Chapter 20

Summary from the 2000 REIR/SEIS and 2000 REIR/SEIS Distribution List

Summary

INTRODUCTION

This recirculated environmental impact report/supplemental environmental impact statement (REIR/SEIS) on the Supplemental Water Supply Project has been prepared by the East Bay Municipal Utility District (EBMUD) and the U.S. Bureau of Reclamation (Reclamation). EBMUD and Reclamation are the lead agencies under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), respectively.

EBMUD holds a water service contract with Reclamation, which administers the Central Valley Project (CVP), for delivery of up to 150,000 acre-feet of American River water annually from the Folsom South Canal (FSC). EBMUD has been paying for water under the contract since shortly following the signing of the water service contract with Reclamation in 1970, although only small quantities of water have ever been delivered under the contract.

Since signing the contract, EBMUD has pursued obtaining water supplies from the American River to supplement its current customer needs. In 1972, the Environmental Defense Fund challenged EBMUD's contract with Reclamation in a lawsuit that was later joined by the County of Sacramento (County). The lawsuit alleged that delivery of the water from the FSC would be an "unreasonable" use of American River water. In June 1988, the California State Water Resources Control Board adopted findings that EBMUD's contract is a reasonable use of American River water (California State Water Resources Control Board 1988). On June 2, 1990, after a lengthy trial, Alameda County Superior Court Judge Richard Hodge affirmed those contractual rights, subject to a set of specific conditions known as the "Hodge Decision."

EBMUD is proposing the Supplemental Water Supply Project 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.

The environmental impacts of the Supplemental Water Supply Project were previously analyzed in the 1997 Supplemental Water Supply Project Draft Environmental Impact Report and Environmental Impact Statement (1997 DEIR/EIS). During the public comment period on the 1997 DEIR/EIS, EBMUD and Reclamation received numerous comment letters. Several of the letters discussed the selection of alternatives considered in the DEIR/EIS. In addition, several comment letters expressed concerns regarding the impact assessment methodology used to address water resource and related aquatic biology issues.

The selection of additional alternatives for evaluation in this REIR/SEIS is based in large part on comments and suggestions made by the City of Sacramento (City), the County, and other Sacramento area interests during the 1997 DEIR/EIS public review period and during subsequent discussions since the completion of that public review period. As a result of comments received, the lead agencies have elected to prepare additional analysis to respond to concerns raised by interested agencies and members of the public. Reclamation, EBMUD, and the Sacramento Parties have been meeting since May 2000. Discussions have focused on the alternatives to be considered and the approach to the impact analysis contained in this REIR/SEIS.

Pursuant to Section 15088.5 of the CEQA Guidelines and Section 1502.9 of the Council on Environmental Quality (CEQ) NEPA Regulations, EBMUD and Reclamation are recirculating and supplementing the CEQA/NEPA analysis for the project to address additional alternatives and issues related to impact assessment methodology for which new information has been developed since the 1997 DEIR/EIS was published.

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. Reviewers are therefore referred to the 1997 DEIR/EIS for detailed background information on the project and for previously presented analyses.

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/EIS 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 the 1997 DEIR/EIS do not need to be resubmitted. They will be responded to in the FEIR/EIS.

PURPOSE AND NEED

Purpose

The purpose of the Supplemental Water Supply Project is to provide EBMUD with a supplemental water supply to reduce existing and future customer deficiencies to manageable levels during drought conditions, and to provide an alternative water supply in case of planned or unplanned outages at EBMUD's Mokelumne River diversion facilities, consistent with the project objectives described below.

Need

EBMUD needs a supplemental water source because existing water supplies are insufficient to meet existing and future customer needs in droughts despite implementation of significant water conservation and water reclamation programs and an aggressive dry-year customer deficiency policy. Also, EBMUD needs an alternative water source to enable Pardee Dam and Reservoir to be taken off line for major maintenance and to provide an alternate water source in case of a catastrophic event.

PROJECT OBJECTIVES

The objective of the project is 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, so as to achieve all of the following:

- Maintain the high quality of EBMUD's raw and treated water supply.
- Increase system reliability by providing an alternate source of supply to EBMUD's Mokelumne River supply in case of a catastrophic event or scheduled major maintenance at Pardee Dam or Reservoir.
- Provide increased operational flexibility.
- Reduce customer deficiencies.
- Increase opportunities for protection and enhancement of Mokelumne River resources.
- Contribute to achieving EBMUD's planning objectives established as part of the Updated Water Supply Management Program (WSMP).

Reclamation recognizes the project objectives of EBMUD as listed above. Some of the alternatives evaluated in this REIR/SEIS may not fully meet all of EBMUD's objectives. These objectives are not to be construed as screening criteria for rejecting from consideration the alternatives described in the 1997 DEIR/EIS and in this REIR/SEIS but rather represent the goals of EBMUD for a supplemental water supply project. All alternatives presented in the 1997 DEIR/EIS and this REIS/SEIS will receive equal consideration for implementation.

EBMUD Planning Objectives

- Provide adequate capacity, flexibility, and reliability to respond to the problems and challenges of maintaining the EBMUD water supply.
- Minimize total direct costs to EBMUD customers.
- Maintain the high quality of the water supply. This includes taking steps to ensure that EBMUD's potable water will meet all existing and anticipated drinking water standards and that EBMUD's nonpotable water is of quality suitable to its use.
- Protect and improve the biological resources that could be affected by existing EBMUD facilities or by the Updated WSMP.
- Maintain outdoor recreation opportunities.
- Minimize risks to public health and safety.
- Minimize adverse sociocultural impacts.

Source: EDAW 1993.

History

When the original EBMUD system was planned in the early 1920s, rights were acquired to 200 million gallons per day of water from the Mokelumne River. Pardee Dam was built to store that water during high river flows from spring snow runoff and rains. After World War II, the East Bay population grew rapidly, and EBMUD was granted another 125 million gallons per day of Mokelumne River water. By the early 1960s, EBMUD planners were predicting more shortages as growth continued in the East Bay.

Completion of Camanche Reservoir below Pardee Reservoir in 1964 provided some relief by giving EBMUD more ways to regulate Mokelumne River flows. Camanche's 417,000-acre-foot capacity is used to meet agriculture and fishery needs on the lower Mokelumne River, provide flood control, and allow EBMUD to hold a larger supply of high-quality water in Pardee Reservoir. Briones Reservoir, north of Orinda and completed in 1964, provides another 60,000 acre-feet of backup water supplies in the East Bay.

Since 1964, no new water supply or storage has been added to the EBMUD system, and the population within EBMUD has grown by nearly 250,000 people. 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. Because EBMUD has already undertaken extensive conservation measures, it is more difficult to achieve additional water savings during droughts.

At the same time, demands on the Mokelumne River have increased. In 1996, EBMUD, in consultation with state and federal resources agencies, agreed to increase releases from Camanche Reservoir to provide higher flows for fish in the lower Mokelumne River and to contribute 20 percent (up to 20,000 acre-feet) of any actual yield from new water projects to Mokelumne River fishery flows.

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.

Besides obtaining more water, EBMUD must maintain a high-quality water source to meet customer expectations and, like other agencies throughout the state and nation, also meet increasingly stringent drinking water standards set by the U.S. Environmental Protection Agency and the California Department of Health Services. It is generally agreed that the highest quality water source provides the safest end product.

California drinking water quality laws and regulations set a tougher standard than federal law. The trend over the past decade has been for every utility to strive to serve the highest possible quality of water. Both the 1988 California State Water Resources Control Board decision and Judge Hodge's 1990 ruling cited drinking water quality as a priority. "This court is satisfied that the health risk concerns of EBMUD are well-founded," said Judge Hodge in his decision affirming EBMUD's contractual right to use American River water.

Besides needing a supplemental water supply to reduce deficiencies during an extended drought, EBMUD also needs an alternative water supply in case of a catastrophic event or major maintenance at Pardee Reservoir. Currently, EBMUD is entirely dependent on the Mokelumne River system to meet almost all of its customer needs. As noted above, Pardee Dam was built in the 1920s, and if it is damaged, such as in a natural disaster, or if major scheduled repair or maintenance is required, most of EBMUD's water supply could be temporarily interrupted. EBMUD would then be required to obtain its full needed supply from the terminal storage reservoirs within its service area. The amount of water available within these reservoirs is limited. Under current conditions, if the terminal reservoirs could not provide an adequate supply to meet customer demand until Pardee Reservoir and Dam and EBMUD's delivery facilities resumed operation, no other source of water would be available to EBMUD, and its customers could experience severe shortages in supply. Use of terminal reservoir supplies could also substantially reduce storage available for use during subsequent dry seasons. Provision of a supplemental water supply not dependent on the operation of Pardee facilities would reduce this risk of diminished supplies during emergencies or other facility shutdowns.

PUBLIC AND AGENCY INVOLVEMENT

EBMUD published a Notice of Preparation and Initial Study in January 1996 describing its initial Folsom South Canal Connection Project. Scoping meetings were held in February 1996 at several locations to solicit public and agency input and comment. A revised Notice of Preparation/Notice of Intent was published by EBMUD and Reclamation in April 1997. This revised notice described an additional alternative involving a joint project with Sacramento area water agencies that was not considered in the earlier notice. Scoping meetings were held in April and May of 1997 to gather public input on both the earlier and the new proposal. Additionally, EBMUD conducted many individual and small group meetings with affected agencies and landowners to inform them of the progress of the project and obtain feedback. A summary of comments received during scoping meetings and copies of correspondence received are included in Appendix A to the 1997 DEIR/EIS.

During the public review period for the 1997 DEIR/EIS, five public meetings were held throughout the project area to gather comments. The public review and comment period began on November 4, 1997, and was extended twice before its completion on March 19, 1998.

APPROACH TO ALTERNATIVES DEVELOPMENT

CEQA and NEPA require that EIRs and EISs describe and evaluate a reasonable range of alternatives to a proposed action, and both must describe a No-Action alternative that assumes that the proposed action would not be implemented. To comply with these regulations, EBMUD prepared an alternatives screening report (Appendix B to the 1997 DEIR/EIS) to

evaluate a range of alternatives and to identify the potentially feasible alternatives that could substantially lessen project impacts.

ALTERNATIVES CONSIDERED IN DETAIL IN THE 1997 DEIR/EIS

EBMUD, Reclamation, the County, and the City exerted considerable effort to formulate the alternatives evaluated in the 1997 DEIR/EIS. Cost and engineering factors, water quality and reliability objectives, institutional considerations, and many environmental factors had substantial influence in shaping the alternatives summarized below and fully described and analyzed in the 1997 DEIR/EIS.

Alternative 1: No Action

The discussion of Alternative 1 assesses future conditions within the CVP system and EBMUD service area as they are projected to be at buildout of the EBMUD ultimate service boundary (USB). Growth within the EBMUD service area would continue under this alternative, resulting in potential effects on biological resources and the human environment. This scenario allows a complete comparison of the impacts of an EBMUD project at the time EBMUD would be making use of its contractual water supply.

Alternative 2: Folsom South Canal Connection

Under Alternative 2, EBMUD would construct a new delivery facility connecting to the existing FSC to take delivery of its contractual supply through the canal. New pumping plants and a new pipeline would be constructed to connect the FSC to the existing Mokelumne Aqueducts. Water would be available to EBMUD only during those times when flows dictated in the Hodge Decision for the lower American River were met. 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 1997 DEIR/EIS addressed four possible configurations of Alternative 2. These configurations are similar in concept and are differentiated by alternate pipeline alignments and pumping plant locations. Common facilities of all configurations include:

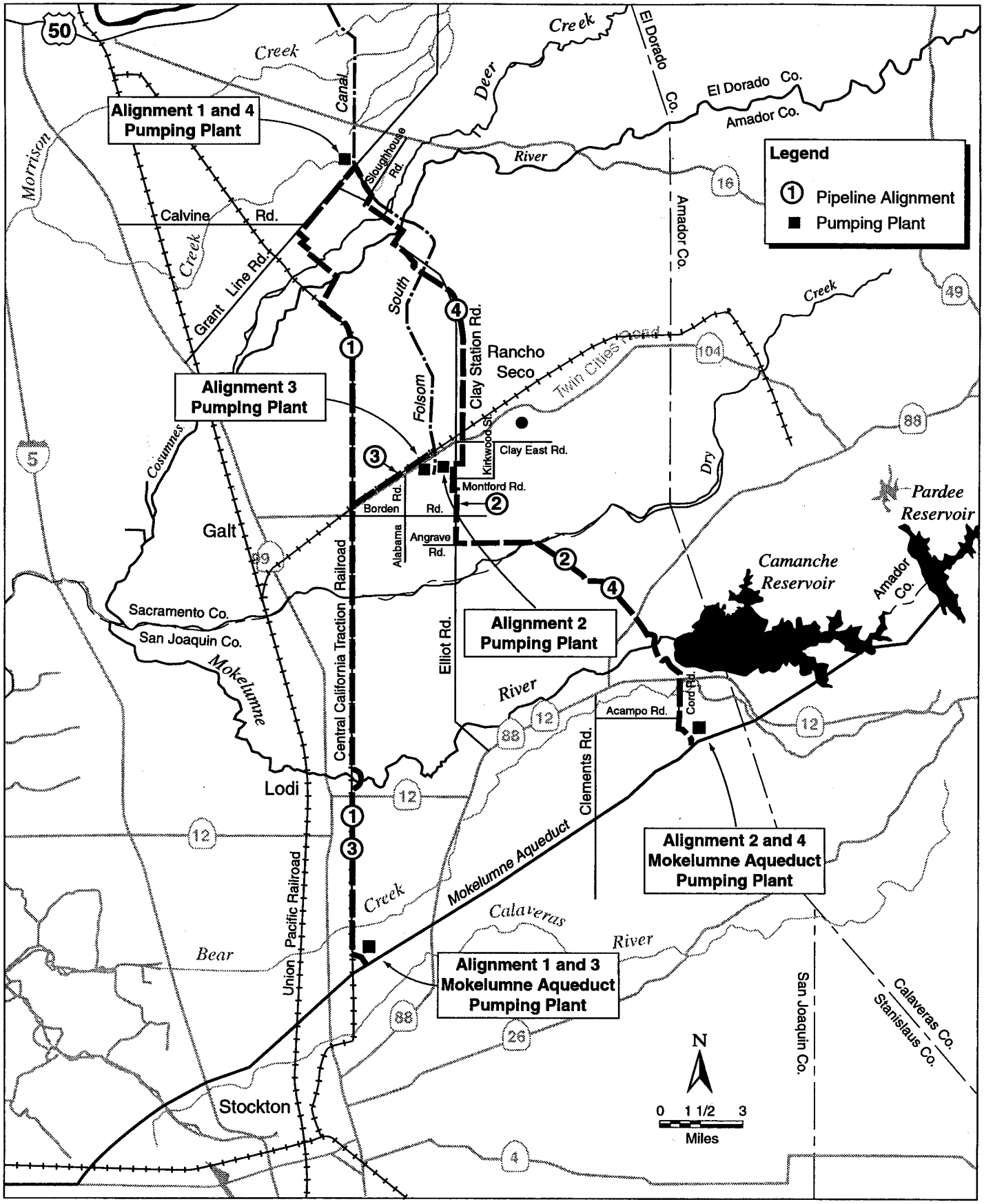
- A new pumping plant on the FSC to take delivery of American River water from the canal.
- A new 96-inch-diameter pipeline from the FSC to the Mokelumne Aqueducts.
- A new pumping plant at the Mokelumne Aqueducts to deliver the American River water into the aqueducts.
- A 7-million-gallon reservoir (tank) at the aqueduct pumping plant to provide operational flexibility.
- Improvements to EBMUD's in-line water treatment facilities.

Figure S-1 shows the configurations under consideration.

In the 1997 DEIR/EIS, this alternative included improvements to EBMUD's in-line treatment plants to provide additional treatment of American River water. Subsequently, EBMUD has determined that it would be more effective to provide treatment at the Mokelumne Aqueducts pumping plant locations similar to that described in Chapter 2 of this REIR/SEIS for Alternative 4. Likely treatment scenarios and facilities are described in Appendix B to this REIR/SEIS. The environmental effects of this modification to Alternative 2 would be the same as described for Alternative 4 in this REIR/SEIS.

Alternative 3: Joint Water Supply

Alternative 3 was developed by EBMUD, the City, and the County, in conjunction with the Sacramento-area Water Forum process. Some facilities would be shared by these joint project participants. A new delivery facility would be constructed on the lower American River near its confluence with the Sacramento River and



Jones & Stokes

Figure S-1
Alternative 2: Folsom South Canal Connection

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's E.A. Fairbairn Water Treatment Plant (WTP) and from that point to the FSC. Water for EBMUD would then be placed in the FSC and would be drawn from the FSC at its terminus into a new pipeline connection to the Mokelumne Aqueducts (Figure S-2). This connection would include features similar to those described above for Alternative 2. Water for the County would also be delivered at the new intake facility and pumped back to the Fairbairn WTP for treatment and distribution to the County's service area.

Alternative 3 would also involve expansion of the existing delivery and treatment capacity at Fairbairn WTP by 100 million gallons per day and the Sacramento River WTP by 50 million gallons per day to provide increased capacity to the City to meet its future water supply needs. Besides meeting EBMUD's project objectives, Alternative 3 would contribute to meeting the objectives of the City and County in providing a safe, reliable water supply for the City and the County.

As described for Alternative 2 above, treatment facilities for this alternative would be constructed at the Mokelumne Aqueduct pumping plant location. See Appendix B to this REIR/SEIS.

Since publication of the 1997 DEIR/EIS, the City and County have determined that they do not wish to participate in a joint water supply project.

ALTERNATIVES CONSIDERED IN THIS REIR/SEIS

The selection of additional alternatives for evaluation in this REIR/SEIS is based in large part on comments and suggestions made by the City, the County, and other Sacramento area interests during the 1997 DEIR/EIS public review period and during subsequent discussions since the completion of that public review period. The lead agencies have prepared this analysis to respond to concerns raised by interested agencies and members of the public.

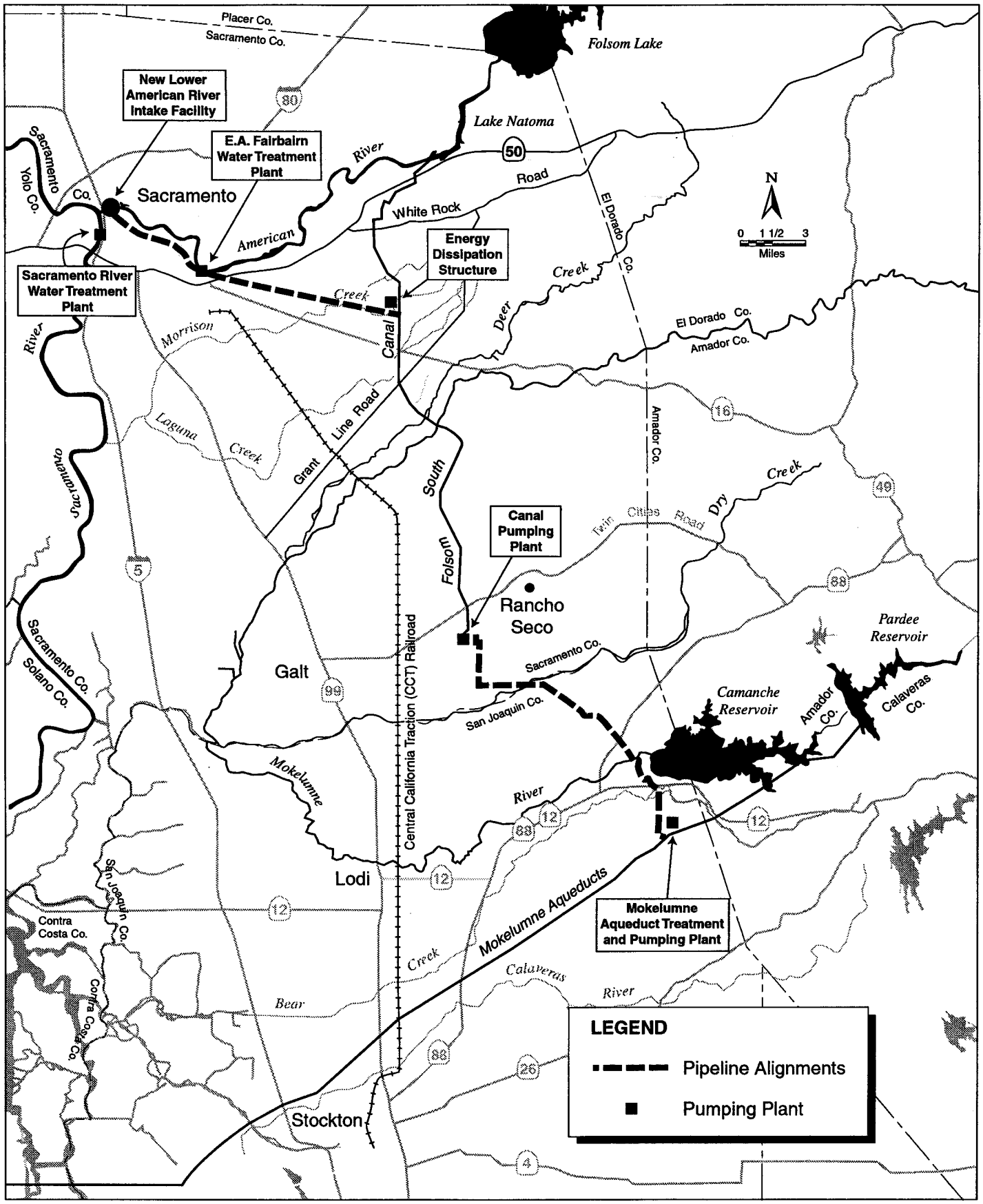
Alternative 4: EBMUD-Only Lower American River Delivery

This alternative is based on the City's and County's "Modified Proposal," dated June 8, 1999. Essentially, this alternative combines many of the basic facility elements of Alternative 3, "Joint Water Supply," as described in the 1997 DEIR/EIS, with many of the basic operational concepts of Alternative 2, "Folsom South Canal Connection." Alternative 4 would involve the construction of a new intake on the lower American River at the "Site 5" location as described in the 1997 DEIR/EIS. This new intake would be sized to provide EBMUD up to 155 cubic feet per second (cfs) of water, subject to Hodge Decision flow criteria. A new pipeline with a capacity of 155 cfs would be constructed from this new delivery point to the FSC along the alignment described in the 1997 DEIR/EIS. As described for Alternative 3 in the 1997 DEIR/EIS, Alternative 4 would also involve the construction of a second pipeline to convey water from the terminus of the FSC to the Mokelumne Aqueducts, represented by Alignment 2 of Alternative 2, as described in the 1997 DEIR/EIS. This pipeline would also have a capacity of 155 cfs. See Figure S-3 in this document.

The Modified Proposal also provides that the Sacramento Parties would support EBMUD banking water in groundwater basins in Sacramento and San Joaquin Counties at reasonable ratios and subject to the Sacramento Parties' review of the details of the banking program. This alternative therefore includes a general assessment of groundwater storage utilization at a broad programmatic level (Chapter 18).

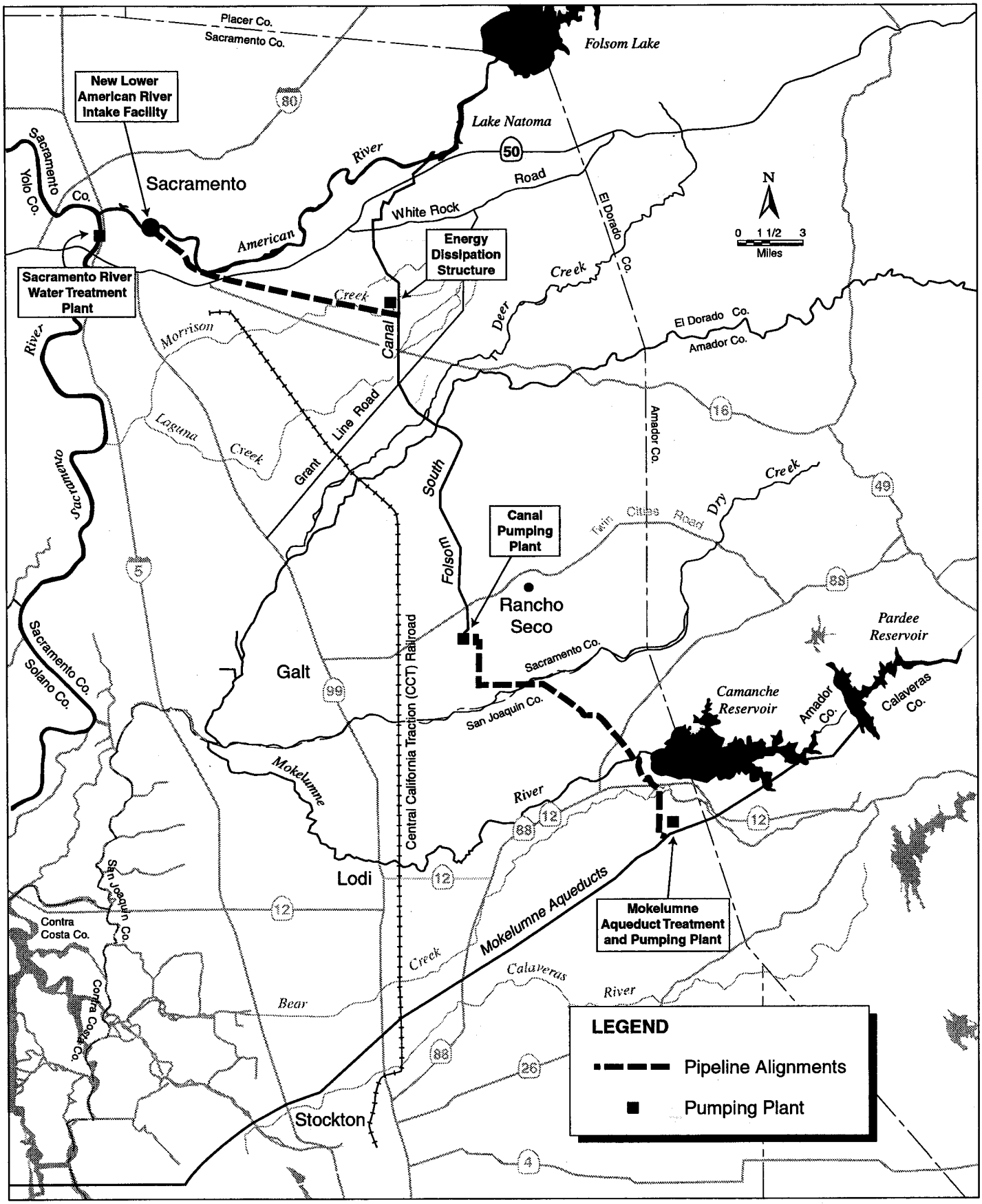
Alternative 5: Sacramento River Delivery

This alternative combines many of the basic facility and operational elements of Alternative 3, "Joint Water Supply," as described in the 1997 DEIR/EIS, with the basic facility elements of Alternative 2, "Folsom South Canal Connection." Alternative 5 would involve the construction of a new intake on the Sacramento



Jones & Stokes

Figure S-2
Alternative 3: Joint Water Supply



Jones & Stokes

Figure S-3
Alternative 4: EBMUD-Only
Lower American River Delivery Alternative

River immediately downstream of its confluence with the lower American River and upstream of the location of the City of Sacramento's existing intake to the Sacramento River WTP (Figure S-3). This new intake would be sized to provide EBMUD up to 155 cfs of water. A new pipeline with a capacity of 155 cfs would be constructed from this new delivery point to the FSC along the alignment described in the 1997 DEIR/EIS. As described for Alternative 3 in the 1997 DEIR/EIS, Alternative 5 would also involve the construction of a second pipeline to convey the water from the terminus of the FSC to the Mokelumne Aqueducts, represented by Alignment 2 of Alternative 2, as described in the 1997 DEIR/EIS. This pipeline would also have a capacity of 155 cfs. See Figure S-4.

Alternative 6: Freeport East Delivery

This alternative is operationally similar to Alternative 5, "Sacramento River Delivery," described above but would involve the construction of a new intake on the Sacramento River upstream of the Freeport Bridge at the community of Freeport. This new intake would be sized to provide EBMUD up to 155 cfs of water. New pipelines with a capacity of 155 cfs would be constructed from this new delivery point to the FSC at approximately Grant Line Road and from the terminus of the FSC to the Mokelumne Aqueducts, represented by Alignment 2 of Alternative 2, as described in the 1997 DEIR/EIS. See Figure S-5.

Alternative 7: Freeport South Delivery

This alternative is operationally similar to Alternative 5, "Sacramento River Delivery," described above but would involve the construction of a new intake on the Sacramento River upstream of the Freeport Bridge at the community of Freeport. This new intake would be sized to provide EBMUD up to 155 cfs of water. A new pipeline with a capacity of 155 cfs would be constructed from this new delivery point to the Mokelumne Aqueducts generally down the I-5 corridor to the City of Stockton. See Figure S-6.

Alternative 8: Bixler Delivery

This alternative would involve the construction of a new intake in the Delta on Indian Slough adjacent to the Mokelumne Aqueducts at the location known as Bixler. This new intake would be sized to provide EBMUD up to 155 cfs of water. A new connection with a capacity of 155 cfs would be constructed from this new delivery point to the Mokelumne Aqueducts, and new treatment facilities would be constructed at or near the new delivery point. See Figure S-7.

PREFERRED ALTERNATIVE

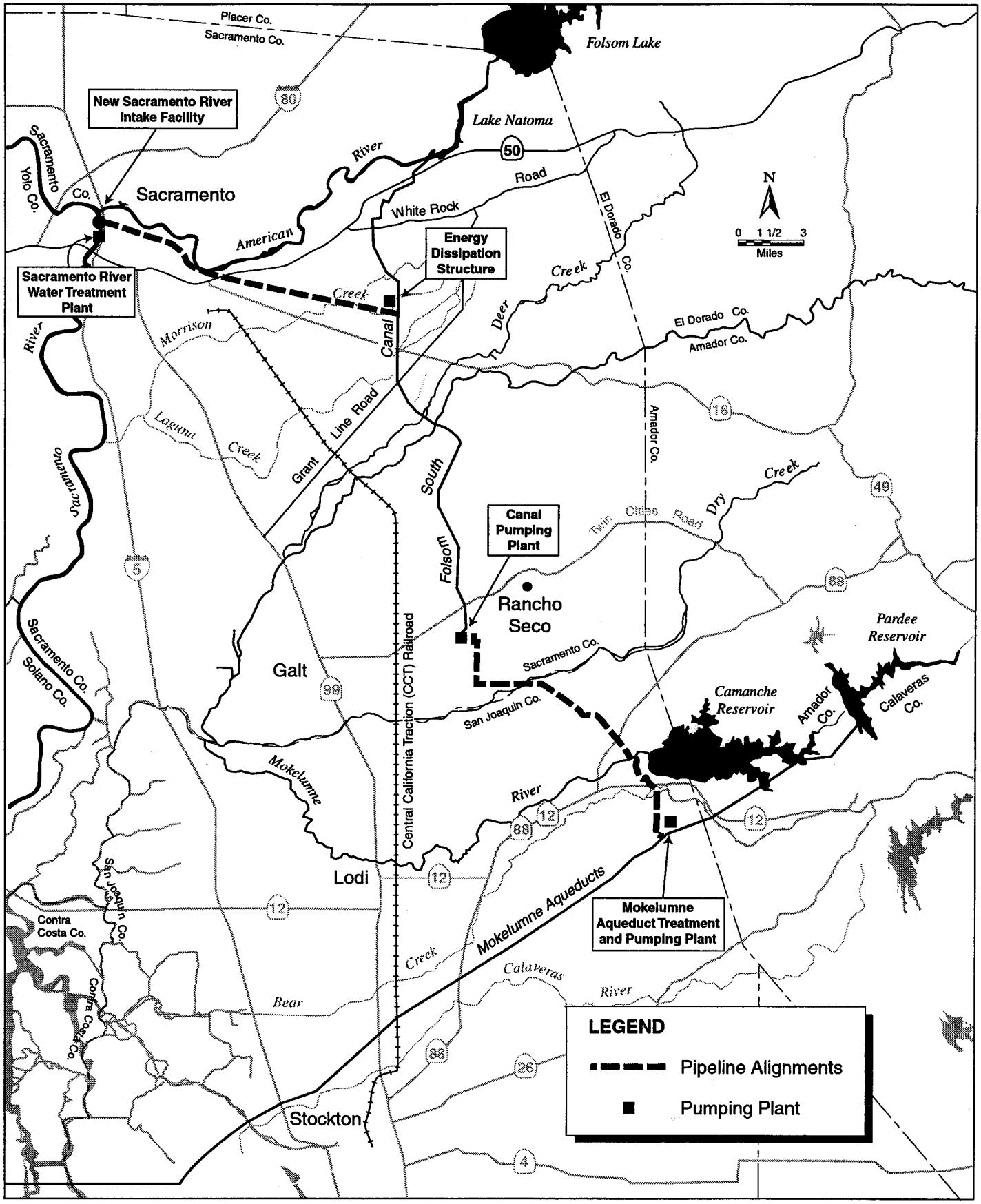
No preferred alternative has been identified. The environmental review process will be helpful to EBMUD and Reclamation in determining the trade-offs between the alternatives and in identifying the preferred alternative.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

None of the alternatives is clearly environmentally superior. Because of the nature of the alternatives, there are substantial trade-offs to be assessed; however, few significant unavoidable environmental impacts would result from implementation of any of the action alternatives.

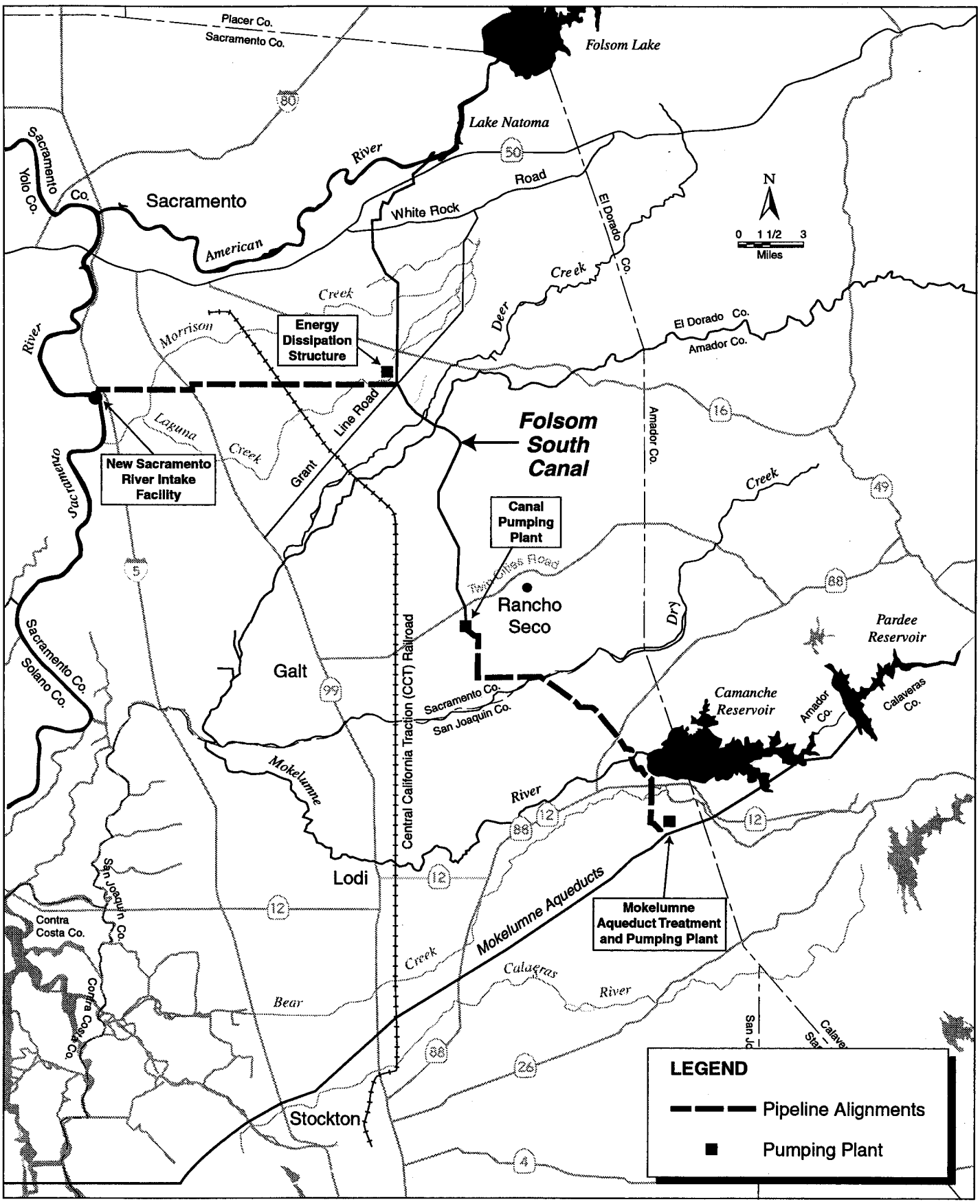
SUMMARY OF ENVIRONMENTAL IMPACTS AND AVAILABLE MITIGATION MEASURES

Tables S-1 and S-2 at the end of this section summarize the environmental impacts of all the Supplemental Water Supply Project alternatives. The tables are organized to present impacts by environmental topic area and to indicate the significance of each impact, available mitigation measures, and the significance of each impact if mitigation is implemented.



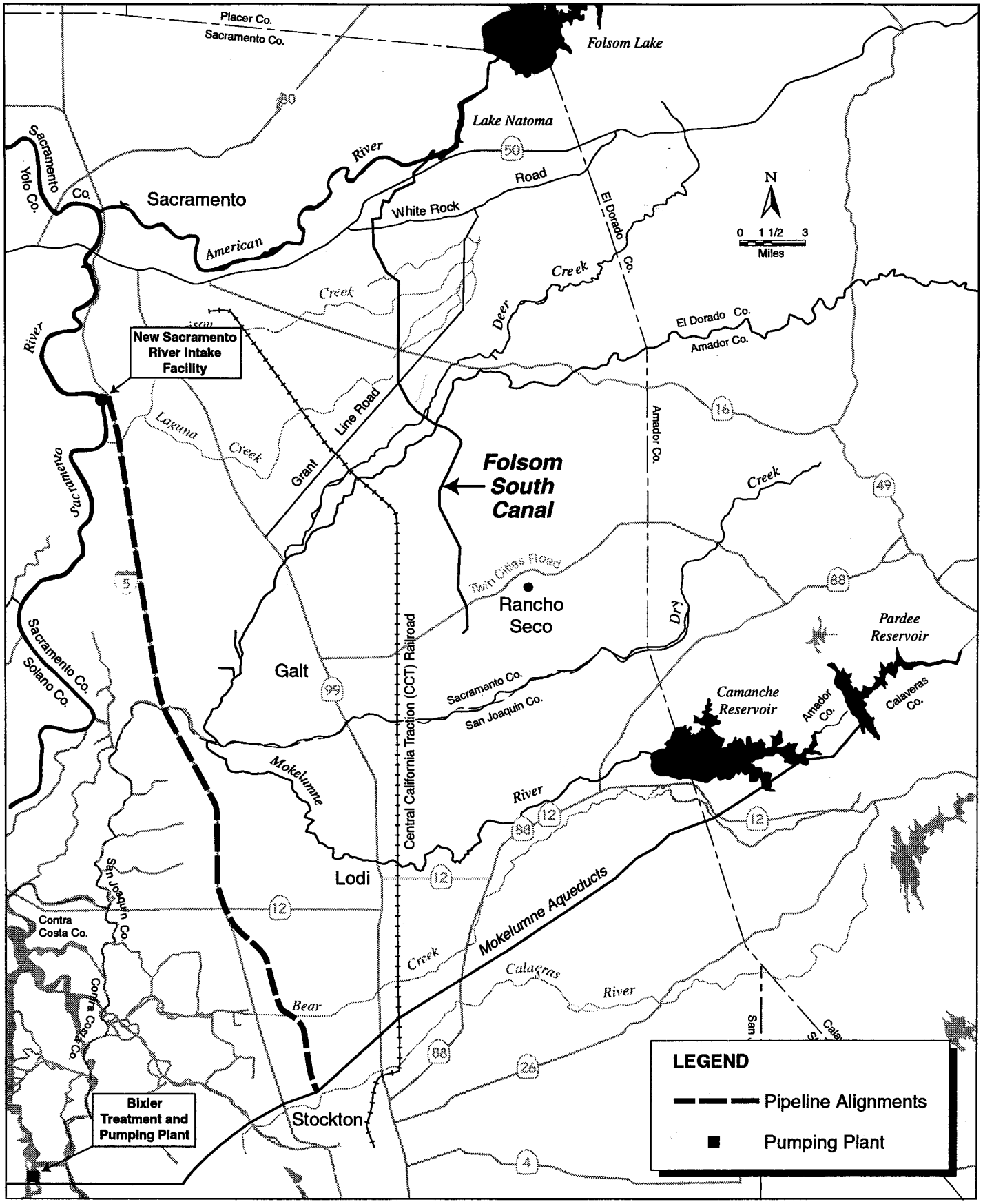
Jones & Stokes

Figure S-4
Alternative 5: Sacramento River Delivery Alternative



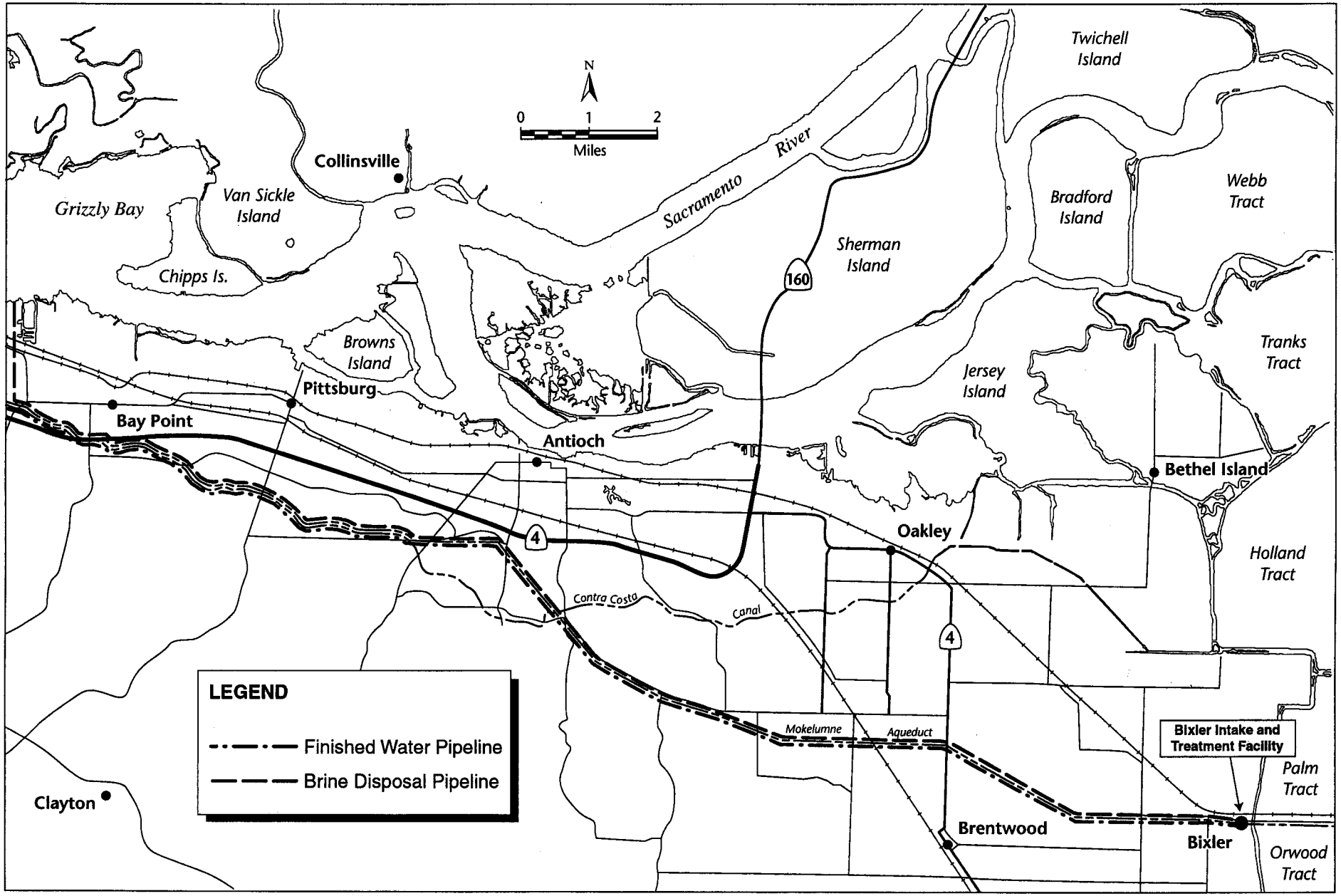
Jones & Stokes

Figure S-5
Alternative 6: Freeport East Delivery



Jones & Stokes

Figure S-6
Alternative 7: Freeport South Delivery



Jones & Stokes

Figure S-7
Alternative 8: Bixler Delivery

EBMUD and Reclamation have incorporated certain mitigation measures into the project description as environmental commitments. These commitments include preparation and implementation of the following:

- Erosion and sediment control plan.
- Stormwater pollution prevention plan.
- Traffic control plan.
- Dust suppression plan.
- Fire control plan.
- Phase I and Phase II hazardous materials studies.
- Hazardous materials management plan.
- Channel and levee restoration plan.
- Hydrologic simulation modeling and scour analysis.
- Agricultural land restoration.
- Spoils disposal plan.
- Environmental training.
- Access point/staging areas plan.
- Trench safety plan.
- Project planning, coordination, and communication plan.

AREAS OF CONTROVERSY

Primary areas of controversy include:

- Potential effects of the alternatives on American River water temperatures and related effects on steelhead trout and chinook salmon.
- Potential visual effects of a new intake structure in the lower American River under Alternatives 3 and 4.
- Disruption in urban areas during construction of the project.
- Potential growth effects within the EBMUD service area.

Table S-1. Summary of Significant Impacts and Mitigation Measures for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure	Level of Significance after Mitigation
WATER QUALITY			
Impairment of Suisun Bay water quality related to brine disposal	Alternative 8	4-1: Conduct further investigation and minimize impacts before Brine discharge	LS
VEGETATION AND WETLAND RESOURCES			
Degradation of oak woodlands and loss of individual locally protected trees	Alternative 2 Alignment 1: 1 ac Alignment 2: 11 ac Alignment 3: <1 ac Alignment 4: 11 ac Alternative 3: 11 ac Alternative 4: 11 ac Alternative 5: 11 ac Alternative 6: 11 ac Alternative 7: <3 ac	7-2a: Identify and avoid oak woodlands and individidual locally protected trees 7-2b: Obtain and comply with county tree removal permits and implement conditions of permits	LS
Loss of or distrubance to riparian woodland communities	Alternative 2 Alignment 1: 4ac Alignment 2: 1ac Alignment 3: <1 ac Alignment 4: 5 ac Alternative 3: 2 ac Alternative 4: 2 ac Alternative 5: 2 ac Alternative 6: 2 ac Alternative 7: <1 ac	7-3a: Establish a protection buffer around woody riparian communities 7-3b: Compensate for unavoidable riparian woodland losses	LS
Loss of or disturbance to jurisdictional waters of the United States, including wetalnds	Alternative 2 Alignment 1: 17 ac Alignment 2: <6 ac Alignment 3: 11 a Alignment 4: 10 ac Alternative 3: 12 ac Alternative 4: 12 ac Alternative 5: 12 ac Alternative 6: 12 ac Alternative 7: <15 ac	7-4a: Avoid and minimize impacts on jurisdictional waters of the United States, including wetlands, by installing protective barriers and implementing best mangement practices 7-4b: Obtain and comply with state and federal wetland permits 7-4c: Compensate for unavoidable impacts on jurisdictional waters of the United States	LS
Loss of or disturbance to jurisdictional waters of the United States at the intake structure	Alternatives 3 through 8	Implement mitigation measures 7-4a and 7-4b	LS

Table S-1, Continued. Summary of Significant Impacts and Mitigation Measures for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure	Level of Significance after Mitigation
Potential loss of special-status plant populations or habitat	Alternatives 2 through 8	7-5a: conduct preconstruction surveys in areas not previously inventoried	LS
		7-5b: Avoid known special-status species plant populations during project design	
		7-5c: Compensate for impacts on special-status plant populations	
WILDLIFE			
Loss of or distrubance to active raptor nests and tricolored blackbird nest	Alternatives 2 through 8	8-1: Conduct surveys for nesting raptors and tricolored blackbirds	LS
Disturbance to nesting Swainson's hawks	Alternatives 2 through 8	8-2: Consult with DFG and follow mitigation guidlenies to avoid disturbance to nesting Swainson's hawks	LS
Loss of or distrubance to nesting western burrowing owls	Alternatives 2 through 8	8-3: Consult with DFG and follow DFG's burrowing owl mitigation guidelines	LS
Loss of potential habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and mid-valley fairy shrimp	Alternatives 2 through 8	8-4: Conduct surveys and implement a mitigation plan for vernal pool fairy shrimp and vernal pool tadpole shrimp	LS
Loss of potential habitat for western spadefoot toad and California tiger salamander	Alternatives 2 through 8	8-5: Conduct preconstruction surveys and mitigation for the loss of special status amphibians and reptiles, including western spadefoot toad and California tiger salamander	LS
Loss of aquatic habitat such as irrigation ditches or ponds that could support giant garter snake or western pond turtle	Alternatives 6 and 7	8-5: Conduct preconstruction surveys and mitigation for the loss of special status amphibians and reptiles, including giant garter snake and western pond turtle	LS
Potential mortality of or disturbance to the valley elderberry longhorn beetle (VELB) during construction	Alternatives 2 through 7	8-6: Conduct preconstruction surveys for VELB and avoid or compensate for loss of habitat	LS
Potential loss of habitat for Sacramento anthicid beetle and Sacramento Valley tiger beetle	Alternatives 2 through 7	Implement mitigation measures 7-3a and 7-3b	LS
Loss of or temporary distrubance to Yuma myotis and northwestern pond turtle habitat	Alternatives 2 through 7	Implement mitigation measures 7-3a and 7-3b	LS
LAND USE			
Conflict with Contra Costa County Agricultural Land Preservation Policies	Alternatives 7 and 8	Implement mitigation measure 10-1	LS

Table S-1, Continued. Summary of Significant Impacts and Mitigation Measures for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure	Level of Significance after Mitigation
TRANSPORTATION AND CIRCULATION			
Elimination of rail service	Alternative 2, Alignments 1 and 3	No mitigation is available	S
AIR QUALITY			
Short-term increase in reactive organic gases (ROG), oxides of nitrogen (Nox), and particulate matter (PM_{10}) emissions during construction	Alternatives 2 through 7	13-1: Incorporate ROG and NOx emission-reducing measures into pipeline and pump station construction plans	LS
		No mitigation is available for PM_{10} emissions in Sacramento County	S
VISUAL RESOURCES			
Changes in visual resources at the American River intake structure site	Alternative 3; Intake alternatives 1, 2, and 3	None available	S
CULTURAL RESOURCES			
Disturbance to known cultural resources	Alternative 2 Alignment 1: 5 sites Alignment 2: 6 sites Alignment 3: 5 sites Alignment 4: 7 sites Alternative 3: 10 sites Alternative 4: 10 sites Alternative 5: 10 sites Alternative 6: 3 sites Alternative 7: 6 sites Alternative 8: Unnkown	17-1: Prepare and implement a cultrual resources significance evaluation, effects analysis, and mitigation plan for known cultrual resources	LS
Disturbance of unidentified cultural resources	Alternatives 2 through 8	17-2: Prepare and implement a cultural resources inventory, significance evaluation, effects analysis, and mitigation plan for unidentified cultural resources	LS
		17-3: Prepare and implement a plan for the unanticipated discovery of cultural resources	

S = significant
LS = less than significant

Table S-2. Summary of Impacts Evaluated and Determined to be Less Than Significant for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure
WATER QUALITY		
Discharge of pollutants in stormwater from construction of project facilities	Alternatives 2 through 8	None required
Discharge of sediment during construction of the intake structure	Alternatives 3 through 8	None required
Increased frequency or duration of taste and odor events in EBMUD terminal reservoirs	Alternatives 2 through 8	None required
Impairment of Delta export water quality	Alternatives 2 through 8	None required
FISHERIES		
Short-term loss of fish habitat near the intake structure	Alternatives 3 through 8	None required
Loss of fish in the fish exclusion facility	Alternatives 3 through 8	None required
Loss of warm water fish habitat in Folsom Reservoir	Alternatives 2 through 8	None required
Loss of cold water fish habitat at Folsom Reservoir	Alternatives 2 through 8	None required
Reduced fish habitat in the lower American River as a result of reduced flows	Alternatives 2 through 8	None required
Reduction in suitable habitat as a result of increased water temperature in the lower American River	Alternatives 2 through 8	None required
Potential reduction in Delta habitat	Alternatives 2 through 8	None required
Potential reduction in fish habitat in Shasta and Trinity lakes	Alternatives 2 through 8	None required
Potential reduction in habitat in the upper and lower Sacramento Rivers as a result of reduced flows	Alternatives 2 through 8	None required
Disturbance in habitat in the Consumes River	Alternatives 2 through 7	None required
Deliveries to meet EBMUD's planned outage needs	Alternatives 2 through 8	None required
RECREATION		
Change in water dependent and water-enhanced recreational opportunities at Folsom Reservoir	Alternatives 2 through 8	None required
Change in water-dependent recreational opportunities in the lower American River	Alternatives 2 through 8	None required
Change in recreational opportunities at Camanche and Pardee reservoirs	Alternatives 2 through 8	None required
Change in recreational opportunities on the lower Mokelumne River	Alternatives 2 through 8	None required
Change in water-dependant and water-enhanced recreational opportunities at Shasta Lake, Trinity Lake, and the Sacramento River	Alternatives 2 through 8	None required
Disruption of recreational opportunities associated with construction and operation of the intake facility	Alternatives 3 through 8	None required
VEGETATION AND WETLAND RESOURCES		
Temporary disturbance to and permanent loss of developed areas, agricultural land, eucalyptus stands, artifically created roadside drainage ditches, and annual grassland habitat within the construction corridor	Alternatives 2 through 8	None required
Change in acreage or condition of willow scrub riparian; riparian woodland; or interior live oak woodland in and around Folsom, Camanche, and Pardee reservoirs and the lower American and Mokelumne rivers	Alternatives 2 through 8	None required
WILDLIFE		
Loss of developed land, individual trees, and ornamental vegetation for wildlife habitat	Alternatives 2 through 8	None required
Temporary loss of Swainson's hawk foraging habitat	Alternatives 2 through 8	None required
Temporary loss of San Joaquin pocket mouse habitat	Alternatives 2 through 8	None required

Table S-2, Continued. Summary of Impacts Evaluated and Determined to be Less Than Significant for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure
GEOLOGY, SOILS, SEISMICITY, AND GROUNDWATER		
Potential for increased flooding during pipeline construction	Alternatives 2 through 8	None required
Potential for localized accelerated erosion, siltation, and unstable soils during and after construction	Alternatives 2 through 8	None required
Potential for facility failure from seismic activity	Alternatives 2 through 8	None required
Potential for interference with groundwater recharge after construction	Alternatives 2 through 8	None required
Potential for increased flooding from siting an intake structure	Alternatives 3 through 8	None required
LAND USE		
Residential and commerial land use conflicts	Alternatives 2 through 8	None required
Conversion of the CCT rail line to a water conveyance pipeline corridor	Alternative 2, alignments 1 and 3	None required
Potential conflicts with the KRC Aggregates gravel mining operation	Alternatives 2 through 6	None required
Consistency with local plans and policies	Alternatives 2 through 8	None required
Conflicts with American River parkway use	Alternatives 3 and 4	None required
Conflicts associated with development of Sacramento river WTP intake structure	Alternatives 3 and 5	
Conflicts with proposed or planned projects in the City or County of Sacramento	Alternative 3 and 6	None required
Conflicts with plans and policies for the City and County of Sacramento and the City of Stockton	Alternatives 3 through 7	None required
Environmental justice effects	Alternatives 3 through 8	None required
Conflict with Mather Airport operations	Alternatives 3 , 4, and 5	None required
AGRICULTURE		
Conversion and loss of prime farmland	Alternatives 2 through 8	None required
Loss of agricultural production	Alternatives 2 through 8	None required
Nonrenewal or termination of Williamson Act contracts	Alternatives 2 through 8	None required
TRANSPORTATION AND CIRCULATION		
Alterations in circulation patterns and traffic delays	Alternatives 2 through 8	None required
Deterioration of roadway surfaces	Alternatives 2 through 8	None required
Increase in traffic during construction	Alternatives 2 through 8	None required
Interference with emergency response routes	Alternatives 2 through 8	None required
Roadway safety hazards	Alternatives 2 through 8	None required
Short-term increase in ROG, NO_x and PM_{10} emissions from construction of Bixler Delivery Alternative facilities	Alternative 8	None required
Short-term increase in ROG, NO_x and PM_{10} emissions from construction of pipelines under the advanced treatment option	Alternative 8	None required
Short-term increase in ROG, NO_x and PM_{10} emissions from construction of pipelines between Bixler and Concord	Alternative 8	None required

Table S-2, Continued. Summary of Impacts Evaluated and Determined to be Less Than Significant for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure
NOISE		
Short-term increase in noise levels from pipeline construction	Alternatives 2 through 8	None required
Short-term increase in noise levels from construction of brine pipeline under the advanced treatment option	Alternative 8	None required
Short-term increase in noise levels from intake construction	Alternatives 3 through 8	None required
Short-term increase in noise levels from Fairbairn WTP construction	Alternative 3	None required
Increase in noise levels from construction of the Mokelumne Aqueducts WTP	Alternatives 4 through 6	None required
Increase in noise levels from construction of Bixler WTP	Alternatives 7 and 8	None required
Increase in noise levels from operation of American River intake structure	Alternatives 3 and 4	None required
Increase in noise levels from operation of Sacramento River intake structure	Alternatives 5 through 7	None required
Increase in noise levels from operation of Bixler intake structure	Alternative 8	None required
Increase in noise levels from operation of Fairbairn and Sacramento River intake structures	Alternative 3	None required
Increase in noise levels from operation of Mokelumne Aqueducts treatment facility	Alternatives 4 through 6	None required
Increase in noise levels from operation of Bixler treatment facility	Alternatives 7 and 8	None required
Minimal increase in noise levels from Fairbairn WTP pumping plant or Folsom Boulevard Bypass pumping plant operation	Alternative 3	None required
Increase in noise levels from operation of energy dissipation structure at the FSC connection	Alternatives 3 through 6	None required
Construction and operational noise from Alignment 2	Alternatives 3 through 6	None required
PUBLIC HEALTH AND SAFETY		
Exposure of people to existing contamination	Alternatives 2 through 8	None required
Contamination of soil and water during construction	Alternatives 2 through 8	None required
Increased risk for fires during construction	Alternatives 2 through 8	None required
Potential for contamination at chemical conditions facilities	Alternatives 2 through 8	None required
VISUAL RESOURCES		
Changes in visual resources at FSC and Mokelumne Aqueducts pumping plants	Alternatives 2 through 6	None required
Changes in pipeline corridor visual resources	Alternatives 2 through 8	None required
Changes in views along transmission line alignments	Alternatives 2 through 6	None required
Changes in visual resources from changes in American River flows	Alternatives 2 through 8	None required
Change in visual resources at the sites of the American River intake	Alternatives 3 and 4	None required
Effect on heritage trees along C Street	Alternatives 3 through 5	None required
Change in views to the Fairbairn intake structure	Alternative 3	None required
Change in views to the Sacramento River WTP and intake structure	Alternatives 3 and 5	None required
Changes in visual resources at the site of the Sacramento River intake	Alternative 5	None required
Changes in visual resources at the site of the Freeport intake	Alternatives 6 amd 7	None required
Changes in visual resources at the site of the Bixler intake	Alternative 8	None required
Changes in visual resources at the site of Bixler treatment facilities	Alternatives 7 and 8	None required

Table S-2, Continued. Summary of Impacts Evaluated and Determined to be Less Than Significant for the Supplemental Water Supply Project

Resource Topic/Impact	Applicable Alternative	Mitigation Measure
Changes in visual resources of the pipeline corridor between Freeport and FSC	Alternative 6	None required
Changes in visual resources from installation of brine pipeline between Bixler and Concord	Alternative 8	None required
Changes in visual resources at the Mokelumne Aqueducts WTP	Alternatives 4 through 6	None required
Changes in visual resources of the pipeline corridor between Freeport and the Mokelumne Aqueducts	Alternative 7	None required
CULTURAL RESOURCES		
Disturbance to cultural resources within Folsom Reservoir	Alternatives 2 through 8	None required

2000 REIR/SEIS Distribution List

Sacramento County

County of Sacramento Water Resources Division
Sacramento Regional County Sanitation District

Cities/Counties and Other Agencies

Amador County Counsel
Amador Water Agency
Bay Conservation and Development Commission
Caltrans, District 10
Caltrans, District 4
Carmichael Water District
Central Delta Water Agency
City of Antioch Public Works & Planning
City of Lodi Public Works
City of Pittsburg Public Works & Planning
City of Sacramento
City of Stockton
Contra Costa County Planning Department
Contra Costa County Public Works
Contra Costa Water District
East San Joaquin Parties Water Authority
Elk Grove Water Works
Farm Bureau, Legal Services
Metropolitan Water District of Southern California
Monographs Acquisition Service
North San Joaquin Water Conservation District
North San Joaquin Water Conservation District
Sacramento Area Flood Control Agency
Sacramento Bee
Sacramento Business Journal
Sacramento Dept of Housing
Sacramento Metropolitan Air Quality Management District
Sacramento Metropolitan Water Authority
Sacramento Office of the City Council
San Joaquin County
San Joaquin Farm Bureau
San Luis Delta-Mendota Water Authority
Santa Clara Valley Water District
Save the Bay
Sacramento Municipal Utilities District
State Water Contractors
Stockton East Water District
Water Resources Center Archives

State of California

California Dept of Fish & Game
California Dept. of Water Resources
California Dept. of Water Resources
Office of the Attorney General, Land Use Office
State Clearinghouse

Federal Agencies

National Marine Fisheries Service
National Park Service
U.S. Army Corps of Engineers, Regulatory Section
U.S. Bureau of Reclamation
U.S. Environmental Protection Agency Region IX
U.S. Fish & Wildlife Service

Representatives

California State Assembly, Dave Cox
California State Assembly, T. Rico Oller
California State Assembly, Anthony Pescetti
California State Senate, Tim Leslie
California State Senate, Deborah Ortiz
U.S. House of Representatives, John T. Doolittle
U.S. House of Representatives, Doug Ose
U.S. House of Representatives, Robert Matsui
U.S. House of Representatives, Richard Pombo
United States Senate, Dianne Feinstein
United States Senate, Barbara Boxer

Other Interested Groups and Individuals

Ameron International
De Cuir and Somach
Giswold, LaSalle, Cobb, Dowd & Gin L.L.P.
Herum Crabtree Dyer Zolezzi & Terpstra
Kennedy/Jenks Consultants
Kronick Moskovitz Tiedemann & Girard
Navigant Consulting
Neumiller & Beardsley
Woodward Clyde
Bill Snider
Gilbert Bendix
Mike Catino
Judge Richard Hodge
Markus LoDuca
Tom Mouzes
Tim Stroshane
Mary Wolf
Randy Yonemura