provide misleading information implying that delta smelt occur in the LAR. Moreover, the DEIR/DEIS states that "the potential exists for delta smelt to occur in the lowermost reaches of the American River." It is confusing and contradictory that these statements are prominent in the "background" section of the report, yet no impact evaluations were conducted or even addressed for the "potential" delta smelt in the LAR.

- Page 5-2:

  The DEIR/DEIS should clarify that the County of Sacramento and CDFG did *not* recommend, during *EDF, et al. v. EBMUD*, that EBMUD take water at Nimbus, or that any such diversion should be conditioned on specific flows. The text is extremely misleading in this regard.

  The discussion of the Hodge decision also should refer to the requirement to maintain 60,000 acre feet of water in reserve for instream purposes. | RL14-284

- Pages 5-7, 5-16, 5-18:

  The DEIR/DEIS emphasizes the importance of the Delta, including the statement that the Delta "is the primary habitat for several euryhaline species, including the delta smelt." However, the impact assessment conducted for Delta fishes, including delta smelt, is contradictory and technically deficient. For example, the DEIR/DEIS states that impacts would be considered significant with "substantial reductions in . . . Delta outflows and exports . . . and/or substantial changes in the location of X2." (DEIR/DEIS, p. 5-16.)

  The DEIR/DEIS concludes less than significant impacts on Delta fishes for Alternative 2 because of "[m]inimal to no changes in Delta outflow exports, or location of X2...." (DEIR/DEIS, p. 5-18; Tables 5-31 and 5-32.) However, Tables 5-31 and 5-32 do not contain information on the location of X2 whatsoever, nor does it appear that the location of X2 was even evaluated in the DEIR/DEIS. Similarly, the DEIR/DEIS states that "monthly Delta outflow, exports, and X2 under the full-use scenario would be essentially the same as under Alternative 3 (Tables 5-54 and 5-55)." (DEIR/DEIS, p. 5-26.) However, Table 5-54 does not even refer to Delta parameters (it only presents limited information on lower American River temperatures) and Table 5-55 presents only limited outflow information.

- Page 5-8:

  The DEIR/DEIS acknowledges that one of the factors affecting fish populations in the Sacramento River is "unfavorable water temperatures during incubation, rearing, and emigration phases. " However, the DEIR/DEIS did not even evaluate water temperatures in the Sacramento River, and concomitant impacts to fish resources. The DEIR/DEIS's failure to assess potential water temperature-related impacts to fisheries in the upper Sacramento River is a fundamental flaw. Of particular importance are potential impacts to winter-run chinook salmon, although impacts to other runs of chinook salmon should also be evaluated.

  EBMUD's diversions have the potential to affect operations of Folsom Reservoir and other CVP reservoirs including Shasta Reservoir. The Reasonable and Prudent Alternative (RPA) in the winter-run chinook salmon biological opinion specifies water temperature objectives for sections of the upper Sacramento River to provide suitable conditions for winter-run chinook salmon spawning, egg incubation and juvenile rearing. Complying with the RPA is strongly influenced by storage levels in Shasta Reservoir. Because EBMUD's diversions may affect CVP operations, the proposed project could impact water temperature conditions for winter-run chinook salmon in the upper Sacramento River in two ways. First, the proposed project may increase the frequency of occurrence of water temperature violations in the upper Sacramento River. Second, even if the proposed project did not increase the frequency of occurrence water temperature violations, it likely would result in higher water temperatures in years when water temperatures exceed the criteria. Depending on the frequency of occurrence and magnitude of water temperature increase, potentially significant impacts to winter-run chinook salmon could occur.

  Other runs of chinook salmon are currently under a status review by the National Marine Fisheries Service and have recently been proposed for listing under the ESA. Spring-run chinook salmon is a California Species of Special Concern and has been approved for listing under the ESA, and as such, should be addressed. In addition to winter-run chinook salmon, spring-run chinook salmon may be adversely affected by water temperature changes in the upper Sacramento River due to alterations in Shasta Reservoir operations. In addition, the Bureau's Sacramento River Chinook Salmon Mortality Model is one of the best available tools for evaluating potential impacts to

(specified by NMFS in its 1993 biological opinion for winter-run chinook salmon)." This assumption is false. Not only will 1.9 MAF carryover storage in Shasta Reservoir not always be met under any future scenario, it is not even always met under the existing condition, according to information presented in DEIR/DEIS Appendix C, Table C-14.

- Page 5-15:

The DEIR/DEIS states that one of the assumptions upon which the fisheries impact evaluation was based included "incremental temperature changes in the lower American River associated with each alternative will not change under future changes in the operations of other facilities (e.g., Folsom Reservoir temperature control device)." No defensible basis is provided in the DEIR/DEIS to support this assumption.

- Page 5-16:

One of the significance criteria used for fisheries impact determination included the situation when "a temperature increase of at least 1°F would occur at least 10% of the time in months when baseline temperatures are likely to exceed acceptable levels for the evaluation species and life stages." The DEIR/DEIS also states that relative to the existing condition "[h]igh water temperature in summer and fall also is a major limiting factor for natural steelhead production." (DEIR/DEIS, p. 5-4.) This situation will be exacerbated with increased water demands in the future, including the future No-Action alternative, and particularly Alternative 2. The DEIR/DEIS briefly acknowledged this with its statement that "[f]low differences are of the most interest during summer when the differences have the greatest impact on water temperatures. The largest flow difference occurs in August when average flows under Alternative 1 at Nimbus Dam are 866 cfs less than flows under existing conditions." (DEIR/DEIS, p. 5-17.)

Use of this 1° F significance criteria, particularly within the context of the foregoing DEIR/DEIS statements, is very problematic. The impact assessment focused on the incremental change in water temperature in the LAR River between the proposed action alternatives and the future (2030) No-Action alternative. Even with such a constrained assessment, elevated water temperatures were predicted. Given the foregoing discussion, and in consideration of the recent listing of steelhead as "threatened" under the Federal Endangered Species Act, additional justification must be provided for establishment of a 1°F incremental increase (at least 10% of the time) in temperature as significance criteria, and for the findings of less-than-significant impacts. In fact, fishery agencies have concluded that *any* increase in summertime water temperatures represents a potentially significant adverse impact to steelhead.

- Page 5-19:

The technical evaluation of Alternative 2's potential effects on fish resources in the lower Sacramento River is deficient. The assessment approach was restricted to potential reductions in flow (given the foregoing limitations on the methodology, as previously discussed.). However, potential impacts in the lower Sacramento River would most likely be water temperature-related, which was not even addressed in the DEIR/DEIS.

The DEIR/DEIS discussion of the planned outage needs is confounding due to a lack of clarity, lack of specificity, and lack of impact assessment. The DEIR/DEIS states chinook salmon in the Sacramento River. This tool, however, was not used in the DEIR/DEIS for assessing potential impacts to chinook salmon in the Sacramento River.

- Page 5-9:

Given the previous comments on the hydrological assessment in the DEIR/DEIS, all flow-related impact assessments are of questionable utility.

- Page 5-10:

The DEIR/DEIS states that "Flow-related impact thresholds for physical habitat in the lower American River were the minimum flows stipulated in the Hodge Decision and minimum flows established by the *AFRP during below-normal and above-normal water year types*." [Emphasis added.] The DEIR/DEIS fails to note that these minimum flows under the AFRP for the stated year types are synonymous. The DEIR/DEIS artificially and inappropriately constrained all analyses by not evaluating "wet" conditions. This results in minimizing/eliminating potential impacts that would be expected to result, particularly from Alternative 2.

As part of the AFRP development process, technical teams consisting of fishery biologists with expertise on anadromous fishes in each of the Central Valley Project (CVP) streams were assembled. These technical teams developed specific recommendations for each stream to achieve the "doubling goal" of the AFRP. As part of this effort, flow levels were recommended for chinook salmon and steelhead in the lower American River. The flow recommendations for the LAR vary by water year type, in contrast to the "Hodge flows" which do not vary. Relative to the Hodge flows, the AFRP recommendations provide higher flows in wet years, similar flows for chinook salmon spawning and rearing during normal water years, and lower flows during dry and critically dry years. These flow recommendations were developed using the best available information on the flow and temperature requirements of anadromous salmonids in the LAR, as well as information on water availability.

The AFRP flow recommendations recognized an increase in physical habitat availability for anadromous salmonids for some flow levels above "Hodge flows," and the fishery biologists involved in the AFRP development regarded this greater physical habitat availability as biologically significant for anadromous salmonids. Based on the flow recommendations in the AFRP, diversions which reduce flow levels could reduce physical habitat availability, and thereby impact anadromous salmonids even if flow levels exceed "Hodge flows." Therefore, the DEIR/DEIS's assertion that alterations in flow under the proposed project would result in less-than-significant impacts to fishery resources, as long as flows exceed "Hodge flow" levels, is not supported with the currently available information. An adequate assessment of potential fishery impacts necessitates an evaluation of the frequency and magnitude of flow and temperature alterations under the proposed project in consideration of all AFRP recommendations, not just an arbitrarily constrained subset.

- Pages 5-14, 5-15:

The DEIR/DEIS states that one of the assumptions upon which the fisheries impact evaluation was based included "the carryover storage criterion of 1.9 million AF for water temperature control in the upper Sacramento River will always be met

that EBMUD would meet its planned outage needs by taking delivery of up to 350 cfs for a 6-month period during a wet year from the FSC. The DEIR/DEIS also states that "Because it is not possible to determine when such a planned outage might occur, detailed modeling and analysis is not practical. However, this operation would be similar in scope and magnitude to operations included in the detailed impact analysis [of Alternative 2]" and "[b]ased on the finding that no significant impacts would result from typical project operations, any impacts resulting from planned outage operations are also less than significant."

Several concerns arise from this cursory discussion. First, the DEIR/DEIS must clarify the amount of water that the planned outage would represent. A 350 cfs delivery for a 6-month period could be as much as nearly 125,000 AF. Second, detailed modeling and analysis should have been conducted based on reasonable assumptions as to the timing (e.g., "wet" years) and frequency (e.g., "no more than 12 months in a 20-year period," p. 2-12) in order to at least address an impact evaluation. Third, no basis is provided to support the stated assumption that "this operation would be similar in scope and magnitude to operations included in the detailed impact analysis . . ." (DEIR/DEIS, p. 5-19.) Fourth, appropriate analyses were not conducted to support the conclusion that "any impacts resulting from planned outage operations are also less than significant." (*Id.*)

Pages 5-19 to 5-22:

The cursory discussion of potential fisheries impacts attributable to the proposed joint project alternative fails to provide an adequate basis for the conclusions of no significant impact. In particular, the discussion of impacts attributable to EBMUD's planned outage needs is too vague and ill-defined to be of any use to decision makers considering the impacts of committing future diversion capacities for this purpose. RL14-285

CHAPTER 6 – Recreation

DEIR/DEIS, pp. 6-1 to 6-16

A. General Comments

A discussion of service area recreation impacts should be included in the document.

The document should reference a technical appendix or some associated document where all of the hydrologic modeling output relied upon for this chapter can be independently reviewed for verification of impact conclusions. Within the text, references to the specific technical appendices would significantly assist the public and decision makers in quickly correlating the appropriate quantitative data.

B. Specific Comments

- Page 6-7:

  It is unclear how the terms "substantial" and "long-term" are defined within the significance criterion.

- Page 6-10, Table 6-4:

  The DEIR/DEIS, as mentioned previously, does not assess the potential impacts of the proposed project under Existing Conditions. This a major fatal flaw of the document. If the project impacts were evaluated against the Existing Condition as defined, it is unclear what the expected impact results would be.

  The DEIR/DEIS identifies 2,500-12,000 cfs as representing the optimal boating range for the Sacramento River. There is, however, no documented source of this recreation threshold. If it was developed by EBMUD, the DEIR/DEIS should explain the specific assumptions and rationale behind its development. Additionally, the information should state where specifically along the Sacramento River the flows would apply.

- Page 6-11:

  The DEIR/DEIS should identify and discuss the potential for recreation impacts along any of the proposed 4 conveyance alignments from the FSC to the Mokelumne River.

- Page 6-12:

  The DEIR/DEIS should include a discussion of whether trail use would be affected, and the magnitude of any effect. The DEIR/DEIS acknowledges that trail use is an important recreational activity along the lower American River Parkway, and some discussion of potential impacts to this recreational activity should be included.

  The adopted Richards Boulevard Area Plan (copy enclosed) calls for the development of passive recreational uses on the south bank of the American River between the confluence with the American River on the west and North 18th Street on the east. The proposed improvements include a bike trail to be constructed on the crown RL14-286

of the levee and access points where the north/south numbered streets (i.e., North 5th, North 7th, etc.) terminate at the levee. Additionally, a public street is planned for construction along the toe of the levee from the future North 5th Street to Highway 160, to provide public access to all points along the river in this area. The discussion of impacts to recreation opportunities on the lower American River should indicate whether the construction of the intake pipeline over the top of the levee will interfere with development of a contiguous bike trail along the levee or with access to such trail from adjacent streets. The document also should identify any measures that could be implemented to avoid such impacts, such as construction of a ramp over the pipeline or other means of allowing recreational users to pass east/west along the levee.

- Page 6-13:

The DEIR/DEIS states that "[u]nder Alternatives 2 and 3, river flows in the reach from Nimbus Dam to Fairbairn WTP would be above the minimum necessary for boating more frequently than under *existing conditions*." This statement should be revised. Since the comparison upon which this statement was made was based on the existing condition, and the DEIR/DEIS makes it clear that all cumulative impact assessments were made by comparing the project alternatives to the existing condition, it is assumed that the evaluation and conclusion represents a cumulative impacts analysis. The results of the comparison using the CVPIA threshold of 1,750 cfs for minimum boating flows showed that in 48 additional months, relative to the existing condition, Alternative 2 would be unable to meet this threshold.

The DEIR/DEIS states that "[n]o mitigation is available to reduce this impact (water development recreation in the lower American River) to a less-than-significant level." This conclusion needs further explanation. The DEIR/DEIS should state what specific mitigation measures were considered in coming to this conclusion, and whether reduced project withdrawals would have any effect on this cumulative impact and, if so, to what extent. The DEIR/DEIS is clearly deficient by lacking the analysis to support the claim that no mitigation is available.

- Page 6-14:

The DEIR/DEIS states that "[f]or the lower American River, the frequency river flows would be above minimum flows or within optimum ranges would not change substantially compared to conditions under Alternative 1." This appears to be inconsistent with at least some of the data presented in Table 6-6. For example, the minimum boating threshold range of 1,500 - 2,000 cfs for either the portion of the LAR from Nimbus to the Fairbairn WTP or Fairbairn WTP to I-5 showed that with the proposed project these flows would be less than the No-Action in 10 additional months (or 17% less). Incrementally, this would represent a 14% reduction in the number of months that the river flow would be above the minimum threshold, relative to Alternative 1. (DEIR/DEIS, Page 6-7)

- Page 6-16:

The DEIR/DEIS contains a mistake in Table 6-7 Comparison of Lake Level and River Flow Exceedence Frequencies for Recreation Opportunities at Other Important Recreation Sites Full-Use Scenario- Alternative 3. Under the off-season

RL14-287

1,017 msl threshold for Shasta Lake, the full-use scenario months decline by seven months (from 258 to 251); however, the percentage of time that the lake level is above the indicated threshold increases from 34% to 51%.

CHAPTER 7 - Vegetation and Wetland Resources

DEIR/DEIS, pp. 7-1 to 7-20

A. General Comments

The analysis and discussion of potential impacts to vegetation and wetland resources does not include an evaluation of service area affects within the EBMUD's service area, or otherwise as a result of Alternative 2. This is a major omission of the DEIR/DEIS.

This chapter also fails to provide a sufficient hydrological analysis. There is no impacts evaluation presented relating lower Sacramento River flows downstream of the confluence with the American River. The integrated nature of the CVP/SWP and the manner and extent that Sacramento River flows would be influenced by additional American River diversions should at least be evaluated, and the results disclosed in the DEIR/DEIS. This is a major omission of the DEIR/DEIS.

The Biological Assessment (when complete) should address EBMUD service area impacts of the proposed new water deliveries and specifically include assessment of historical land use conversions (with acreage of habitat loss), listing of special conservation projects and other "good faith" efforts by EBMUD at protecting and maintaining vegetation and wetland resources, and a record of past mitigation monitoring for development projects. Recent efforts by EBMUD alone, or in consultation with coordinated projects with Contra Costa and Alameda County Planning Departments, also need to be presented in the Biological Assessment.

B. Specific Comments

- Page 7-9:
  No environmental setting descriptions are provided for Folsom, Camanche, or Pardee reservoirs. Similarly, no environmental setting descriptions are provided for the lower American River, lower Sacramento River, Folsom South Canal or any other watercourse/waterbody potentially affected by the proposed project. Without an identification of the appropriate environmental setting, the reader is unable to determine whether the DEIR/DEIS has adequately covered the breadth of resources and issues identified in the impacts discussion.

- Page 7-13:
  The DEIR/DEIS states that "[c]hanges in river flows would be minor and would remain well within the typical seasonal and annual variations of these locations." Again, specificity is required regarding these typical seasonal and annual variations.
  The DEIR/DEIS suggests that flows in the Mokelumne River would increase slightly under a FSC connection alternative. The DEIR/DEIS should describe the magnitudes of these increases. The public cannot confirm these conclusions without the data or specific reference(s) to the location where such data can be found.

- Pages 7-18 to 7-19:
  The impact assessment is inadequate in that it fails to provide a sufficiently detailed discussion of potential impacts to street trees in the C Street, Elvas Boulevard corridor, nor do the actions listed under mitigation measure 7-6 provide adequate mitigation for potentially significant impacts to trees in the pipeline corridor from I-5 to the FSC. Instead of merely indicating that tree removal permits would be obtained and complied with, specific potential impacts must be identified, and every effort must be made to avoid the impacts by protecting trees during construction, and by utilizing alternative siting and construction techniques, such as tunneling. Attached hereto and incorporated herein are comments submitted by the City's Trees Services Division regarding actions necessary to mitigate impacts to trees in the pipeline corridor. The feasibility and effectiveness of such actions for excavation of the magnitude proposed can only be determined after a thorough examination of specific street tree impacts likely to result from the pipeline construction. Additionally, the loss of trees or portions of the tree canopy presents potential land use and visual impacts, and should be analyzed appropriately in those sections of the DEIR as well. RL14-288

CHAPTER 8 - Wildlife

DEIR/DEIS, pp. 8-1 to 8-16

A. General Comments

The DEIR/DEIS lacks any discussion of cumulative wildlife impacts.

Mitigation identified for potential impacts to raptor species includes conducting surveys to identify their location prior to construction. Since the proposed intake locations are known, these surveys should be performed and the location of these species near the proposed intake locations should be described in the DEIR/DEIS, so that a selection of the preferred location can be made with an understanding of the project's potential impacts to raptor species, if any. RL14-289

B. Specific Comments

- Page 8-11:
  The DEIR/DEIS states that "EBMUD is committed to working with local jurisdictions to ensure that county general plan policies are implemented and to assist in mitigating the impacts of growth on biological resources." Examples of EBMUD's recent commitment(s) on this matter should be provided to substantiate this statement.
  The DEIR/DEIS does not provide an adequate indication of what the potential loss of this important habitat might be. The DEIR/DEIS should describe the anticipated magnitude of Swainson's hawk foraging habitat loss, even if this loss is only temporary.

CHAPTER 9 - Geology, Soils, Seismicity, and Groundwater

DEIR/DEIS, pp. 9-1 to 9-8

A. General Comments

This chapter should include discussion of potential impacts related to soils, seismicity and groundwater for the various I-5 intake and pipeline routing alternatives, including intake alternative number 5, which will involve the installation of pipeline at a former landfill site, as noted above. RL14-290

B. Specific Comments

- Page 9-4:
  It is unclear why only the two significance criterion identified in the second paragraph were utilized in the analysis, when additional criteria are identified within the CEQA Guidelines

CHAPTER 10 - Land Use

DEIR/DEIS, pp. 10-1 to 10-20

A. General Comments

The DEIR/DEIS does not contain any discussion of land use issues or the potential impacts of the proposed project on areas within EBMUD's service area.

B. Specific Comments

- Page 10-16:

The first complete sentence at the top of column 2 should be revised to read: "Construction of the pipelines also could temporarily affect access to the Blue Diamond Growers Plant, Cannery Business Park, other businesses and residents along this corridor." The Blue Diamond facility has a high seasonal peak of both truck traffic and employee traffic, which should be addressed in both the traffic control plan and the pipeline construction schedule. In addition, land use conflicts may result from the elimination or restriction of access to residential and commercial driveways at locations along the alignment, and from the use of construction staging areas, as discussed above. The document should identify these potentially significant impacts and describe appropriate mitigation actions, as discussed above.

RL14-291

Notwithstanding the Land Use section's conclusion that none of the joint project alternatives would result in significant land use impacts, it appears that all of the proposed alignments for the proposed joint project, with the possible exception of alignment 5, will have potentially significant land use impacts, applying the significance criteria set forth on page 10-13. These impacts become apparent upon consideration of the Richards Boulevard Area Plan (RBAP), which was adopted by the City in December, 1994 (copy enclosed). The brief reference to the RBAP on page 10-11 should be expanded to describe in more detail the RBAP's plan for the long term transition of land uses within the area to include up to six million square feet of new office uses and 3,800 residential units. More specifically, the area immediately south of the American River, in the vicinity of Intake Alternatives 3 and 4, is planned for residential land uses, a 10 acre park at North 7th Street and the river, and a new street called Riverfront Drive that will provide public access to the American River from the future North 5th Street to Highway 160. The DEIR/DEIS contains no analysis of the potentially significant impacts of constructing the pipeline, under alternatives 1 through 4, through areas planned for both residential and commercial office development in the RBAP. In addition to the pipeline, the potential location of the chemical conditioning facility (described on page 2-16) at the intake location for alignments 1 through 4, poses a potentially significant conflict with future residential development proposed for the area north of Richards Boulevard.

Pipeline alignments 1 through 4 also present the potential to directly impact a number of residential uses located between North 12th and North 16th Streets, A Street and the Union Pacific mainline rail tracks. The existing residential uses that may be impacted include the Salvation Army's 80-bed transitional housing facility and the 60-unit Francis Quinn cottage housing project, as well as numerous existing social service programs operated in the vicinity of North 12th and A Streets on land owned by the Sacramento Housing and Redevelopment Agency (SHRA) and leased to publicly funded social service providers. The section of pipeline proposed to run south on North 14th Street will cut through the center of the City's proposed consolidated social service complex. The SHRA has completed conceptional design of this complex and is developing an implementation plan for construction. Other facilities that potentially may be affected include the Public Inebriate Center located at 700 North 5th Street, which includes alcohol treatment and overnight, transitional housing services, and the transitional housing facility operated at 470 Bannon Street.

The foregoing existing and future proposed land uses for the area where intake and pipeline alternatives 1 through 4 would be located raise the potential for potentially significant impacts, applying four of the significance criteria set forth on page 10-13.[1] These potential impacts should be analyzed at a project-specific level, so that all feasible measures to mitigate these impacts can be identified and the environmental document will provide a meaningful basis for comparing project alternatives.

- Page 10-17:

In the first full paragraph on this page, the following statement is made: "Because the proposed intake pipelines would generally follow existing roadway corridors, potential direct conflicts with existing residential, commercial, and industrial uses are expected to be minimal." As discussed in more detail in our comments on pages 2-3 to 2-7, and page 12-6, without a project-level analysis of the effect of the construction on property access and traffic circulation, this statement is not supportable.

RL14-292

The first paragraph under "Conflicts with Proposed or Planned Projects in the City or County of Sacramento" refers to the future proposed extension of Richards Boulevard, but the DEIR fails to indicate whether the alignment of the proposed C Street Bypass option for Intake Alternative 5 would conflict or interfere with the future proposed alignment of the Richards Boulevard extension. This information is vital to an informed selection of the preferred pipeline alignment.

The beginning of the second paragraph should be revised to read: "The proposed C Street closure between 17th and 19th Streets and the C Street reconstruction project would occur along the EBMUD pipeline alignment for Intake Pipelines 1 through 4; the City will delay the C Street reconstruction project if necessary to allow for completion of EBMUD project facilities first. The proposed C Street closure would need to reserve public utility easements authorizing subsequent installation of the EBMUD pipeline."

1 These criteria state that land use impacts are considered significant if implementation of a project alternative would: (1) require removal or relocation of structures or facilities used for residential, commercial or industrial purposes; (2) result in permanent incompatibilities with existing of proposed land uses; (3) result in substantial construction nuisances or conflicts in residential or commercial areas; and (4) result in inconsistencies with adopted plan and policies.

CHAPTER 12 – Transportation and Circulation

DEIR/DEIS, pp. 12-1 to 12-8

A. General Comments

Operation of the project may occasionally require a lane closure for maintenance of pipe, manhole, or junction structures. This could be considered a significant impact because it could lead to traffic delays, temporary reductions in roadway levels of service, damage to property, or injury.

The project proponent shall design project facilities in such a way that frequently maintained facilities are located outside the travel lanes. The project proponent shall submit proposed facility locations to the appropriate local jurisdiction (i.e., City of Sacramento or County of Sacramento) for approval during the final project design phase. If facilities must be located within the travel lanes and lane closures are necessary for maintenance activities, the project proponent shall coordinate with the appropriate local jurisdiction before beginning maintenance activities to determine lane closure hours that would have the least impact on traffic flow. Whenever possible, lane closures shall occur during off-peak hours. RL14-293

The DEIR/DEIS indicates that chemical conditioning may be required at the ARIPP location and that access to a chemical handling facility would be infrequent. This is not entirely correct, as maintenance personnel would be visiting the site on a daily basis. Additionally, if sodium hypochlorite were to be used at the facility, deliveries would have to be made on a regular basis as this chemical has a relatively short shelf life.

B. Specific Comments

- Page 12-2:
  Table 12-3 should be revised as follows: RL14-294

  - 10th Street should be called North 10th Street.
  - Per Figure 2-6a and text, 24th Street should be 23rd Street.
  - 14th Avenue should be 14th Street.
  - Per Figure 2-6a and text, 56th Avenue is not involved.
  - North 7th Street should be added.
  - * at bottom, the reference to Table 11-4 should be to Table 12-4.

- Page 12-3:
  Table 12-4 should be corrected to indicate that the roadways listed from Watt Avenue to Eagles Nest Road are Sacramento County roads. In the first paragraph of the second column, the reference to Figures 2-7a and 2-7b should be to 2-6a and 2-6b. The discussion under Rail Lines should note that permits will be required for all railroad crossings or right-of-way encroachments. RL14-295

- Page 12-4:
  We suggest adding two additional standards to the listed "Significance Criteria":

  - affect the City of Sacramento's Level of Service (LOS) standards, such that the LOS on detour routes degrades from LOS A, B, or C to D or worse, or the delay increases by more than 5 seconds on a detour route already at LOS D or worse. RL14-296

  - increase the response time of emergency vehicles in the project area to more than four and one-half minutes.

  In the City, 97 percent of emergency responses are consistently on-site within four and one-half minutes. A decrease in this percentage as a result of the project should be considered a significant impact.

  The first full paragraph in column 2 discusses the criteria used for screening of traffic impacts. For impacts on City of Sacramento streets, the City's Interim Traffic Impact Analysis Guidelines should be used (copy attached and incorporated herein by this reference). Please note that the City considers re-routed trips as projected generated trips for impacts on detour routes.

- Page 12-6:
  The DEIR/DEIS discussion of potential Transportation and Circulation impacts for the proposed Joint Project does not adequately identify or discuss at a project-specific level the changes to present patterns of traffic circulation, traffic/parking impacts, or the effects of restricted or eliminated parcel access. In some instances, the installation of the pipe may require entire street closures (specifically C Street, Kiefer Blvd., and 57th Street) or one way traffic on streets that are presently two way, resulting in the diversion of traffic/parking to other streets. The DEIR should analyze the potential impacts of such actions, and should identify all feasible measures to address and minimize such impacts. For example, in nonresidential areas where the pipeline construction will result in complete street closures, night-time construction may be a potential mitigating action. RL14-297

  As part of the foregoing analysis, a table should be provided identifying all affected street segments; the anticipated level of access restriction during construction on each segment (e.g. closed; one travel lane serving both directions; one lane, one-way; one-lane, each direction); the anticipated duration of the access restriction for each segment (based on a realistic construction schedule); the existing Average Daily Traffic (ADT); the existing peak hour traffic volume; the percent of diverted ADT; the percent of diverted peak hour traffic; and the potential for delay on each segment.

  Construction along 28th Street or C Street also could adversely impact the City's 28th Street Corporation Yard, which is the vehicle dispatch and maintenance facility for the City's solid waste operations. Over 100 City vehicles must enter and exit this site on a daily basis to conduct solid waste collection and recycling operations. The only ingress and egress to this site is 28th Street. Pipeline construction also could impact solid waste collection schedules by creating conditions

that prevent access to solid waste containers and yard waste placed at the curb. Additionally, because both C Street and Kiefer Boulevard are designated truck routes, temporary truck routes will need to be established to handle existing truck traffic, as well as additional construction-related truck traffic.

The discussion of transportation and circulation impacts of the proposed joint project also should consider potentially significant impacts on future transportation and circulation improvements identified in the Facility Element of the Railyards Specific Plan and Richards Boulevard Area Plan (copy enclosed), which contains proposed infrastructure elements to serve the buildout of the adopted Richards Boulevard and Railyards land use plans. For example, intake option 2 would be located in the rail spur that runs east of North 3rd Street. The Facility Element identifies this former rail right-of-way as a location for the future alignment of the Natomas light rail line. The DEIR/DEIS should identify any potential conflict between the pipeline and the future light rail line at this location, as well as specific actions to avoid such potential conflict, if one exists. Further, although the DEIR/DEIS notes a potential conflict between intake alternative 2 and the proposed light rail crossing of the American River between Truxel Avenue and Richards Boulevard (at page 2-16), no discussion of this potential conflict is included in the Transportation and Circulation analysis. The DEIR/DEIS should specifically describe the likelihood of construction of two separate bridge structures, if any, and the potential impacts of an additional bridge structure, if feasible.

To constitute an adequate project-level analysis, the DEIR/DEIS must identify the full range of potential transportation and circulation impacts such as those described above, and also should describe specific measures that could be implemented to mitigate these impacts. As noted in our comments on pages 2-3 to 2-7, above, such analysis cannot rely upon a traffic control plan that does not yet exist.

- Page 12-7:

The discussion under "Deterioration of Roadway Surfaces" fails to address in sufficient detail the potential damage and/or shortened life span that could result to pavement of streets used for detoured traffic and truck trips generated by the project. This section relies upon implementation of a roadway surface repair plan, "as described in Chapter 2," for its conclusion that no significant impacts will result. However, no details are provided concerning such plan in Chapter 2 of the DEIR/DEIS.

The analysis provided under "Impact: Increase in Traffic" is flawed in that is fails to include in the trips generated by the project the existing trips on the pipeline corridor that will be re-routed on other streets that also will serve the truck trips generated by this project. As nearly all of the streets on the pipeline corridor have more than 100 trips in the peak hour, moving these trips to an adjacent street will likely require a traffic impact study to identify project-specific impacts and mitigations, in accordance with the attached Interim Traffic Impact Analysis Guidelines. The project also appears to meet other criteria set forth in the Guidelines that would trigger the requirement for such a study, because the project may create a hazard to public safety, and may substantially change the off-site transportation system or connections to it. RL14-298

Table 12-6 should be revised as follows:

C Street between 16th ~~Avenue~~ Street ~~and 20th Avenue~~ 21st Street

C Street between 29th ~~Avenue~~ Street and 33rd ~~Avenue~~ Street

~~56th Avenue~~ 57th Street

- Page 12-8:

The analysis provided under "Impact: Interference with Emergency Response Routes" doesn't provide enough detail to determine potential increases to response time or whether such increases would significantly impact existing response times in view of the City's proposed standard of significance (see comment on page 12-4, above). As discussed above, reliance upon a traffic control plan that does not yet exist for a conclusion of no significant impacts is not adequate. Additionally, this paragraph seems to assume that all streets along the pipeline corridor will remain accessible to vehicular traffic. Since this is not likely to be the case, how will emergency vehicles access property when a street is closed during pipeline construction? RL14-299

CHAPTER 14 - Noise

DEIR/DEIS, pp. 14-1 to 14-6

A. General Comments

The DEIS/DEIR indicates that noise generated by construction activity would be temporary in nature and that construction crews would be required to comply with applicable noise ordinances, thus no mitigation is required. According to the Sacramento County Noise Ordinance, construction noise is exempted from the noise standard if the activity takes place between 6:00 a.m. and 8:00 p.m. on weekdays and between 7:00 a.m. and 8:00 p.m. on weekends. However, this does not ensure that noise impacts will not be significant nor that residents will not strongly object. The project proponent shall work with impacted residents to develop a mutually agreeable solution (i.e., hours of work, etc.) that is tailored to meet the needs of the residents. Upon agreement, hours of work for construction shall be indicated on the improvement plans and made a condition of the construction contract. RL14-300

Many residents have expressed concerns regarding an overall increase in background noise resulting from the operation of the proposed Clay Station Pumping Plant (PP). Increases in noise levels have been addressed in the DEIS/DEIR by indicating that the pumps at this station would be enclosed in an "acoustically efficient enclosure". Requirements for the intake structure identified in the DEIS/DEIR specifically limit noise at the structure to 45 dBA or less. No such provision has been made for the Fairbairn PP or the Clay Station PP. The residents of southern Sacramento County, where the Clay Station PP is to be located, have indicated that they are very concerned about the amount of noise that could be produced by this pumping plant. Repeated references were made during community meetings to the SMUD pumping plant, which is apparently very noisy. EBMUD staff assured residents at these meetings that they would comply with a 45 dBA or less requirement at the structure; however, no assurance is made in the DEIS/DEIR indicating that this is the case. Noise restrictions for the Fairbairn PP should be stated. A noise limit of 45dBA shall be made a condition of the final design review and construction documents.

B. Specific Comments

- Page 14-2:
  The discussion of land uses in the vicinity of the proposed joint project does not identify the potentially sensitive residential uses in the vicinity of North 12th and A Streets. The DEIR should indicate whether noise impacts on existing residential uses will be significant at these locations. RL14-301

CHAPTER 15 - Public Health and Safety

DEIR/DEIS, pp. 15-1 to 15-6

B. Specific Comments

- Page 15-5:
  The recommended assessments of potentially hazardous sites should be conducted prior to the completion of project design to provide for an informed decision on the preferred pipeline alignment, as required by CEQA. In addition, EBMUD should identify actions that will be taken to avoid a potential public health hazard if sewer, water or drainage service is severed during pipeline construction. RL14-302

CHAPTER 16: VISUAL RESOURCES

DEIR/DEIS, pp. 16-1 to 16-12

A. General Comments

Construction of project facilities would involve a temporary reduction in visual resource values because this activity would involve establishing equipment and equipment storage areas; storing excavated materials and debris; installing temporary construction offices, fences, sanitary facilities, and possibly other appurtenant structures; constructing temporary access roads; and grading. Pipe sections 60- to 96-inches in diameter would be stored along the construction route temporarily. Irrigation systems for existing landscaping not directly affected by the construction could also be disrupted. These activities could result in increased dust and visible particulate matter in the air and increased light and glare from lighting for security and evening construction work. Although impacts of construction will be temporary and will terminate when construction is completed, equipment and materials are removed, and storage and construction areas are returned to their pre-construction condition, this impact could be considered significant because construction would nonetheless result in a short-term reduction of visual resources.

The project proponent shall locate staging, equipment storage, and construction material storage areas outside of visually sensitive areas, where feasible, or screen these areas from general view during construction. Screening may be accomplished using natural wood fencing or other fencing that is similar in color to surrounding facilities. Fencing shall be of a height and type (approximately 8 feet) that effectively screens the views of stored equipment and materials throughout construction. Fencing may be used in combination with other techniques that would effectively accomplish at least 50 percent screening, such as berms or planted vegetation. This measure shall be made a condition of the construction contract.

The project proponent shall minimize the area effected by construction and limit excavation, clearing, and grading activities by restricting these activities to construction areas and construction periods. Trees and other vegetation shall be protected and left undisturbed wherever possible. Excavated material and debris shall be removed from the site immediately following excavation or clearing activities.

The project proponent shall provide an interim irrigation plan before beginning construction if disruption of irrigation systems would cause damage to landscaping not directly effected by construction.

The project proponent shall limit sources of light and glare during construction by using a minimal amount of light fixtures and operating lighting for the minimal time necessary to complete construction activities safely and securely. In addition, the project proponent shall locate and direct light fixtures to reduce their visibility from sensitive viewing locations. Light fixtures shall be used that direct light only into areas where it is needed and shield stray light from other areas offsite. This measure shall be made a condition of the construction contract.

Numerous discussions were held with the residents of southern Sacramento County to discuss their concerns related to this project. One comment that was repeatedly emphasized was a concern regarding the appearance of the Clay Station PP. According to the DEIS/DEIR, the "facility would consist of a steel-framed building with metal siding" and "chlorine and lime storage facilities". The author of the DEIS/DEIR feels that because the design of the pumping plant would be subject to review and approval by the County that no mitigation is required.

A workshop was also held to address visual impacts associated with the proposed ARIPP. Most participants emphasized that they did not want to see another "Fairbairn intake." The DEIS/DEIR states that the facility would be designed in accordance with American River Parkway Plan Policy 5.7, and use colors and architectural materials compatible with the surrounding riverine environment. Even with these measures, the ARIPP structure could result in some visual impacts.

RL14-303 Residents and workshop participants were assured by EBMUD staff that outreach meetings would continue concerning the aesthetic design of both the Clay Station PP and the ARIPP. To help alleviate these concerns it is recommended that the community involvement continue so that a mutually agreeable aesthetic design for the ARIPP and the Clay Station PP can be developed.

In order to mitigate any adverse visual impacts of a new intake facility to the maximum extent possible, we recommend a thorough consideration of various possible designs for a new intake facility, with an opportunity for community review and comment on these proposed design alternatives, before a final design is selected.

In addition, once an adequate project-level analysis of street tree impacts in the Central City/East Sacramento areas is performed (see comments on pages 7-18 to 7-19, above), this chapter must assess any visual impacts resulting from damage to trees in these areas.

CHAPTER 17 - Cultural Resources

DEIR/DEIS, pp. 17-1 to 17-16

A. General Comments

The DEIR/DEIS fails to provide any discussion regarding Indian Trust Assets (ITAs) in the potentially affected project area. Reclamation's policies require proper consideration and analysis of ITAs.

The DEIR/DEIS fails to provide any discussion or analysis regarding the potential for impacts to cultural resources (either exposed or submerged) along the LAR or lower Sacramento River as a result of the additional diversions above existing conditions contemplated by the proposed project.

The assessment of impacts to cultural resources should be more specific in its surveys and assessments of the potential impacts of project construction. The assessment provided fails to identify known historic structures adjacent to City streets as a resource that potentially could be affected by construction activity. For example, the Blue Diamond Growers building at 17th and C Streets is a registered historic structure. Numerous other buildings in this corridor potentially could be affected by construction activity. In addition, the surveys for cultural resources for this area fail to address potential impacts to features which may be located in the street right-of-way, such as granite curbing used in many parts of the Central City. Finally, the project will pass through, or adjacent to, certain historic districts in the Central City area. Impacts to the historic character of these areas and/or to the structural integrity of historic buildings could result in significant impacts to cultural resources, which should be considered in the DEIR/DEIS. RL14-304

CHAPTER 18 - Cumulative and Growth-Related Effects

DEIR/DEIS, pp. 18-1 to 18-12

A. General Comments

This chapter fails to provide cumulative environmental impacts information (e.g., quantitative data from hydrologic modeling), and is, therefore, insufficient to satisfy the requirements of a project-level EIR/EIS. This chapter, moreover, is inconsistent in its organization and structure. Clearly, there exists quantitative data which would allow a cumulative impacts evaluation for those resource categories (e.g., aquatic resources) where it is stated that only a qualitative impacts assessment was made.

The P.L.101-514 water contracts are part of the Water Forum and have been included in all Water Forum hydrologic modeling simulations. These new withdrawals from the CVP have been quantitatively addressed in both the Water Forum environmental documentation and in the P.L.101-514 EIS/EIR. It is incorrect to suggest otherwise.

The reference to the resource category-specific chapters as the location where quantitative cumulative impacts are presented and discussed is incorrect. Not all resource chapters in the DEIR/DEIS contain this information.

Impact conclusions reached in several places in this chapter are unsupported. This remains a major omission of the DEIR/DEIS.

The cumulative impact discussions should include a detailed description of Judge Hodge's findings on cumulative impacts.

B. Specific Comments

- Page 18-1:
  The DEIR indicates that a "quantitative" cumulative impacts analysis was included in the previous chapters discussing hydrology, water quality, fisheries, recreation, vegetation and visual resources. In many cases, however, the referenced analysis concludes that there is no significant cumulative impact without providing adequate modeling or other analysis to support this conclusion. In addition, to the extent that cumulative impacts to aquatic resources were quantitatively modeled, will the results be affected by resolution of the PROSIM "inconsistency" referenced on page 3-12? RL14-305

- Pages 18-2 to 18-4:
  The "qualitative" discussion of cumulative impacts is too generalized to be of any use to decision makers, and fails to provide any meaningful guidance in determining whether the project will have any significant contribution to projected cumulative impacts. RL14-306

- Page 18-4:
  The DEIR/DEIS states that "[i]mpacts related to construction and operation of water conveyance pipelines associated with the project alternatives would generally result in minor and temporary impacts." The DEIR/DEIS should explain what, specifically, these minor and temporary impacts would be. These and other similar statements need documented support, without which the public cannot confirm that the analysis and conclusions presented are correct.
  The DEIR/DEIS states that the proposed project "would contribute to the cumulative loss of identified sensitive resources, including wetlands, riparian woodlands, and habitats for sensitive wildlife species." Again, the DEIR/DEIS fails to identify what specific cumulative losses would occur. These and other similar statements are unsubstantiated in the DEIR/DEIS. Without substantiation, the public cannot confirm that the analysis and conclusions presented are correct.

  Based upon the foregoing, Sacramento County believes that if EBMUD decides to proceed with Alternative 2, and/or the USBR decides to amend its CVP water supply contract with EBMUD to accommodate Alternative 2, a revised draft of the DEIR/DEIS must be circulated in compliance with CEQA and NEPA.

- Page 18-6:
  The first sentence under the heading "City of Sacramento" indicates that the City's service area includes potential water purveyor service areas outside the City's place of use that could receive City water through wheeling contracts. The City is not authorized to supply City water outside of its place of use, and may only enter into wheeling contracts to provide water to such areas if the surface water being wheeled is diverted under a separate water right that allows the water to be delivered to such areas. RL14-307

- Page 18-9:
  What is the source of the capacity and demand figures set forth in the second paragraph under the heading "City of Sacramento Service Area?" RL14-308

- Page 18-10:
  This page states that the amount and geographic extent of potential City wholesale and water wheeling contracts are unknown at this time. This is not entirely true, as the City has executed a wholesale contract for delivery of surface water to Citizens Utilities Company's Southgate Service Area, and also has negotiated most of the terms of a similar agreement with the Arcade Water District. With respect to water wheeling, the City intends to negotiate a wheeling agreement with Sacramento County for the diversion and treatment of surface water supplies obtained by Sacramento County, including the water service contract authorized under Public Law 101-514. RL14-309

Response to Comments of Counsel to the County of Sacramento (11/20/00)

Somach, Simmons & Dunn

RL 14-1, Stuart Somach, Counsel to the County of Sacramento
The County's position regarding preference for Alternative 8 and potential support for Alternatives 6 and 7 is noted.

RL 14-2, Stuart Somach, Counsel to the County of Sacramento
As noted on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, EBMUD's objective for the Supplemental Water Supply Project is, in part, to "allow EBMUD to make use of its water service contract with Reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge Decision." Therefore, maximizing use of EBMUD's Mokelumne River system would not achieve EBMUD's basic project objective. In addition, simply improving EBMUD's treatment facilities would not help achieve any of EBMUD's project objectives.

RL 14-3, Stuart Somach, Counsel to the County of Sacramento
As noted in this comment, Reclamation has determined that EBMUD's need for a supplemental water supply is well founded and consistent with other CVP contractors' needs for water (see Appendix C to this document). The fact that EBMUD's (as well as many other water purveyors') existing water supply system has surplus water in average years does not affect EBMUD's need for water during drought conditions. Alternatives 2 and 4 meet EBMUD's project objective of reducing customer deficiencies.

RL 14-4, Stuart Somach, Counsel to the County of Sacramento
EBMUD's project objectives for the Supplemental Water Supply Project include a goal of reducing customer deficiencies. All of the alternatives addressed in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, including Alternative 4, would meet this goal to varying degrees. See also the response to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document.

RL 14-5, Stuart Somach, Counsel to the County of Sacramento
While the "changed circumstances" described in this comment result in changes to the costs associated with each of the alternatives, substantial differences in the quality and risk associated with the different sources remains. Appendix B to the 2000 REIR/SEIS describes these differences in source quality in detail.

RL 14-6, Stuart Somach, Counsel to the County of Sacramento
The differences in costs among the various alternatives are considered substantial. For example, the costs associated with Alternative 2 ($237 million) are approximately $130 million less than the least expensive Sacramento River option ($368 million). Additionally, construction of a new point of delivery on the Sacramento River would require substantial regulatory and permitting review, including, but not limited to, an individual permit under Section 404 of the Clean Water Act, possible amendments to Reclamation's water rights permits to add a new point of diversion, and substantial efforts to comply with the state and federal endangered species acts. No additional environmental documentation for a storage element would be required to implement an American River alternative because such an element is not an integral part of any of the alternatives.

RL 14-7, Stuart Somach, Counsel to the County of Sacramento
Construction-related impacts of Alternatives 6 and 7 would be very similar to those described for Alternatives 3, 4, and 5 but would occur in a different location. All of the alternatives would require construction of substantial lengths of large-diameter water conveyance pipeline, which would be routed through local

roadways and private property. These impacts are considered substantially similar under all of the alternatives mentioned above.

RL 14-8, Stuart Somach, Counsel to the County of Sacramento
The 2000 REIR/SEIS describes the somewhat increased flexibility that would be available under Alternatives 5, 6, 7, and 8 as compared to Alternatives 2, 3, and 4. However, this increased flexibility is only one component of the distinctions between the alternatives. Other distinctions include source water quality, environmental impacts, and cost. Each of these factors will be weighed in the decision making process.

RL 14-9, Stuart Somach, Counsel to the County of Sacramento
This comment is not supported by the analysis contained in the 1997 Draft EIR/EIS or the 2000 REIR/SEIS. All alternatives were determined to have less-than-significant impacts on fishery resources. However, the Sacramento River and Delta support greater populations and numbers of sensitive fish species and therefore greater impacts on these resources may result. Of all the alternatives considered, only Alternative 2 would have no potential for direct take of protected fish species.

RL 14-10, Stuart Somach, Counsel to the County of Sacramento
The County's preference, in descending order, for Alternatives 8, 7, and 6 is noted.

RL 14-11, Stuart Somach, Counsel to the County of Sacramento
Responses to the County's previous comments on the 1997 Draft EIR/EIS are provided in Chapter 6 of Volume 1 (Letter L 21) of this final document.

RL 14-12, Stuart Somach, Counsel to the County of Sacramento
EBMUD's project objectives are described on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. The fact that Delta water is used by many people does not reduce the obligation of a public water purveyor which provide drinking water to over 1.2 million people to obtain the highest quality of water feasible. All of the alternatives would achieve the objective of increasing system reliability and increasing operational flexibility. Alternatives that are not constrained by Hodge Decision terms and conditions have a greater effect on reducing customer deficiencies than do alternatives that are constrained by that decision. Enhancement of Mokelumne River flows would not occur at the expense of American River resources. EBMUD's objectives for the Supplemental Water Supply Project include contributing to meeting the Water Supply Management Program (WSMP) objectives. The WSMP objectives are broad and address all EBMUD water-supply activities. No single project would meet all of the WSMP objectives.

RL 14-13, Stuart Somach, Counsel to the County of Sacramento
Table S-1 identifies significant unavoidable impacts associated with the alternatives. As noted on page S-18, visual impacts associated with Alternative 3 intake Sites 1, 2, and 3 are considered significant and unavoidable. However, with mitigation, the visual impacts of intake Sites 4 and 5 are considered less than significant.

RL 14-14, Stuart Somach, Counsel to the County of Sacramento
Page S-1 does not discuss Alternative 2. As fully described in the 1997 Draft EIR/EIS, Alternative 2 contemplates the construction of new water conveyance facilities to connect the Folsom South Canal to the Mokelumne Aqueducts.

RL 14-15, Stuart Somach, Counsel to the County of Sacramento
As noted on page 2-1 of the 2000 REIR/SEIS, EBMUD's project objective is to make use of its existing contract with Reclamation for delivery of American River water consistent with the Hodge Decision. All of the American River alternatives meet this project objective.

RL 14-16, Stuart Somach, Counsel to the County of Sacramento
The environmental effects of alternatives involving the construction of facilities from the existing contract turnout are fully disclosed in the 1997 Draft EIR/EIS under Alternative 2, alignments 1 and 4.

RL 14-17, Stuart Somach, Counsel to the County of Sacramento
The County's position that groundwater storage is an integral element of Alternative 4 is noted. Alternative 4 is a stand-alone project that would meet EBMUD's project objectives. This alternative would provide additional benefits if a groundwater storage project were developed. However, as clearly described in Chapter 1 of the 1997 Draft EIR/EIS and Chapter 18 of the 2000 REIR/SEIS, no feasible groundwater storage project has been identified despite over a decade of effort by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required at that time.

RL 14-18, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 13-6 above.

RL 14-19, Stuart Somach, Counsel to the County of Sacramento
See response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 14-20, Stuart Somach, Counsel to the County of Sacramento
See Appendix A, Element 7.

RL 14-21, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-17 above.

RL 14-22, Stuart Somach, Counsel to the County of Sacramento
All construction-related impacts would be temporary, and there is substantial flexibility to address these effects on a site-specific basis as needed. See also response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 14-23, Stuart Somach, Counsel to the County of Sacramento
Reclamation's water needs analysis confirms EBMUD's need for up to 150,000 of supplemental water supply (see Appendix C to this document). Alternative 4 would help meet EBMUD's planned and emergency outage need. No additional water supply options have been identified at this time. The City of Sacramento has indicated its lack of support for a Fairbairn intake option. Such an option could not be implemented without cooperation by the City. See response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 14-24, Stuart Somach, Counsel to the County of Sacramento
See response to the "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 14-25, Stuart Somach, Counsel to the County of Sacramento
Comment noted. EBMUD would work closely with the County should Alternative 6 be selected to identify partnering opportunities and minimize conflicts.

RL 14-26, Stuart Somach, Counsel to the County of Sacramento
Comment noted. The impacts associated with this alternative are substantially similar to those described for Alternative 3 in the 1997 Draft EIR/EIS. The likely need for a Section 404 permit is acknowledged and was described in the environmental documentation.

RL 14-27, Stuart Somach, Counsel to the County of Sacramento
Reclamation agrees with EBMUD's modeling approach for its Mokelumne River system and has determined that EBMUD has a legitimate need for water (see Appendix C to this document).

RL 14-28, Stuart Somach, Counsel to the County of Sacramento
"Approved" treatment technology in California, as referred to in Appendix B to the 2000 REIR/SEIS, is a set of process trains that DoHS has already evaluated and has judged to be appropriate for treatment of surface water without further justification. Since the in-line filtration process utilized at three of the District's water treatment plants is not one of the pre-approved treatment trains, DoHS defines this process as "alternative treatment technology," which requires the District to demonstrate that it is equivalent with "approved treatment technology." DoHS has approved the District's in-line treatment facilities for treating exclusively Mokelumne River water, based on full-scale studies conducted in 1991, and issued EBMUD a Domestic Water Supply Permit on March 31, 1998 acknowledging this approval. Therefore, in-line filtration is an accepted treatment technology for EBMUD's current Mokelumne River supply.

RL 14-29, Stuart Somach, Counsel to the County of Sacramento
Comment noted. The objective of the pretreatment facilities selected for Treatment Scenario A (to comply with all drinking water regulations) was to achieve overall treatment equivalent to conventional treatment.

RL 14-30, Stuart Somach, Counsel to the County of Sacramento
The 90th percentile values were selected as reasonable criteria for treatment process design, in recognition that the source water quality of rivers (as pointed out by the City and County of Sacramento) generally has greater variability than lakes/reservoirs and that monitoring data will likely underestimate the actual range of variability. A domestic water supply must be capable of consistently and reliably treating the range of likely source water quality and hydrological conditions. While there is some ability to avoid the most extreme water-quality conditions for a supplemental supply, there are limited windows when water is available. Wet-year-take alternatives (Alternatives 2 and 4) are limited by the occurrence of flows greater than the minimum set by the Hodge Decision. Dry-year-take alternatives (Alternatives 3, 5, 6, 7 and 8) are limited by the availability of water during droughts.

The differences in the 50th and 90th percentiles for the water quality values of the relevant water sources are not great enough to change the treatment process designs or sizes (and therefore capital cost) of the diversion alternatives. Operation cost estimates in the 2000 REIR/SEIS were based on median water quality values. Maintenance costs were estimated to be a uniform proportion of capital cost and thus would not change if 50th percentile water quality data were used as the basis for treatment design.

RL 14-31, Stuart Somach, Counsel to the County of Sacramento
Water quality data presented in Table 1 of Appendix B to the 2000 REIR/SEIS were taken from Table A-4 in Attachment A to the Alternatives Screening Report (Appendix B to the 1997 Draft EIS/EIR). Bromide values were added for diversion points monitored during EBMUD's Alternative Source Study. Units for coliform data should be MPN/100 mL, not cfu/100 mL. For the purpose of designing pretreatment processes for the diversion alternatives, the water quality data provided in the comment letter are comparable to data used in the 2000 REIR/SEIS and would not change the selected treatment designs.

RL 14-32, Stuart Somach, Counsel to the County of Sacramento
Comment noted. Bromide concentrations did not control the selection of treatment process designs for the American River and Sacramento River alternatives.

RL 14-33, Stuart Somach, Counsel to the County of Sacramento
Blending as an approach to reducing or eliminating treatment requirements was discussed on page 9 of Appendix B to the 2000 REIR/SEIS. The effect of blending on salinity is also shown in Table 4.

In a letter to EBMUD dated October 25, 2000 (see Appendix D to this document), DoHS set a minimum acceptable dilution ratio of 20:1 (Mokelumne Aqueduct water to American River/Sacramento River/Delta water) to allow treatment at the District's in-line filtration plants. For dry-year-take alternatives (Alternatives 3, 5, 6, 7 and 8), the dilution (blending) ratio when a supplemental supply is used is expected to be approximately 1:1, well below the minimum criteria stated by DoHS. The blending ratio for wet-year-take alternatives (Alternatives 2 and 4) would have a greater range. However, when a supplemental supply is used in Alternative 2, it is expected that the median blending ratio would be 0.6:1. 90 percent of the time when a supplemental supply were used in Alternative 2, the blending ratio would be less than 6:1. Clearly, blending without pretreatment or modifications to the District's in-line filtration plants would not be acceptable to DoHS for any of the alternatives evaluated in the 2000 REIR/SEIS.

RL 14-34, Stuart Somach, Counsel to the County of Sacramento
Comment noted. Due to increased urbanization and the presence of wastewater discharges within the American River and Sacramento River watersheds, compared with EBMUD's current Mokelumne River supply, it is expected that there is greater pathogen risk.

RL 14-35, Stuart Somach, Counsel to the County of Sacramento
Currently available *Cryptosporidium* and *Giardia* data are limited, and DoHS does not consider laboratory analytical methods sufficiently reliable to determine source water quality solely on the basis of *Cryptosporidium* and *Giardia* data (see Appendix D to this document). To determine the adequacy of a surface water source as a drinking water supply and the necessary level of treatment, DoHS considers several factors, including general source water quality, impacts of activities within the watershed, and watershed management and protection activities.

RL 14-36, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-35 above.

RL 14-37, Stuart Somach, Counsel to the County of Sacramento
In 1997 and 1998, EBMUD examined the impact of nutrients on algal activity in its terminal reservoirs. Part of that study focused on how the addition of American River water would affect nutrient levels in Upper San Leandro and San Pablo Reservoirs. Results of a mass balance limnological model indicated that the input of a mixture of American River water and Mokelumne River water into Upper San Leandro Reservoir would result in up to a 108 percent increase in orthophosphate and up to a 165 percent increase in total inorganic nitrogen over the concentrations predicted with no American River water input. In San Pablo Reservoir, orthophosphate was predicted to increase up to 110 percent, and total inorganic nitrogen was predicted to increase up to 400 percent. The study concluded that the input of American River water during a drought would cause an increase in the frequency of fall blooms of taste- and odor-causing algae in both Upper San Leandro and San Pablo reservoirs. Addition of water with higher nutrient concentrations would be expected to have a greater effect, resulting in more frequent taste and odor events, as well as taste and odor events of greater magnitude.

Nutrient addition bioassays were conducted in 1998 to determine which, if any, nutrient limited the growth of the natural algae in Upper San Leandro Reservoir. Both nitrogen and phosphorus showed some degree of biostimulatory activity. The effect was greatest when a combination of nutrients was added. This supports the conclusion that both nitrogen and phosphorus are limiting nutrients in EBMUD's terminal reservoirs.

RL 14-38, Stuart Somach, Counsel to the County of Sacramento
Rating alternative diversion sites as having "high", "medium," or "low" contaminant susceptibility/impacts was based on the best

judgment of water-quality professionals using a combination of water-quality data and the magnitude and variety of polluting activities that potentially occur at different locations within the watershed(s).

For example, total organic carbon and nitrate data from Table 1 in Appendix B to the 2000 REIR/SEIS were used to compare the disinfection byproduct formation potential and nutrients of water delivered at locations under Alternatives 5 and 6/7. (Based on the similarities in District data for both locations, water quality at the Sacramento River Water Treatment Plant is assumed to reflect water quality at Freeport.) Organic carbon (a disinfection byproduct [DBP] precursor) levels at Site 6/7 were 50 percent higher than at Site 5. Similarly, nitrate levels at Site 6/7 were over 350 percent higher than at Site 5.

EPA's Contaminant Candidate List (CCL) was used to judge the susceptibility of diversion sites to currently unregulated chemical and pathogenic contaminants. Differences among the rating of sites were not based on water quality data, since little or no monitoring has been conducted for the majority of these contaminants. Ratings were based on differences in magnitude and number of commercial/industrial/municipal wastewater discharges and urban/rural runoff. The American River sites were rated as lower in vulnerability to new/emerging contaminants than Sacramento River and Delta sites based on differences in both the type and magnitude of polluting activity between the sites.

RL 14-39, Stuart Somach, Counsel to the County of Sacramento
American River sources were rated as having lower customer impacts than Sacramento River sources, in part because the total dissolved solids level in the Sacramento River were almost twice the level in the American River. This could have serious consequences for the salinity-sensitive processes used by the District's food processing and high-tech industry customers. Also, nutrient (nitrate) levels in the Sacramento River are 350 percent higher than levels in the American River, creating a greater potential for elevated algal levels and their possible impact on objectionable taste and odor.

Comment on differences in nutrient ratings: see response to Comment RL 14-38 above.

Comments on differences in new/emerging chemicals and pathogen contaminants: see response to Comment RL 14-38 above.

The District includes the 10 microbial contaminants on EPA's CCL as potential new/emerging pathogens of concern to drinking water agencies.

Comment regarding the City's sanitary surveys is noted. The District has reviewed the 1995 Sacramento River and the 1998 American River sanitary surveys and found the water quality generally comparable to the characterization provided in Appendix B to the 2000 REIR/SEIS.

RL 14-40, Stuart Somach, Counsel to the County of Sacramento
It is acknowledged that the final agreement reached by the Stage 2 M/DBP FACA classifies "bins" based on *Cryptosporidium* levels. However, before source waters can be classified, the FACA agreement requires two additional years of *Cryptosporidium* monitoring, using new analytical methods for *Cryptosporidium* that have only recently been developed. By EPA's own admission (in presentations given to the FACA), the new analytical methods are significantly more reliable than the analytical methods that have been used, to date, to collect such data under the Information Collection Rule. Until this monitoring is completed, it is not known exactly into what bin each of the alternative sources considered will be placed. Therefore, for the purposes of the 2000 REIR/SEIS, other factors were evaluated to estimate the level of treatment that will likely be required. This approach is consistent with DoHS's current policy, as stated in its 10/25/00 letter to EBMUD (see Appendix D to this document):

"The Department's current policy is to use a number of factors to determine the adequacy of [a] surface water source as a drinking water supply and [the] treatment that will be necessary to comply with state requirements: 1) source water quality (total coliform, fecal coliform, turbidity, etc.); 2) actual and potential impacts of domestic, agricultural, recreational, and commercial activities on the watershed; 3) watershed management and protection activities. The three water source alternatives being considered by District, the American River, Sacramento River and the Delta, have lower water quality than the Mokelumne Aqueduct water due to agricultural and urban runoff and wastewater discharges in these water bodies. Total coliforms and fecal coliform levels are significantly higher in the American River, Sacramento River and Delta diversion sites than the Mokelumne Aqueduct water. These sources will require a higher level of pathogen protection via disinfection and/or pathogen removal."

RL 14-41, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-35 above. For the purposes of this evaluation, based on watershed characteristics, it is expected that the Mokelumne River supply will be in a different bin than the American River, Sacramento River, and Delta supplies.

RL 14-42, Stuart Somach, Counsel to the County of Sacramento
DoHS stated in a letter to EBMUD dated 10/25/00 (see Appendix D to this document):

"Before the Department would consider approving any proposal using the existing in-line treatment facilities to treat a blend of American River, Sacramento River, or Delta water with Mokelumne River water without a coagulation/sedimentation (pretreatment) step, the District would have to meet the following conditions: 1) conduct [a] demonstration study over a 12 month period to show that the treatment facilities can meet the removal requirements for *Giardia*, *Cryptosporidium*, and viruses specified by the SWTR/IESWTR for alternative treatment technologies; 2) maintain a minimum blending or dilution ration of 20:1 (Mokelumne Aqueduct water to American River/Sacramento River/Delta water) before filtration treatment at the existing in-line facilities."

The required demonstration study may not be possible before construction of the conveyance facilities from the alternative source to the Mokelumne Aqueducts. This would put the District at risk that the investment it makes in a full-scale conveyance may not result in an approved supplemental water supply system.

RL 14-43, Stuart Somach, Counsel to the County of Sacramento
The units for coliform data throughout Appendix B to the 2000 REIR/SEIS should be MPN/100 mL, not cfu/100 mL. Therefore, the data for each alternative raw water source are comparable.

Cryptosporidium data for the alternative source waters is limited and that based on the Information Collection Rule analytical method is not considered reliable. In a letter to EBMUD dated October 25, 2000 (see Appendix D to this document), DoHS states that "current laboratory methods [for specific pathogens] are unreliable and tend to under report the number of *Giardia* and *Cryptosporidium* cysts that are in the environment." Consequently, the discussion of blending was based on fecal coliform data. In the letter cited above, DoHS said that it has always used total and fecal coliform data "to characterize the extent of sanitary hazards to the raw water supply."

The objective of the discussion on page 9 of Appendix B to the 2000 REIR/SEIS was to evaluate whether blending might be capable of producing a raw water very similar in quality to that of EBMUD's current supply, thus eliminating the need for pretreatment. The premise was that EBMUD's in-line filtration plants are only

suitable for treating Mokelumne River water or water of similar high quality. During periods when supplemental supply is to be delivered to EBMUD under Alternatives 5, 6 and 7, Sacramento River water is expected to make up between 50 and 70 percent of the blend in the Mokelumne Aqueducts. Table 3 in Appendix B illustrates that if the proportion of Sacramento River water in a Sacramento/Mokelumne blend were 50 percent, the fecal coliform concentration in the blend would be 49 times greater than in the Mokelumne supply. If median fecal coliform concentrations were used instead, a 50 percent blend of Sacramento River water with Mokelumne River water would result in a fecal coliform concentration 13 times greater than in the Mokelumne supply (2 MPN/100 mL), still more than an order of magnitude higher. The conclusion remains that blending alone is not sufficient to provide adequate protection from pathogen risk associated with any of the supplemental supplies evaluated in the 2000 REIR/SEIS.

RL 14-44, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-43 above.

RL 14-45, Stuart Somach, Counsel to the County of Sacramento
The objective was to deliver water to the District's existing in-line treatment plants that will be similar in quality to EBMUD's current Mokelumne River supply. The in-line filtration process utilized at three of EBMUD's water treatment plants is considered by DoHS as alternative treatment technology. DoHS has issued EBMUD permits to operate the in-line plants based on a performance demonstration treating Mokelumne River water from Pardee Reservoir. Based on 90th percentile data provided in your letter, turbidity in the American River and Sacramento River is 7 and 24 times higher, respectively, than in the District's Mokelumne River supply. Even based on median values, turbidity is 3 and 16 times higher in the American River and Sacramento River, respectively. In early 1997, high winter runoff greatly increased the turbidity in Pardee Reservoir and consequently in the Mokelumne Aqueducts. Initially the District attempted to treat Mokelumne Aqueducts water but soon decided to shut down the aqueducts and draft water from Briones Reservoir, the District's off-stream terminal reservoir. For approximately 2 months, Briones Reservoir water was treated at two of the District's in-line filtration plants. Raw water turbidity was approximately 5-7 NTU. This was successfully treated, because during the low-demand period of a wet winter, the filters could be loaded at very low rates. District experience has been that when raw water turbidity exceeds approximately 2 NTU, plant capacity starts to be affected. This is because filter run times are reduced, which requires a greater proportion of filters out of service for backwashing. Alternatively, filter-loading rates can be reduced, but this also reduces plant capacity.

RL 14-46, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-43 above.

RL 14-47, Stuart Somach, Counsel to the County of Sacramento
The rapidly increasing urbanization within the Central Valley will result in a greater volume of wastewater discharges within the watershed.

RL 14-48, Stuart Somach, Counsel to the County of Sacramento
Comment noted. In addition to regular discharges from wastewater treatment plants, there are occasional overflows of combined sewage and accidental spills of untreated wastewater. In the last five years, the City of Folsom has had four major spills of untreated sewage into the American River. There was also a raw sewage spill into the American River for several days in the summer of 2000, due to an accidental connection of a sewer to a storm drain.

RL 14-49, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-37 above.

RL 14-50, Stuart Somach, Counsel to the County of Sacramento
Comment noted.

RL 14-51, Stuart Somach, Counsel to the County of Sacramento
The table has been revised to reflect the TDS data for SRWTP provided in your comment letter.

TABLE 4

Comparison of Total Dissolved Solids Levels Using Alternative Source Waters Blended with Mokelumne River Water

	Total Dissolved Solids, mg/L		
Diversion Point	**Yearly Average***	**Winter Conditions****	**Summer Conditions*****
Mokelumne River	32	32	32
Sacramento River WTP	55	59	52
Sacramento River at Freeport	74	82	69
Indian Slough at Bixler	204	234	183

* Yearly Average is assumed to be 58 percent Alternative Source and 42 percent Mokelumne River water.

** Winter Condition is assumed to be 68 percent Alternative Source and 32 percent Mokelumne River water.

*** Summer Condition is assumed to be 51 percent Alternative Source and 49 percent Mokelumne River water.

RL 14-52, Stuart Somach, Counsel to the County of Sacramento
Two municipalities, Colfax and Placerville, discharge treated wastewater into the upper American River. Combined design capacity of these treatment plants is 5.9 million gallons per day. In the lower American River watershed, wastewater is discharged outside the watershed. The Regional Water Quality Control Board prohibits the discharge of treated domestic wastewater to the lower American River.

RL 14-53, Stuart Somach, Counsel to the County of Sacramento
Comment noted.

RL 14-54, Stuart Somach, Counsel to the County of Sacramento
The discussion on page 15 describes treatment processes considered. The process selected for the purposes of the 2000 REIR/SEIS are described on the next page. The reference to modification of in-line filtration facilities is associated with an option that does not include pretreatment at the source.

RL 14-55, Stuart Somach, Counsel to the County of Sacramento
"Conventional clarification" is sedimentation at a standard surface loading rate.

"Brandt" refers to the location where Alignment 2 of the Folsom South Canal Connection pipeline intersects the Mokelumne Aqueducts. The site is near the end of Brandt Road in San Joaquin County. The maps in Chapter 2 of the 2000 REIR/SEIS call out this location as the "Mokelumne Aqueduct Treatment and Pumping Plant."

The most reliable approach to pathogen reduction is to provide multiple barriers that involve different treatment mechanisms.

Dual media filtration would also be acceptable. Fine-tuning of the process was not done at this screening stage.

Either ozone or ultraviolet (UV) would likely be used to provide the disinfection step of this pretreatment design. These disinfectants are effective on *Cryptosporidium*.

RL 14-56, Stuart Somach, Counsel to the County of Sacramento
High-rate clarification is included in this treatment design option in an effort to reduce construction cost.

Comment on Brandt location: see response to Comment RL 14-55 above.

This treatment design would have a lower number of barriers to *Cryptosporidium* than the previous alternative.

Comment on high-rate filtration rather than dual media: see response to Comment RL 14-55 above.

The new treated water pipeline is included in this treatment option because it is likely that the blended mixture of fully treated supplemental supply and raw Mokelumne River supply would not be as effectively treated at the District's in-line filtration plants. The District is unaware of any water agency that employs coagulation at multiple points in its treatment process. Lack of actual operational performance data for multiple coagulation impeded the District's ability to predict the efficacy of such a treatment process to achieve treatment objectives. If the suggested process were to be pursued further, pilot testing would be necessary. Use of one of the existing Mokelumne Aqueducts to carry fully treated supplemental supply is not deemed feasible, because at other times the pipeline would be used to convey raw Mokelumne River water. Use of a single pipeline to carry alternating raw and treated water would create the potential to contaminate the treated water. It would not be possible to adequately disinfect the entire pipeline prior to delivery of treated water, particularly as the existing aqueducts contain numerous appurtenances, connections, and miscellaneous "dead" spots that could be unaffected by standard disinfection techniques. Additionally, biofilm that develops on the walls of the raw water pipeline can contain coliforms and pathogens. Disinfection would not completely eliminate this biofilm, and subsequent sloughing could occur while that aqueduct was used for treated water. In view of these significant public health concerns, it is unlikely that DoHS would grant approval for a pipeline to be used for both raw and treated water.

RL 14-57, Stuart Somach, Counsel to the County of Sacramento
Comment on high-rate clarification: see response to Comment RL 14-56 above.

Ozone was evaluated as a treatment option because it has proven effective in the control of *Cryptosporidium*, and facilities of the capacity under consideration are in operation. Bromide levels in the Sacramento River are likely compatible with this disinfection technology. UV disinfection appears to be preferable, but this is still is an emerging technology.

Treatment process design focused on both pathogen (*Cryptosporidium* and *Giardia*) control and disinfection byproduct control. The focus on *Cryptosporidium* is justified. Since the unfortunate incident of Cryptosporidiosis in Milwaukee that occurred in 1993, as well as other such recorded incidents during the last decade, risk of contamination by *Cryptosporidium* and other protozoa such as *Giardia* has become one of the primary determinants of microbial risk. Protection from contamination by protozoa, which are much more resistant to disinfection than bacteria and viruses, requires consistent treatment reliability.

The pretreatment process does not include filtration as part of the pretreatment. Filtration would occur at the District's water treatment plants.

Comment on Brandt location: see response to Comment RL 14-55 above.

RL 14-58, Stuart Somach, Counsel to the County of Sacramento
Comment on high rate clarification: see response to Comment RL 14-56 above.

The treatment process does not include filtration as a pretreatment step. The pretreated supplementary supply would be blended with Mokelumne River water, and the combined flow would be filtered at the District's water treatment plants.

RL 14-59, Stuart Somach, Counsel to the County of Sacramento
Comment noted.

RL 14-60, Stuart Somach, Counsel to the County of Sacramento
Treatment processes similar to those in the 2000 REIR/SEIS have been approved for construction by Alameda County Water District and are proposed for evaluation in research to be conducted by Contra Costa Water District and other regional water utilities, including Santa Clara Valley Water District and Zone 7 Water Agency. Additionally, EBMUD's situation is not typical in that it has in-line filtration plants, and there is a need to blend two different waters at a location remote from the existing treatment facilities.

RL 14-61, Stuart Somach, Counsel to the County of Sacramento
Comment on pathogen data: see response to Comments RL 14-35 and RL 14-40 above. In a letter to EBMUD dated 10/25/00 (see Appendix D to this document), DoHS said:

> *"The three water source alternatives being considered by District, the American River, Sacramento River and the Delta, have lower water quality than the Mokelumne Aqueduct... These sources will require a higher level of pathogen protection via disinfection and/or pathogen removal."*

Brandt is the same location as the Mokelumne Aqueduct Treatment and Pumping Plant shown in Figure 2-5 of the 2000 REIR/SEIS.

RL 14-62, Stuart Somach, Counsel to the County of Sacramento
In a letter to EBMUD dated 10/25/00 (see Appendix D to this document), DoHS said they typically require conventional treatment (coagulation, sedimentation, filtration, and disinfection) for water sources comparable to the American River, Sacramento River, and Delta. However, they will consider alternative treatment technologies if demonstrated sufficiently. The letter concludes:

> *"The pretreatment alternatives for American River and Sacramento River described in [the] Technical Memorandum coupled with the existing in-line treatment facilities provide comparable treatment scheme to conventional treatment in order to satisfy the requirements of the SWTR and IESWTR. No demonstration study is required for these treatment alternatives."*

RL 14-63, Stuart Somach, Counsel to the County of Sacramento
In pilot testing by Placer County Water Agency (PCWA) and by EBMUD, the Actiflo process has been stable and easy to operate. PCWA particularly tried to upset the process during its testing but found that the process performed well throughout the test. DoHS has approved Actiflo as a replacement for conventional coagulation, flocculation, and sedimentation for PCWA and for the City of Antioch.

RL 14-64, Stuart Somach, Counsel to the County of Sacramento
The objective of treating water to "reasonably match EBMUD's current finished water quality" is intended to meet the aesthetic expectations of EBMUD's customers. Customers of other drinking water agencies may have different expectations. It should also be noted that the same drinking water agencies referenced in response to Comment RL 14-60 above plan to use or are evaluating treatment to reduce objectionable taste and odor.

The rationale for using ozone in combination with UV and their respective roles is described on page 19 of Appendix B to the 2000 REIR/SEIS.

RL 14-65, Stuart Somach, Counsel to the County of Sacramento
The District is unaware of any water agency that employs coagulation at multiple points in its treatment process. Lack of actual operational performance data for multiple coagulation impeded the District's ability to predict the efficacy of such a

treatment process to achieve treatment objectives. Current research being done by Dr. Ken Carlson at Colorado State University shows that multiple coagulation is still relatively experimental and very complex in its application.

RL 14-66, Stuart Somach, Counsel to the County of Sacramento
In a recent report prepared for the City of Sacramento (Montgomery Watson, Final Technical Memorandum for Potential Water Treatment Plant at Freeport, October 1999), the treatment capability of the in-line filtration is listed as turbidity <2 NTU and total coliforms $<10^2$. While a treatment facility may produce acceptable product water for short periods of time when raw water is of poorer quality, it is imprudent to stress a single barrier process, thereby subjecting EBMUD's customers to increased health risk.

RL 14-67, Stuart Somach, Counsel to the County of Sacramento
To supplement the table footnotes, unit costs were applied to each component of the process trains. Operation unit costs were based on $/1000 gallons, then multiplied by the average annual supplemental supply delivery. Annual maintenance costs were assumed to be 3 percent of the construction cost.

RL 14-68, Stuart Somach, Counsel to the County of Sacramento
The Fairbairn intake option was listed in the cost table to inform the public and decision-makers of the economic effect of a shorter pipeline.

RL 14-69, Stuart Somach, Counsel to the County of Sacramento
The modeling for both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS was conducted and reviewed jointly by acknowledged experts from both EBMUD and Reclamation and is appropriate. This information is available for review and has been provided to the County. The explanations requested in this comment are of a detailed technical nature and are neither necessary nor appropriate for inclusion in an environmental document.

RL 14-70, Stuart Somach, Counsel to the County of Sacramento
The draft amendatory water service contract has not been formally withdrawn by Reclamation. A copy is included in Appendix A to this document.

RL 14-71, Stuart Somach, Counsel to the County of Sacramento
The modeling for both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS was conducted and reviewed jointly by acknowledged experts from both EBMUD and Reclamation and is appropriate. In addition, the information requested in this comment was provided to the County, and the post-processing methodology was discussed in technical sessions with the County and its consultants prior to publication of the 2000 REIR/SEIS. The descriptions of these issues in the 2000 REIR/SEIS fully comply with CEQA and NEPA.

RL 14-72, Stuart Somach, Counsel to the County of Sacramento
The information requested in this comment was supplied to the County, as noted. This information is highly technical and not appropriate for inclusion in an environmental document. It would not provide meaningful or useful information to the public.

RL 14-73, Stuart Somach, Counsel to the County of Sacramento
As described and shown in Appendix B to this document, the conclusions regarding potential environmental impacts reached in the 1997 Draft EIR/EIS are valid. Impacts on aquatic resources were neither overestimated nor underestimated in the 1977 Draft EIR/EIS.

RL 14-74, Stuart Somach, Counsel to the County of Sacramento
As described and shown in Appendix B to this document, the conclusions regarding potential environmental impacts reached in the 1997 Draft EIR/EIS are considered valid. Impacts on aquatic resources were neither overestimated nor underestimated in the 1977 Draft EIR/EIS.

RL 14-75, Stuart Somach, Counsel to the County of Sacramento
Using this modeling approach displays a "worst-case" analysis for American River resources under these alternatives. EBMUD and Reclamation determined that modeling results downstream of the American River would be identical regardless of the location of an EBMUD delivery facility. As shown in Figure 3-4 and Tables 3-3 and 3-4, these alternatives had almost no discernible effect on American River resources even when the delivery was made from the American River. Based on professional judgment and agency expertise, the analysis is considered appropriate.

RL 14-76, Stuart Somach, Counsel to the County of Sacramento
Deliveries made to EBMUD under any of the alternatives are very small when compared to system-wide demands on the American River and throughout the CVP. Minor changes in the location of EBMUD deliveries or CVP system demands would not alter the basic patterns of demand and river flow that drive cumulative impacts. Reclamation and EBMUD consider the analysis conducted for Alternative 3 to be an appropriate analysis for Alternatives 4, 5, 6, 7, and 8 as well. The cumulative impact analysis prepared for the 1997 Draft EIR/EIS also reasonably represents cumulative conditions for Alternatives 4-8 (see Appendix B to this document).

RL 14-77, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD received no scoping comments regarding hydropower production and essentially no comments on the 1997 Draft EIR/EIS regarding the effects of the alternatives then under consideration on hydropower production. In addition, potential impacts on hydropower production were determined to be less than significant. As all of the alternatives considered in the 2000 REIR/SEIS would have similar or fewer effects on hydropower production, the analysis was not repeated.

RL 14-78, Stuart Somach, Counsel to the County of Sacramento
Using PROSIM 99, average annual deliveries to EBMUD would be approximately 27,000 acre-feet, as compared to approximately 29,000 acre-feet under the previous PROSIM analysis. Therefore, deliveries under Alternative 4 would be substantially less than under Alternative 2.

RL 14-79, Stuart Somach, Counsel to the County of Sacramento
Using PROSIM 99, average annual deliveries to EBMUD would be approximately 21,000 acre-feet, similar to those described for Alternatives 5, 6, 7, and 8.

RL 14-80, Stuart Somach, Counsel to the County of Sacramento
Using PROSIM 99, average end-of-year Folsom Reservoir storage would be reduced by 4,000 acre-feet as compared to the No-Action Alternative. The analysis conducted for the 1997 Draft EIR/EIS indicated that average end-of-year storage would be reduced by 2,000 acre-feet. Reclamation and EBMUD have reviewed this minor change and determined that any impacts remain less than significant.

RL 14-81, Stuart Somach, Counsel to the County of Sacramento
Deliveries made to EBMUD under any of the alternatives are very small when compared to system-wide demands on the American River and throughout the CVP. Minor changes in the location of EBMUD deliveries or system demands would not alter the basic patterns of demand and river flow that drive cumulative impacts. Reclamation and EBMUD consider the analysis conducted for Alternative 3 to be an appropriate analysis for Alternatives 4, 5, 6, 7, and 8 as well. In addition, minor increases in demands on the CVP do not result in failure to meet flow requirements. A more likely scenario is that Reclamation will impose shortages on all of its contractors (including EBMUD and the County) consistent with contracting requirements to meet required instream flows. Reclamation operates the CVP as an integrated unit and operates

its facilities accordingly. The cumulative impact analysis prepared for the 1997 Draft EIR/EIS also reasonably represents cumulative conditions for Alternatives 4-8 (see Appendix B to this document).

RL 14-82, Stuart Somach, Counsel to the County of Sacramento
All of the changes identified that relate to EBMUD deliveries are small. Continually refining modeling approaches will not result in changes to impact conclusions. Reclamation and EBMUD have jointly prepared and reviewed the hydrological modeling and have determined that it is appropriate to address potential environmental effects.

RL 14-83, Stuart Somach, Counsel to the County of Sacramento
PROSIM is a planning-level model and is not intended to precisely portray Reclamation's day-to-day operations. The fact that the model indicates reduced stream flows that are greater than deliveries to EBMUD indicate that the model may be highly sensitive to changes in delivery patterns under the alternatives. However, Reclamation does not operate facilities in response to very minor changes in system demands, and such changes would not be a result of deliveries to EBMUD.

RL 14-84, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-71 above.

RL 14-85, Stuart Somach, Counsel to the County of Sacramento
Changes in Delta inflow would be identical to those changes described in Table 3-3 for Sacramento River flow below Freeport. These changes are minor and are not considered significant.

RL 14-86, Stuart Somach, Counsel to the County of Sacramento
As shown in Table 3-4, Delta exports would not be affected by Alternatives 5, 6, 7, and 8. For Alternative 4, Alternative 2 conditions are representative of Delta outflow conditions.

RL 14-76, Stuart Somach, Counsel to the County of Sacramento
Operations under Alternatives 5, 6, 7, and 8 are identical to those under Alternative 3 and would result in similar water availability.

RL 14-88, Stuart Somach, Counsel to the County of Sacramento
The analysis for the 2000 REIR/SEIS uses the same baseline as the 1997 Draft EIR/EIS. Very little if any water has been delivered under this contract. Therefore, its exclusion under existing conditions is appropriate. Demands under this contract were included in the No-Action Alternative.

RL 14-89, Stuart Somach, Counsel to the County of Sacramento
The Hodge Decision established conditions under which EBMUD could take delivery of water. These conditions were used in determining water availability under Alternatives 2 and 4.

RL 14-90, Stuart Somach, Counsel to the County of Sacramento
All alternatives achieve EBMUD's objective of reducing customer deficiencies. Alternatives that are not constrained by the Hodge Decision requirement provide greater reductions in customer deficiencies.

RL 14-91, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L20-19 in Chapter 6 of this document. The No-Action Alternative would not meet EBMUD's objectives for the Supplemental Water Supply Project.

RL 14-92, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-65 in Chapter 6 of this document.

RL 14-93, Stuart Somach, Counsel to the County of Sacramento
Reclamation has reviewed and approved all modeling methodologies used in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS and has determined that they provide appropriate information for environmental impact analysis. Reclamation does not require the use of any specific models for environmental

documentation and notes that all approaches have shortcomings. Additional analyses conducted for the 2000 REIR/SEIS using Reclamation's temperature model confirm the adequacy of the modeling approaches used in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RL 14-94, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-66 in Chapter 6 of this document.

RL 14-95, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-68 in Chapter 6 of this document.

RL 14-96, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-69 in Chapter 6 of this document.

RL 14-97, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-70 in Chapter 6 of this document. See also response to Comment RL 14-71 above.

RL 14-98, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-71 in Chapter 6 of this document.

RL 14-99, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-73 in Chapter 6 of this document.

RL 14-100, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-74 in Chapter 6 of this document.

RL 14-101, Stuart Somach, Counsel to the County of Sacramento
See response to "PROSIM Modeling" major issue in Chapter 3 of this document.

RL 14-102, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-76 in Chapter 6 of this document.

RL 14-103, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-77 in Chapter 6 of this document.

RL 14-104, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-78 in Chapter 6 of this document.

RL 14-105, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-79 in Chapter 6 of this document.

RL 14-106, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-80 in Chapter 6 of this document.

RL 14-107, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-81 in Chapter 6 of this document.

RL 14-108, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-82 in Chapter 6 of this document.

RL 14-109, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-83 in Chapter 6 of this document.

RL 14-110, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-84 in Chapter 6 of this document.

RL 14-111, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-85 in Chapter 6 of this document.

RL 14-112, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-86 in Chapter 6 of this document.

RL 14-113, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-87 in Chapter 6 of this document.

RL 14-114, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-88 in Chapter 6 of this document.

RL 14-115, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-88 in Chapter 6 of this document.

RL 14-116, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-89 in Chapter 6 of this document. Changes in flows below Freeport described in Tables 3-3 and 3-4 in the 2000 REIR/SEIS represent changes to Delta inflow likely to result from the alternatives. See also Appendix B to this document.

RL 14-117, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-90 in Chapter 6 of this document.

RL 14-118, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-91 in Chapter 6 of this document.

RL 14-119, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-92 in Chapter 6 of this document. In addition, changes in Delta exports are described in Table 3-4 of the 2000 REIR/SEIS. As shown in that table, there would be no net change to Delta exports under the alternatives.

RL 14-120, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-93 in Chapter 6 of this document. See also response to Comment RL 14-77 above.

RL 14-121, Stuart Somach, Counsel to the County of Sacramento
The AFRP flows outlined in the 1997 Administrative Paper were used in the PROSIM 99 analyses of all the alternatives.

RL 14-122, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-96 in Chapter 6 of this document.

RL 14-123, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-97 in Chapter 6 of this document.

RL 14-124, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-98 in Chapter 6 of this document.

RL 14-125, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-99 in Chapter 6 of this document.

RL 14-126, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-100 in Chapter 6 of this document.

RL 14-127, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-101 in Chapter 6 of this document.

RL 14-128, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-102 in Chapter 6 of this document.

RL 14-129, Stuart Somach, Counsel to the County of Sacramento
See responses to Comments from the City of Sacramento in this chapter (Letter RL 13).

RL 14-130, Stuart Somach, Counsel to the County of Sacramento
The fishery impact analysis was prepared and reviewed by both Reclamation and EBMUD. The analysis is appropriate and meets all requirements under both NEPA and CEQA. See also responses to Comments L21-110 through L21-126 in Chapter 5 of this document.

RL 14-131, Stuart Somach, Counsel to the County of Sacramento
Comments noted.

RL 14-132, Stuart Somach, Counsel to the County of Sacramento
The modeling for both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS was conducted and reviewed jointly by acknowledged experts from both EBMUD and Reclamation and is appropriate. This information is available for review and has been provided to the County. The explanations requested in this comment are of a detailed technical nature and are neither necessary nor appropriate for inclusion in an environmental document. As noted in Appendix B to this document, revisions to the PROSIM model did not alter the impact conclusions reached in the 1997 Draft EIR/EIS.

RL 14-133, Stuart Somach, Counsel to the County of Sacramento
The modeling approaches used in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS are valid approaches to conducting impact

analysis. The fact that conclusions reached under both approaches are essentially identical is an important consideration.

RL 14-134, Stuart Somach, Counsel to the County of Sacramento
Impacts on these species were appropriately evaluated in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. This comment does not accurately reflect how Reclamation operates the CVP as an integrated system and assumes an over-reliance on modeling approaches. Reclamation will continue to meet its obligations to minimize effects on listed species and may impose shortages on its contractors (including EBMUD) to meet these obligations.

RL 14-135, Stuart Somach, Counsel to the County of Sacramento
The information presented in the 1997 Draft EIR/EIS and the 2000 REIR/SEIS is appropriate for providing decision-makers and the public information and analyses to determine the potential environmental impacts of the various alternatives.

RL 14-136, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L20-19 in Chapter 6 of this document.

RL 14-137, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this significance criterion and have determined that it is appropriate. The AFRP flows were properly applied in the impact analysis consistent with other Reclamation studies.

RL 14-138, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this significance criterion and have determined that it is appropriate. The criteria used were consistent with the impact assessment methodology employed. See also response to Comment L21-124 in Chapter 6 of this document.

RL 14-139, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. The average monthly temperatures have been reviewed, and nearly all of the modeled changes were within 0.3°F, and all larger changes were isolated (i.e., single-month) occurrences that were related to flow change anomalies in PROSIM 99 output.

RL 14-140, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. Impacts on listed fish species were fully evaluated in Chapter 5 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RL 14-141, Stuart Somach, Counsel to the County of Sacramento
Potential effects on Nimbus Fish Hatchery operations were appropriately analyzed in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RL 14-142, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-81 above.

RL 14-143, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. Impacts on Delta fish resources were fully evaluated in Chapter 5 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS.

RL 14-144, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. See also response to "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 14-145, Stuart Somach, Counsel to the County of Sacramento
Potential mitigation for cumulative impacts is described in Chapter 5 of the 1997 Draft EIR/EIS.

RL 14-146, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. See response to Comment RL 14-163 below.

RL 14-147, Stuart Somach, Counsel to the County of Sacramento
See Appendix B to this document.

RL 14-148, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed the impact assessment approach and methodology and determined that it is appropriate for conducting environmental impact assessment and for decision-making.

RL 14-149, Stuart Somach, Counsel to the County of Sacramento
Potential effects on Sacramento River fishery resources are described on pages 5-17 and 5-18 of the 2000 REIR/SEIS. Flow-related impacts on upper Sacramento River fishery resources are discussed in Chapter 5 of the 1997 Draft EIR/EIS. The reference to Table 5-8 should have been made instead to Appendix C, Table C-15, which shows that releases from Keswick Dam are essentially unchanged under the alternatives. Therefore, impacts on fishery resources in the Sacramento River would not result.

RL 14-150, Stuart Somach, Counsel to the County of Sacramento
Publication of temperature model output is not required under CEQA or NEPA. Reclamation and EBMUD have reviewed the impact assessment approach and methodology and determined that it is appropriate for conducting environmental impact assessment and for decision-making. The temperature data were reviewed and no discernible patterns in temperature or mortality were detected. This information is available to the County and was provided by consultants to the County. Reclamation will continue to meet its obligations under the Endangered Species Act in its integrated operation of the CVP.

RL 14-151, Stuart Somach, Counsel to the County of Sacramento
Impacts on spring-run Chinook salmon were addressed in Chapter 5 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. As the agency responsible for complying with the federal Endangered Species Act, Reclamation has reviewed the information and determined that impacts on spring-run chinook salmon are less than significant. The Salmon Mortality Model is only one of many available tools that can be used in an impact assessment, and it does not reflect Reclamation's day-to-day operations. Reclamation will continue to meet its obligations under the Endangered Species Act in its integrated operation of the CVP.

RL 14-152, Stuart Somach, Counsel to the County of Sacramento
As the agency responsible for management and operation of the CVP, Reclamation has reviewed the impact analysis assumptions, tools, and results and determined that they are appropriate. A minor increase in demands resulting from deliveries to EBMUD will not fundamentally alter Reclamation's CVP operations and will not result in meaningful impacts on other CVP-related resources. Reclamation will continue to operate the CVP to meet its flow-related obligations and may impose (and in fact has imposed) shortages on all of its contractors to meet these obligations.

RL 14-153, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed the relevant data and determined that Chapter 5 of the 1997 Draft EIR/EIS appropriately characterized potential effects on Lake Natoma and Nimbus Fish Hatchery operations. Lake Natoma is operated to re-regulate releases from Folsom Reservoir, and its operations are highly variable on a daily basis. There is no evidence to suggest that

Reclamation would operate Lake Natoma substantially differently under any of the alternatives than it does currently. Therefore, specific analyses of Lake Natoma fisheries were not conducted. In addition, fishery impacts on Folsom Reservoir upstream and the lower American River downstream were determined to be less than significant. These analyses further substantiate the fact that impacts would not result at Lake Natoma or the Nimbus Fish Hatchery.

RL 14-154, Stuart Somach, Counsel to the County of Sacramento
Table 5-10 of the 2000 REIR/SEIS shows the specific months and locations of potential temperature increases in the American River. Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. See responses to Comments L21-110 through L21-126 in Chapter 6 of this document. The 1997 Draft EIR/EIS provides substantial documentation regarding methodologies. The results of the Reclamation temperature model and salmon mortality model analyses, which were provided by the County of Sacramento, were used to confirm the appropriateness of conclusions reached in the 1997 Draft EIR/EIS and are sufficiently reported in the 2000 REIR/SEIS for this purpose.

RL 14-155, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed this analysis and have determined that it is appropriate. This information is available to the public and agencies and has been provided to the County.

RL 14-156, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have determined that the methodological approach is appropriate and adequately characterizes the potential environmental effects. Reclamation does not hold the position that the only appropriate impact analysis tool is the Reclamation temperature model; other approaches, including that used in the 1997 Draft EIR/EIS and 2000 REIR/SEIS, are equally valid approaches.

RL 14-157, Stuart Somach, Counsel to the County of Sacramento
As operator of the CVP and developer of many of the models and tools used in these analyses, Reclamation has thoroughly reviewed and evaluated the methods and approaches used in the 1997 Draft EIR/EIS and 2000 REIR/SEIS and determined that they are appropriate.

RL 14-158, Stuart Somach, Counsel to the County of Sacramento
This comment does not accurately represent the findings of the Supplemental Water Supply Project environmental documentation or the experience of most water purveyors, including the County, in addressing impacts on listed fish species. The 2000 REIR/SEIS does not attempt to "discount" any alternatives. Rather, it recognizes that the lower American River is important habitat only for steelhead, whereas the Sacramento River and the Delta are important habitat (in fact, designated critical habitat) for delta smelt, steelhead, and chinook salmon, as well as splittail, and support larger populations of these species than does the American River. In addition, contrary to this comment, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) do not "inherently assume" that compliance with current screening criteria would obviate potential entrapment impacts. For example, the biological opinions prepared under Section 7 of the Endangered Species Act for both the new Contra Costa Water District intake on Old River in the Delta and the County's new water service contract include significant restrictions on their use precisely because these intakes are located in areas in which listed species occur and in spite of implementation of current intake screening criteria.

RL 14-159, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-84 above. The cumulative impact analysis has been reviewed and has been determined to be appropriate. No additional analysis is necessary.

RL 14-160, Stuart Somach, Counsel to the County of Sacramento
The contribution of the Supplemental Water Supply Project alternatives to cumulative impacts would be indiscernible and would not be cumulatively considerable under CEQA. Conditions would be essentially identical under cumulative conditions regardless of whether any of the Supplemental Water Supply Project alternatives were implemented. This finding is supported by the supplemental analysis conducted for the final EIR for the Water Forum Proposal, in which an analysis of cumulative impacts with an EBMUD delivery at Nimbus was included. That analysis was unable to identify any meaningful difference in cumulative impacts with such deliveries to EBMUD as compared to previous analyses without such deliveries. There are many possible methodologies for determining an appropriate EBMUD contribution to mitigation of such cumulative impacts. An appropriate methodology would be determined, based on negotiation with other contributors, once an alternative is selected and approved.

RL 14-161, Stuart Somach, Counsel to the County of Sacramento
The various measures listed in this comment are a few examples of many potential construction techniques that would be implemented to ensure that impacts on aquatic resources are minimized. This issue is discussed on page 5-20 of the 1997 Draft EIR/EIS. Reclamation would be required to coordinate construction techniques with USFWS and NMFS to ensure that potential take of listed species is minimized.

RL 14-162, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-161 above. It is agreed that such measures apply to all alternatives involving in-water construction.

RL 14-163, Stuart Somach, Counsel to the County of Sacramento
As described on page 5-9 of the 2000 REIR/SEIS, the 10 percent threshold was used to identify a *potentially* significant impact. For striped bass, there is no information available that indicates that there are specific flow requirements for this species, and no impact determination was therefore made. In addition, it is important to note that to the extent that this reduction would affect striped bass, it would be largely attributable to current and future users of American River supplies under cumulative conditions. EBMUD alternatives would have negligible effects on these conditions.

RL 14-164, Stuart Somach, Counsel to the County of Sacramento
As operator of the CVP and developer of many of the models and tools used in these analyses, Reclamation has thoroughly reviewed and evaluated the methods and approaches used in the 1997 Draft EIR/EIS and 2000 REIR/SEIS and determined that they are appropriate. Both methodological approaches provide essentially the same result. This fact is considered verification that the approaches used in the 1997 Draft EIR/EIS and 2000 REIR/SEIS are appropriate.

RL 14-165, Stuart Somach, Counsel to the County of Sacramento
The impact assessment approaches have been reviewed and been determined to be appropriate. An evaluation and comparison using the tools preferred by the County yield essentially identical results. No further analysis is warranted.

RL 14-166, Stuart Somach, Counsel to the County of Sacramento
The model was applied to the No-Action Alternative, and the discussion of changes in temperatures described on page 5-17 of the 2000 REIR/SEIS uses the No-Action Alternative as the basis for discussing potential changes in temperatures.

RL 14-167, Stuart Somach, Counsel to the County of Sacramento
Changes in Delta outflow attributable to the new alternatives are shown in Table 3-4 of the 2000 REIR/SEIS. Delta outflow was also described in Table C-20 of Appendix C to the 1997 Draft EIR/EIS. The analysis is appropriate and demonstrates the extremely small

effect of any of the alternatives on Delta outflow (less than 0.5 percent). This effect represents a less-than-significant impact.

RL 14-168, Stuart Somach, Counsel to the County of Sacramento
Reclamation is required to meet various flow requirements regardless of CVP demands. Slightly increased CVP demands do not result in Reclamation violating its obligations to provide adequate stream flows to protect beneficial uses. Reclamation and EBMUD have reviewed the model results with respect to the location of X2. The average location of X2 does not change under any of the alternatives, and the modeled individual monthly changes are inconsequential and not reflective of Reclamation's integrated CVP operations.

RL 14-169, Stuart Somach, Counsel to the County of Sacramento
Comment noted. The identified line at the top of page 5-6 is a misprint.

RL 14-170, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-110 in Chapter 6 of this document.

RL 14-171, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-111 in Chapter 6 of this document.

RL 14-172, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-112 in Chapter 6 of this document.

RL 14-173, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-113 in Chapter 6 of this document.

RL 14-174, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-114 in Chapter 6 of this document. Reclamation manages Folsom Reservoir operations and in this capacity has reviewed the analysis conducted for both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS and determined it to be valid and appropriate for environmental impact assessment.

RL 14-175, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-116 in Chapter 6 of this document.

RL 14-176, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-117 in Chapter 6 of this document and RL 14-168 above.

RL 14-177, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-118 in Chapter 6 of this document.

RL 14-178, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-118 in Chapter 6 of this document.

RL 14-179, Stuart Somach, Counsel to the County of Sacramento
See response to Comments L21-120 and L21-121 in Chapter 6 of this document.

RL 14-180, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-122 in Chapter 6 of this document.

RL 14-181, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-123 in Chapter 6 of this document.

RL 14-182, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-124 in Chapter 6 of this document.

RL 14-183, Stuart Somach, Counsel to the County of Sacramento
See responses to Comments L21-125 and L21-126 in Chapter 6 of this document.

RL 14-184, Stuart Somach, Counsel to the County of Sacramento
As noted in Tables 6-3, 6-4, and 6-5 of the 1997 Draft EIR/EIS, none of the alternatives even approached exceedance of the significance thresholds and criteria. In addition, PROSIM 99 modeling resulted in small changes in impact results as compared to previous PROSIM modeling. Reclamation and EBMUD have reviewed the results and determined that no additional analyses are necessary.

RL 14-185, Stuart Somach, Counsel to the County of Sacramento
Lake Natoma, Whiskeytown Reservoir, and Keswick Reservoir are typically operated on a daily basis to re-regulate releases from the major upstream reservoirs. In addition, changes to reservoir storage and releases were all found to be minor. Therefore, no additional analysis of these locations is warranted. Alternative 8 is located in an isolated portion of the Delta and could not appreciably, or even measurably, affect water levels in adjacent Delta channels. The facilities would also not conflict with any existing recreational facilities, as they would be located within and adjacent to existing EBMUD facilities. No further analysis is warranted.

RL 14-186, Stuart Somach, Counsel to the County of Sacramento
The assessment methodologies and thresholds used in Table 6-2 of the 1997 Draft EIR/EIS are consistent with other recent Reclamation analyses, including those conducted for the PEIS for the CVPIA. These thresholds are appropriate, and no further analysis is warranted. The fact that the Water Forum EIR used a different methodology does not render the analysis for the Supplemental Water Supply Project insufficient.

RL 14-187, Stuart Somach, Counsel to the County of Sacramento
The assessment methodologies and thresholds used in Table 6-4 of the 1997 Draft EIR/EIS are consistent with other recent Reclamation analyses, including those conducted for the PEIS for the CVPIA. These thresholds are appropriate, and no further analysis is warranted. The changes shown in Table 6-4 are negligible and do not require reanalysis with new modeling results for the five alternatives considered in the 2000 REIR/SEIS.

RL 14-188, Stuart Somach, Counsel to the County of Sacramento
Alternatives 3 and 4 would require legislative action before they could be implemented to address issues relating to the Wild and Scenic Rivers Act and the American River Parkway Plan. None of the alternatives would result in substantial reductions in optimum flows. Therefore, they are considered to be consistent with the American River's recreational designation under the Wild and Scenic Rivers Act.

RL 14-189, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-84 above.

RL 14-190, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed the relevant data and determined that the discussion included in the 2000 REIR/SEIS is appropriate. Only very minor changes would result for any of the alternatives regardless of the modeling approach used. No further analysis is warranted.

RL 14-191, Stuart Somach, Counsel to the County of Sacramento
No substantial changes would occur at any EBMUD facilities, nor would the Supplemental Water Supply Project alternatives have any ability to alter recreation-related conditions within the EBMUD service area. Therefore, no additional analysis is required.

RL 14-192, Stuart Somach, Counsel to the County of Sacramento
The 1997 Draft EIR/EIS and 2000 REIR/SEIS provide substantial and relevant information on which to base impact conclusions. This information is highly technical and has been provided to all parties who requested it, including the County. No further information is required to be included in an environmental document.

RL 14-193, Stuart Somach, Counsel to the County of Sacramento
The impacts of the No-Action Alternative were thoroughly assessed in the 1997 Draft EIR/EIS. The No-Action Alternative provides the baseline for addressing potential environmental effects. No new analysis of the impacts of the No-Action Alternative is necessary for the 2000 REIR/SEIS, nor would it provide meaningful information to reviewers of the document.

RL 14-194, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-129 in Chapter 6 of this document.

RL 14-195, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-130 in Chapter 6 of this document.

RL 14-196, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-131 in Chapter 6 of this document.

RL 14-197, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-132 in Chapter 6 of this document.

RL 14-198, Stuart Somach, Counsel to the County of Sacramento
Reclamation and EBMUD have reviewed the data and determined that no potential for significant effect exists. As noted above, flows below Keswick Dam would not change appreciably, and therefore no impacts on recreation in the upper Sacramento River would result. Similarly, changes in flows at Freeport would be very minor, as shown in Table 3-4 of the 2000 REIR/SEIS. In addition, there is no evidence that recreational use of the lower Sacramento River is influenced by small changes in flows. There, no impacts on recreation would result.

RL 14-199, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-134 in Chapter 6 of this document.

RL 14-200, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-135 in Chapter 6 of this document.

RL 14-201, Stuart Somach, Counsel to the County of Sacramento
As shown in Table 6-3, under cumulative conditions, the percentage of time that flows would be above or within optimal and minimum boating flow ranges is dependent on the thresholds used (CVPIA or SWRCB).

RL 14-202, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-136 in Chapter 6 of this document.

RL 14-203, Stuart Somach, Counsel to the County of Sacramento
The "Percent" entry under Alternative 1 is incorrect. It should be 53 percent rather than 34 percent. This change does not alter the impact conclusions.

RL 14-204, Stuart Somach, Counsel to the County of Sacramento
Mitigation measures will be adopted once a project has been selected. EBMUD and Reclamation are committed to avoiding, minimizing, and compensating for significant impacts to the extent feasible and appropriate, as required by CEQA and NEPA.

RL 14-205, Stuart Somach, Counsel to the County of Sacramento
The 1997 Draft EIR/EIS discusses this issue in detail on page 7-13. While any number of methods could be used to assess this issue, the analysis contained in the 1997 Draft EIR/EIS is considered appropriate and makes substantial use of the evidence presented in the Hodge Decision proceedings. No further analysis is warranted, and it is highly unlikely that a different methodology would reach different conclusions given the minor changes in modeled flows that would result from the Supplemental Water Supply Alternatives.

RL 14-206, Stuart Somach, Counsel to the County of Sacramento
Backwater ponds are most influenced by sustained high flows. The Supplemental Water Supply Project alternatives do not have the ability to affect such flows, and no additional analysis is therefore warranted.

RL 14-207, Stuart Somach, Counsel to the County of Sacramento
Alternative 8 would result in impacts similar in type and magnitude to those resulting from the other alternatives. These impacts are considered significant, and the mitigation measures described in detail in the 1997 Draft EIR/EIS and summarized in the 2000 REIR/SEIS would be fully applicable.

RL 14-208, Stuart Somach, Counsel to the County of Sacramento
Salinity in the Delta is a function of numerous variables and is influenced by much more than Delta inflows. The very small changes in flows that could result from the alternatives have no capacity to measurably affect Delta salinity. See Chapter 4 in both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS for a discussion of this issue. No significant impacts on vegetation from exceedingly minor changes in salinity could result.

RL 14-209, Stuart Somach, Counsel to the County of Sacramento
This issue is fully addressed on page 7-13 of the 1997 Draft EIR/EIS. The alternatives considered in the 2000 REIR/SEIS would result in similar less-than-significant impacts.

RL 14-210, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-84 above.

RL 14-211, Stuart Somach, Counsel to the County of Sacramento
As clearly demonstrated in Table C-15 of Appendix C to the 1997 Draft EIR/EIS, modeled changes in upper Sacramento River flows resulting from the alternatives are negligible and are not capable of resulting in any effects on riparian vegetation. The alternatives considered in the 2000 REIR/SEIS would result in similar less-than-significant impacts.

RL 14-212, Stuart Somach, Counsel to the County of Sacramento
The habitats affected by the alternatives considered in the 2000 REIR/SEIS are identical or very similar to those affected by the alternatives considered in the 1997 Draft EIR/EIS. Surveys were conducted by qualified biologists with substantial experience in the project area and are suitable for identifying potential impacts of and mitigation for the alternatives.

RL 14-213, Stuart Somach, Counsel to the County of Sacramento
Although habitat values are generally low along this alignment, potential impacts on these habitats and potential special-status plant species are considered significant, and mitigation measures have been identified.

RL 14-214, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-213 above.

RL 14-215, Stuart Somach, Counsel to the County of Sacramento
The impact assessment is appropriate and takes into account all of the potential impacts that could occur from implementation of any of the alternatives. Mitigation measures to reduce these impacts to less-than-significant levels have also been identified.

RL 14-216, Stuart Somach, Counsel to the County of Sacramento
The impact assessment is appropriate and takes into account all of the potential impacts that could occur from implementation of any of the alternatives. Mitigation measures to reduce these impacts to less-than-significant levels have also been identified.

RL 14-217, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-137 in Chapter 6 of this document.

RL 14-218, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-138 in Chapter 6 of this document.

RL 14-219, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-139 in Chapter 6 of this document.

RL 14-220, Stuart Somach, Counsel to the County of Sacramento
The same level of analysis was conducted for all areas, and appropriate mitigation has been identified. If these resources remain present at the time a project is constructed, appropriate mitigation will be implemented. If these resources have been affected by existing land operations or mitigation agreements have already been reached by others regarding such resources, no project-related mitigation would likely be implemented.

RL 14-221, Stuart Somach, Counsel to the County of Sacramento
A 200-foot wide corridor was used for biological survey purposes. The anticipated construction corridor is 130 feet wide.

RL 14-222, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-140 in Chapter 6 of this document.

RL 14-223, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-141 in Chapter 6 of this document.

RL 14-224, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-142 in Chapter 6 of this document.

RL 14-225, Stuart Somach, Counsel to the County of Sacramento
Monitoring for success of restoration will be included in the Mitigation Monitoring and Reporting Plan required under CEQA.

RL 14-226, Stuart Somach, Counsel to the County of Sacramento
The objective of mitigation would be to restore areas affected, as indicated in the mitigation measure. In some cases, it may not be possible or even desirable to do so, and the measure provides flexibility so that the most logical and beneficial mitigation approach can be implemented on a site-specific basis.

RL 14-227, Stuart Somach, Counsel to the County of Sacramento
Potential effects in the EBMUD service area are fully disclosed in Chapter 18 of the 1997 Draft EIR/EIS.

RL 14-228, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-205 above.

RL 14-229, Stuart Somach, Counsel to the County of Sacramento
Because the Supplemental Water Supply Project alternatives would not affect habitat for these species, no analysis is warranted.

RL 14-230, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL 14-206 above.

RL 14-231, Stuart Somach, Counsel to the County of Sacramento
No impact on Delta habitats or special-status species would result from Alternatives 2-7, because no facilities would be constructed within the Delta, and the minor flow changes associated with the alternatives would not affect wildlife or wildlife habitat.

RL 14-232, Stuart Somach, Counsel to the County of Sacramento
Because, as noted in Chapter 7 of the 1997 Draft EIR/EIS, the Supplemental Water Supply alternatives would not substantially alter conditions supporting riparian habitats in these areas, no additional analysis is warranted.

RL 14-233, Stuart Somach, Counsel to the County of Sacramento
Table 7-2 of the 1997 Draft EIR/EIS specifically identifies habitats associated with each alternative. As described in the 2000 REIR/SEIS, essentially the same habitat types would be affected under Alternatives 4-8. All impacts on habitats are minor and temporary. Identified mitigation measures would ensure that impacts are less than significant.

RL 14-234, Stuart Somach, Counsel to the County of Sacramento
The 2000 REIR/SEIS is a supplemental document and as such only contains new information related the additional alternatives considered. Together, Table 8-1 of the 1997 Draft EIR/EIS and Table 8-1 of the 2000 REIR/SEIS identify all of the species with the potential to occur in the project area.

RL 14-235, Stuart Somach, Counsel to the County of Sacramento
Potential impacts on vernal pools under Alternative 7 are considered significant. Mitigation Measures 7-4a, 7-4b, and 7-4c would reduce such impacts to less-than-significant levels.

RL 14-236, Stuart Somach, Counsel to the County of Sacramento
The No-Action Alternative would not result in any impacts on wildlife resources, as no project would be implemented.

RL 14-237, Stuart Somach, Counsel to the County of Sacramento
Although habitat values are generally low along this alignment, potential impacts on these habitats and potential special-status wildlife species are considered significant, and mitigation measures have been identified.

RL 14-238, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-143 in Chapter 6 of this document.

RL 14-239, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-144 in Chapter 6 of this document.

RL 14-240, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-145 in Chapter 6 of this document.

RL 14-241, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. The statement referred to in this comment pertains to marshes that cannot be avoided by construction activities. In such circumstances, construction would only be allowed outside of the nesting season. Mitigation for such disturbances would be required, as identified in Chapter 7.

RL 14-242, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. If unavoidable impacts on an active Swainson's hawk nest would result, state law would require consultation with the California Department of Fish and Game.

RL 14-243, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. Surveys, if required, would be conducted in compliance with the appropriate protocol in place at that time.

RL 14-244, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. Any mitigation for impacts on the valley elderberry longhorn beetle would be conducted in compliance with the requirements in place at that time.

RL 14-245, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. The mitigation measure identified in the 1997 Draft EIR/EIS is considered appropriate. No additional mitigation is warranted.

RL 14-246, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. The location identified in this comment is within the jurisdiction of the City of Sacramento. In addition, only intake Sites 1 through 4 of Alternative 3 have the potential to affect this location. The City and County have indicated that Alternative 3 is no longer a viable alternative, and Alternative 4 would not affect this location. Noise-related impacts are discussed in Chapter 14 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS. See also the response to "Construction-Related Environmental Commitments and Mitigation" in Chapter 3 of this document.

RL 14-247, Stuart Somach, Counsel to the County of Sacramento
See the response to "Construction-Related Environmental Commitments and Mitigation" in Chapter 3 of this document.

RL 14-248, Stuart Somach, Counsel to the County of Sacramento
The impacts of Alternatives 3, 4, and 5 would be identical to those described for Alternative 3 in the 1997 Draft EIR/EIS and are not repeated in the 2000 REIR/SEIS. Only relevant new information is included in the 2000 REIR/SEIS. The cultural resource sensitivity of Alternative 2 is considered low because few known resources occur along the alignment. The sensitivity of Alternative 4 is essentially identical to that described for Alternative 3. The potential for cultural resources is high.

RL 14-249, Stuart Somach, Counsel to the County of Sacramento
Potential cultural resource impacts at Folsom Reservoir are discussed on page 17-12 of the 1997 Draft EIR/EIS. These impacts are less than significant, and this finding applies to all of the Supplemental Water Supply alternatives.

RL 14-250, Stuart Somach, Counsel to the County of Sacramento
Cumulative impacts on cultural resources are described in Chapter 18 of the 1997 Draft EIR/EIS. See also response to Comment RL 14-249 above.

RL 14-251, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-148 in Chapter 6 of this document.

RL 14-252, Stuart Somach, Counsel to the County of Sacramento
This comment was not provided on the 1997 Draft EIR/EIS. Property access was only available for portions of Alignment 4. Should this alignment be selected, additional surveys, as appropriate, will be completed.

RL 14-253, Stuart Somach, Counsel to the County of Sacramento
The analysis is appropriate. The status of any groundwater storage/banking program is fully described on page 18-1 of the 2000 REIR/SEIS and pages 1-12 and 1-13 of the 1997 Draft EIR/EIS. No such program has been identified as feasible or practicable at this time.

RL 14-254, Stuart Somach, Counsel to the County of Sacramento
Policy 81 is a standing policy of the EBMUD Board of Directors and is included to provide reviewers appropriate context for the Supplemental Water Supply Project. No pre-CEQA/NEPA decision has been made or is implied by the inclusion of Policy 81 in the 2000 REIR/SEIS.

RL 14-255, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-15 above.

RL 14-256, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-16 above.

RL 14-257, Stuart Somach, Counsel to the County of Sacramento
At the time the 1997 Draft EIR/EIS was published, Alternative 3 represented a mutually acceptable proposal. The section referenced in this comment does not imply any formal agreement among the parties. At the time the 1997 Draft EIR/EIS was published, it was also being considered that this document might provide relevant information under CEQA for the City's expansion project.

RL 14-258, Stuart Somach, Counsel to the County of Sacramento
The commenter's opinion regarding the summary table is noted.

RL 14-259, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L21-53 in Chapter 6 of this document.

RL 14-260, Stuart Somach, Counsel to the County of Sacramento
Comment noted. The City of Sacramento's Water Facilities Expansion Project EIR was just published in late 2000. The description was accurate at the time the 1997 Draft EIR/EIS was published.

RL 14-261, Stuart Somach, Counsel to the County of Sacramento
The impacts associated with pipeline alignments from the EBMUD turnout are fully assessed in the 1997 Draft EIR/EIS.

RL 14-262, Stuart Somach, Counsel to the County of Sacramento
The environmental commitments outline processes that will be implemented during construction. These measures are entirely consistent with and more extensive than measures typically undertaken by agencies, including the City of Sacramento and County of Sacramento, on major construction projects.

RL 14-263, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-26 above.

RL 14-264, Stuart Somach, Counsel to the County of Sacramento
The description of facilities is adequate for purposes of CEQA and NEPA analysis. See response to Comment L23-24 in Chapter 6 of this document and RL13-27 above.

RL 14-265, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-28 above.

RL 14-266, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-29 above.

RL 14-267, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-30 above.

RL 14-268, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-31 above.

RL 14-269, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-32 above.

RL 14-270, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-33 above.

RL 14-271, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-34 above.

RL 14-272, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-35 above.

RL 14-273, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-36 above.

RL 14-274, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-37 above.

RL 14-275, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-38 above.

RL 14-276, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-39 above.

RL 14-277, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-40 above.

RL 14-278, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-41 above.

RL 14-279, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-42 above.

RL 14-280, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-43 above.

RL 14-281, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-44 above.

RL 14-282, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-45 above.

RL 14-283, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-46 above.

RL 14-284, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-47 above.

RL 14-285, Stuart Somach, Counsel to the County of Sacramento
See response to Comments L21-115 through L21-126 in Chapter 6 of this document. In addition to the pages cited in this comment, the analysis also includes over 30 pages of tabular data (Tables 5-1 through 5-34). See also response to Comment RL13-48 above.

RL 14-286, Stuart Somach, Counsel to the County of Sacramento
This issue is fully discussed on page 6-12 of the 1997 Draft EIR/EIS. All access would be restored following project construction. See response to Comment RL13-49 above.

RL 14-287, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL14-203 above.

RL 14-288, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-50.

RL 14-289, Stuart Somach, Counsel to the County of Sacramento
Project construction would not begin for several years following project environmental review (for example, it has been three years since publication of the 1997 Draft EIR/EIS). Conducting surveys well in advance of project construction would not be helpful because conditions could change substantially. There is no evidence that there are substantial differences between the intake locations.

RL 14-290, Stuart Somach, Counsel to the County of Sacramento
These issues are discussed in Chapter 9 of the 1997 Draft EIR/EIS.

RL 14-291, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-53 above.

RL 14-292, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-54 above.

RL 14-293, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L23-26 in Chapter 6 of this document.

RL 14-294, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-55 above.

RL 14-295, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-56 above.

RL 14-296, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-57 above.

RL 14-297, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-58 above.

RL 14-298, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-59 above.

RL 14-299, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-60 above.

RL 14-300, Stuart Somach, Counsel to the County of Sacramento
See response to Comment L23-23 in Chapter 6 of this document.

RL 14-301, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-61 above.

RL 14-302, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-62 above.

RL 14-303, Stuart Somach, Counsel to the County of Sacramento
See responses to Comments L23-12 and L23-24 in Chapter 6 of this document and Comment RL13-63 above.

RL 14-304, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-64 above.

RL 14-305, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-65 above.

RL 14-306, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-66 above.

RL 14-307, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-67 above.

RL 14-308, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-68 above.

RL 14-309, Stuart Somach, Counsel to the County of Sacramento
See response to Comment RL13-69 above.

The remainder of this letter is a copy of the comments received from the County in response to the 1997 Draft EIR/EIS. These comments and responses to those comments are contained in Chapter 6 of this document (see Letter L 21).

SOMACH
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September 26, 2000

VIA FACSIMILE

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Re: Comments on Preliminary Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement ("PDREIR/SEIS")

Dear Messrs. Snow and Diemer:

This letter is written on behalf of the Sacramento Parties[1] and responds to your request for our view of whether there are "fatal flaws" within the PDREIR/SEIS.

Initially, in this regard, I note that we believe that there are a number of significant problems with the document which, if there were a legal challenge, would not withstand judicial scrutiny. These problems are substantive and procedural in nature. The substantive problems include significant errors and omissions within the technical analysis and discussion of water quality, hydrology and fisheries. RL15-1

[1] County of Sacramento ("County"), City of Sacramento ("City"), and Sacramento Environmental Water Caucus.

RL 15

We have been told, however, that no one is interested, at this time, in detailed technical comments. Instead, we have been told that we should focus on the ill-defined concept of "fatal flaws" within the document. As a consequence, in an attempt to comply with your directions, we will defer offering our technical comments until the Preliminary Draft is released. Nonetheless, I reiterate that we have a number of significant problems with the document which are and will be "fatal" if they are not properly addressed. We will provide details with respect to these comments when the Draft is released.

With the foregoing in mind, the following must be addressed prior to the release of the Draft REIR/EIS:

- The description of the Modified Proposal is defective because it does not integrate groundwater/storage as an essential element of the alternative. This is not a new comment. I have enclosed suggested language (previously provided to Mr. Helwick) that should be included within the REIR/SEIS. RL15-2

- The American River alternatives, as described, do not meet the needs identified by Reclamation as its justification for contracting with EBMUD. That needs analysis, as described to us twice, establishes a need only in dry years. The American River alternatives contained within the REIR/SEIS and within the prior documents are wet year direct diversion projects. They are, therefore, alternatives that do not meet EBMUD's identified need. RL15-3

- The so-called "Fairbairn intake option" must be deleted from the REIR/SEIS. The City will not cooperate with EBMUD on any aspect of this option nor will the City allow this "option" to be implemented. RL15-4

- The discussion of construction impacts within the City/County is entirely inadequate. Construction will not be allowed to proceed as described without substantial mitigation. RL15-5

- The threshold determination of "significance" is unfounded and does not comport with the standard of significance required under either NEPA or CEQA. RL15-6

- The EBMUD "Objectives" cannot replace the "purpose" and "need" for the Project nor can they, in any way, be the test for Project selection. The fuzzy language within the Summary (S-2), on this point, must be clarified and the clarified language carried over into the body of the document. Its omission at 2-1 is glaring. RL15-7

Lester Snow
Dennis Diemer
September 26, 2000
Page 3

Please do not hesitate to contact me if you have any questions or need additional information.

Very truly yours,

Stuart L. Somach
Attorney

SLS:sb

Encl.

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Robert C. Helwick
Kurt Ladensack

"The June 8, 1999 Modified Proposal offered by the Sacramento Parties contains twenty-two elements each one of which is critical to the Modified Proposal. Among the proposal elements is a diversion and pipeline project that would enable EBMUD to take delivery of water at Site 5, when flows at the mouth of the Lower American River meet the threshold requirements imposed under Judge Hodge's decision in *EDF, et al. V. EBMUD*. While EBMUD needs Lower American River water to meet its dry year requirements, the Modified Proposal allows for only wet year diversions. As a consequence, groundwater storage and conjunctive use (or other storage) of water diverted in wet years is an essential aspect of the Modified Proposal.

"In light of the time constraints in developing a project level description of the groundwater/storage element of the Modified Proposal the instant EIR/EIS deals with these aspects of the Modified Proposal only on a programmatic basis. Prior to the time that construction commences on any aspect of the Modified Proposal a project level EIR/EIS fully analyzing the groundwater/storage elements of the Modified Proposal will be completed.

"In the event that, after full environmental review, it is believed that the groundwater/storage elements of the Modified Proposal cannot be accomplished then EBMUD and USBR shall meet with the Sacramento Parties and other interested parties to discuss the propriety of proceeding with the Modified Proposal without its groundwater/storage elements. No construction will take place on the diversion and pipeline elements of the Modified Proposal until agreement is reached to proceed with these portions of the Modified Proposal without its groundwater/storage elements."

Responses to Comments of Counsel to Sacramento Parties

Somach, Simmons & Dunn

RL 15-1, Stuart Somach, Counsel to Sacramento Parties
Please see responses to specific comments in Letter RL 14 above.

RL 15-2, Stuart Somach, Counsel to Sacramento Parties
Alternative 4 is stand-alone project that would meet EBMUD's project objectives. This alternative would provide additional benefits if a groundwater storage project were developed. However, as clearly described in Chapter 1 of the 1997 Draft EIR/EIS and Chapter 18 of the 2000 REIR/SEIS, no feasible groundwater storage project has been identified despite over a decade of effort by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required at that time.

RL 15-3, Stuart Somach, Counsel to Sacramento Parties
Reclamation has determined that EBMUD's need for a supplemental water supply is well founded and consistent with other CVP contractors' needs for water (see Appendix C to this document). As stated on page 2-1 of both the 1997 Draft EIR/EIS and the 2000 REIR/SEIS, EBMUD's project objective is, in part, to "allow EBMUD to make use of its water service contract with Reclamation for delivery of American River water, consistent with the conditions set forth in the Hodge Decision." The American River alternatives would help reduce EBMUD customer deficiencies and therefore achieve EBMUD's project objective.

RL 15-4, Stuart Somach, Counsel to Sacramento Parties
See response to Comment RL 13-6 above.

RL 15-5, Stuart Somach, Counsel to Sacramento Parties
See response to "Construction-Related Environmental Commitments and Mitigation" major issue in Chapter 3 of this document.

RL 15-6, Stuart Somach, Counsel to Sacramento Parties
The thresholds of significance used in the analyses in the 2000 REIR/SEIS fully comply with NEPA and CEQA.

RL 15-7, Stuart Somach, Counsel to Sacramento Parties
The purpose and need for the project are described in Chapter 1 of the 1997 Draft EIR/EIS and the Summary of the 2000 REIR/SEIS.

SOMACH
SIMMONS &
D U N N
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

STUART L. SOMACH
ADMITTED IN CALIFORNIA AND
IN THE DISTRICT OF COLUMBIA
e-mail: ssomach@ix.netcom.com

October 5, 2000

Lester Snow
Regional Director
U.S. Bureau of Reclamation, MP-100
2800 Cottage Way
Sacramento, CA 95825

Dennis Diemer
General Manager
East Bay Municipal Utility District
375 - 11th Street
Oakland, CA 94607

Re: Preferred Alternative

Dear Messrs. Snow and Diemer:

I know that you will be discussing the question of a "preferred alternative" within the next week or so and, in that regard, on behalf of Sacramento County and the City of Sacramento, would like you to consider the following:

First, we note that EBMUD has all but abandoned the option of maximizing its Mokelumne River resources. This decision does not seem prudent in light of the DREIR/SEIS's disclosure that the existing Mokelumne River supply is treated in three in-line filtration plants and that in-line filtration is not considered an "approved" technology in California. (See Appendix B to Draft REIR/SEIS at pp. 1-2.) EBMUD's in-line filtration plants are operated under a permit that is specific to the high quality Mokelumne River source water. (*Id.*) To the extent that there are any modifications, either in regulatory limits associated with treatment or the quality of water within the Mokelumne River watershed, EBMUD will face a significant water treatment crisis. In this light, EBMUD should again consider an option that focuses on the improvement and optimization of its existing system rather than expending the time, effort and money associated with stretching its limited resources to encompass an American River alternative. RL16-1

Second, to the extent the Modified Proposal is considered, I reiterate what has been written and said a number of times. Assuming EBMUD's and the USBR's own needs analysis, EBMUD only "needs" a supplemental supply in certain dry years. Indeed, that analysis shows a surplus of 256,300 acre feet in other years. As a consequence, in order for an alternative to meet the identified need, it must make water available during dry years. None of the American River alternatives do this, including the Modified Proposal. RL16-2

RL16

As we have noted, the Sacramento Parties' Modified Proposal included a storage/conjunctive use component that would allow wet year water to be stored for use in dry years. Alternative 4 does not include this as an integrated essential element of the alternative. Without storage/conjunctive use, the alternative makes no sense. Moreover, without full analysis of the storage/conjunctive use component, other aspects and impacts of the alternative cannot be known. Thus, selecting Alternative 4, without a storage/conjunctive use element, means that EBMUD will have selected an alternative that cannot be implemented until and unless the storage component is fully analyzed. RL16-3

Third, the Draft REIR/SEIS contains within it an astounding change in circumstances that has yet to be focused upon. All previous discussions of American River alternatives assumed that American River water would be treated essentially as would Mokelumne River water. However, this is not the case. RL16-4

"Since the draft EIR/EIS was published in 1997, EPA . . . [has adopted new rules which require that] American River diversions will now need to include clarification and disinfection." (See Appendix B to Draft REIR/EIS at p. 14.) This means that the American River diversion will be subject to the same level of treatment as the Sacramento River alternatives. (*Id.*) This, of course, means that there is no longer a reasonable water quality distinction between the American River and Sacramento River alternatives.

In this context, other factors must come into play. These factors include costs, construction impacts, operational flexibility and impacts to the American River fishery. All of these factors argue against an American River alternative and instead focus on the Sacramento River at Freeport – Sacramento Conveyance (Alternative 7) as the proper preferred alternative.

- Costs. Total costs of Alternative 7 range from $368M to $435M with the American River alternatives ranging from $237M (Nimbus low-end cost) to $409M (Modified Proposal high-end cost). Without further analysis, the costs are, of course, comparable. However, as noted above, the American River alternatives all require a storage component, the costs of which are not analyzed but which will be high. Thus, any of the American River alternatives will be much more costly than even the most expensive Alternative 7 scenario. Moreover, construction on the Sacramento River–Freeport alternative can begin immediately upon project approval, while the American River alternative cannot begin until more work, including supplemental environmental review, is completed on the storage elements of the alternative. RL16-5 RL16-6

- Construction Impacts. The Sacramento River–Freeport South Conveyance alternative avoids almost all of the significant construction-related impacts associated with the American River Modified Proposal (Alternative 4) or the Sacramento River WTP option (Alternative 5). There will be no need, under Alternative 7, to dig up City/County streets and disrupt local business. RL16-7

- Flexibility. As noted within the DEIR/EIS, Alternative 7 provides a greater degree of flexibility than do the American River alternatives. This includes flexibility with respect to when EBMUD can divert its water since the "Hodge Decision flows would not apply to this alternative . . . " (See DREIR/SEIS at p. 2-21.) It also includes flexibility in Reclamation's operations since "with EBMUD deliveries made downstream for alternative . . . 7 . . . Reclamation would have somewhat greater flexibility to supply water in

Lester Snow
Dennis Diemer
October 5, 2000
Page 3

response to EBMUD demands from either Folsom or Shasta storage." (See DREIR/SEIS at p. 3-7.) Alternative 7 also represents the highest yield of EBMUD deliveries among the options dealt with in the DREIR/SEIS (*Id.*)

- Fishery Impacts. Assuming the adequacy of the DREIR/SEIS analysis of impacts to fishery resources, it is clear that only diversions from the Sacramento River or the Delta have the potential of driving EBMUD diversion-related fishery impacts in a positive direction. RL16-8

Based upon the foregoing, it is our view that the Preferred Alternative should be Alternative 7. We know that when all of the information available to you is reviewed in an objective manner, you will reach the same conclusion. RL16-9

Please do not hesitate to contact me if you have any questions or need additional information.

Very truly yours,

Stuart L. Somach
Attorney

SLS:sb

cc: The Honorable David J. Hayes
Andy Moran
Kirk C. Rodgers
Terry Schutten
Robert P. Thomas
Robert A. Ryan, Jr.
Keith DeVore
Jim Sequeira
Ron Stork
Thomas J. Graff
Tom Aiken
Randy Kanouse
Robert C. Helwick
Kurt Ladensack
Christopher W. Moore, Ph.D.

Response to Comments of Counsel to the County of Sacramento and the City of Sacramento

Somach, Simmons & Dunn

RL 16-1, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-2 above.

RL 16-2, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-3 above.

RL 16-3, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
Alternative 4 is stand-alone project that would meet EBMUD's project objectives. This alternative would provide additional benefits if a groundwater storage project were developed. However, as clearly described in Chapter 1 of the 1997 Draft EIR/EIS and Chapter 18 of the 2000 REIR/SEIS, no feasible groundwater storage project has been identified despite over a decade of effort by EBMUD. Should such a project be identified in the future, additional environmental documentation would be required at that time.

RL 16-4, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-5 above.

RL 16-5, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-6 above.

RL 16-6, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-7 above.

RL 16-7, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-8 above.

RL 16-8, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
See response to Comment RL 14-9 above.

RL 16-9, Stuart Somach, Counsel to the County of Sacramento and the City of Sacramento
The preference for Alternative 7 is noted. See also response to Comment RL 14-10 above.

RL17

SRCSD

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November 20, 2000

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P.O. Box 24055, MS #305
Oakland, CA 94623-1055

Dear Mr. Ladensack:

Subject: **Comments on the Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (Draft REIR/SEIS) for the East Bay Municipal Utility District (EBMUD) and U.S. Bureau of Reclamation (Bureau) Proposed Supplemental Water Supply (SWS) Project**

The Sacramento Regional County Sanitation District (SRCSD) is a publicly owned wastewater agency serving over one million people by providing wastewater conveyance and treatment for the Sacramento Metropolitan Area. The SRCSD owns the Sacramento Regional Wastewater Treatment Plant (SRWTP) and is responsible for its operation. The plant currently treats a seasonal average dry weather flow (SDWF) in excess of 150 million gallons per day (mgd) and has a permitted capacity to treat up to 181 mgd. It is anticipated that the plant site will reach approximately 210 mgd SDWF in the year 2020 with ultimate buildout SDWF capacity projected to be 350 mgd. Treated effluent is discharged into the Sacramento River through a high-rate diffuser at a point just downstream of the town of Freeport. The SRWTP's discharge is governed by strict water quality limits that are specified in the SRWTP NPDES Permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB) on August 4, 2000.

The SRCSD appreciates the opportunity to comment on the Draft REIR/SEIS for the EBMUD and US Bureau of Reclamation Proposed Supplemental Water Supply (SWS) Project dated October 2000. The Draft REIR/SEIS evaluates five (5) additional alternatives to annually deliver up to 150,000 acre-feet of Central Valley Project (CVP) water to the EBMUD service area by diverting water from either the American or Sacramento River.

The SRCSD submitted comments on the 1997 EBMUD Supplemental Water Supply Project DEIR/EIS on March 3, 1998 and on the Bureau Draft Amendatory Water Service Contract with EBMUD on June 23, 1999. These comments are hereby incorporated by reference. RL17-1

New Regulations

Since submittal of the SRCSD comments, several more stringent regulations have been adopted that make the impacts of all the alternatives in the 1997 DEIR/EIS and the 2000 Draft REIR/SEIS much more significant. These regulations include:

- The State Clean Water Enforcement and Pollution Prevention Act of 1999 (SB 709);
- The State Water Resources Control Board (SWRCB) Policy for the Implementation of Toxics Standards for the Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) adopted in March 2000;
- The U.S. EPA California Toxics Rule (CTR) adopted in April 2000;
- The more stringent SRWTP NPDES Permit adopted in August 2000.

Clean Water Enforcement and Pollution Prevention Act of 1999 (SB 709) RL17-2

This legislation establishes mandatory minimum penalties for violations of NPDES Permit effluent limitations. Prior to enactment of SB 709, the Regional Water Quality Control Board (RWQCB) had discretion when imposing fines when a discharger violated its NPDES Permit. With enactment of SB 709, this discretion has been effectively eliminated. Under SB 709, all violations of the NPDES Permit effluent limitations are tracked, including minor excursions, and mandatory fines are assessed according to a stringent compliance doctrine.

SB 709 sets minimum levels for fines at $3,000 per violation but the RWQCB could impose higher fines and penalties up to $25,000 per day. Additionally, SB 709 does not insulate the discharger from Citizen and Third Party Lawsuits, which are becoming more common. With enactment of SB 709 and issuance of a more stringent NPDES Permit for the SRWTP, the SRCSD exposure to potential fines and citizen suits is greatly increased. EBMUD SWS Project could exacerbate the difficulty of meeting the permit requirements governing the SRWTP discharge and these issues should be adequately addressed in the 2000 Draft REIR/SEIS

SWRCB and U.S. EPA adoption of the SIP and CTR and impacts to NPDES Permit Development

The CTR together with the U.S. EPA National Toxics Rule (NTR) establishes enforceable numeric water quality standards for priority pollutants, while the SIP provides guidance to the RWQCB staff on using CTR and NTR standards in the development of NPDES Permit effluent limitations. As a result, the NPDES Permit issued for the SRWTP on August 4, 2000 is more stringent than previous permits for the facility. As noted above, significant fines and civil and criminal penalties can be levied if the discharge is not in compliance with the permit. RL17-3

In addition, the SIP Section 1.4.2.2 page 15 states that wastewater mixing zones should not be allowed "at or near" any drinking water intakes. The proposed Freeport intake location is in the vicinity of the SRWTP discharge and the Sacramento River in this vicinity is subject to flow reversals. Alternatives located near the Freeport location appears to be in direct conflict with the SIP.

The SRCSD believes that the Draft REIR/SEIS fails to consider the significant impacts of these new regulations to the SRWTP operations and NPDES permit compliance, and requests that these issues be addressed.

Impacts to SRWTP

This comment letter expands on SRCSD's previous comments and provides comments on the additional alternatives. The SRCSD believes that the EBMUD SWS Project alternatives will impact the SRWTP operations and associated costs due to a combination of the following:

- Changes in Sacramento River water quality;
- Changes in the timing and volume of Sacramento River flows;
- Operational constraints to address Sacramento River flow reversal phenomenon.

RL17-4

The SRCSD is concerned that both the 1997 DEIR/EIS and the 2000 Draft REIR/SEIS do not adequately evaluate the impacts of the EBMUD SWS Project on the SRWTP operations and costs, and on the water quality of the Sacramento River. The EBMUD SWS Project will significantly impact the SRWTP discharge due to reduced dilution capacity from reductions in river flow coupled with the anticipated increases in background concentrations of pollutants of concern.

Changes in Sacramento River Water Quality

The Sacramento River has, at times, background concentrations of toxic pollutants (e.g. mercury and diazinon) which cause concern regarding aquatic life protection and human health associated with fish consumption. Proposed reductions in American River flows that typically provide substantial volumes of high quality water will adversely impact Sacramento River water quality. This will impact SRCSD's NPDES permit requirements, since receiving water concentrations are used in calculating effluent limits. If the Sacramento River is degraded significantly due to diversion of American River water, the SRCSD could potentially be forced to install costly advanced treatment or implement other costly measures to meet more stringent effluent limits.

RL17-5

Additionally, SRCSD is under increasing pressure from downstream drinking water purveyors regarding the impacts of the SRWTP's discharge to the Sacramento River. Salts, total organic carbon (TOC) and pathogens are of significant concern to drinking water purveyors using the Delta for source water. They believe that any increase above the current concentration of these constituents would constitute a significant impact on their water treatment costs and must be mitigated. Reduction in American River flows will most likely increase the concentrations of salts, TOC and pathogens in the Sacramento River and will most likely exacerbate the marginal impact of current and future SRWTP discharges. These impacts need to be addressed.

RL17-6

Changes in the Timing and Volume of Sacramento River flows:

Compliance with NPDES Permit Minimum Dilution Ratio Requirements

The SRWTP operation is unique because river flow dictates when effluent discharge is allowed. River flow is strongly influenced by upstream water releases, drinking water diversions, and downstream ocean tides. The SRWTP discharge permit specifies a minimum dilution ratio of 14:1 (river:effluent) that must be maintained at all times during discharge to the river. Effluent flow is stopped when river flow does not provide adequate dilution and effluent flow is diverted to onsite emergency storage basins where effluent is temporarily stored until the 14:1 dilution ratio can be met.

RL17-7

The procedure for stopping and returning flow to the river is very complicated and is subject to human and mechanical error and provides potential for technical permit violations which would be subject to mandatory penalties and fines under SB 709. Establishing proper chemical balance to meet water quality standards prior to resuming discharge to the river is complex. Each time effluent is returned to the river, there is a potential for a chlorine and/or pH permit violation. Another complicating factor is that stored wastewater must be discharged to the river in a 24-hour period to ensure that there is adequate storage for subsequent diversions.

The SRCSD is concerned that both the 1997 DEIR/EIS and the 2000 Draft REIR/SEIS do not adequately evaluate the impacts of the reduced volume in the Sacramento River due to the EBMUD SWS Project. There is no discussion of cumulative water quality impacts in the Sacramento River due to this and other proposed projects (i.e. DEIR for the Water Forum Proposal, etc.).

RL17-8

The SRCSD's review of the EBMUD SWS alternatives indicates project operations will differ depending on the location of the proposed diversion. The REIR/SEIS should provide a detailed evaluation of changes in timing and volume of American and/or Sacramento River flows that would be anticipated as a result of implementing each of the proposed alternatives. Timing and volume of Sacramento River flows in the vicinity of the SRWTP discharge is critical to the SRWTP operations. Diversions during the months of June through October could have significant impacts on the SRCSD. The SRCSD anticipates flow reductions resulting from the EBMUD SWS Project will occur regularly in individual years during all months, but more frequently during the June through October months.

High tides during low river flow periods (typically during the months of May through October) create problems. For example, in 1988 there were a total of 366 diversions, including 96 consecutive days of diversions from August through November. Multiple diversions occurring on consecutive days, weeks, or months complicate plant operation, stress plant processes during the return period, and threaten river water quality. The proposed EBMUD SWS Project will decrease river flow and will compound this problem.

RL17-9

With decreased river flows, the number of effluent diversion events will increase. Increased effluent diversions coupled with a reduced amount of time the SRWTP can return the stored effluent to the river will ultimately restrict discharge capacity leading to inadequate emergency storage capacity. Construction of more emergency storage basin capacity will not, by itself, alleviate this problem. Fully addressing this problem would require installation of another effluent outfall and diffuser with a total project planning level estimate on the order of $15 million.

Compliance with State Thermal Plan

Sacramento River water temperatures are of concern due to the presence of sensitive migrating anadromous fish. Because of the concern for even small increments in river temperature, SRWTP river temperature compliance monitoring is recorded to a tenth of a degree. Even relatively minor changes in Sacramento River water temperatures would be a significant impact to the SRCSD.

RL17-10

The SRWTP discharge must comply with three temperature restrictions specified in the SWRCB Water Quality Control Plan for Control of Temperatures in Coastal Waters and Enclosed Bays and Estuaries of California (Thermal Plan). Because there are periods of time when SRWTP discharge cannot comply with two of the temperature limits due to fluctuations in river volume and/or temperature, the SWRCB adopted resolutions that provide temporary exceptions to these limits. Effluent flow is diverted to onsite emergency storage basins when effluent thermal conditions can not meet the Thermal Plan requirements and exceptions.

The recently adopted SRWTP NPDES Permit extends the temporary exceptions, but both the CVRWQCB and National Marine Fisheries Service (NMFS) have stated that the SRCSD should not count on renewing this exemption at the end of the next NPDES renewal cycle. The adopted Permit requires the SRCSD to complete a study on the fishery impacts of the SRWTP discharge. The study requirement is the result of both the CVRWQCB and NMFS concerns that the Thermal Plan and Basin Plan may not fully protect migrating fish. The SRCSD believes that the outcome of the study will lead to more stringent temperature requirements. Reduced river flows will exacerbate the SRWTP's temperature compliance issues and may require the installation of another effluent outfall and diffuser or construction of effluent cooling towers with total project planning level estimate on the order of $15 to $54 million (excluding annual operation and maintenance costs).

Sacramento River Flow Reversal Phenomenon.

The Sacramento River in the vicinity of the SRWTP discharge location (i.e. Freeport) is subject to flow reversals due to tidal actions. The SRCSD is concerned that the 2000 Draft REIR/SEIS did not evaluate the impacts of flow reversals for the alternatives located in the vicinity of the SRWTP discharge.

During the SRWTP NPDES Permit renewal, the Department of Health Services (DHS) raised questions regarding the likelihood of "double dosing" of effluent discharged to the Sacramento River under the flow reversal conditions. As part of the adopted NPDES Permit the SRCSD is required to evaluate the frequency and duration of these events.

The SRCSD has contracted a consultant to evaluate the "double dosing" events for the SRWTP NPDES Permit. Preliminary results of the frequency and magnitude of the reverse flow events indicate that over 530 reverse flow events for a duration of approximately 1,227 hours occurred since 1984 (see attached Technical Memorandum dated November 1, 2000). It should be noted that there are significant periods of time when valid river flow data was not available. This missing data represents approximately 15% of the record since 1984. It is conceivable that the analysis may not have captured all the reverse flow events especially during the years of 1987, 1988, 1991, 1992, and 1994.

RL17-11

It is also noted that reverse flow events occurred more frequently in 1990, 1991, 1992 and 1994 but have not occurred more recently (i.e. 1995 through 1999). This is primarily due the type of weather year during these times with dry weather conditions occurring in the early 1990s and wet weather conditions occurred more recently.

Reverse flow events will result in water in the river traveling significant distances upstream. The mean upstream distance that a water particle will travel during each reverse flow event was estimated. The probability of water traveling 0.5 mile or less (on average) upstream during a

reverse flow event is 82%. The maximum calculated mean upstream distance was 1.46 miles. It should be noted that the mean average upstream distance does not account for longitudinal dispersion in the river. Longitudinal dispersion would cause a portion of flow to be carried further upstream than predicted by the average upstream distance.

The magnitude of the reverse flow events was estimated with the largest reverse flow event predicted to be a negative 6,350 cfs. The duration of the reverse flow events was also estimated. The probability of a reverse flow event lasting two hours or less is 60% with the longest recorded reverse flow event in the historical record equalling 5.3 hours.

It is evident that the Sacramento River flow reversal phenomenon in the vicinity of the SRWTP discharge location could have significant impacts to the SRCSD if the proposed Freeport intake location is selected as the preferred alternative. The SRCSD is concerned that the 2000 Draft REIR/SEIS did not adequately evaluate the impacts of these flow reversals for the alternatives located in the vicinity of the SRWTP discharge. These alternatives increase the likelihood that the SRCSD will have to implement advanced treatment. To fully address this problem, the SRCSD may be required to filter its effluent with total project planning level estimate on the order of $75 to $140 million depending on the portion of effluent that is filtered. These costs exclude the annual operation and maintenance expenses.

Water Pipeline Alignments

The SRCSD and County Sanitation District 1 (CSD-1) is concerned that conflicts with the proposed water pipeline alignments and the existing and proposed sanitary sewer conveyance facilities was not adequately addressed in the 2000 Draft REIR/SEIS. Many of the proposed water pipeline alignments will have to cross several existing and future sewer lines of various diameters. The size and depth of the proposed EBMUD project has the potential to significantly impact SRCSD and CSD-1 conveyance facilities. Careful coordination will be vital to avoid potential conflicts and to prevent unnecessary expense to all agencies involved. These impacts need to be addressed.

RL17-12

Summary of Anticipated Significant Impacts

Table 1 summarizes anticipated significant impacts of the various EBMUD SWS Project Alternatives to the SRWTP, which the SRCSD believe must be adequately addressed in the REIR/SEIS.

Table 1
Impacts of EBMUD SWS Project Alternatives to SRWTP

Alternative	Impacts to the SRWTP are denoted by ✓		
	Changes in Sac. River Quality	Reduced Volume of Sac. River	Sac. River Flow Reversal
No Action			
Folsom South Canal – American River Diversion @ Nimbus	✓	✓	
Joint Water Supply –Lower American River Diversion	✓	✓	
EBMUD – Only Lower American River Diversion	✓	✓	
Sac. River Delivery	*	✓	
Freeport East –Sac. River Diversion		✓	✓
Freeport South –Sac. River Diversion		✓	✓
Bixler Delivery			

* depends on actual location of intake

RL17-13

SRCSD Preferred Alternative

Due to the potential impacts to the SRWTP stated herein, the SRCSD would prefer an alternative where intakes are downstream of the SRWTP discharge, perhaps at an intake location near Hood

RL17-14

The SRCSD requests that the issues raised in this and the previous comment letters be addressed and considered in the evaluation of impacts due to the proposed project. If you have any questions regarding this letter, please contact Robert Seyfried at (916) 875-9061.

Sincerely,

Robert F. Shanks, Director
Department of Water Quality

Attachments

cc: T. Schutten
R. Ryan
W. Harada
W. Kido
S. Dean
M. James
R. Seyfried
K. DeVore
T. Berkebile
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FLOW SCIENCE.

TECHNICAL MEMORANDUM

To: Bob Seyfried

From: Emily Pidgeon
Susan Paulsen

Date: November 1, 2000

Subject: Preliminary analysis of the frequency and magnitude of reverse flow events in the Sacramento River (In support of comments to EBMUD's recirculated EIR)
FSI 004015

Flow Science understands that the East Bay Municipal Utilities District (EBMUD) has recently issued a recirculated EIR that contemplates installing a diversion at Freeport. Although this diversion would be upstream of the SRWTP diffuser location (with the exact location yet to be identified), reverse flow events in the Sacramento River could result in the diversion of river water that may contain previously discharged SRWTP effluent.

Flow Science has conducted an analysis of the frequency and magnitude of the reverse flow events using the existing historical flow record at Freeport. Hourly flowrates in the Sacramento River at Freeport from 1984 to present were acquired from the California Data Exchange Center (CDEC)[1] and these data are shown in Figures 1 through 8 attached to this memorandum. Note that there are significant periods of time when valid flowrate data are not available (shown as blanks in the record) and hence the flowrates in the Sacramento River during these periods were not included in the analysis described here. The number of valid data points (i.e., hourly measurements of the river flowrate) for each year of the record is given in Table 1.

[1] The historical hourly flow rates in the Sacramento River at Freeport were taken from the California Data Exchange Center (CDEC) website at http://cdec.water.ca.gov.

FLOW SCIENCE.

Using the historical flow data shown in Figures 1 through 8, all the reverse flow events in the record were identified. Examples of such reverse flow events are apparent in November 1990 (Figure 3) and much of 1992 (Figure 4) as negative flowrates. The number of reverse flow events and the total number of hours when reverse flow conditions were present in the river for the period of the record are summarized in Table 1. The data shown in Table 1 indicated that reverse flow events occurred frequently during some years (1990, 1991, 1992 and 1994 for example) but did not occur during others (1995 through 1999 for example).

It is important to note that although a total 125,071 hours of valid flow data were included in this analysis, only 1226.7 hours or 1% included reverse flow events (see Table 1). The following analysis only considers those specific reverse flow events.

The magnitude of the maximum upstream (or negative) flowrate and the duration of each reverse flow event were estimated and from these the probability of each of these properties was calculated. Figure 9 shows the cumulative probability curve for the maximum measured negative flowrate for the reverse flow events for which data existed. The probability that the maximum negative flowrate during a reverse flow event is 3000 cfs or less is 77%. (Note that the largest negative flowrate estimated from the historical record was 6350 cfs.) Similarly, Figure 10 shows the cumulative probability curve for the duration of a reverse flow event. This curve indicates the probability of a reverse flow event lasting for a certain duration. For instance, given that a reverse flow event occurs, the probability of that event lasting two hours or less is 60%. The longest recorded reverse flow event in the historical record was 5.3 hours long.

The relationship between the magnitude of the maximum negative flowrate in a reverse flow event and the duration of that flow event was also calculated and is shown in Figure 11. Figure 11 plots the maximum negative flowrate for each observed reverse flow event against the duration of that reverse flow event. These data are well represented by the second order polynomial equation given and drawn on the plot. From this equation, the duration of a reverse flow event can be estimated if the maximum negative flowrate for an event is known.

Reverse flow events will result in water in the river traveling significant distances upstream. The mean upstream distance that a water particle will travel during each reverse flow event can be estimated from the historical flowrate record by integrating the negative river velocities recorded during each reverse flow event over the duration of the event. These calculations assumed a constant river cross-section of 10,000 square feet. Note that this technique calculates the mean or average upstream excursion distance. It does not account for longitudinal dispersion in the river. Longitudinal dispersion would

cause a portion of flow to be carried further upstream than predicted by the average excursion distance.

The mean advective upstream excursion was calculated for each reverse flow event in the historical record and from these data a cumulative probability curve was constructed. From this curve, shown in Figure 12, it can be seen that the probability of water traveling 0.5 miles or less (on average) upstream during a reverse flow event is 82%. The maximum calculated mean upstream excursion was 1.46 miles. The relationship between the upstream excursion and the maximum negative flowrate during a reverse flow event is shown in Figure 13, where the maximum negative flowrate for each reverse flow event is plotted against the mean upstream excursion calculated for that reverse flow event. These data are well represented by the second order polynomial equation given and drawn on the plot. From this equation, the mean upstream excursion of a reverse flow event can be estimated when the maximum negative flowrate for an event is known. Note again that since longitudinal dispersion was not included in this analysis, the excursion distances shown in Figures 12 and 13 represent the average distance that water will travel upstream. These distances do not represent the maximum distance water discharged from the diffuser will travel upstream.

Year	Number of valid data points (one point per hour)	Number of reverse flow events	Number of hours of reverse flow
1984	6479	0	0
1985	8107	1	2.1
1986	4537	1	0.9
1987	5428	17	27.0
1988	7569	27	33.1
1989	8518	4	2.0
1990	8289	66	140.8
1991	5859	128	292.3
1992	7889	226	591.6
1993	7016	0	0
1994	7542	69	137.0
1995	6378	0	0
1996	8445	0	0
1997	8736	0	0
1998	8494	0	0
1999	8726	0	0
2000[2]	7059	0	0
TOTAL	125071	539	1226.7

Table 1 – Number of valid data points in each year of the historical Sacramento River at Freeport flow record. The total number of reverse flow events and hours of negative flow in the river are also given.

[2] Flow data for January 1, 2000 through October 1, 2000 only.

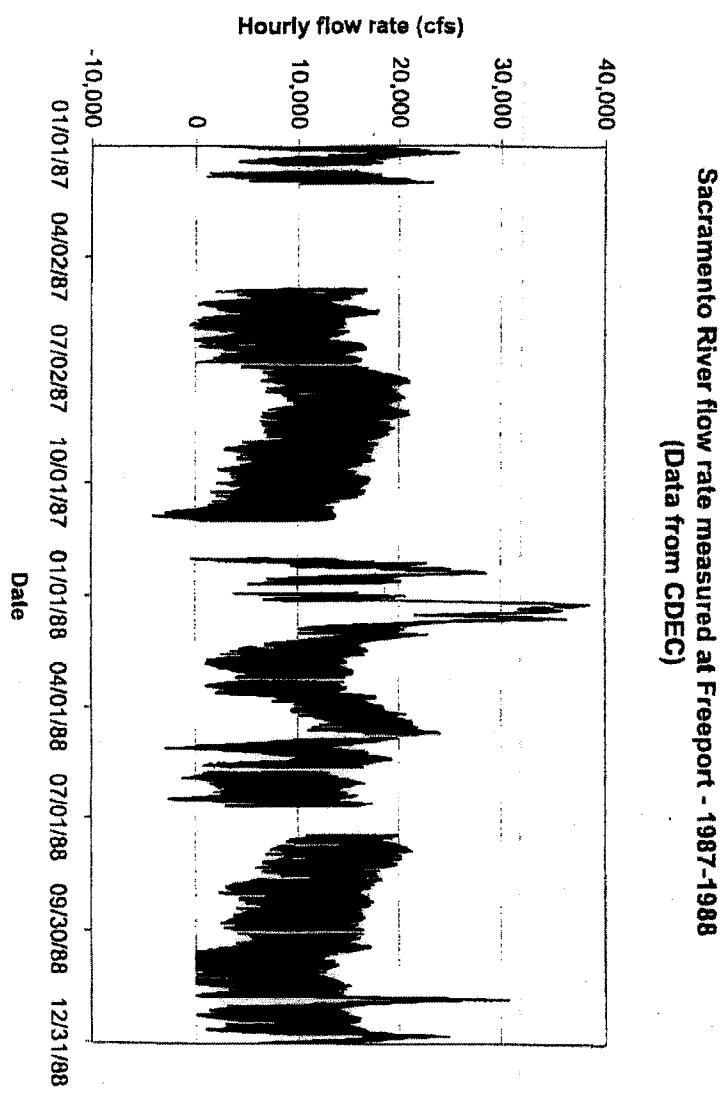
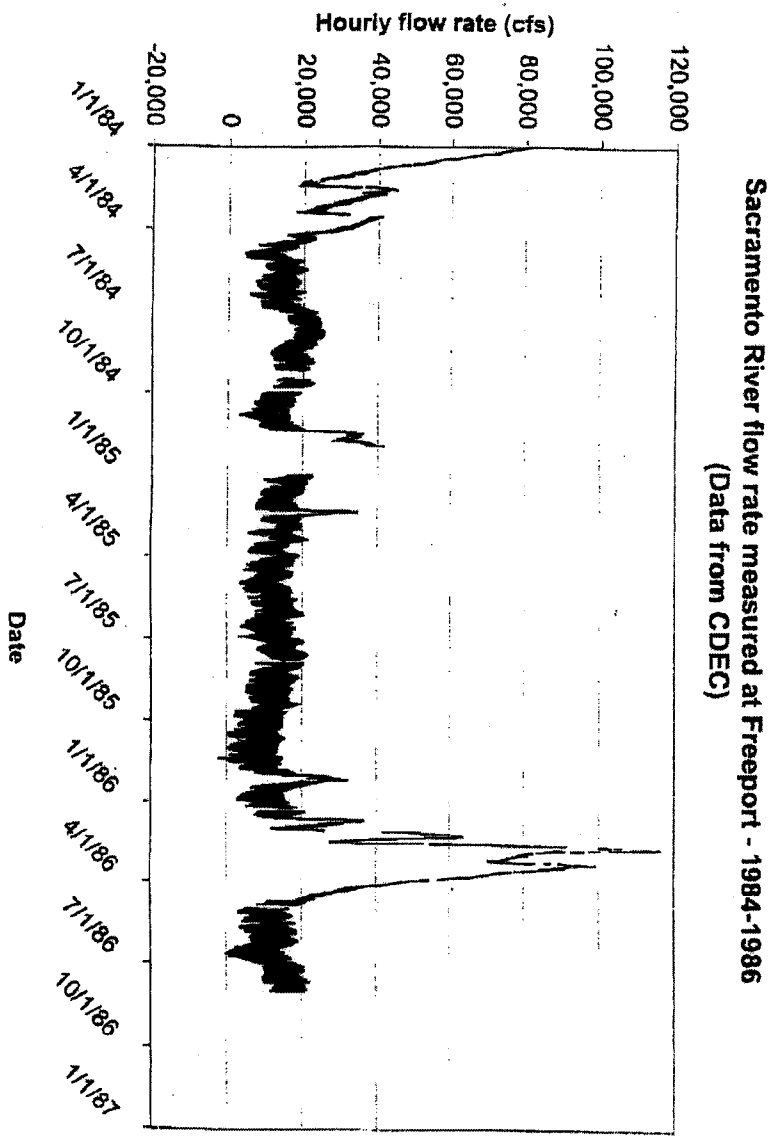

Sacramento River flow rate measured at Freeport - 1987-1988
(Data from CDEC)
Hourly flow rate (cfs)
-10,000
0
10,000
20,000
30,000
40,000
01/01/87
04/02/87
07/02/87
10/01/87
01/01/88
04/01/88
07/01/88
09/30/88
12/31/88
Date

Figure 2


Sacramento River flow rate measured at Freeport - 1984-1986
(Data from CDEC)
Hourly flow rate (cfs)
-20,000
0
20,000
40,000
60,000
80,000
100,000
120,000
1/1/84
4/1/84
7/1/84
10/1/84
1/1/85
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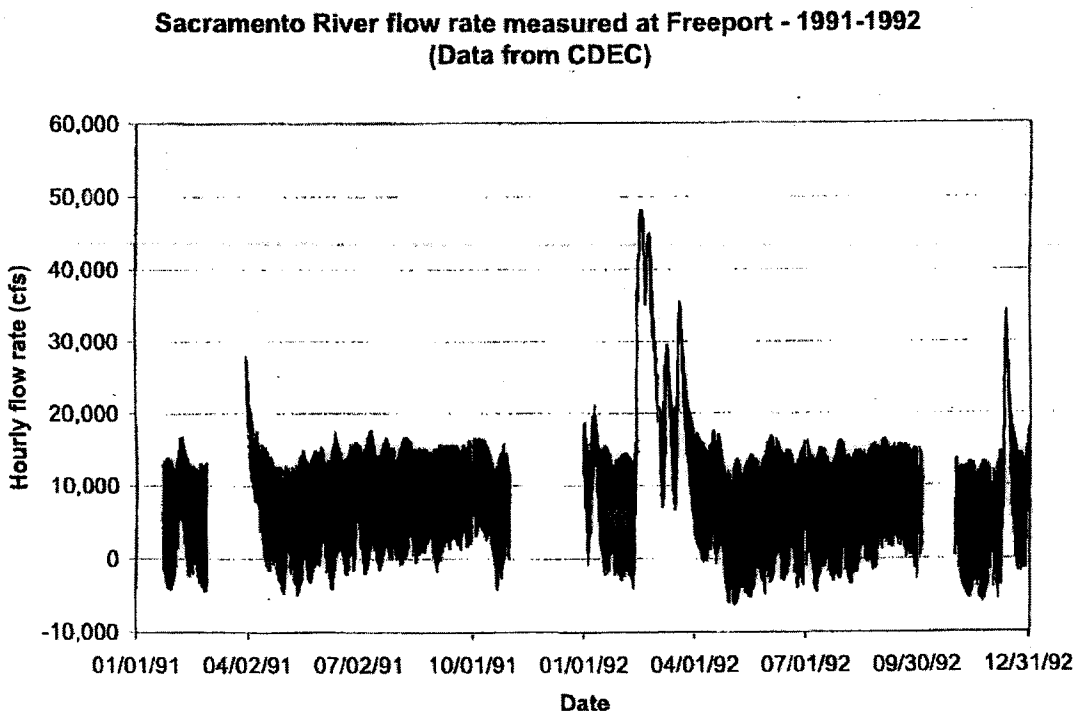
7/1/86
10/1/86
1/1/87
Date



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November 1, 2000

Figure 4

FLOW SCIENCE

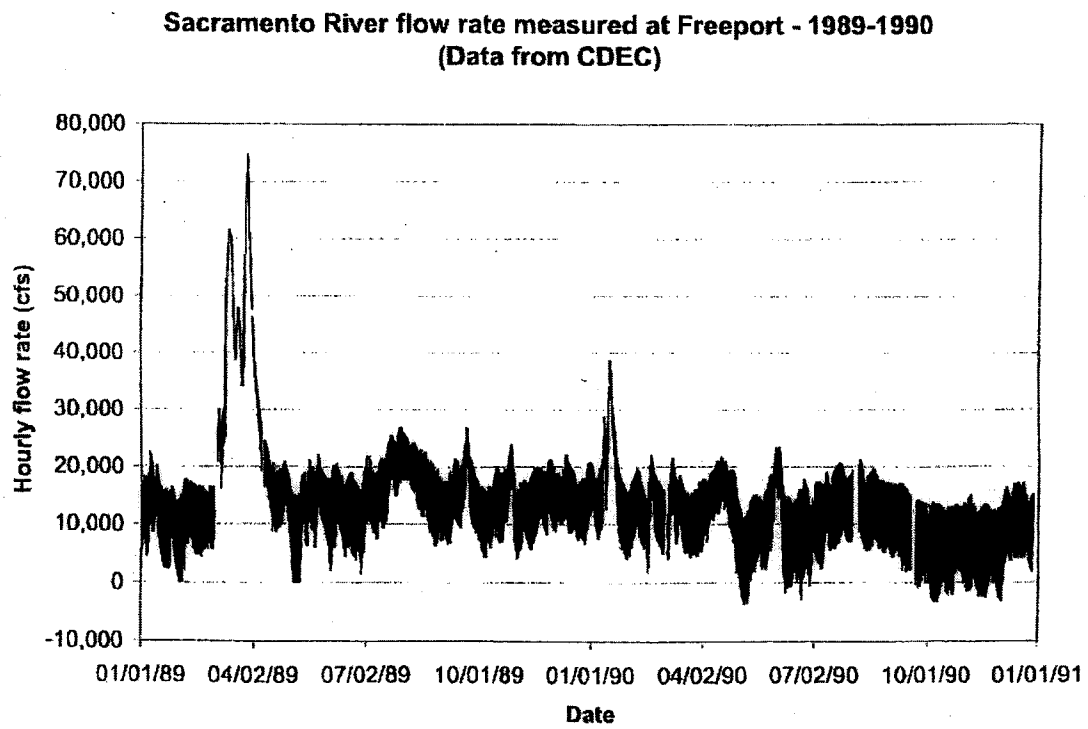

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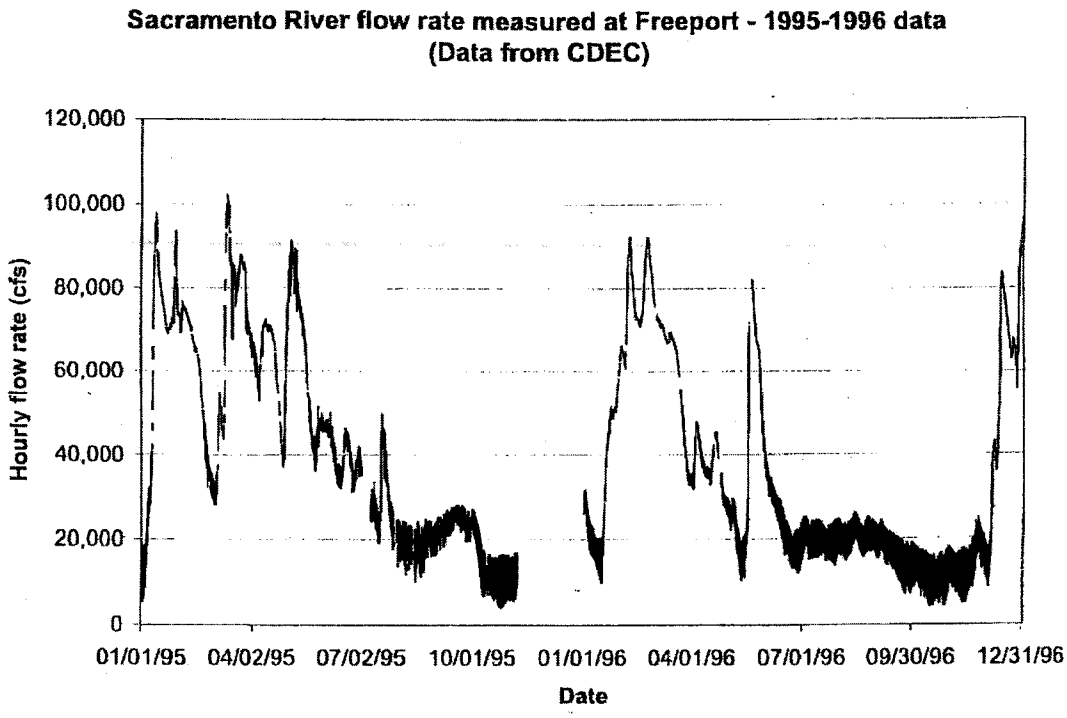
Figure 3

FLOW SCIENCE



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November 1, 2000

Figure 6

FLOW SCIENCE

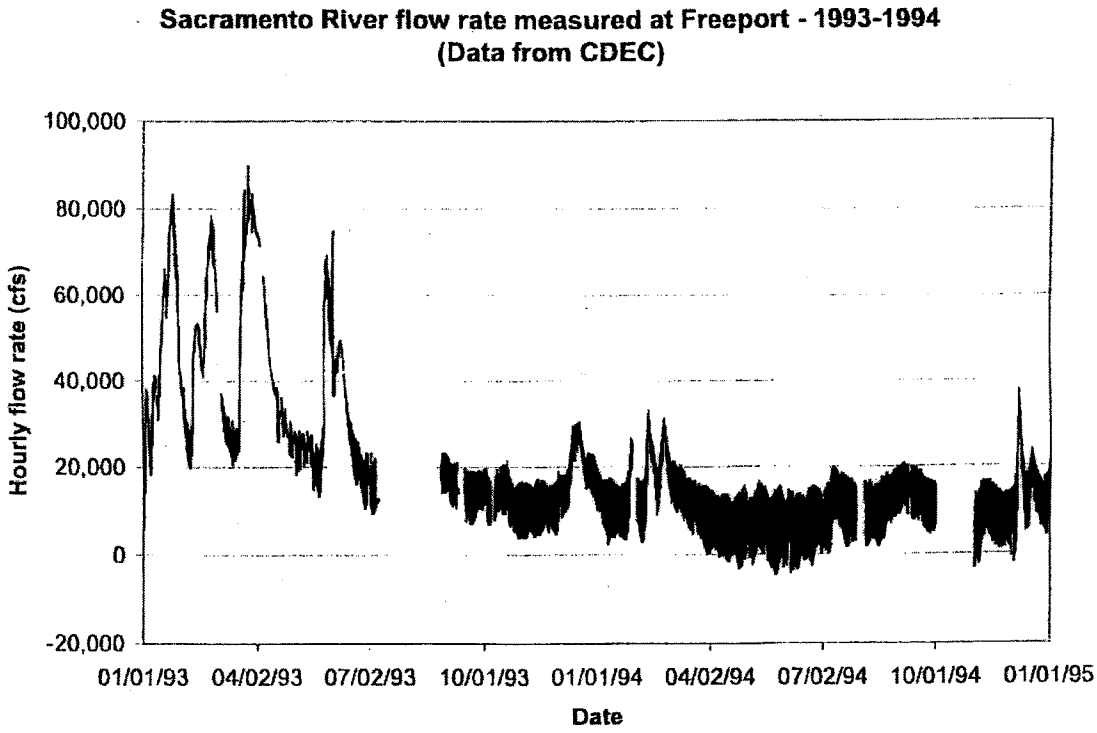

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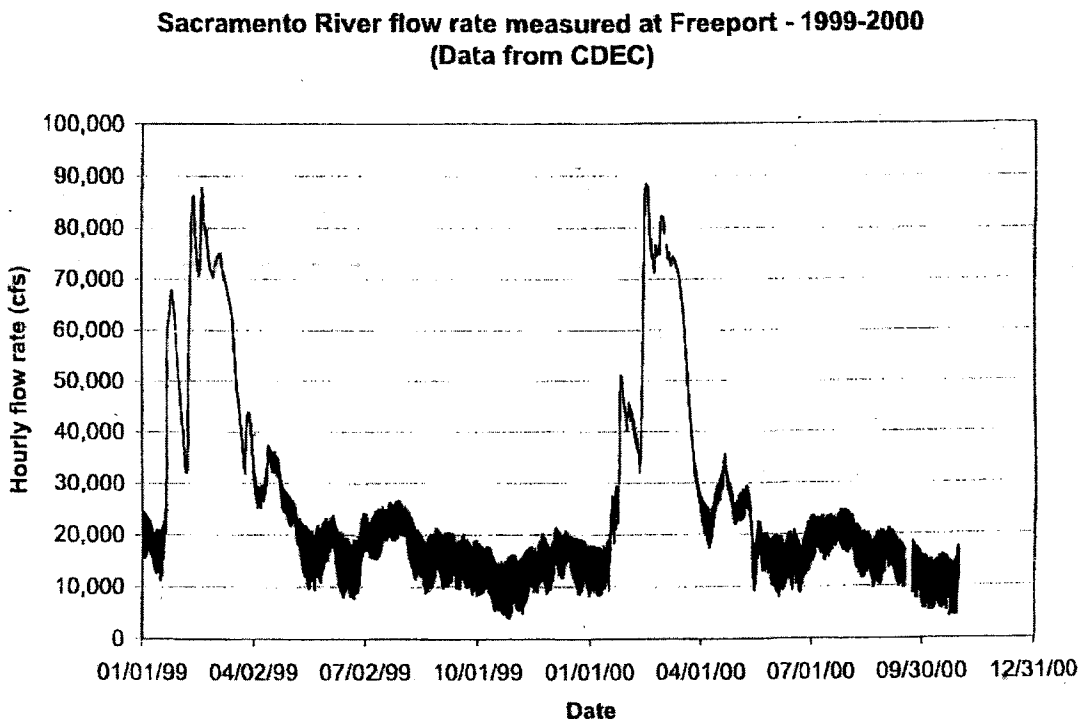
Figure 5

FLOW SCIENCE



d:\srwtpeir\FPT hourly9900.xls
November 1, 2000

Figure 8

FLOW SCIENCE.

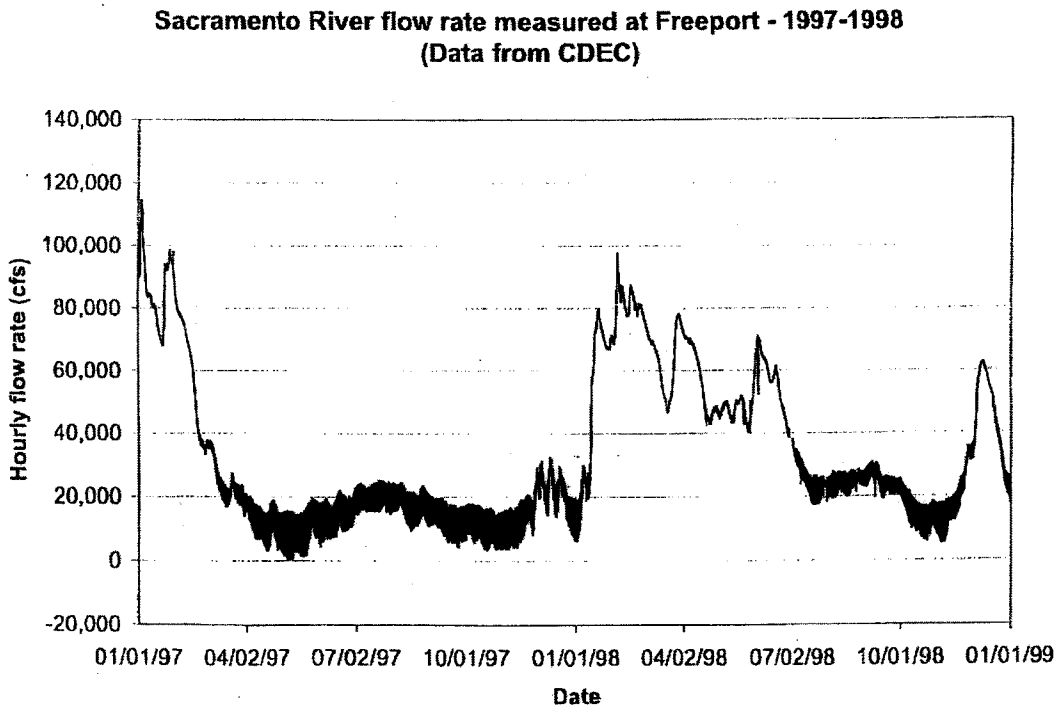


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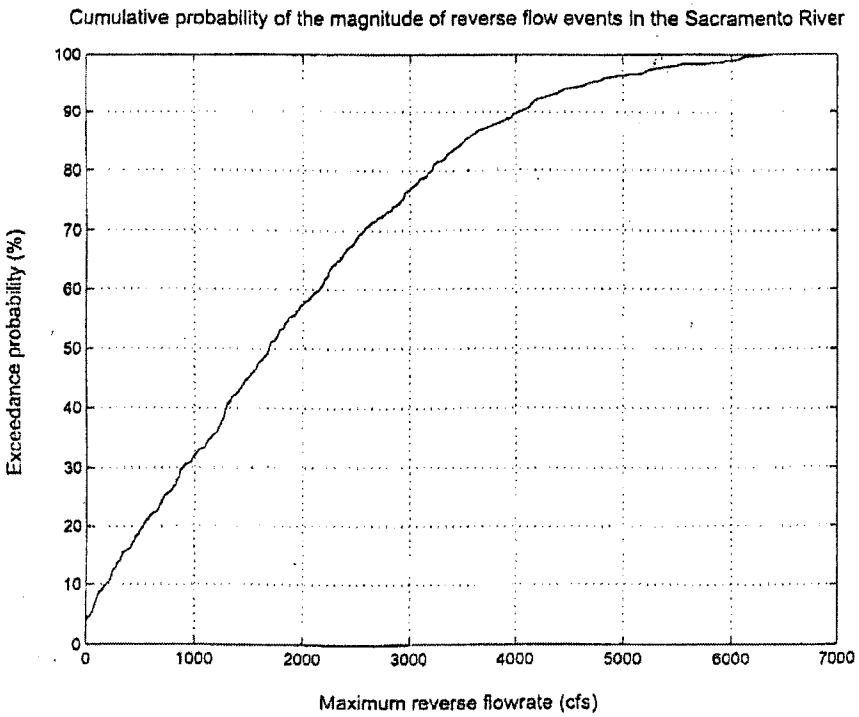
Figure 7

FLOW SCIENCE.

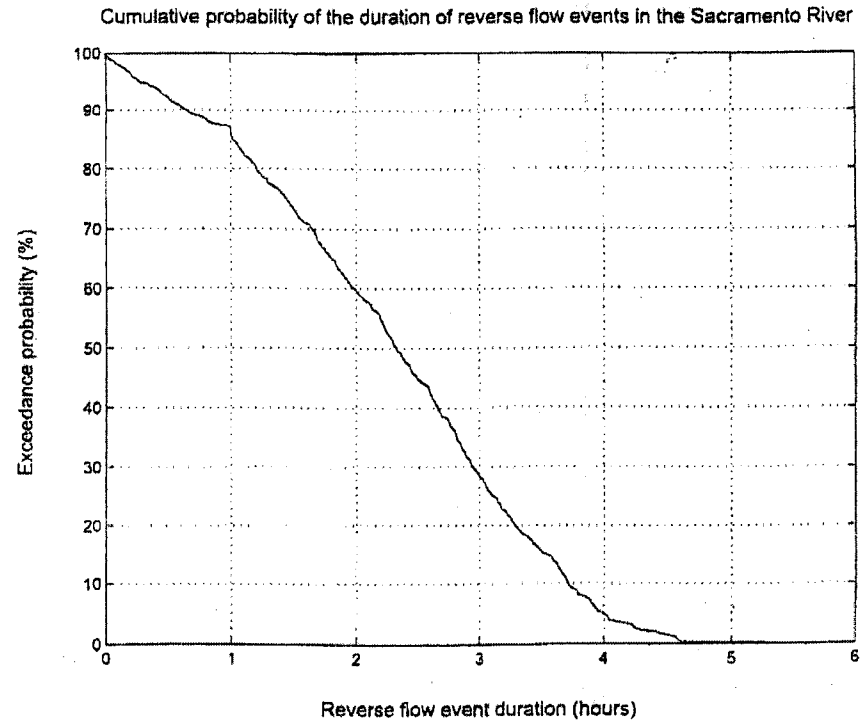
FLOW SCIENCE.



NOTE: Reverse flow events occur in approximately 1% of the historical flow record. The probabilities shown above apply only to the reverse flow events and not to the complete historical record.

Figure 9

FLOW SCIENCE.



NOTE: Reverse flow events occur in approximately 1% of the historical flow record. The probabilities shown above apply only to the reverse flow events and not to the complete historical record.

Figure 10

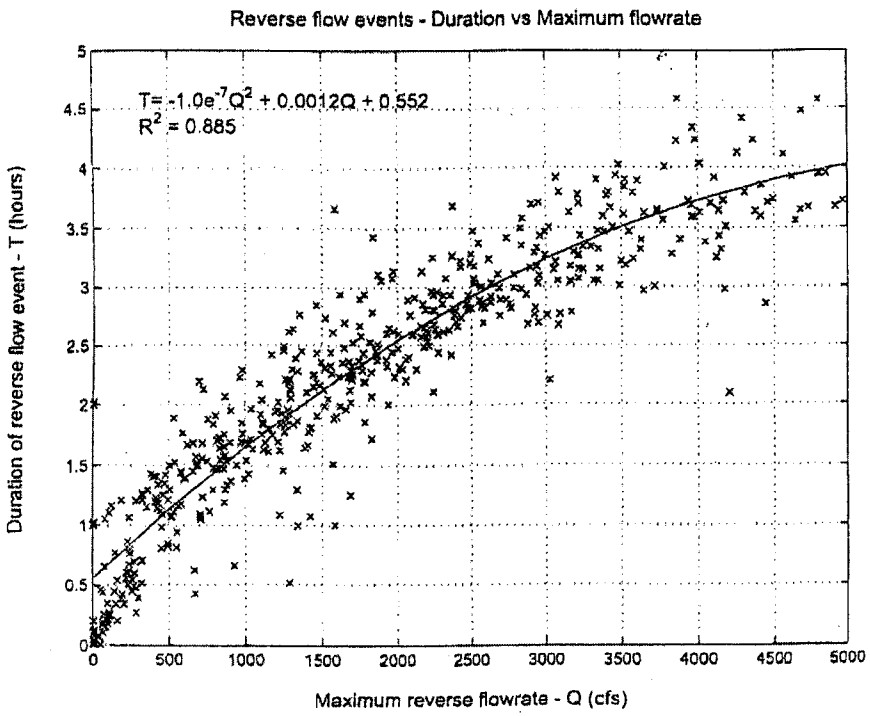
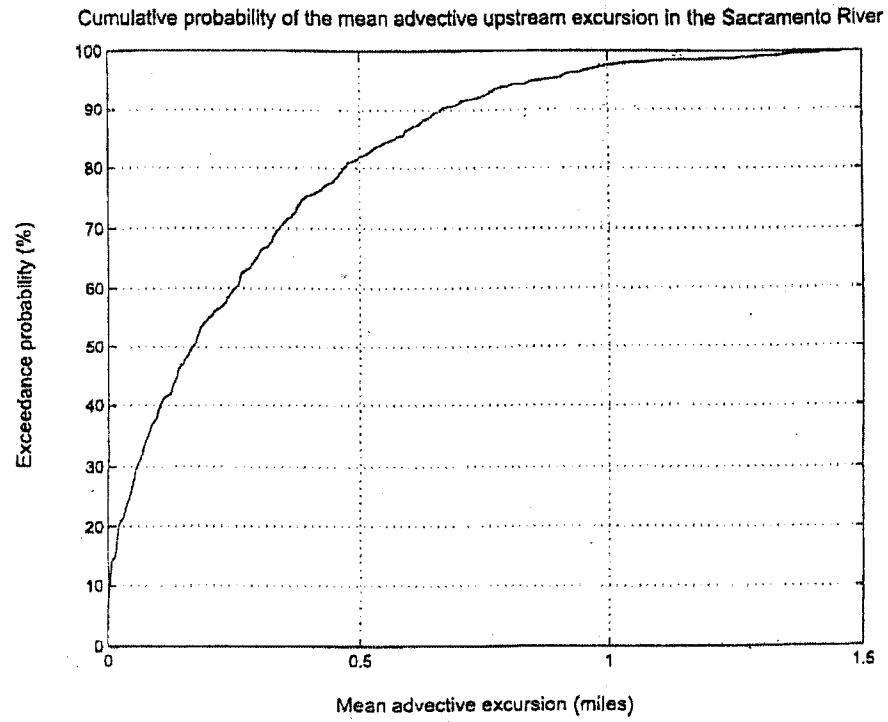


Figure 11



NOTE: Reverse flow events occur in approximately 1% of the historical flow record. The probabilities shown above apply only to the reverse flow events and not to the complete historical record.

Figure 12

FLOW SCIENCE

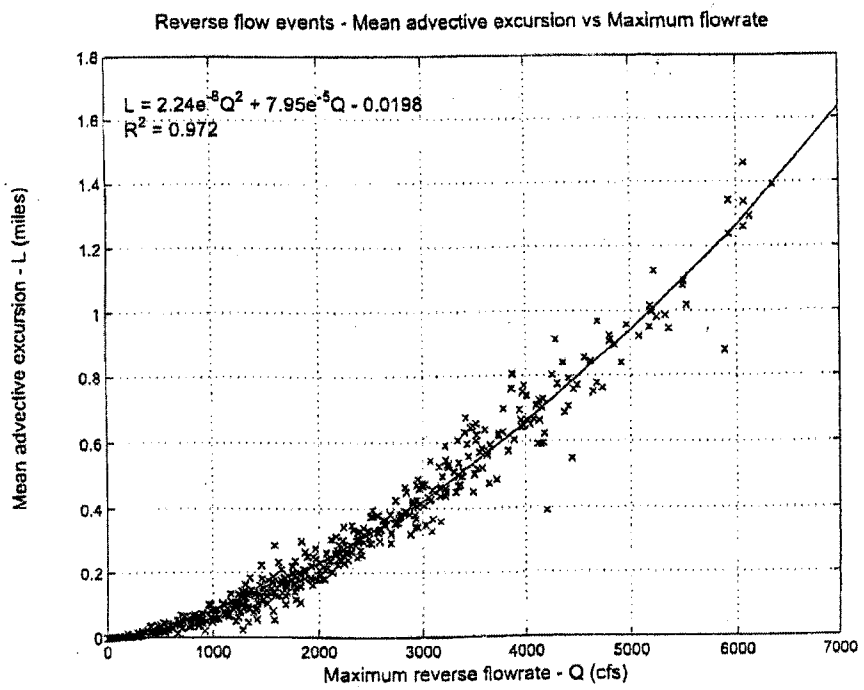


Figure 13

Response to Comments of the Sacramento Regional County Sanitation District

RL 17-1, Robert F. Shanks, Sacramento Regional County Sanitation District
Responses to the District's comments on the 1997 Draft EIR/EIS are provided in Chapter 6 (Letter L 10) of this document.

RL 17-2, Robert F. Shanks, Sacramento Regional County Sanitation District
This comment refers to regulatory processes rather than potential environmental impacts. See response to Comment L10-1 in Chapter 6 of this document.

RL 17-3, Robert F. Shanks, Sacramento Regional County Sanitation District
See response to Comment RL 17-2 above. The location of an intake facility near the SRWTP discharge under Alternatives 6 and 7 is an important consideration in assessing the feasibility of these alternatives. However, reverse flow events are infrequent (occurring approximately 1 percent of the time) and are of short duration (60 percent less than 2 hours, with the longest recorded event being 5.3 hours), as described in the attachment to the District's comment letter. This information indicates that there is substantial opportunity to develop operational scenarios that would provide supplemental water supplies to EBMUD while minimizing or eliminating any effects on the SRWTP. Therefore, no significant impacts are anticipated. If Alternative 6 or 7 is selected, EBMUD would work closely with the District to ensure that its operations were not significantly affected.

RL 17-4, Robert F. Shanks, Sacramento Regional County Sanitation District
See responses to Comments L10-1 through L10-5 in Chapter 6 of this document as well as responses to Comments RL 17-1 through RL 17-3 above.

RL 17-5, Robert F. Shanks, Sacramento Regional County Sanitation District
See response to Comment L10-2 in Chapter 6 of this document.

RL 17-6, Robert F. Shanks, Sacramento Regional County Sanitation District
See response to Comment L10-4 in Chapter 6 of this document.

RL 17-7, Robert F. Shanks, Sacramento Regional County Sanitation District
See responses to Comments L10-1 through L10-5 in Chapter 6 of this document.

RL 17-8, Robert F. Shanks, Sacramento Regional County Sanitation District
See response to Comment L10-1 in Chapter 6 of this document. Additionally, the final EIR for the Water Forum Proposal (hereby incorporated by reference) assessed cumulative impacts of the Water Forum Proposal with EBMUD deliveries at Nimbus (Alternative 2 in the 1997 Draft EIR/EIS). This analysis indicated that cumulative impacts with EBMUD deliveries at Nimbus would not differ substantially from those described in the draft Water Forum Proposal EIR.

RL 17-9, Robert F. Shanks, Sacramento Regional County Sanitation District
See responses to Comments L10-1 and L10-2 in Chapter 6 of this document.

RL 17-10, Robert F. Shanks, Sacramento Regional County Sanitation District
See response to Comment L10-3 in Chapter 6 of this document.

RL 17-11, Robert F. Shanks, Sacramento Regional County Sanitation District
Comment noted. The location of an intake facility near the SRWTP discharge under Alternatives 6 and 7 is an important consideration in assessing the feasibility of these alternatives. See response to Comment RL 17-3 above.

RL 17-12, Robert F. Shanks, Sacramento Regional County Sanitation District
The 1997 Draft EIR/EIS and the 2000 REIR/SEIS recognize the importance of this issue, and EBMUD is fully committed to minimizing potential conflicts and preventing unnecessary expenses during project construction under all alternatives. The project description for all alternatives includes preparation of a project planning, coordination, and communication plan to ensure that all planning, engineering, and construction phases of the project are coordinated. Should an alternative be selected that could affect facilities owned or operated by the District, the District will be included in that planning effort.

RL 17-13, Robert F. Shanks, Sacramento Regional County Sanitation District
See responses to Comments RL 17-1 through RL 17-12 above.

RL 17-14, Robert F. Shanks, Sacramento Regional County Sanitation District
The District's preference for an alternative intake located downstream of the SRWTP discharge is noted. However, issues related to the interaction of the discharge and the intake, as described in Comment RL 17-3 of this letter, would appear to be exacerbated by such an alternative.

RL18

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SACRAMENTO, CALIFORNIA 95814-4417
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FACSIMILE TRANSMISSION

DATE: November 20, 2000

TO:

NAME	FAX NO.	PHONE NO.
Kurt Ladensack EBMUD	(510) 287-1295	(510) 287-1066
Robert Schroder USBR	(916) 989-7208	(916) 989-7221

FROM: Scott A. Morris **PHONE:** (916) 321-4500

RE: Comments of San Luis & Delta-Mendota Water authority on the Draft EIR/EIS - Proposed Amendatory Contract Between the United States and East Bay Municipal Utility District Providing for Project Water Service

FILE NUMBER:	10355.7	USER ID:	99604
NUMBER OF PAGES, INCLUDING COVER:	21	ORIGINALS FOLLOW BY MAIL:	Yes

MESSAGE:

See Attached

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KRONICK MOSKOVITZ TIEDEMANN & GIRARD
A PROFESSIONAL CORPORATION

November 20, 2000

VIA FACSIMILE and U.S. MAIL

Mr. Kurt Ladensack
Water Supply Improvements Division
EBMUD
P. O. Box 24055, MS #305
Oakland, CA 94623

VIA FACSIMILE and U.S. MAIL

Mr. Robert Schroeder
Environmental Specialist
U.S. Bureau of Reclamation
7794 Folsom Dam Road
Folsom, CA 95630

Re: Comments on the Draft Recirculated Environmental Impact Report/ Environmental Impact Statement for East Bay Municipal Utility District Supplemental Water Supply Project

Gentlemen:

These comments on the Draft Recirculated Environmental Impact Report/Environmental Impact Statement ("DREIR/EIS") for the East Bay Municipal Utility District ("EBMUD") Supplemental Water Supply Project ("proposed Project"), dated October, 2000 are submitted on behalf of the San Luis & Delta-Mendota Water Authority ("Authority"). The Authority is a Joint Powers Authority; it consists of 32 agencies which contract with the United States Department of the Interior, Bureau of Reclamation ("Bureau") for the supply of Central Valley Project ("CVP") water. The water which the CVP supplies to the Authority's member agencies is pumped from the Sacramento-San Joaquin River Delta through the Tracy Pumping Plant and is used, in turn, to meet the water supply needs of over 1.3 million acres of highly productive agricultural lands within the western San Joaquin Valley, San Benito, and Santa Clara County. Authority members also provide approximately 200,000 acre-feet ("af") of

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water for municipal and industrial uses, primarily in the Santa Clara Valley, and 200,000-250,000 af of water for waterfowl and wildlife habitat in the San Joaquin Valley.

I. PREVIOUS COMMENTS

The Authority previously submitted comments on March 19, 1998 on the Draft Environmental Impact Report/Environmental Impact Statement released in October 1997. Pursuant to the Notice accompanying the DREIR/EIS, those comments will not be repeated, but are incorporated by reference herein. This letter will instead limit comments to the DREIR/EIS to the extent feasible. The Authority also provided extensive comments on June 28, 1999 on the Proposed Amendatory Contract Between the United States and East Bay Municipal Utility District Providing for Project Water Service. That letter commented on the terms of the Proposed Amendatory Contract between EBMUD and the Bureau, and contained numerous CEQA and NEPA comments. That letter is also incorporated by reference, and a copy is attached so that the Administrative Record reflects that letter.

II. THE PROJECT DESCRIPTION IN THE DREIR/EIS IS LEGALLY INADEQUATE

CEQA and NEPA both require that a project description be accurate and not minimize its environmental effects, and that it include all reasonably foreseeable activities associated with the project. The Association provided extensive comments on the deficiencies of the project description in comments to the October 1997 Draft Environmental Impact Report/Environmental Impact Statement. These comments remain applicable to the DREIR/EIS as well. Additionally, the DREIR/EIS is deficient because it fails to accurately describe the operational features of the proposed contract amendment language. Although the DREIR/EIS does discuss operations in limited detail in Chapter 2, this description is lacking in enough detail to determine if the DRIER/EIS preparers have correctly analyzed the proposed contract

language. At the very least, the DREIR/EIS should contain a section discussing the details of the proposed contract language and all terms therein. It is also important to note that alternatives presented in the October 1997 Draft Environmental Impact Report/Environmental Impact Statement clearly have not been analyzed with the proposed contract terms. Thus, the RDEIR/EIS should have updated that analysis but failed to do so.

RL18-1 The RDEIR/EIS also is deficient because it fails to include a description of reasonably foreseeable activities associated with the proposed Project. Again, this comment was made previously in the Association's comments to the October 1997 Draft Environmental Impact Report/Environmental Impact Statement. The project still requires terminal storage that does not exist, and the description of construction activities resulting from the numerous pipelines remains inadequate under both the old and new alternatives. The "programmatic" discussion of potential groundwater storage facilities is entirely inadequate. Moreover, because EBMUD and the Bureau intend on relying on the DREIR/EIS to approved a project where the requirement for such storage is reasonably foreseeable, the analysis must be at a "project" level of detail, not merely at the programmatic level. To do otherwise, violates the public's right to know what the impacts of a project are, before agency approval. RL18-3

III. THE DREIR/EIS IS LEGALLY INADEQUATE BECAUSE IT FAILS TO INFORM THE PUBLIC, EBMUD AND THE USBR ABOUT THE ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

RL18-2 It is well established that the purpose of an EIR is to provide public agencies and the public in general with detailed information about the effects, which a proposed project is likely to have on the environment. (Pub. Res. Code §§ 21060.5 and 21061; *Environmental Planning and Information Council of Western El Dorado County, Inc. v. El Dorado County* (1982) 131 Cal.App.3d 350, 354.) NEPA has the same purposes. However, the DREIR/EIS fails miserably in its role as an informational document. In its rush to comply with political RL18-4

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pressure brought by EBMUD to get a project approved by the end of this year before a change in the Presidential Administration, the DREIR/EIS preparers labored to tie as many project impacts to the October 1997 DEIR/EIS instead of conducting any new analysis for the DREIR/EIS. This was done despite the claim that DREIR/EIS includes an "analysis" of five new project alternatives.

A. **The Hydrology and Water Supply Analysis is Inadequate**

The Association spent a great deal of time presenting the potential impacts of a decrease in water supply in comment provided on the October 1997 Draft Environmental Impact Report/Environmental Impact Statement. Those comments included many impacts of decreased water supply South of the Delta including land subsidence, groundwater overdraft, fallowed land, water quality to name a few. Unfortunately, the impact and importance of these comments have been completely ignored within the DREIS/EIR.

In a mere 17 pages, 12 of which are full-page charts or tables, the DREIR/EIS "analyzes" impacts to water supply and hydrology of the five new project alternatives. The Authority is particularly interested in impacts to the CVP water supply. Incredibly, the entire analysis of the impact of new alternatives 5-8 on Delta exports and Delta outflows are contained in two sentences! The DREIR/EIS states:

> Table 3-4 shows relative differences between Alternatives 5,6,7 and 8 and the respective Alternative 1 values for Shasta Reservoir storage, Clair Engle Reservoir storage on the Trinity River, Delta Outflow, and Delta exports at Tracy and Banks.
>
> In general, the current PROSIM results are very similar to the data presented in the 1997 DEIR EIS.

(DREIR/EIS p. 3-13)

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Table 3-4 referred to in the above quote presents data in average monthly and average annual values. Such a presentation of data is misleading, masks potential impacts of the project and demonstrates that the DREIR/EIS is legally inadequate as a document that informs the public and agencies of the impacts of the proposed Project. Water supply rarely, if ever, arrives in average annual years. It is the extreme events, either very wet or very dry, that have the most significant impacts associated with them. Moreover, the use of these averaged or cumulative probability plots can mask significant impacts to water supply, fisheries and wildlife, and recreational uses that can occur in a matter of months or days. These too, need additional analysis and presentation.

To be frank, the presentation of information in the Hydrology and Water Supply chapter (Chapter 3) is woefully inadequate. It is virtually impossible for anyone to determine potential project impacts from the scant data presented. The document notes that PROSIM 99 incorporates revisions to CVP operating conditions, several program logic functions, was updated to facilitate the iterative use of monthly time series of EBMUD demands, enhanced the complex return flow pattern arising out of the Supplemental Water Supply Project alternatives, includes terms of the Draft Amendatory Water Service Contract (not available in 1997). (DREIR/EIS, p. 3-1). The DREIR/EIS also states that the PROSIM 99 runs were "postprocessed" to estimate Alternative 4 impacts, and that alternatives 5-8 were derived from American River (node 16) results. (Id). Despite these enormous revisions to PROSIM over the October 1997 modeling, we are asked to believe the modeling results are not substantially different, and do so based on virtually no information. The document states that the PROSIM 99 modeling data has been provided to the Sacramento parties and others and provides a telephone number. It is the responsibility of EBMUD and the Bureau to provide an adequate explanation of the modeling results within the DREIR/EIS, and not expect the general public to go over thousands of pages of modeling results to interpret the results.

RL18-6

Even the data presented appears questionable. The document states that hydrologic condition results for Alternatives 5,6,7 and 8 are derived from PROSIM 99 node 16 along the American River. The DRIER/EIS states:

> [W]ith EBMUD deliveries made downstream for alternatives 5,6,7 and 8, the monthly reductions in Folsom storage are not as large as in Alternative 4. Additionally, with EBMUD deliveries made downstream for Alternatives 5,6,7 and 8, Reclamation would have somewhat greater flexibility to supply water in response to EBMUD demands from either Folsom or Shasta storage. . . . Because the downstream delivery locations for Alternatives 5,6,7 and 8 are simulated at PROSIM Node 16 on the American River, rather than on the Sacramento River or in the Delta, these effects on Folsom Storage may be high.

(DRIER/EIS, p. 3-7)

Read another way, since the model does not even look at the Sacramento River, the model may underestimate the impacts on Shasta and other CVP storage facilities, and thus, incorrectly show the water supply impacts to CVP users, including members of the Authority. The point is, the lack of detail in the DREIR/EIS makes it virtually impossible to discern what the potential project impacts to water supply are. Moreover, it is also impossible for EBMUD or the Bureau to conclude there are no project impacts on water supply, because there is no evidence to support that conclusion. The early comments about average monthly data only compound this problem.

B. The DREIR/EIS is Legally Inadequate Because it Ignores Impacts South of the Delta

The Association's comments on the October 1997 Draft Environmental Impact Report/Environmental Impact Statement explained how that document failed to address impacts of the proposed Project on areas South of the Delta. Instead of using those comments improved

the quality of the DREIR/EIS, the comments were completely ignored. Thus, the DREIR/EIS is also legally flawed for failing to address the same South of the Delta impacts presented in the Association's March 19, 1998 letter. Chapter 9 (Geology, Soils Seismicity and Groundwater) is just over 2 pages, and contains no information on impacts South of the Delta, but instead refers the reader to the flawed 1997 document, which also ignored South of the Delta impacts. The same is true for Chapter 10 (Land Use), Chapter 11 (Agricultural Resources) and virtually the entire DREIR/EIS. Ignoring the impacts south of the Delta was bad enough the first time around, but it is simply appalling and inexcusable in this document.

RL18-7

IV. OTHER COMMENTS

The Association has many other concerns that must be addressed before an EIR/EIS may be certified. These have been presented by the Association and others before, but need to be repeated here.

A. EBMUD Has not Demonstrated a Need for the Proposed Project

EBMUD's "need" for the project is based on Policy 81, which unduly restrains the project alternatives and improperly eliminated and constrains viable alternatives. Likewise, EBMUD fabricated a 3-year drought based on the 1976 and 1977 events, with a fake third year drought that never occurred. Others have estimated the recurrence interval of this drought to be 1 in 1,500 years. A project need to supply water in this extreme, fake drought does not demonstrate the need for the project, especially at the expense of other water users, such as Association members, who experience real droughts almost every year. RL18-9

RL18-8

Likewise, the project "need" for the water if Pardee is taken off line for maintenance does not justify a need for the water on an annual basis. Other dam owners, including the Bureau, and the U.S. Army Corps of Engineers, routinely conduct maintenance on

their facilities through the use of divers or other techniques with little or no impacts to stored water. Moreover, other water supply transfers or temporary arrangements are more appropriate for such projects, rather than dedicating such a valuable resource for such a rare occurrence. Thus, without more proof of EBMUD's needs, maintenance requirements simply do not justify the project.

B. **The DREIR/EIS Fails to Address CALFED**

RL18-10 The DREIR/EIS does not consider the ongoing efforts of CALFED and its planning process. CALFED recently adopted an EIR/EIS, yet the DREIR/EIS virtually ignores this important document and the potential impacts of its proposed projects. Among the many projects ignored is the call for blending water supplies within the Bay Area to stretch water supplies and improve water quality.

V. **CONCLUSION**

RL18-11 The Association and others have demonstrated numerous deficiencies in the October 1997 Draft Environmental Impact Report/Environmental Impact Statement that if considered, could have significantly improved the quality and usefulness of the DREIR/EIS. However, since the preparers have ignored most of those comments, the same legal deficiencies exist in this document. The DREIR/EIS suffers from an extreme lack of presentable, usable information, and instead expects the reader to rely on the flawed information presented in the October 1997 Draft Environmental Impact Report/Environmental Impact Statement. However, the flaws in that document make that impossible. Moreover, until EBMUD can demonstrate an actual need for the proposed Project, based on real, and not fabricated needs, the proposed Project, the October 1997 Draft Environmental Impact Report/Environmental Impact Statement, as well as the DREIR/EIS remain legally indefensible and can not be certified or relied upon by EBMUD or the Bureau.

Thank you for the opportunity to comment on this document. If you have any questions, please do not hesitate to contact me.

Very truly yours,

KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
A Professional Corporation

SCOTT A. MORRIS

SAM/mm

Enclosure

cc:
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June 28, 1999

VIA FACSIMILE (510) 287-1295 AND FIRST-CLASS MAIL

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Mr. Cecil Lesley
Contract Specialist
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Re: Comments of San Luis & Delta-Mendota Water Authority on the Proposed Amendatory Contract Between the United States and East Bay Municipal Utility District Providing for Project Water Service.

Dear Gentlemen:

These comments on the proposed Amendatory Contract between the United States and East Bay Municipal Utility District ("EBMUD") providing for Central Valley Project ("CVP") water service ("Amendatory Contract" or "Contract"), are submitted on behalf of the San Luis & Delta-Mendota Water Authority ("Authority"). The Authority is a joint powers authority formed pursuant to Government Code section 6500 *et seq.* Authority member districts hold vested contractual rights to receive CVP water for the irrigation of more than 1.3 million acres of agricultural lands in the western San Joaquin Valley, San Benito County and Santa Clara County. Authority member districts also supply approximately 200,000 acre-feet of CVP water for municipal and industrial uses ("M&I"), primarily in the Santa Clara Valley, and 200,000 acre-feet of CVP water for waterfowl and habitat uses in the San Joaquin Valley.

The water provided by the United States Bureau of Reclamation ("Bureau") to Authority member districts is appropriated from the Sacramento-San Joaquin Rivers Delta pursuant to Water Right Decisions 893, 990 and 1020. These decisions provide that the right to the beneficial use of water for irrigation purposes shall be appurtenant to the land on which that water is applied and the right to the beneficial use of water for irrigation purposes shall, consistent with the terms of the decisions, continue in perpetuity. Because execution of the Amendatory Contract will affect water entering and exported from the Delta, the water supply of

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Enclosure

Authority member districts may be impacted. Therefore, the Authority has a vital interest in the Contract.

COMMENTS

I. EXECUTION OF THE AMENDATORY CONTRACT WILL VIOLATE THE NATIONAL ENVIRONMENTAL POLICY ACT, THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND THE SPIRIT OF ARTICLE TWO OF THE CONTRACT.

Some may question the appropriateness of including comments relating to the National Environmental Policy Act ("NEPA"), (42 U.S.C. § 4321 *et seq.*), and the California Environmental Quality Act ("CEQA"), (Pub. Res. Code § 21000 *et seq.*), in a document commenting on the Amendatory Contract. However, as will be presented, the Amendatory Contract and the requirements of NEPA and CEQA are so inextricably intertwined, the failure of the Bureau and EBMUD to comply with NEPA and CEQA is a fundamental flaw in the Contract review process. Quite simply, it is premature to be commenting on a proposed contract that is based on a legally flawed environmental document.

A. The Draft Environmental Impact Report/Environmental Impact Statement for the EBMUD Supplemental Water Supply Project is legally inadequate and the Contract cannot be approved until the inadequacies are corrected and the environmental document is recirculated for public review.

NEPA, CEQA and the specific language of the Amendatory Contract require completion of all appropriate environmental review before the terms and conditions of the Amendatory Contract become effective. (*See, e.g., Sierra Club v. United States Army Corps of Eng'rs* (2nd Cir. 1983) 701 F.2d 1011 (issuing an injunction until the Corps met NEPA requirements); *Environmental Defense Fund, Inc. v. Armstrong* (N.D.Cal 1972) 352 F.Supp. 50 (enjoining the construction of a dam until NEPA requirements were met); *Mountain Lion Found. v. Fish and Game Comm'n* (1997) 16 Cal.4th 105, 137 (concluding that the agency's failure to comply with the requirements of CEQA was an abuse of the agency's discretion and such omission warranted the issuance of a writ of mandate ordering the agency action to be set aside); Amendatory Contract at Article 2(a) (requiring "completion of all appropriate environmental review" before the Amendatory Contract can be renewed).) For the reasons explained in its March 19, 1998, letter to Kurt Ladensack and Cecil Lesley, and its September 9, 1998, letter to Roger K. Patterson and Dennis M. Diemer, the Authority contends that the October 1997, Draft Environmental Impact Report/Environmental Impact Statement ("DEIR/EIS") for the EBMUD Supplemental Water Supply Project is inadequate and does not comply with NEPA or CEQA.

1. General concerns raised by the Authority in its March 19, 1998, letter to Mr. Kurt Ladensack and Mr. Cecil Lesley, and the September 9, 1998, letter to Mr. Roger K. Patterson and Mr. Dennis M. Diemer.

The following is a list of flaws in the DEIR/EIS that were raised by the Authority during the public comment period that have not been adequately addressed:

- The alternatives screening methodology used by EBMUD is flawed. This resulted in inadequate consideration of viable alternatives, and improper favorable consideration given to other alternatives. The DEIR/EIS must expand the scope of alternatives beyond those alternatives proposing to divert water from the American River. RL18-12
- The DEIR/EIS also fails to describe and analyze the effects from facilities that are required to implement the project. Although the DEIR/EIS ignores this, Alternatives 2 and 3 cannot be completed without additional storage facilities. These facilities could be additional terminal storage reservoirs or a conjunctive groundwater storage project. However, in violation of CEQA and NEPA, the DEIR/EIS fails to identify these required facilities or discuss their environmental effects. This oversight also leads to impermissible "segmentation" or "piecemealing" of the project's environmental review. RL18-13
- Analysis contained in the DEIR/EIS is based on a flawed PROSIM model. The PROSIM model is the major tool used throughout the DEIR/EIS to measure the significance of impacts. A flawed model yields incorrect results and a defective DEIR/EIS. EBMUD, the Bureau, and the public must have an accurate document to review. Therefore, the PROSIM model must be corrected, impacts reassessed, and the DEIR/EIS recirculated. RL18-14
- The DEIR/EIS is also inadequate because it fails to analyze project impacts south of the Sacramento-San Joaquin Delta. The simple recognition of impacts south of the Delta is insufficient. These impacts must be analyzed in detail. In a similar fashion, the DEIR/EIS ignores significant negative impacts to the CVP and State Water Project ("SWP") water supply, and the associated environmental impacts of that decrease in water supply. RL18-15
- The DEIR/EIS fails to adequately discuss, address and mitigate cumulative and growth inducing impacts. Among other omissions, the environmental document fails to analyze (1) mitigation measures that will avoid or minimize the significant effects on the Authority district members if the water service contract is executing; (2) the cumulative impacts of the proposed project on the operation of San Luis Reservoir; and, (3) the impacts of population growth caused by the additional water supply and proposes no mitigation for these significant effects. RL18-16

2. Additional errors in the DEIR/EIS analysis render implementation of the Amendatory Contract particularly premature.

The Amendatory Contract improperly permits EBMUD to use water from the American River for mitigation flows on the Mokelumne River. Under the Contract, EBMUD would be permitted to divert more American River water than it needs in order to provide the additional releases to help improve and protect the lower Mokelumne River. Although the Authority recognizes EBMUD's obligation to provide the mitigation flows, these releases must come from the Camanche Dam, not the American River. The action as proposed is wholly inappropriate. RL18-17

Implementing the Contact with this provision would be particularly inappropriate given that the impacts caused to the American River and areas south of the Delta due to this action have not been analyzed in the DEIR/EIS. Execution of the Amendatory Contract without either removing this provision from the Contract or correcting and recirculating the environmental document will violate NEPA and CEQA. RL18-18

In addition, inaccuracies in the PROSIM model are extremely troublesome. While it was known at the time the DEIR/EIS was originally circulated the PROSIM modeling had errors, the enormous extent of the errors is now well documented. As presented by representatives of the Bureau at a briefing on the proposed contract in Sacramento on March 30, 1999, the model has been updated to more accurately reflect hydrologic parameters in the watershed including theoretical storage. Theoretical storage and American River seepage losses are much higher in the current PROSIM model than that used to analyze the proposed Contract impacts. Thus, dry year flows and deliveries will be greatly reduced and, since these are the years when EBMUD plans to make its withdrawals, the impacts will be far greater than analyzed. This will reduce flows in the American and Sacramento Rivers, adversely impacting the ability of CVP contractors and other water users to divert water in dry years. RL18-19

These modifications to the model have significantly reduced the estimated yield in the American River and other watersheds, and the water available to CVP contractors is now 800,000 to 900,000 acre-feet below the original estimate of yield. This is hardly an insignificant amount. For example, the PROSIM 99 modeling shows a reduction in the minimum allocations to existing CVP contractors both north and south of the Delta for project M&I water from 75% to 50%.

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Furthermore, the DEIR/EIS incorrectly modeled the EBMUD exports from the American River as "in-basin" diversions. Pursuant to the Coordinated Operations Agreement, however, those diversions are exports. This misclassification resulted in an underestimation of the impacts of EBMUD's exports on other CVP contractors. Accordingly, the impacts from implementation of the Amendatory Contract must be analyzed by running PROSIM 99 with EBMUD's diversions from the American River considered as exports. RL18-20

It is obvious that these significant errors require new modeling, revision and recirculation of the DEIR/EIS. The Sacramento County Water Authority already reached that decision when it remodled and recirculated its DEIR/EIS for its proposed American River Water Contract. Moreover, it is the Authority's understanding that the Bureau announced its intention to at the CVPIA PEIS meeting on April 29, 1999 that a supplement to the draft PEIS will be put together and circulated for 60 days. The reasoning given for that decision was that the PROSIM modeling used in the PEIS (the same as used for the DEIR/EIS) was outdated and PROSIM 99 modeling runs were needed to determine impacts. Thus, it is clear that at a minimum, similar action is needed to update the DEIR/EIS to include PROSIM 99 modeling and impact analyses. The Authority maintains that execution of the Amendatory Contract without correcting the noted omissions and recirculating the environmental document will violate NEPA and CEQA. RL18-21

B. **The provision of the Amendatory Contract concerning the points of delivery and responsibility for distribution of water must be redacted because they are ambiguous and have not been adequately analyzed in the DEIR/EIS**

The Amendatory Contract allows water to be made available to EBMUD through diversions at Nimbus Dam. This point of diversion was not adequately considered in the DEIR/EIS. Pursuant to both NEPA and CEQA, the requisite analysis must be conducted and the DEIR/EIS recirculated. RL18-22

Article 5(f) of the Amendatory Contract, addressing potential modification to the points of delivery available to EBMUD, is ambiguous. Nevertheless, the Authority interprets this provision of the Contract to improperly compel the United States to implement Alternative 3 of the DEIR/EIS. Pursuant to Article 5, EBMUD is permitted

> to use the Folsom South Canal as a conveyance facility for Project Water that may be delivered to [EBMUD] at a diversion facility on the lower American River downstream from Nimbus Dam, and pumped back to the Folsom South Canal through a pipeline to be constructed and operated by [EBMUD] at it its expense and which will connect to the Folsom South Canal at a point located northerly

RL18-23

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> of Grant Line Road. . . . The [United States'] approval of such . . . plans, specifications and environmental documentation shall not be unreasonably withheld.

(Amendatory Contract at Article 5(f).)

Alternative 3 is described similarly. Under this alternative, the DEIR/EIS proposes:

> [a] new delivery facility would be constructed on the lower American River near its confluence with the Sacramento River and upstream of the Interstate 5 (I-5) bridge across the American River. A new pipeline would be constructed from this new delivery facility to a point near the City of Sacramento's E.A. Fairbairn Water Treatment Plant (WTP) and from that point to the [Folsom South Canal].

(DEIR/EIS at S-5.) Although Alternative 3 was analyzed in the DEIR/EIS, the comprehensive action implementing Alternative 3 with the other actions detailed in the Amendatory Contract was not.[1] Accordingly, the Authority maintains that, because these provisions of the Contract were not adequately analyzed in the DEIR/EIS, execution of the Amendatory Contract without redacting the provisions or analyzing their impacts and recirculating the document will violate NEPA and CEQA. At the very least, the objective(s) of Article 5(f) must clarified.

II. **THE AMENDATORY CONTRACT ARBITRARILY AND CAPRICIOUSLY DISPENSES WITH THE HISTORIC METHODOLOGY FOR CALCULATING THE AMOUNT OF CENTRAL VALLEY PROTECT WATER WHICH WILL BE MADE AVAILABLE TO EBMUD DURING DRY WATER YEARS.**

The Amendatory Contract wholly ignores the methodology traditionally used for calculating the amount of CVP water made available to a contractor during dry water years. Pursuant to the Draft M&I Water Shortage Policy for the Central Valley Project, dated February 17, 1994, a historic, three-year diversion average is used to determine the base amount used to determine reductions in water supply.

[1] Even if this subsection does not implement Alternative 3, pursuant to the terms of Article 5(f), the United States would be obliged to approve an action not analyzed in the DEIR/EIS.

Article 3 of the Amendatory Contract, however, provides that EBMUD is entitled to 133,000 acre-feet of CVP water in any year in which the forecast of its system storage, based on a 50% exceedance, is less than 500,000 acre-feet. (See Amendatory Contract at Article 3(a)(1).) The 133,000 acre-feet far figure exceeds the historic diversions by EBMUD, which only took water once in the amount of approximately 9,000 acre-feet.

Dispensing of this historic methodology is arbitrary and capricious. This provision is in direct conflict with established Bureau policy. A central theme during the EBMUD negotiations was that EBMUD should be treated like all other CVP contractors. Thus, allocation of water to EBMUD during dry water years should be based, as it is for all other CVP contractors, on the historic diversions it made. Since EBMUD has additional supplies from the Mokelumne River, this should not be a hardship.

III. PROVISIONS OF THE AMENDATORY CONTRACT ARE ILLOGICAL, IRRATIONAL AND INHERENTLY UNFAIR.

A. The quantity of water EBMUD demands is unreasonable.

EBMUD has failed to adequately demonstrate a need for the water supply as provided for in the Amendatory Contract. EBMUD suggests that an additional 185,000 acre-feet of water is necessary to meet current and future customer needs. (DEIR/EIS at 1-2.) This figure, however, is based on an improper modeling assumption.

As explained in the DEIR/EIS, EBMUD's water need was determined by estimating total system storage after a three-year hypothetical drought sequence; a sequence modeled by repeating the hydrological conditions in 1976, 1977 and in a hypothetical 1978 "assumed drought" year experiencing the average hydrological conditions that existed in 1976 and 1977. Modeling EBMUD's drought water needs with this hypothetical drought sequence resulted in a gross overestimation of EBMUD's future water needs. Since this flawed, contrived drought sequence does not support EBMUD's "demand" for water, it follows that it cannot form the basis for the quantity of water provided to EBMUD in the Amendatory Contract.

B. The Water Service Area is Improperly Defined.

The Amendatory Contract's definition of "Contractor's Water Service Area" is inappropriate. Pursuant to the Amendatory Contract, "'Contractor's Water Service Area' shall mean that area, depicted on the map attached hereto as Exhibit 'A', subject to amendment pursuant to Article 33, in which the Contractor is permitted to provide Project Water delivered under this amendatory contract." (Amendatory Contract at Article 1(c).) Exhibit A is not an

accurate depiction of the permitted service area of EBMUD. Accordingly, the Exhibit should not be used to illustrate the area.

C. The Term "Total System Storage" is Inadequately Defined.

The term "Total System Storage" is also inadequately defined in the Amendatory Contract. The Amendatory Contract provides:

> 'Total System Storage' shall mean the quantity of untreated water stored in Pardee, Camanche, San Pablo, Upper Leandro, Briones, Lafayette and Chabot Reservoirs, and any quantity of water that has been moved from said reservoirs to other untreated water storage facilities operated for the benefit of Contractor in the same Year.

(Amendatory Contract at Article 1(o).) As will be discussed below, the term "Total System Storage" is an important element in determining the quantity of water EBMUD will receive each year. Thus, "Total System Storage" should reflect the amount of water available to EBMUD. Since the proposed Contract allows EBMUD to transfer, sell or provide water to others, "Total System Storage" must also reflect any transferred water. Otherwise, EBMUD could deplete its potential water supply by transferring it to others, and under the terms of the potential contract, remain authorized to divert additional American River flows based on this ill-defined "Total System Storage" benchmark. The error could have a negative impact on other CVP contractors, fish and wildlife, and other water users, impacts likely underestimated in the DEIR/EIS. A more descriptive and more restrictive term should be developed.

D. Article 3(a)(1) – Water to be made available and delivered to EBMUD during dry water years.

Several provisions of the Amendatory Contract are arbitrary and would unfairly affect other CVP contractors. Article 3, subsection (a)(1) of the Amendatory Contract entitles EBMUD to 133,000 acre-feet of CVP water in any water year in which EBMUD's March 1 forecast of its October 1 Total System Storage is less than 500,000 acre-feet. Although the Authority recognizes the importance of EBMUD's need for storage, this provision entitles EBMUD to the 133,000 acre-feet without regard for the shortages being imposed on other CVP contractors. Such a provision provides EBMUD with a benefit not bestowed upon any other CVP contractor.

The unreasonableness of this subsection is further evidenced by the admission made by EBMUD during the November 17, 1998 negotiation session. At this meeting, EBMUD acknowledged that it would not need the full 133,000 acre-feet to sustain a 500,000 acre-feet storage in certain instances. This provision should be drafted in a manner such that EBMUD is only entitled to such water, not to exceed 133,000 acre-feet, as needed to maintain Total System Storage at or above 500,000 acre-feet. By way of example, if EBMUD's Total System Storage is forecast to be 490,000 acre-feet, EBMUD's diversion should be limited to 10,000 acre-feet.

Article 3(a)(1) also inexplicably provides great discretion to EBMUD in forecasting hydrologic conditions. This subsection authorizes EBMUD to use:

> a 50% exceedance, or any different exceedance used by the Contractor to operate the Mokelumne system or to declare rationing within the Contractor's Water Service Area, or as otherwise agreed to by the parties.

(Amendatory Contract at Article 3(a)(1).) To avoid the inequitable and unnecessary impacts that this language could cause to other CVP contractors, the 50% exceedance forecast should be the only one available to EBMUD.

Furthermore, the 165,000 acre-foot limitation specified in Article 3(a)(1) of the Amendatory Contract does not adequately express the objective of this section. The intent of this three-year limitation is to minimize the impacts to other CVP contractors during prolonged drought. As drafted, EBMUD would be able to divert up to 165,000 acre-feet in the first and third years of a three year drought if the diversion occurring in the first year causes EBMUD's forecast of system storage to exceed the 500,000 acre-feet threshold. To eliminate such a potential, this clause of Article 3(a)(1) should state: "Said entitlement shall not exceed a total of 165,000 acre-feet of Delivered Water in any three consecutive Year period that shortages are imposed or increased on Project water contractors or the Contractor's TSS forecast remain below 500,000 acre-feet."

E. Article 3(a)(2) – Water to be made available and delivered to EBMUD during normal or wet water years.

An additional problem exists with Article 3, subsection (a)(2) of the Amendatory Contract. This provision, intended to permit EBMUD to recharge its storage during years that are wetter then average, entitles EBMUD to 150,00 acre-feet of CVP water in any water year, provided that such delivery will not cause "[s]hortages to be imposed or increased on Project

water contractors on the American or Sacramento Rivers or Contra Costa Water District." (Amendatory Contract at Article 3(a)(2)(A) (emphasis added).)

There is no basis for extending the protections afforded to CVP contractors to only those contractors north of the Delta. Accordingly, to eliminate such bias and more accurately reflect the intent of this subsection, Article 3(a)(2)(A) of the Amendatory Contract should permit deliveries provided that such deliveries will not cause "shortages to be imposed or increased on any Project Water contractor."[2]

A further limitation should be added, proposed to be new Article 3(a)(2)(D), to more accurately reflect the objective of this subsection. This condition should state: "Diversions under this subsection, 3(a)(2), are prohibited during any water year when shortages are imposed on CVP contractors or when such diversions would result in shortages to CVP contractors during the following year."

[2] The Authority raises these concerns with Section 3(a)(2) notwithstanding its previous comment that this provision, because it provides for diversions from Nimbus Dam, must be redacted or the impacts of such action must be analyzed in the DEIR/EIS and the environmental document recirculated to allow for additional public comment.

Mr. Kurt Ladensack
Mr. Cecil Lesley
June 28, 1999
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F. **Article 3(a)(3) – Water to be made available and delivered to EBMUD to allow the Pardee system to be taken off-line.**

Article 3, subsection (a)(3) also has the potential of causing unfair impacts to other CVP contractors. This subsection permits EBMUD to use up to 150,000 acre-feet of CVP water without consideration of the impact. This provision should contain the same protections expressed in subsection (a)(2), including the amendments suggested above. Without such modification, the terms of this subsection are illogical, irrational and would unfairly affect CVP contractors.

Your consideration of these comments is appreciated

Very truly yours,

KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
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cc: Daniel Nelson
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Response to Comments of Counsel to San Luis & Delta-Mendota Water Authority

Kronick, Moskovitz, Tiedemann & Girard

RL 18-1, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
Responses to the Authority's comments on the 1997 Draft EIR/EIS are provided in Chapter 6 (Letter L 17) of this document.

RL 18-2, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to Comment L17-5 in Chapter 6 of this document. The analysis conducted for the 1997 Draft EIR/EIS has been thoroughly reviewed in light of the draft amendatory contract terms and conditions and fully complies with CEQA and NEPA requirements. Chapter 2 of this document discusses the draft contract amendment terms and conditions as they relate to the CEQA/NEPA analysis. The draft amendatory contract is included as Appendix A to this document.

RL 18-3, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to the "Project Segmentation/Piecemealing" major issue in Chapter 3 of this document. Chapter 18 of the 2000 REIR/SEIS fully and appropriately describes the status of a groundwater storage/banking element.

RL 18-4, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
The 2000 REIR/SEIS fully complies with all legal requirements under CEQA and NEPA. The commenter does not cite any specific examples that would allow a specific response.

RL 18-5, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments L17-9 through L17-12 in Chapter 6 of this document. As noted on page 3-13 and in Table 3-4 of the 2000 REIR/SEIS, modeled Delta exports under the additional alternatives, as modeled using PROSIM 99, are less than those described in the 1997 Draft EIR/EIS and represent no substantial change to Delta exports as compared to the No-Action Alternative. A more detailed presentation of results would simply reflect and repeat this finding and would not add substantially to the analysis.

RL 18-6, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
Reclamation and EBMUD consider the analysis conducted for Alternatives 4, 5, 6, 7, and 8 to be appropriate. The 2000 REIR/SEIS provides sufficient information to display the potential environmental effects of the alternatives considered. The revisions to the modeling noted in this comment result in minor variations in the results presented in the 1997 Draft EIR/EIS. Deliveries made to EBMUD under any of the alternatives are very small when compared to system-wide demands on the American River and throughout the CVP. Minor changes in the location of EBMUD deliveries, system demands, and modeling assumptions would not alter the basic patterns of demand and river flow that drive CVP operations.

RL 18-7, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to Comment RL 18-6 above. Despite the location of the delivery to EBMUD on the lower American River, the PROSIM 99 modeling indicates that, in the model, most of the changes identified occur in the Sacramento River system. This modeling has been thoroughly reviewed by Reclamation and EBMUD, and the modeling conducted for the 2000 REIR/SEIS is determined to be appropriate. The modeling effort did not underestimate effects

on Shasta and other CVP storage facilities, and all changes identified are very small and would not affect overall CVP operations.

RL 18-8, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments L17-9 through L17-12 in Chapter 6 of this document.

RL 18-9, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
EBMUD's need for the Supplemental Water Supply Project is thoroughly described in Chapter 1 of the 1997 Draft EIR/EIS. See also responses to Comments L20-1 through L20-4 in Chapter 6 of and Appendix C to this document.

RL 18-10, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See the response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 18-11, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments RL 18-1 through RL 18-10 above. Reclamation and EBMUD consider the environmental documentation for the Supplemental Water Supply Project to be adequate for decision-making purposes and full compliance with CEQA and NEPA.

RL 18-12, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments L17-1 through L17-4 in Chapter 6 of this document.

RL 18-13, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comment L17-5 in Chapter 6 of this document.

RL 18-14, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to the "PROSIM Modeling" major issue in Chapter 3 of this document.

RL 18-15, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments L17-9 through L17-12 in Chapter 6 of this document.

RL 18-16, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments L17-15 through L17-17 in Chapter 6 of this document.

RL 18-17, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
Water from the American River would not be used for mitigation flows on the Mokelumne River. Under certain conditions, implementation of the alternatives may result in higher storage volumes in EBMUD's Mokelumne River system, which would then trigger higher releases to the river. However, these operations are not mitigation but rather part of EBMUD's instream flow requirements.

RL 18-18, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See responses to Comments RL 18-1 through RL 18-16 above.

RL 18-19, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to the "PROSIM Modeling" major issue in Chapter 3 of this document.

RL 18-20, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to the "Coordinated Operations Agreement Modeling" major issue in Chapter 3 of this document.

RL 18-21, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
See response to the "PROSIM Modeling" and "Coordinated Operations Agreement Modeling" major issues in Chapter 3 of this document.

RL 18-22, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
Alternative 2 has been fully evaluated in the environmental documentation for the Supplemental Water Supply Project.

RL 18-23, Scott A. Morris, Counsel to San Luis & Delta-Mendota Water Authority
The remainder of this letter focuses on specific provisions of the draft amendatory contract. The draft amendatory contract is included as Appendix A of this document for reference. The amendatory contract is still in draft form, and its specific text is subject to notice and public comment on reclamation contracts; see 43 CFR 426.22. The final contract will encompass only those points of delivery and operation that are fully described in the environmental documentation for the Supplemental Water Supply Project.

RL 19

Santa Clara Valley Water District

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AN EQUAL OPPORTUNITY EMPLOYER

November 20, 2000

Mr. Robert Schroeder
U.S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, California 95630

Dear Mr. Schroeder:

The Santa Clara Valley Water District (Santa Clara) has reviewed the Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement (Draft REIR/SEIS) for the East Bay Municipal Utility District and U.S. Bureau of Reclamation Proposed Supplemental Water Supply Project. In order to provide a reliable supply of healthy, clean drinking water for the County's 1.7 million residents, Santa Clara relies on deliveries from the Central Valley Project and State Water Project. These deliveries may potentially be affected by the East Bay Municipal Utility District's (EBMUD's) proposed project. While Santa Clara supports the objectives that EBMUD has identified, we have some concerns related to the proposed alternatives and analyses of impacts.

1. Potential CALFED Impacts. EBMUD's proposed project continues to be developed separately from the CALFED Bay-Delta Program. While full implementation of CALFED programs and projects is likely to take a number of years, the EBMUD project is proposed to be implemented concurrently. The Draft REIR/SEIS acknowledges that "the CALFED process has progressed", but does not at all discuss CALFED's August 28, 2000, Record of Decision (ROD) and related programmatic biological opinions. The Draft REIR/SEIS should address potential impacts of EBMUD's project, particularly the four new alternatives which would divert water from the Sacramento River or Delta, on successful implementation of CALFED's preferred alternative. RL19-1

2. Bay Area Regional Project. Similarly, the Draft REIR/SEIS does not acknowledge one of the "complementary actions" identified in the ROD, which is "a project that enables Bay Area water districts to work cooperatively to address water quality and supply reliability concerns on a consensual basis." As our agencies have discussed, the "Bay Area Regional Water Quality and Water Supply Reliability Improvement Project" may allow urban agencies to meet their objectives through optimization of collective supplies, demands and facilities, while minimizing environmental impacts. The Draft REIR/SEIS should clarify the relationship of EBMUD project alternatives to this important CALFED "complementary action". RL19-2

The mission of the Santa Clara Valley Water District is a healthy, safe and enhanced quality of living in Santa Clara County through the comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner.

3. Sacramento River/Shasta Operations Impacts. It is observed in the Draft REIR/SEIS that for Alternatives 5, 6, 7 and 8, "Reclamation would have somewhat greater flexibility to supply water in response to EBMUD demands from either Folsom or Shasta storage." [page 3-7] However, "the downstream delivery locations [for these alternatives] are simulated at PROSIM Node 16 on the American River, rather than on the Sacramento River or in the Delta." This raises the question of whether impacts from potential changes in operation of Shasta Dam have been fully evaluated. Average annual deliveries to EBMUD for Alternatives 5, 6, 7 and 8 would be 21,300 acre-feet, but the 1928-34 dry-period deliveries would average 42,500 acre-feet, and maximum deliveries are modeled to reach 99,300 acre-feet. These are significant quantities of water that potentially could end up being supplied from Sacramento River operations. RL19-3

4. Delta Export Impacts. Table 3-4 displays "Differences in Hydrologic Conditions Between Alternative 1 and Alternatives 5, 6, 7, and 8," for Banks Export and Tracy Export, and the net annual average difference, in acre-feet, is shown to be zero. The Draft REIR/SEIS does not appear to display Delta Export impacts for Alternative 4. Due to the fact that long-term average deliveries to EBMUD are less for Alternative 4 than for Alternatives 5, 6, 7, and 8, we might assume that the impacts are small, but they should be specifically addressed. Prior comments submitted by Santa Clara on the 1997 Draft EIR/EIS noted that in a 70-year hydrologic study there is the opportunity to optimize and minimize average water supply impacts, but on a year to year basis, there is still a risk of substantial impact. This risk for Delta Export contractors, including Santa Clara, could be minimized if the water allocation provisions of EBMUD's Draft Amendatory Water Service Contract were revised to reflect the same kind of protection for CVP Delta Export contractors as are proposed to be provided to Sacramento River and American River contractors and Contra Costa Water District. In light of the four new alternatives for diversion from the Sacramento River and Delta that our now being considered in the Draft REIR/SEIS, we believe that Reclamation needs to revisit this issue. RL19-4

5. Alternative 4 "Modified Proposal". The Draft REIR/SEIS should clarify how the "EBMUD American River Deliveries (Alternative 4)" discussed on page 3-5 relate to the Groundwater Storage/Conjunctive Use Program described in Chapter 18. Will the groundwater program(s) simply allow EBMUD to re-regulate the deliveries discussed on page 3-5, or will there be additional deliveries to EBMUD that are utilized to achieve the "put" and "take" ratios? The text states that "Overall, the program would be expected to have minimal effects on surface waters, because the deliveries would be taken during wet years, " but it is unclear what deliveries would occur with and without these programs. In addition, the "Modified Proposal" provides that a request would be made to amend the Hodge Decision "to allow EBMUD to sell water diverted from the American River to third parties as part of the conjunctive use program in Sacramento and San Joaquin." Are these sales of water in addition to the EBMUD deliveries discussed on page 3-5? RL19-5

Mr. Robert Schroeder
U.S. Bureau of Reclamation

3

November 20, 2000

6. New Modeling Conditions. The stated purpose of the Draft REIR/SEIS is "to address additional alternatives and issues related to impact assessment methodology for which new information has been developed since the 1997 Draft EIR/EIS was published." Some new conditions are reflected in the Draft REIR/SEIS, such as use of the corrected PROSIM 99 model, and application of CVP water allocations consistent with EBMUD's Draft Amendatory Water Service Contract. However, it is unclear whether other new conditions have been taken into account. For example, does the Draft REIR/SEIS modeling reflect the Final Administrative Decision issued October 6, 1999, for "Implementation of Section 3406(b)(2) of the CVPIA.", including the crediting of any water used by the USBR to meet D1400 flow standards on the American River toward the (b)(2) obligation? RL19-6

The Santa Clara Valley Water District appreciates the opportunity to provide comments on the Draft REIR/SEIS, and looks forward to working with Reclamation and EBMUD to address these concerns.

Sincerely,

Joan A. Maher

Joan A. Maher
Imported Water Manager

cc: Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P.O. Box 24055, MS #305
Oakland, CA 94623-1055

Response to Comments of the Santa Clara Valley Water District

RL 19-1, Joan A. Maher, Santa Clara Valley Water District
See response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 19-2, Joan A. Maher, Santa Clara Valley Water District
See response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 19-3, Joan A. Maher, Santa Clara Valley Water District
The potential effects of Alternatives 5 through 8 on CVP operations were appropriately represented in the modeling efforts. Although Alternative 5 through 8 were represented by a model run that included deliveries to EBMUD from PROSIM Node 16, changes in releases from Folsom Reservoir were very minor because, for the most part, these releases were being made to meet flow targets in the lower American River. Therefore, to the extent that increased releases were needed to meet downstream needs, the model typically made these releases from the Sacramento River system. The modeling has been thoroughly reviewed and reasonably represents potential effects on CVP operations.

RL 19-4, Joan A. Maher, Santa Clara Valley Water District
As noted on page 3-1 of the 2000 REIR/SEIS, Alternative 2 PROSIM 99 hydrologic results were "post-processed" to represent Alternative 4 conditions. This post-processing was only conducted for conditions on the lower American River. For other locations, the results for Alternative 2 reasonably represent and overstate the potential effects of Alternative 4. As described in Appendix C to the 1997 Draft EIREIS, average annual Delta exports would be decreased by approximately 3,000 acre-feet under Alternative 2. This decrease is an extremely small proportion of CVP exports. In addition, Alternative 4 operations would be constrained by the Hodge Decision. Therefore, EBMUD deliveries would typically be made only during normal and wet years and would have little effect on CVP exports.

RL 19-5, Joan A. Maher, Santa Clara Valley Water District
As noted on page 18-1 of the 2000 REIR/SEIS, no specific proposal for a groundwater storage or banking project has been identified, and it would likely take several years of negotiation to identify the terms, conditions, and location of any such project. The issues raised in this comment are legitimate questions that would need to be discussed and resolved as part of any groundwater management program. However, no such information exists at this time, and additional environmental documentation would be required before such a project could be implemented.

RL 19-6, Joan A. Maher, Santa Clara Valley Water District
The hydrologic modeling conducted for the 2000 REIR/SEIS uses approaches and methodologies that have been reviewed and approved by Reclamation and that are consistent with all other Reclamation programs and projects for which modeling has recently been conducted, including the PEIS for CVPIA implementation. The hydrologic modeling represents Reclamation's current ability to characterize its obligations under Section 3406(b)(2) of the CVPIA.

RL20

City of West Sacramento

Where efforts and values are focused on the creation of the
Premier City of the Sacramento Valley

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City Manager
City Clerk
Human Resources
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zip code 95691
916-373-5800
M.I.S. 916-373-6804
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Finance
Utilities 916-373-5810
Recycling 916-373-5863
2101 Stone Blvd., 2nd Floor
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Police
Code Enforcement
550 Jefferson Boulevard
zip code 95605
916-373-2461
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2101 Stone Blvd. 3rd Floor
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Public Works
1951 South River Road
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Community Development
Planning
Engineering
Building
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Parks & Community Services
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November 20, 2000

Mr. Robert Schroeder
United States Bureau of Reclamation
Central California Central Area Office
7794 Folsom Dam Road
Folsom, CA 95630

Subject: EBMUD/USBR Supplemental Water Supply Project REIR/SEIS

Dear Mr. Schroeder:

The City of West Sacramento, a CVP Contractor as well as an Appropiative Rights holder, has a vested interest in any project concerning water diversions on the Sacramento River. We are greatly concerned about the amount of diversions being considered by this project. Understanding the Hodge Decision minimizes impacts on upstream contractors, the City has the following questions and comments on the draft EBMUD REIR/SEIS.

1. If EDMUD has been paying for American River water rights since 1970, why do all of the new alternatives for diversin points shift onto the Sacramento River? RL20-1
2. How will flows in excess of 150 cfs affect the upstream Sacramento River flows and resevior management within the Sacramento River Watershed and especially the City of West Sacramento? RL20-2
3. Will all diversions for the contracted amounts be managed through the American River watershed? RL20-3
4. What effects will the EBMUD contract have on future CVP contractors upstream of the diversion point? RL20-4
5. Should upstream Sacrmento River Contractors be penalized for EBMUD's inability to contruct a diversion structure on the American River? RL20-5

The City of West Sacramento is experiencing the same water demands that come with increased urban and industrial growth. The City recognizes the EBMUD contract with the Bureau of Reclamation for American River water. However, the City does not support any intake structure that would impact upstream contractors in the Sacramento River. RL20-6

If I may be of assistance, please call me at (916) 373-5850. If you have any questions or need additional information, please call **Dan Mount**, Water Services Superintendent, at (916) 371-6818.

Sincerely,

Jerry K. Lo

JERRY K. LO, P.E. *(DM)*
Director of Public Works

ch/h:Dan Mount EBMUD USBR Wtr Sply Prjt Ltr

Responses to Comments of the City of West Sacramento

RL 20-1, Jerry K. Lo, P.E., City of West Sacramento
Four of the five new alternatives considered in the 2000 REIR/SEIS involve delivery to EBMUD from the Sacramento River or the Delta. These additional alternatives have been analyzed in response to comments received on the 1997 Draft EIR/EIS, as discussed on page 1-1 of the 2000 REIR/SEIS.

RL 20-2, Jerry K. Lo, P.E., City of West Sacramento
The effects of the Sacramento River alternatives on river flows and reservoir operations are discussed in Chapter 3 of the 2000 REIR/SEIS. Changes in flows and reservoir operations are small and would not significantly affect related resources and would not have a substantial effect on the City of West Sacramento.

RL 20-3, Jerry K. Lo, P.E., City of West Sacramento
Alternatives 2, 3, and 4 would involve deliveries to EBMUD from the lower American River. Flows downstream of the confluence of the Sacramento and American Rivers are a function of overall operations of the CVP and the State Water Project and would not be substantially affected by deliveries to EBMUD.

RL 20-4, Jerry K. Lo, P.E., City of West Sacramento
Reclamation manages the CVP as an integrated system and strives to treat its water service contractors equitably at all times.

RL 20-5, Jerry K. Lo, P.E., City of West Sacramento
All CVP contractors, including EBMUD, would be treated equally and would receive water supplies consistent with their CVP contracts.

RL 20-6, Jerry K. Lo, P.E., City of West Sacramento
The City's position regarding the potential for effects on upstream contractors is noted. See response to Comment RL 20-4 above.

State Water Contractors
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John C. Coburn General Manager (916) 447-7357 • FAX 447-2734

Directors

Thomas E. Levy, President
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Wallace G. Spinarski
Antelope Valley-East Kern Water Agency
Walter L. Wadlow
Santa Clara Valley Water District

RL 21

November 27, 2000

Mr. Robert Schroeder
U. S. Bureau of Reclamation
Central California Area Office
7794 Folsom Dam Road
Folsom, California 95630

Mr. Kurt Ladensack
East Bay Municipal Utility District
Water Supply Improvements Division
P. O. Box 24055
Oakland, California 94623

East Bay Municipal Utility District Supplemental Water Supply Project Draft Recirculated Environmental Impact Report/Supplemental Environmental Impact Statement

Dear Messrs. Schroeder and Ladensack:

We have reviewed the Draft Recirculated Environmental Impact Report/ Supplemental Environmental Impact Statement (REIR/SEIS) for the East Bay Municipal Utility District (EBMUD) Supplemental Water Supply Project. EBMUD is proposing to develop facilities that will enable them to receive delivery of America River water under its Central Valley Project (CVP) contract with the U.S. Bureau of Reclamation.

The State Water Contractors (SWC) is an organization representing 27 public water agencies operating within California who contract with the California Department of Water Resources (DWR) for water supplies from the State Water Project (SWP). This SWP supply from the Sacramento-San Joaquin Delta (Delta) constitutes a significant portion of the supplies available to SWC members. As a result, the SWC is very interested in matters affecting the SWP, the Delta and the tributaries to the Delta. The comments contained herein constitute the SWC's comments on the draft REIR/SEIS on behalf of our members as potentially affected public agencies. In addition to these comments, some of our members have also submitted their own comments seperately.

The SWC submitted comments on the EBMUD Supplemental Water Supply Project in 1998, some of which did not receive a response in the draft REIR/SEIS. We understand that remaining issues contained in our 1998 comments letter will receive a response in the Final EIR/EIS. We were pleased to see that that the USBR and EBMUD have responded to some of our concerns in the 1998 comment letter by considering additional alternatives for analysis, including

RL21-1

Messrs. Schroeder and Ladensack
November 27, 2000
Page 2

alternatives below the mouth of the American River that have the potential for reduced fisheries and other impacts.

The SWC have been active in working with other water agencies and stakeholder groups in developing regional solutions and cooperative approaches to addressing issues of water supply development in the Bay-Delta watershed. We have actively participated in developing these types of approaches in various forums, including CALFED. Some of these approaches, including the Bay Area Blending/Exchange project and North Delta facility improvements that could potentially incorporate many of the objetives of the proposed EBMUD Supplemental Water Supply Project, were contained in the August 2000 final CALFED Record of Decision.

RL21-2

We note that the draft REIR/SEIS does not address CALFED's proposed Bay Area Blending/Exchange project which has the potential for meeting many of EBMUD's objectives in combination with the needs of other water agencies. The proposed Bay Area Blending/Exchange project could potentially have reduced environmental impacts and should have been addressed in the draft RIER/SEIS either as a project alternative or, at a minimum, as a cumulative impact.

Similarly, the USBR and EBMUD did not include an alternative that considers possible EBMUD participation in the proposed North Delta facility improvements on the Sacramento River near Hood. Such an alternative appears to have the potential for improved water supply conditions that would result in reduced environmental impacts. The project would also be compatible with CALFED plans for improved water quality for other water users from the Delta.

On a specific technical issue, the SWC is concerned with the overly high threshold for significance for fisheries impacts. The REIR/SEIS specifies that: "Any changes less than 10 percent were not considered further and were assumed to have no effect or a less-than-significant effect." This criteria would allow unacceptably high impacts to fisheries conditions that could require future mititgation by other parties, potentially including the SWP. The criteria is also not consistent with criteria that have been used in other Delta-related environmental documentation such as the CALFED PEIS/PEIR. A more realistic criteria for threshold of signficiance should be used for identifying impacts in the final EBMUD EIR/EIS.

RL21-3

If you have any questions about our comments, please contact me at (916) 447-7357.

Sincerely,

John C. Coburn
General Manager

Cc: Member Agencies

Response to Comments of the State Water Contractors

RL 21-1, John C. Coburn, State Water Contractors
See responses to State Water Contractors comments (letter Sp 20) in Chapter 7 of this document.

RL 21-2, John C. Coburn, State Water Contractors
Comments noted. CALFED is a large, complex, statewide planning effort that will be implemented over a period of many years. Most of the specific actions included in the CALFED program, including the Bay Area Blending/Exchange project and the North Delta facilities improvements, will require significant planning and site-specific environmental documentation prior to proceeding. Therefore, these CALFED programs have not been incorporated into the Supplemental Water Supply Project. See also the response to the "Relationship to CALFED" major issue in Chapter 3 of this document.

RL 21-3, John C. Coburn, State Water Contractors
The threshold of significance is appropriate. The threshold was used to assess potential changes in environmental conditions that could affect fisheries, not to measure actual population effects on fishery resources. The approach is also consistent with and more specific than the State CEQA Guidelines and other documents, such as the Sacramento Water Forum Proposal EIR, that simply use terms such as "substantial reduction" to define significance thresholds.