DAVIS-WOODLAND WATER SUPPLY PROJECT

Final Environmental Impact Report

State Clearinghouse No. 2006042175

Lead Agency:
City of Davis, Public Works Department
In Association with:
UC Davis and City of Woodland

October 2007

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8950 Cal Center Drive
Building 3, Suite 300
Sacramento, CA 95826
916.564.4500
www.esassoc.com

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UCDAVIS
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PUBLIC WORKS DEPARTMENT
1717 Fifth Street – Davis, California 95616
530/757-5686 – FAX: 530/758-4738 – TDD: 530/757-5666

October 1, 2007

Subject: Availability of Final Environmental Impact Report Addressing the Proposed Davis-Woodland Water Supply Project (SCH# 2006042175)

To Whom It May Concern:

The cities of Davis and Woodland, and UC Davis (Project Partners), with the City of Davis as the lead agency, have completed the preparation of a Final Environmental Impact Report (FEIR). This FEIR is addressing the potential environmental consequences of constructing and operating a treated surface water supply project being jointly proposed by the Project Partners. The proposed project consists of: an intake/diversion structure on the Sacramento River, conveyance pipeline between the intake/diversion structure and regional treatment plant, construction of a new regional water treatment plant, and distribution pipelines conveying treated surface water to the City of Davis, City of Woodland and UC Davis campus service areas. Other local improvements such as distribution pipelines and water storage facilities will be required by each Project Partner.

Development of available surface water supplies would enable the Project Partners to replace existing older groundwater well supplies with high quality treated surface water supplies, improve drinking water quality and reduce consumer-related costs to their customers, reduce constituents of concern found in wastewater effluent originating from groundwater supplies, and enable compliance with existing and future drinking water and wastewater effluent regulations.

The FEIR consists of a single volume with an attached appendix containing a mitigation monitoring and reporting plan. The FEIR is being made available by the Project Partners to all reviewing agencies and to those who are interested in reviewing the document at the following locations:

Yolo County Public Library – Davis Branch
315 E. 14th St.
Davis, CA 95616

City of Davis Community Development Department
City Hall
23 Russell Blvd.
Davis, CA 95616

City of Woodland Library
250 First St.
Woodland, CA 95695

City of Woodland Community Development Department
City Hall
300 First St.
Woodland, CA 95695

Shields Library – UC Davis
Peter J. Shields Ave.
100 NW Quad
Davis, CA 95616

City of Woodland Public Works Office
City Hall
300 First St.
Woodland, CA 95695

City of Davis Public Works Office
1717 Fifth St.
Davis, CA 95616

Water Resources Association of Yolo County
34274 State Highway 16
Woodland, CA 95695

Copies of the FEIR are also available at the county clerk's offices and libraries at the following locations.

- Shasta County
  Shasta Public Library
  100 Parkview Ave.
  Redding, CA 96001
- Colusa County
  Colusa County Library
  738 Market Street
  Colusa, CA 95932
- Sacramento County
  Sacramento Public Library
  828 I Street
  Sacramento, CA 95814
- Tehama County
  Tehama County Library
  645 Madison Street
  Red Bluff, CA 96080
- Glenn County
  Willow Public Library
  201 N. Lassen Street
  Willows, CA 95988
- Sutter County
  Sutter County
  750 Forbes Ave.
  Yuba City, CA 95991
- Yuba County
  Yuba County Library
  302 2nd Street
  Marysville, CA 95901

The Project Partners, with the City of Davis as the lead agency, are making copies of the FEIR available in both electronic CD-Rom disc and paper versions for review. Paper versions will be available at all locations listed above. A copy of the FEIR can also be downloaded from the project web site located at www.daviswoodlandwatersupply.com. All other documents referenced in the FEIR will be made available for review at the City of Davis Public Work Office.

Questions regarding the FEIR or requests for the document should be submitted to:

Jacques DeBra, Utilities Manager
City of Davis
Department of Public Works
1717 5th Street
Davis, CA 95616

The City of Davis will hold a public meeting in order to consider and certify completion of the FEIR on October 16th, 2007 (starting at 6:30 p.m.) at the City Community Chambers (23 Russell Blvd.). The public is invited to attend this meeting.

We appreciate your time and effort to review the subject FEIR. Your input will be considered as part of future decisions conducted by the Project Partners.

Jacques DeBra, Senior Utility Resource Specialist
City of Davis Public Works Department

10/01/2007
Date

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EXECUTIVE SUMMARY

Introduction

The City of Davis, the University of California, Davis (UC Davis), and the City of Woodland (collectively referred to as the Project Partners) are jointly proposing to develop a surface water supply for use within each of the Project Partners' service areas to meet substantial portions of their respective water supply needs through 2040. New surface water supplies would become the Project Partners' primary water supply while demands that could not be met with surface water supplies would continue to be met with local groundwater supplies.

The Davis-Woodland Water Supply Project (Project) would acquire a new surface water supply from the Sacramento River using a new water intake/diversion facility, untreated and treated-water conveyance pipelines, and a new water treatment plant (WTP). Surface water diverted from the Sacramento River would consist of water appropriated for use by the Project Partners and water purchased from upstream users with senior water rights and transferred to the Partners' diversion point. The Project Partners propose to divert up to approximately 46.1 thousand acre-feet per year (TAF/yr) of surface water from the Sacramento River and convey it for treatment and subsequent use in the City of Davis, City of Woodland, and on the UC Davis campus. Local groundwater would continue to be used for meeting demands that could not be met with surface water supplies.

The City of Davis is the lead agency for the purposes of complying with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) of 1970 (as amended), and the CEQA Guidelines for Implementing the California Environmental Quality Act (California Code of Regulations, Title 14). The City of Davis has prepared this Final Environmental Impact Report (Final EIR) to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project and alternatives.

CEQA Process

The City of Davis City Council will review this Final EIR for adequacy and consider it for certification pursuant to the requirements of Section 15090 of the CEQA Guidelines. If the City Council certifies the FEIR and approves the Project, the Council will then be required to adopt findings on the feasibility of reducing or avoiding significant environmental effects (CEQA Guidelines, Section 15091, (a)) and to adopt a statement of overriding considerations identifying the project benefits that outweigh the project's significant unavoidable effects (*id*., Section 15093).

Public Resources Code Section 21081.6, subdivision (a)(1) requires lead agencies to "adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." Where applicable, mitigation measures have been clearly identified in the DEIR. Any mitigation measures adopted by the City as conditions for the approval of the project will be included in a monitoring and reporting program to verify compliance. The Mitigation Monitoring and Reporting Program for the Project is included in Appendix A of this Final EIR.

When the City Council certifies the adequacy of the Final EIR and approves the project (with the accompanying findings, statement of overriding considerations, and Mitigation Monitoring and Reporting Program), the City will file a Notice of Determination with both the County Clerk of the County of Yolo and the State Clearinghouse. Other responsible agencies making decisions to approve or implement the Project will also file Notices of Determination at the times their respective actions are undertaken.

Opportunities for Public Comment

The City of Davis prepared a Notice of Preparation (NOP) of an EIR and published it on April 28, 2006. The NOP was circulated to the public, local, state and federal agencies, and other interested parties to solicit comments on the proposed project. In addition to the 45-day public and agency comment period, public scoping sessions were held on May 18, 2006 in Woodland and May 22, 2006 in Davis. Concerns that were raised in response to the NOP and oral comments received at the scoping sessions were considered during preparation of the Draft EIR.

The DEIR was published and circulated to local, state, and federal agencies and to interested organizations and individuals to review and comment on the report. Publication of the Draft EIR marked the beginning of a 76-day public review period beginning on April 9, 2007 and ending June 25, 2007. Two public meetings on the Draft EIR were held by City of Davis on April 23rd and May 2nd and one public meeting was held by the City of Woodland on May 16th.

Notices of Completion were filed with the Yolo County Clerk and Office of Planning Research State Clearinghouse when the Notice of Preparation, and Draft EIR were made available for public and agency review.

Copies of the Draft EIR were made available for public review at the following locations:

- Yolo County Public Library – Davis Branch
  315 E. 14th St.
  Davis, CA 95616
- City of Woodland Library
  250 First St.
  Woodland, CA 95695
- Shields Library – UC Davis
  Peter J. Shields Ave.
  100 NW Quad
  Davis, CA 95616
- City of Davis Public Works Office
  1717 Fifth St.
  Davis, CA 95616
- City of Davis Community Development Department
  City Hall
  23 Russell Blvd.
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  City Hall
  300 First St.
  Woodland, CA 95695
- Water Resources Association of Yolo County
  34274 State Highway 16
  Woodland, CA 95695

Copies of the Draft EIR were distributed along with copies of the Notice of Completion (NOC) and Notice of Availability (NOA) to the county clerks offices in the counties with libraries at the following locations.

- **Shasta County**
  Shasta Public Library
  100 Parkview Ave.
  Redding, CA 96001
- Colusa County
  Colusa County Library
  738 Market Street
  Colusa, CA 95932
- Sacramento County
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  750 Forbes Ave.
  Yuba City, CA 95991
- Yuba County
  Yuba County Library
  302 2nd Street
  Marysville, CA 95901

The Draft EIR was available for public review at the City of Davis Public Utilities office at 1717 5th Street Davis, California during the entire review period. The Draft EIR was also accessible for review and downloading from the City of Davis' Davis-Woodland Water Supply Project webpage at: http://www.daviswoodland watersupply.com/watersupply/.

Written and verbal comments received on the DEIR as well as responses to these comments are presented in Chapter 2 of this Final EIR.

Alternatives Considered During Impact Analysis

The draft EIR addresses a range of reasonable water supply alternatives to the proposed project including:

- Three diversion/intake locations and corresponding conveyance pipeline alignments
- 51.8 MGD diversion to serve 2040 planning horizon (Proposed Project)
- 45.8 MGD diversion to serve a 2030 planning horizon
- 39.8 MGD diversion to serve existing General Plan horizons
- 47.8 MGD diversion with aggressive conservation to serve a 2040 planning horizon
- 106 MGD diversion eliminating all groundwater use to serve a 2040 planning horizon
- 18.8 MGD diversion along with existing groundwater use to serve a 2040 planning horizon

In addition, the Draft EIR initially considered the following additional alternatives including:

- No Development Alternative
- Tehama-Colusa Canal Extension Alternative

- Treatment of Groundwater Supplies Alternative
- Conservation-Only Alternative

Selection of the Preferred Alternative

The Project Partners have considered the potential environmental consequences of constructing and operating the various project alternatives and facility location options as part of evaluating and selecting a preferred alternative for implementation. In addition to considering potential environmental impacts of implementation, the Partners also considered the ability of each alternative to meet project objectives, complexity and ease of implementation, regulatory and permitting obstacles, and project cost (including construction and long-term operations and maintenance).

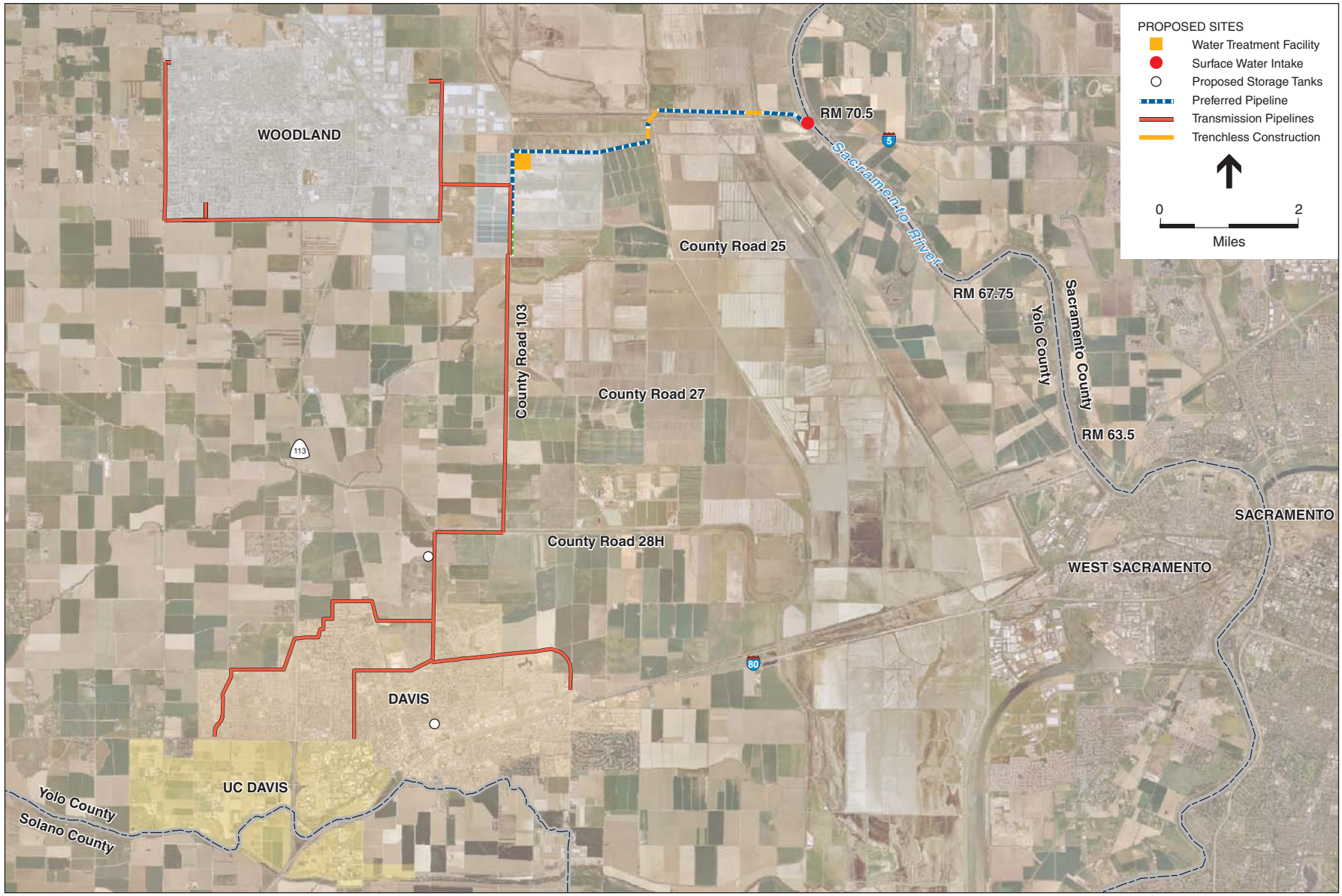
Based on this consideration, the Project Partners have selected the 51 MGD diversion to serve the 2040 planning horizon using the Option 1 diversion/intake facility, pipeline conveyance route, and water treatment plant (WTP) site, as shown in Figure ES-1.

Environmentally Superior Alternative

The Project will have significant and unavoidable impacts on: land use and agriculture, air quality, noise, and aesthetic resources. These significant and unavoidable impacts are associated with the construction of the Project components. Installation of a new diversion/intake facility on the Sacramento River would result in significant visual impact in the local area.

The Project will not have any significant and unavoidable impacts associated with the diversion of water supplies from the Sacramento River or the transfer of water supplies from the water sellers to the Project Partners. Therefore, none of the water supply alternatives analyzed in this EIR, including the proposed Project, will have any significant environmental impacts.

The proposed Project is the environmentally superior alternative among the water supply alternatives. The proposed Project will reduce the salt concentrations in the effluent discharged from the Project Partners' wastewater treatment facilities. Water supply Alternatives 1 through 4 would also reduce the salt concentration in the Project Partners' WWTP effluent, but not to the same degree as the proposed Project. For this reason, the proposed Project is considered the environmentally superior water supply alternative.



SOURCE: GlobeXplorer, 2006; West Yost & Associates, 2006; and ESA, 2006

Davis-Woodland Water Supply Project EIR . 205413

Figure ES-1
Preferred Project

Description of the Project

Project Objectives

The three primary objectives of the Proposed Project are to: (1) provide a reliable water supply to meet existing and future needs, (2) improve water quality for drinking supply purposes, and (3) improve treated wastewater effluent quality discharged by in the City of Davis, City of Woodland, and UC Davis through 2040, as required under existing or anticipated future water discharge regulations. It is the intent of the Project Partners to achieve these objectives without using any irrigation supply in a manner that would cause fallowing of agricultural land.

These objectives have been developed by the Project Partners in response to challenges posed by aging water systems, more stringent drinking water and wastewater discharge standards and regulations, and in response to adopted plans that anticipate increases in water demand through 2040.

Description of Major Project Features

The Project Partners are proposing to jointly construct and operate a new water diversion facility on the Sacramento River that would include associated conveyance facilities and a new WTP. Engineering feasibility studies have evaluated various water diversion/intake sites along the Sacramento River, WTP locations, and pipeline conveyance routes. The Project consists of the following components, which are described in more detail in the following discussion:

- Diversion /intake facility and untreated water conveyance pipeline
- Regional water treatment plant
- Local storage and distribution facilities
- New groundwater wells in the water sellers' service areas

The Project will include diversion and intake facilities to divert surface water from the Sacramento River. Pumps and electrical equipment would be installed on the operating floor to provide clearance between the bottom of the access bridge and the 100-year flood stage.

Untreated water diverted from the Sacramento River would be conveyed to the water treatment facilities through either a 60-inch-diameter buried pipeline or dual 42-inch-diameter pipelines. The conveyance pipeline would be located to minimize potential impact to environmental resources including wetlands and associated habitats. Where appropriate, the pipeline would be installed within public rights-of-way to minimize acquisition of additional rights-of-way and conflict with adjacent land uses.

The Project would include a WTP to treat the surface water diverted from the Sacramento River so that the water may be used to meet the Project Partners' water supply needs. As part of the Project, a new WTP would be constructed at a location where it can be used to treat surface water supplies and distribute treated water to each of the Project Partners. It is expected that the WTP would be constructed in stages to correspond with the actual water demands that are anticipated to be developed in the Project Partners' service areas.

Local water transmission facilities required for the implementation of this Project include new transmission pipelines within the Cities of Davis and Woodland, a new pipeline to serve UC Davis, and pump stations, water storage facilities, vaults, and other appurtenant facilities to operate and maintain the water supply systems.

Surface water diversions taking place in accordance with the Project Partners' water right permits would be made in compliance with Standard Water Right Permit Term 91. Term 91 prohibits surface water diversions when water is being released from CVP or SWP storage reservoirs to meet in-basin entitlements, including water quality and environmental standards for protection of the Sacramento-San Joaquin Delta. To provide a reliable water supply during such conditions, the Project Partners would enter into water supply transfer agreements with several senior water rights holders within the Sacramento River watershed. During periods when Term 91 is in effect, the Project Partners would divert water that is provided by these transfer agreements.

Groundwater would continue to be used to meet demands that cannot be supplied by the Project.

Summary of Environmental Impacts

Table ES-1 presents a summary of the potential environmental impacts and mitigation measures associated with the proposed Project. Table ES-2 provides a summary of significant and unavoidable impacts that would be anticipated to occur as a result of Project implementation.

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

(Legend: NI = No Impact; LS = Less-Than-Significant -impact; LSM = Less-Than-Significant-Impact With Mitigation; SU = Significant And Unavoidable Impact)

Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
SECTION 3.2. SURFACE WATER				
Impact 3.2-1. The Project would violate water quality standards or waste discharge requirements.	No mitigation required	NI	NI	NI
Impact 3.2-2. Project operation would adversely affect Sacramento River hydrologic conditions or Delta inflow and/or outflow in a way that would conflict with other water management objectives or existing beneficial uses.	No mitigation required	LS	LS	LS
Impact 3.2-3. Project operation would substantially degrade water quality of the Sacramento River or Delta.	No mitigation required	LS	LS	LS
Impact 3.2-4. Project operation would infringe upon the water rights of other legal users of water.	No mitigation required	NI	NI	NI
SECTION 3.3. GROUNDWATER, HYDROLOGY, AND WATER QUALITY				
Impact 3.3-1. The Project would violate any water quality standards or waste discharge requirements, or otherwise substantially degrade groundwater quality.	**3.3-1a:** To control and manage shallow groundwater that is pumped during temporary construction activities, as well as stormwater runoff, the Project Partners shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for all construction phases of the project. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of Best Management Practices (BMPs) to reduce pollutants in storm water discharges. BMPs may include, but would not be limited to: • Measures to reduce turbidity of pumped shallow groundwater prior to discharge, including temporary detention before discharge. • Excavation and grading activities in areas with steep slopes or directly adjacent to open water shall be scheduled for the dry season only (April 30 to October 15), to the extent possible. This will reduce the chance of severe erosion from intense rainfall and surface runoff.	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• If excavation occurs during the rainy season, storm runoff from the construction area shall be regulated through a storm water management/erosion control plan that shall include temporary onsite silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of offsite sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location onsite, away from concentrated flows, or removed to an approved disposal site. • Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be provided until perennial revegetation or landscaping is established and can minimize discharge of sediment into nearby waterways. For construction within 500 feet of a water body, appropriate erosion control measures shall be placed upstream adjacent to the water body. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • No disturbed surfaces will be left without erosion control measures in place during the rainy season, from October 15th through April 30th. • Erosion protection shall be provided on all cut-and-fill slopes. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15). • A vegetation and/or engineered buffer shall be maintained, to the extent feasible, between the construction zone and all surface water drainages including riparian zones. • Vegetative cover shall be established on the construction site as soon as possible after disturbance. • BMPs selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary. Effective mechanical and structural BMPs that could be implemented at the project site include the following:			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• Mechanical storm water filtration measures, including oil and sediment separators or absorbent filter systems such as the Stormceptor® system, can be installed within the storm drainage system to provide filtration of storm water prior to discharge. • Vegetative strips, high infiltration substrates, and grassy swales can be used where feasible throughout the development to reduce runoff and provide initial storm water treatment. • Roof drains shall discharge to natural surfaces or swales where possible to avoid excessive concentration and channelizing storm water. • Permanent energy dissipaters can be included for drainage outlets. • The water quality detention basins shall be designed to provide effective water quality control measures including the following: o Maximize detention time for settling of fine particles; o Establish maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris that may clog basin inlets and outlets; o Maximize the detention basin elevation to allow the highest amount of infiltration and settling prior to discharge. • Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents will be contained in an area of impervious surface with containment capacity equal to the volume of materials stored. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities. • Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants. The SWPPP shall also specify measures for removing sediment from water pumped for trench dewatering before the water is released to waterways. **3.3-1b:** During construction, if groundwater from dewatering activities cannot be contained onsite, it shall be pumped into suitable detention facilities or Baker tanks or equivalent with sufficient capacity to control the volume of groundwater. Tanks shall be equipped with either a gel coagulant, a filter system, or other containment to remove			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	sediment. The remaining water will then be discharged to nearby irrigation or drainage ditches, in accordance with CVRWQCB requirements for discharges from general construction activities and trench dewatering. Within upland areas, sprinkler or other irrigation systems may be used to disperse the water over adjacent fields. BMPs, as described in the SWPPP, will also be implemented, as appropriate, to retain, treat, and dispose of groundwater from dewatering activities. Additional measures shall include but are not limited to: • Temporarily retain pumped groundwater, as appropriate, to reduce turbidity and concentrations of suspended sediments before discharge to surface waterways. • Convey pumped groundwater to a suitable land disposal area capable of percolating flows • Incorporation of other measures from the Caltrans Storm Water Quality Handbook, Section 7: Dewatering Operations (2004). Groundwater collected during dewatering shall be tested for contamination prior to disposal. Discharges shall comply with CVRWQCB requirements. **3.3-1c:** A groundwater discharge monitoring program shall be implemented to ensure that receiving water quality does not exceed levels that would impact aquatic resources and agricultural use. If monitoring reveals that water quality would impact these beneficial uses, discharges to surface waterways will be reduced or diluted to acceptable levels, or terminated. If discharges are reduced or terminated, groundwater will be disposed through land application. **3.3-1d:** Mitigation measures specified as a provision for obtaining a NPDES General Permit for Stormwater Discharges Associated with Construction Activities from the SWRCB shall be implemented. These measures shall be designed to avoid exceedance of applicable standards. **3.3-1e:** As a condition to sale of a water transfer with Natomas Central Mutual Water Company, the Project Partners shall require confirmation, via an appropriate groundwater modeling investigation, that any groundwater pumping related to the proposed Project will not directly expand the contamination plume associated with the McClellan Air Force Base superfund site.			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.3-2. The Project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	**3.3-2:** In the event that groundwater dewatering activities associated with Project construction temporarily result in interruption of a water supply for agricultural or other beneficial use, the Project Partners shall provide water supply to maintain that beneficial use or payment to the affected party/parties sufficient to fairly compensate for the value of lost agricultural crops or other temporary changes to land use resulting from water supply interruption.	LSM	LSM	LSM
Impact 3.3-3. Groundwater pumping associated with Project operations would alter the existing surface hydrology.	**3.3-3:** Groundwater wells used to replace water that is transferred from upstream water rights holders to the Project Partners shall be located and designed to be consistent with siting and design criteria established by the DWR to avoid interactions with surface water flows of the Sacramento River. Information will be provided regarding well perforations to demonstrate consistency with DWR criteria for avoiding interactions with the Sacramento River or other waterways. Specifically, the following criteria shall be followed: (A) Wells located between one and two miles of a major surface water feature tributary to the Delta will be accepted unless one of the following applies: (1) No driller's log or other sufficient information is submitted to demonstrate that the well is not connected to the surface water system tributary to the Delta, or (2) The well is perforated above 50 feet and insufficient information is submitted to demonstrate that the well is not connected to the surface water system tributary to the Delta. (B) Wells located within one mile or less from a major surface water feature tributary to the Delta will be accepted if the following conditions are met: (1) The uppermost perforations start below 150 feet, or: (2) The uppermost perforations start between 100 and 150 feet and: There is a surface annular seal to at least 20 feet; and There is a total of at least 50-percent fine-grained materials in the interval above 100 feet; and There is at least one fine-grained layer that exceeds 40 feet in thickness in the interval above 100 feet; or (3) Other information is provided to DWR and USBR that demonstrates that the well is not in connection with the surface water system tributary to the Delta (C) Wells located between one half and one mile of minor surface water features tributary to the Delta will be accepted using the same criteria listed for (A) above. (D) Wells located within one-half mile or less from a minor surface water feature tributary to the Delta will be approved using the using the same criteria listed for (B) above (DWR, 2002).	LS	LS	LS

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
SECTION 3.4. DRAINAGE AND FLOODPLAINS				
Impact 3.4-1: Project construction would substantially alter the existing drainage patterns of the proposed Project site or area in a manner that would result in substantial erosion or siltation on- or offsite.	Implement Measures 3.3-1a and 3.3-1b.	LSM	LSM	LSM
Impact 3.4-2: The Project would substantially alter the existing drainage pattern, and in turn, would increase local storm runoff that would exceed the capacity of onsite drainage systems, or create localized flooding or contribute to a cumulative flooding impact downstream.	**3.4-2:** A drainage plan shall be prepared and implemented for the diversion/intake and WTP site. The drainage plan shall include measures to infiltrate, retain, or otherwise channel runoff away from areas of open soil and other features subject to erosion or flooding. Receiving drainage ditches or canals shall be sized appropriately to contain anticipated stormwater flows. Runoff waters shall be discharged in a manner to prevent downstream or offsite flooding, erosion, or sedimentation.	LSM	LSM	LSM
Impact 3.4-3: The Project would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	**3.4-3:** Mitigation measure 3.3-1a shall be implemented to reduce potential impacts from changes to runoff to less than significant. Additionally, stormwater runoff shall be discharged into a drainage ditch or canal sized appropriately to accept discharge from Project facilities.	LSM	LSM	LSM
Impact 3.4-4: The Project would place within a 100-year flood hazard area structures which would impede or redirect flood flows.	**3.4-4:** The diversion/intake shall incorporate a design to minimize changes to flood flow elevation and accumulation of floating debris. These design features would reduce any potential impacts to less than significant.	LSM	LSM	LSM
Impact 3.4-5: The Project would expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	**3.4-5a:** Levee integrity shall not be degraded by Project implementation and the Project Partners shall ensure that all construction activities abide by applicable Reclamation District guidelines for levee disturbance. Specifically, the Reclamation Districts listed in Table 3.4-6 shall be consulted during intake facility and untreated water pipeline engineering. **3.4-5b:** To ensure that levee integrity is not degraded by the Project, construction activities shall abide by applicable Reclamation District guidelines for levee disturbance. Specifically, the Reclamation Districts listed in Table 3.4-6 shall be consulted during intake facility and untreated water pipeline engineering.	LSM	LSM	LSM

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

(Legend: NI = No Impact; LS = Less-Than-Significant -impact; LSM = Less-Than-Significant-Impact With Mitigation; SU = Significant And Unavoidable Impact)

Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.4-6. Dewatering of excavated areas during construction in areas of shallow groundwater would affect surface water quality	**3.4-6:** Mitigation measure 3.3-1b shall be implemented to prevent degradation of surface water quality resulting from dewatering of excavated areas during construction. Additionally, water from dewatering of excavated areas shall be discharged into a drainage ditch or canal sized appropriately to accept the discharge, or shall be land-applied to an area sufficient to receive the discharge without creating additional runoff.	LSM	LSM	LSM
Impact 3.4-7: Removal and stockpiling of trench spoils during Project construction would release chemicals or spoils into the surrounding environment and affect surface water quality.	**3.4-7:** Trench and tunnel spoils shall be tested prior to their replacement back into excavated areas or transported to offsite disposal. If found to be contaminated by lubrication and hydraulic fluids, spoils will be collected and disposed of at a permitted waste disposal facility. Spoils containing high volumes of water shall be detained and allowed to settle to reduce turbidity.	LSM	LSM	LSM
Impact 3.4-8: The Project would conflict with the management and maintenance of levees or other flood control facilities.	**3.4-8:** The Project Partners shall ensure that Project construction and operations do not conflict with the management and maintenance of levees and other flood control structures. Project construction and operations shall conform to engineering criteria and other reclamation district requirements, per the requirements of Mitigation Measure 3.4-5b.	LSM	LSM	LSM
Impact 3.4-9: The Project would expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.	No mitigation required	NI	NI	NI
SECTION 3.5. LAND USE AND AGRICULTURE				
Impact 3.5-1: The Project would physically divide an established community.	No mitigation required	NI	NI	NI
Impact 3.5-2: The Project would conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	**3.5-2:** If the Option 3 WTP is selected for development, the zoning of the Option 3 site shall be changed so that it would no longer conflict with installation and operation of a WTP-related land use.	NI	NI	LSM
Impact 3.5-3: The Project would conflict with existing zoning for agricultural use or a Williamson Act contract in an area in which continued agriculture is economically viable.	Implement Measure 3.5-2.	NI	NI	LSM

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		Option 1	Option 2	Option 3
	3.5-3: The location of the Option 2 diversion/intake pump station shall relocated to lands not within Williamson Act contract or to lands where change in land use would not affect Williamson Act contract requirements.			
Impact 3.5-4: Construction of the proposed Project would involve changes in the existing environment that, due to its location or nature, would result in conversion of Farmland, to non-agricultural uses.	**3.5-4a:** The water conveyance or transmission pipelines shall be installed at a depth (to the top of the pipe) ranging from 4 to 7 feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depth shall be established in consultation with an agricultural specialist and landowners to ensure no conflict with future agricultural practices. **3.5-4b:** The Project Partners will establish permanent Prime Farmland agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be permanently displaced with Project development.	LSM	SU	SU
Impact 3.5-5: Operation of the Project would convert economically viable Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program, to non-agricultural use.	No mitigation required	NI	NI	NI
SECTION 3.6. BIOLOGICAL RESOURCES				
Impact 3.6-1: The Project would interfere substantially with the movement of any native resident or wildlife species or with established native resident or migratory native wildlife corridors, or impede the use of wildlife nursery sites.	Implement Mitigation Measures for Impacts 3.6-4, 3.6-5, 3.6-6, and 3.6-7.	LSM	LSM	LSM
Impact 3.6-2: The Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**3.6-2:** Prior to construction, Project Partners shall evaluate impacts to trees within the City of Davis city limits and submit the evaluation to the City for review. If deemed necessary, Project Partners shall apply for a permit and abide by any permit requirements for tree pruning or removal. In addition, sensitive habitats and wildlife shall be identified and protected for projects within the City of Davis, under the HAB 1.1 policy.	LSM	LSM	LSM

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		Option 1	Option 2	Option 3
Impact 3.6-3: The Project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No mitigation required	NI	NI	NI
Impact 3.6-4: Construction of the intake facility would have a substantial adverse effect on fish or other aquatic species, such as by increasing turbidity, degrading water quality or otherwise altering suitable aquatic habitat.	**3.6-4a:** Implementation of Mitigation Measure 3.4-1a (implementation of a Stormwater Pollution Prevention Plan (SWPPP) and erosion control measures), as well as Best Management Practices (BMPs) for construction activities, would reduce potential impacts to special-status fisheries species and habitat resulting from sedimentation and turbidity. Specific measures aimed at protecting fisheries resources include: • All instream construction activities will be conducted during the low-flow period of April 15 through October 15. • Sediment curtains will be placed around the construction or maintenance zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone. • Silt fencing will be installed in all areas where construction occurs within 100 feet of known or potential steelhead habitat. • Fresh concrete will be isolated from wetted channels for a period of 30 days after it is poured. If a 30-day curing period is not feasible, a concrete sealant approved for use in fisheries habitat may be applied to the surfaces of the concrete structure. If a sealant is used, the manufacturer's guidelines for drying times will be followed before reestablishing surface flows within the work area. • Spoil sites (concrete wash areas) will be located so they do not drain directly into the Sacramento River. If a spoil site drains into the Sacramento River, catch basins will be constructed to intercept sediment before it reaches the channel. Spoil sites will be graded to reduce the potential for erosion. **3.6-4b:** Installation of the cofferdam for construction of the intake structure is expected to result in short-term increases in local suspended sediment concentrations that may affect the distribution and behavior of sensitive fish species and their habitat. To avoid and minimize these impacts, site preparation and installation of the sheet pile cofferdam will occur during the summer and fall. **3.6-4c:** In order to offset the permanent loss of 0.1 acres of channel margin habitat or shallow water because of installation of the diversion/intake facility, off-site mitigation habitat shall be purchased in a ratio agreeable to CDFG and other agencies consulted.	LSM	LSM	LSM

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	3.6-4d: Installation of a cofferdam and dewatering may result in stranding and the loss of protected fish and other species. The Project Partners will ensure that a qualified fisheries biologist will design and conduct a fish rescue and relocation effort to collect fish from the area within the cofferdam involving the capture and return of those fish to suitable habitat within the Sacramento River. To ensure compliance, a fisheries biologist shall provide observation during initial dewatering activities within the cofferdam. The fish rescue plan will be provided for review and comment to NOAA Fisheries, USFWS, and CDFG prior to implementation. The success of this dewatering measure will be the effective capture and removal of fish from the area to be dewatered with a minimum of capture and handling mortality for those fish returned to the Sacramento River. Implementation of the fish rescue and relocation program will avoid and minimize impacts to Chinook salmon, steelhead, other fish, and macroinvertebrate species, and thus reduce impacts to less than significant.			
Impact 3.6-5: Construction of the Project intake structure would generate noise or vibrations that would adversely affect the behavior, movement, and local distribution of special-status fish.	No mitigation required	LS	LS	LS
Impact 3.6-6: Operation of the intake facility would cause entrainment and/or impingement mortality of special-status fish or other aquatic species.	No mitigation required	LS	LS	LS
Impact 3.6-7: The Project would have other substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG, USFWS, or NMFS.	**3.6-7a:** A pre-construction survey for rare plants of the selected diversion/intake site and conveyance pipeline route shall be conducted. The survey shall be conducted by a qualified botanist during the appropriate season for identification, according to CNPS Botanical Survey Guidelines, included in Appendix C2.	LSM	LSM	LSM
	3.6-7b: Identified populations of palmate-bracted bird's beak that would be directly affected by proposed Project construction will be completely avoided. Temporary preservation fencing shall be installed to protect individuals, and fencing shall provide a minimum 25-foot distance exclusion area. Indirect effects due to changes in hydrology or other ecological requirements for this species shall be evaluated and modifications to the Project design/construction shall be incorporated to minimize indirect effects to palmate-bracted bird's beak.			

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	3.6-7c: For individual Ferris's milk-vetch, alkali milk-vetch, heartscale, brittlescale, San Joaquin saltbush, Heckard's pepper-grass, rose-mallow, Sanford's arrowhead, Brazilian watermeal, or other special-status species without state or federal status that are detected within the proposed Project area during the pre-construction survey, the Project Partners shall identify and protect their locations with orange fencing, avoid specimens as feasible, and notify CDFG. Where these sensitive plants cannot be avoided by the Project, additional mitigation measures shall be implemented by the Project Partners in consultation with CDFG, prior to construction. These measures may include, but are not limited to the following (see also Mitigation Measure 3.6-8a): • Minimizing impacts by restricting removal of plants to a few individuals of a relatively large population; • Preparing a plan to relocate plants to suitable habitat outside the proposed Project area to a CDFG-approved site; • Restoring or enhancing occupied habitat at an off-site location with appropriate ecological conditions to support the affected sensitive species. • The pipelines shall be located entirely underground and the ground surface will be returned to pre-project grade and contours. • Project Partners shall consult with CDFG on constraints and opportunities for viable off-site habitat enhancement/creation for the species concerned and implement a plan for restoration and enhancement. • The plan shall include a five-year monitoring and maintenance program to evaluate and support the establishment of the sensitive species. • Preserving occupied habitat for the species on-site or at another regional location.			
	3.6.7d: Prior to construction of the Project, the Project area shall be surveyed and 3.6-7d: With the implementation of Mitigation Measure 3.6-9a, prior to construction of the Project the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the potential to support vernal pool and seasonal wetlands. All wetlands within 250 feet of the selected diversion/intake pipeline corridor shall be included in the assessment.			
	3.6-7e: All vernal pool and seasonal wetland habitats identified during the wetland delineation shall either be: (a) Surveyed for presence or absence of vernal pool crustaceans according to USFWS survey protocol (Appendix C2), where those pools found to contain vernal pool crustaceans shall be mitigated by Mitigation Measures 3.6-7f, 3.6-7g, and 3.6-7h. All other pools shall be mitigated at a 1:1 compensation ratio. Or,			

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	(b) Assumed to be occupied by vernal pool crustaceans and the following Mitigation Measures 3.6-7f, 3.6-7g, and 3.6-7h shall be implemented for all pools. **3.6-7f:** All vernal pool and seasonal wetland habitats identified shall be avoided completely. The USFWS considers disturbance within 250 feet of all vernal pool wetlands to be an impact. Therefore, all wetlands shall be avoided by 250 feet and protected within that buffer. Protective measures may consist of temporary fencing such as silt fencing and plastic construction fencing. Also, Best Management Practices (BMPs) and Stormwater Pollution Prevention Plan (SWPPP) methods shall be implemented during construction to avoid indirect water quality impacts to wetlands. These pools shall be considered "avoided" and no further mitigation is necessary. **3.6-7g:** If impacts to vernal pool and seasonal wetlands cannot be avoided but can be protected from direct fill or ground disturbance, then these wetlands shall be identified and protected using temporary fencing, which shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the pool. The distance between the pool and protective fencing shall be maximized wherever possible. These pools will be considered as "indirectly affected" by project activities and shall be mitigated in accordance with the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California* (Appendix C2). Some pools may be considered avoided if it can be shown that the proposed project activity would not adversely impact their surface and subsurface hydrology. This shall be considered on a case-by-case basis by a qualified biologist and hydrologist. **3.6-7h:** For pools that will be directly impacted by project activities, the area of impact shall be calculated. For the purpose of this calculation, any portion of a pool that is directly impacted by project activities would result in the entire pool being permanently impacted. Impacted pools shall then be mitigated in accordance with the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California* (Appendix C2). **3.6-7i:** With the implementation of Mitigation Measure 3.6-9a, prior to construction of the Project the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the potential to support vernal pool and seasonal wetlands which may			

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		Option 1	Option 2	Option 3
	support California tiger salamander and western spadefoot. The survey shall include and all areas within 1.24 miles of proposed project activities (where site access allows) for the presence of CTS using the protocol provided in Appendix C2. Should California tiger salamander be detected in the area, all ground squirrel burrows and vernal pools shall be mapped within 1.24 miles of the proposed Project, and all vernal pools areas shall be calculated within this area. **3.6-7j:** Vernal pools and burrows that can be protected from project activities shall be identified and protected using temporary fencing. Temporary fencing shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the habitat. The distance between the habitat and protective fencing shall be maximized wherever possible. Protective fencing around vernal pools identified as potential habitat for special-status amphibians shall be constructed in a way that allows California tiger salamander and western spadefoot to access these wetlands. **3.6-7k:** For impacts to vernal pools and occupied California tiger salamander burrows, impacted vernal pools shall be mitigated and compensated in accordance with Mitigation Measure 3.6-7h. Burrows that cannot be avoided shall be excavated by a USFWS-approved biologist prior to construction using hand tools. Excavated California tiger salamanders shall be relocated off the project site to a USFWS-approved site. **3.6-7l:** Prior to construction of the Project, the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the presence of elderberry shrubs. The survey shall be conducted according to USFWS's *Conservation Guidelines for Valley Elderberry Longhorn Beetle,* included in Appendix C2. The survey may be conducted concurrently with the rare plant surveys in Mitigation Measure 3.6-7a. **3.6-7m:** Construction of the diversion/intake pipeline corridor shall avoid identified elderberry shrubs by a minimum of 100 feet. If complete avoidance is not feasible, then USFWS shall be consulted regarding impacts to valley elderberry longhorn beetle. Compensation for disturbance within 100 feet of shrubs will be necessary and may include transplanting elderberry shrubs into a conservation area for valley elderberry longhorn beetle. The conservation area must be at least 1,800 square feet and should be planted with 5 additional elderberry plants plus 5 native associated plants for every one transplanted/impacted. Refer to USFWS's *Conservation Guidelines for Valley Elderberry Longhorn Beetle,* included in Appendix D2, for details.			

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		Option 1	Option 2	Option 3
	3.6-7n: Prior to Project construction, the Project Partners shall survey the selected diversion/intake and pipeline siting option for giant garter snake habitat suitability within one year of anticipated construction. The survey area shall include up to 200 feet of upland habitat surrounding potential aquatic habitat for giant garter snake according to the USFWS programmatic biological opinion for giant garter snake (Appendix C2). Habitat assessments shall follow CDFG guidelines *Appendix D: Protocols for Pre-Project Surveys to Determine Presence or Absence for the Giant Garter Snake and to Evaluate Habitats,* as cited in the USFWS *Draft Recovery Plan for the Giant Garter Snake.* These guidelines are included in Appendix C2. **3.6-7o:** If suitable giant garter snake habitat is present, then the following mitigation measures will be implemented to avoid impacts to potential giant garter snake movement corridors. These mitigation measures are in accordance with the USFWS programmatic biological opinion for giant garter snake and pertain to Level 3 impacts, which are those where (a) there is a permanently loss of less than 3 acres of both aquatic and upland habitat for giant garter snake; (b) there is a permanent loss of less than 1 acre of aquatic habitat for giant garter snake; (c) there is a permanent loss of less than 218 linear feet of bank habitat; and (d) temporary disturbances are less than 20 acres and will occur over greater than 2 seasons. • Construction activity within giant garter snake habitat shall occur between May 1 and October 1, which is the active period for the snake. Between October 2 and April 30, the USFWS Sacramento Fish and Wildlife Office shall be consulted to determine if additional measures are necessary to minimize and avoid take. Such measures might include but are not limited to requiring a biological monitor on site during construction within giant garter snake habitat. • Any dewatered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat. • Construction personnel shall participate in a Service-approved worker environmental awareness program. Under this program, workers shall be informed about the presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about giant garter snake as directed in the USFWS programmatic biological opinion for giant garter snake. Proof of this instruction shall be submitted to the Sacramento Fish and Wildlife Office. • Pre-construction surveys for the giant garter snake shall be conducted by a USFWS-approved biologist within 24 hours prior to ground disturbance. Giant garter snake encounters and field reports shall be addressed per the USFWS programmatic biological opinion for giant garter snake.			

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		Option 1	Option 2	Option 3
	• Clearing of wetland vegetation will be confined to the minimal area necessary to excavate toe of bank for riprap or fill placement. Excavation of channel for removal of accumulated sediments will be accomplished by using equipment located on and operated from top of bank, with the least interference practical for emergent vegetation. • Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance. • Preserved giant garter snake habitat shall be designated as Environmentally Sensitive Areas and shall be flagged by a qualified biologist approved by the Service and avoided by all construction personnel. • After completion of construction activities, any temporary fill and construction debris shall be removed and, wherever feasible, disturbed areas shall be restored to pre-project conditions. Restoration work may include replanting emergent vegetation as directed in the USFWS programmatic biological opinion for giant garter snake. • More than two season and temporary permanent losses of habitat shall be compensated at the ratios described in Table 1 and meet the criteria listed in the USFWS programmatic biological opinion for giant garter snake. • All wetland and upland acres created and provided for the giant garter snake shall be protected in perpetuity by a Service-approved conservation easement or similarly protective covenants in the deed and comply with provisions in the USFWS programmatic biological opinion for giant garter snake. • The Reporting Requirements shall be fulfilled in compliance with the USFWS programmatic biological opinion for giant garter snake. **3.6-7p:** The following measures shall be implemented to compensate for Level 3 impacts to giant garter snake: • Replacement of affected giant garter snake habitat at a 3:1 ratio. • All replacement habitat must include both upland and aquatic habitat components. Upland and aquatic habitat components must be included in the replacement habitat at a ratio of 2:1 upland acres to aquatic acres. • If restoration of habitat is a component of the replacement habitat, one year of monitoring restored habitat with a photo documentation report due one year from implementation of the restoration with pre- and post-project area photos. • Five years of monitoring replacement habitat with photo documentation report due each year.			

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	3.6-7q: If feasible, construction shall commence outside of the March 1 through September 15 nesting season. If construction activities begin between September and March, then construction may proceed until it is determined that an active nest is subject to abandonment as a result of construction activities. Construction activities must be in full force, including at a minimum, grading of the site and development of infrastructure to qualify as "pre-existing construction." A minor activity that initiates construction but does not involve full construction will not qualify as "pre-existing construction." If nesting commences in the vicinity of the project under pre-existing construction condition, then it is assumed that the birds are or will habituate to the construction activities. **3.6-7r:** If construction must occur during the breeding season (March 1 through September 15), then prior to Project construction, the Project Partners shall survey the chosen siting diversion/intake pipeline corridor for nesting Swainson's hawks during the nesting season the year when construction is anticipated to occur. Surveys shall be conducted by a qualified biologist and according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, included in Appendix C2. The survey area shall include a half-mile radius around the Project construction activities. **3.6-7s:** No new disturbance shall occur within a half-mile of an active nest. If nesting sites are present within a half-mile of Project construction activities, then the Project Partners shall consult with CDFG regarding impact minimization measures for Swainson's hawk. Such minimization measures may include but are not limited to the following: • In coordination with CDFG, and depending on the level of noise or construction disturbance, line of site between the nest and the disturbance, ambient level of noise and other disturbances, and other topographical or other barriers, a smaller no-disturbance buffer may be established around an active nest site. These factors shall be analyzed in order to make an appropriate decision on zone distances. • Active nests shall be monitored until young have fledged (usually late-June to mid-July). **3.6-7s(1):** To mitigate for permanent loss of Swainson's hawk foraging habitat associated with the construction of the WTP facility in Options 2 or 3, compensation shall follow guidance in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency (Habitat JPA). Text of this Agreement is provided in Appendix C-3. The Agreement requires that:			

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	• Urban development permittees shall pay an acreage-based mitigation fee in an amount, as determined by the Habitat JPA Board, sufficient to fund the acquisition, enhancement and long-term management of one (1) acre of Swainson's hawk foraging habitat for every one (1) acre of foraging habitat that is lost to urban development. • A calculated fee of $5,800.00 per acre is sufficient to fund the acquisition and preservation as of January 2004 (Staff Report on Swainson's Hawk Mitigation Fee Update). This fee amount may be adjusted to reflect updated costs for acquisition of habitat. • With written approval of and subject to conditions determined by CDFG, an urban development permittee may transfer fee simple title or a conservation easement over Swainson's hawk foraging habitat, along with appropriate enhancement and management funds, in lieu of paying the acreage-based mitigation fee. **3.6-7t:** Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk, but modify survey area to include 500 feet around the construction activities, and modify buffer areas to include 500 around a nest. **3.6-7u:** Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk and apply them to northern harrier and short-eared owl, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 around a nest. **3.6-7v:** The Project Partners shall survey the chosen siting diversion/intake pipeline corridor for burrowing owls according to the *Staff Report on Burrowing Owl Mitigation* (Appendix C2) which includes survey guidelines for burrowing owl. The surveys must be conducted prior to Project construction and shall be conducted by a qualified biologist. The guidelines include the following: • Conduct a winter survey (to be conducted between December 1 and January 31) and a survey during the breeding season (to be conducted April 15 to July 15). • Conduct the survey beginning one hour before sunrise and two hours after, OR two hours before sunset and one hour after. • The survey area shall include suitable habitat within a 500 radius around the Project construction zone.			

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	3.6-7w: If occupied burrows are identified, the measures included in the *Staff Report on Burrowing Owl Mitigation* (Appendix C2) will be implemented to minimize impacts to burrowing owl. These include but are not limited to the following measures: • Owls shall not be disturbed from February 1 through August 31. Establish an avoidance buffer of 160 feet (September through January 31) or 250 feet (February 1 through August 31) and monitor the nest burrow during construction activity. Any indication of impacts to the breeding pair as a result of construction shall be reported to CDFG whereby CDFG may have the authority to halt construction until the young have fledged from the nest. • If impacts to owls cannot be avoided, then CDFG shall be consulted on minimization measures such as using passive relocation techniques during the non-breeding season (September 1 through January 31). • A minimum of 6.5 acres of foraging habitat must be preserved for every occupied burrow potentially impacted (within 160 feet or 250 feet of the construction activity, depending on the season). Foraging habitat shall be preserved according to CDFG guidelines. **3.6-7x:** Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk and apply them to the above-listed species, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 around nesting colonies/locations.			
Impact 3.6-8: The Project would have other substantial adverse affects on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.	**3.6-8a:** Prior to construction, the Project Partners shall conduct an assessment within the proposed Project area to provide the basis of a vegetation mitigation plan. A vegetation mitigation plan will be developed for submittal to CDFG. The plan shall contain species expected to be found in the vicinity of Project sites. Details about the species and their past occurrence shall be included in the plan. The Project Partners shall comply with all terms of conditions for approval, including additional mitigation provisions to be implemented. The Project Partners would follow performance standards in developing the plan. The requirements would consist of one or more of the following provisions: • Establish an oak tree conservation easement in coordination with Yolo County to protect and preserve trees commensurate with the removal of large oaks as a result of project implementation • Replace and maintain trees, for seven years, at a rate of 1 tree per 1-inch of tree diameter removed as measured at diameter breast height. Because this measure would only fulfill one-half of the required mitigation for the Project, one or more of the other provisions would need to be implemented to fulfill the remaining mitigation requirements.	LSM	LSM	LSM

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		Option 1	Option 2	Option 3
	• Contribute funds to a suitable oak woodland conservation fund, as established in accordance with § 1363 of the Fish and Game Code • Consult with Yolo County and CDFG to determine and agree to implement other suitable measures consistent with the Yolo County Oak Woodland Conservation and Enhancement Plant 2007 and §21083***.4(a) of the California Public Resources Code.***			
	3.6-8b: For any drainage that would be crossed using trenchless construction techniques, the bore pits will be excavated at least 50 feet outside the edge of riparian vegetation to minimize impacts to waterways and adjacent areas. **3.6-8c:** All new Project-related groundwater wells within water sellers' service areas shall be sited in areas that are not within 0.25 mile of wetlands and other sensitive biological resources that could be affected by groundwater drawdown.			
Impact 3.6-9: The Project would have other substantial adverse effects on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**3.6-9a:** Prior to construction, the Project Partners shall conduct and submit for approval a formal wetland delineation report for the proposed Project area for verification through the ACOE. The applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the ACOE and/or a Section 401 permit from the RWQCB and shall comply with all conditions of permits received. In association with either or both permits, compensatory mitigation for impacts to jurisdictional wetlands may be required. ACOE mitigation guidelines emphasize on-site mitigation preference, but in the potential case that on-site mitigation is not available, the Project partners shall either purchase wetland mitigation credits from an ACOE -approved mitigation bank that services the area containing the proposed project or prepare a plan to implement mitigation at an off-site location. **3.6-9b:** For open trench construction crossing minor wetland ditches (less than 15 feet in width), the following measures shall be implemented: • Implement compliance measures, described in Section 3.7, Geology, Soils, and Seismicity for Impact 3.7-1, to reduce indirect impacts to wetlands and other waters during open trench construction; • Conduct trenching and construction activities across drainages during low-flow or dry periods as feasible;	LSM	LSM	LSM

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

(Legend: NI = No Impact; LS = Less-Than-Significant -impact; LSM = Less-Than-Significant-Impact With Mitigation; SU = Significant And Unavoidable Impact)

Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• If working in active channels, install cofferdam upstream and downstream of stream crossing to separate construction area from flowing waterway; • Place sediment curtains upstream and downstream of the construction zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone; • Locate spoil sites such that they do not drain directly into the drainages and/or seasonal wetlands; • Store equipment and materials away from the drainages and wetland areas. No debris will be deposited within 250 feet of the drainages and wetland areas; • Prepare and implement a revegetation plan to restore vegetation in all temporarily disturbed wetlands and other waters using native species seed mixes and container plant material that are appropriate for existing hydrological conditions. All disturbed drainages will be restored to pre-construction conditions.			
SECTION 3.7. GEOLOGY, SOILS, AND SEISMICITY				
Impact 3.7-1: The Project could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.	**3.7-1a:** Prior to construction, a detailed geotechnical study of the Project Area shall be conducted, and shall include liquefaction potential, bearing strength of soils, and levee slope stability. Measures shall be taken to incorporate findings into facility design to minimize damage potential from liquefaction, changes in levee slope stability, levee erosion, and other seismically induced changes. **3.7-1b:** The Project Partners shall consult with the appropriate Federal, State, and local agencies to identify and implement specific design and engineering requirements for levees that may be affected by installation of Project facilities; specified design and engineering requirements deemed appropriate by agencies with jurisdiction over local levee integrity shall be incorporated into Project design. **3.7-1c:** In order to mitigate potential damage caused to Project facilities by corrosive soils, appropriate measures shall be incorporated into Project design to prevent or minimize corrosion to steel and concrete components susceptible to damage from corrosive soils.	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.7-2: The Project could result in substantial soil erosion or the loss of topsoil.	**3.7-2a:** Implement Mitigation Measures 3.4-1a and 3.4-1b as discussed in Chapter 3.4 of this document. Additionally, stormwater and runoff from Project facilities shall be directed into drainage ditches, channels, swales, infiltration basins, or other features that have sufficient capacity to divert and contain stormwater flows without inducing substantial soil erosion or loss of topsoil from levees or other areas. During construction, disturbed levees shall be provided with temporary cover to prevent erosion of bare soils. Following construction, disturbed areas shall be hydroseeded with native grasses and other plants suitable for stabilizing unconsolidated sediments and reducing stormwater erosion. **3.7-2b:** Erosion control plans shall be prepared for installation and construction of new groundwater wells that are established to replace surface water transferred to the Project Partners. The plans shall identify actions to control erosion and prevent materials from entering surface waterways that are located in the vicinity of the well site.	LSM	LSM	LSM
Impact 3.7-3: The Project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.	No mitigation required	LS	LS	LS
Impact 3.7-4: The Project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.	No mitigation required	LS	LS	LS
SECTION 3.8. AIR QUALITY				
Impact 3.8-1: Project construction and/or operation would violate any air quality standard or contribute substantially to an existing or projected air quality violation.	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect. Air quality impacts during operations will be less than significant. **3.8-1a:** During construction, the Project partners shall require feasible NOx mitigation measures, which include: • The project owner shall designate an on-site Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for directing compliance with mitigation measures for the project construction.	SU/LS	SU/LS	SU/LS

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• To the extent that equipment and technology is available and cost effective, the Project Partners shall require contractors to use catalyst and filtration technologies, and retrofit existing engines in construction equipment. • All diesel-fueled engines used in the construction of the Project shall use ultra-low sulfur diesel fuel, which contains no more than 15 ppm sulfur or alternative fuels (i.e., reformulated fuels, emulsified fuels, compressed natural gas, or power with electrification). Low sulfur diesel fuel (500 parts per million sulfur content) shall be used only if evidence is obtained and maintained from the fuel supplier(s) that ultra-low sulfur diesel fuel is unavailable in the Project area. • All construction diesel engines, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, § 2423 (b)(1) unless certified by the on-site AQCMM that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 50 hp, that engine shall be a Tier 1 engine. • To assist the AQCMM in identifying engines that comply with the above requirement over the period of project construction, all diesel-fueled engines used in the construction of the Project shall have clearly visible tags issued by the AQCMM showing that the engine meets the above requirement. • Minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is permitted or required. • To the extent practicable, manage operation of heavy-duty equipment to reduce emissions such as maintain heavy-duty earthmoving, stationary and mobile equipment in optimum running conditions which can result in 5 percent fewer emissions. • To the extent practicable, employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect			
	3.8-1b: During construction, the Project Partners shall require construction contractors to implement the following fugitive dust mitigation measures in order to keep levels below YSAQMD thresholds of significance:			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• Limit grading activities to less than 10 acres on a given day. • Water all construction sites as needed to control dust. • Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). • Limit on-site vehicles to a speed of 15 miles per hour on unpaved roads. • Suspend land clearing, grading, earth moving, or excavation activities when winds exceed 20 miles per hour. • Cover inactive soil storage piles. • Cover all trucks entering or exiting the Project site hauling soil, sand, and other loose materials that could create dust. • Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications; • Sweep or wash all paved streets adjacent to the development site at the end of each day as necessary to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site. • Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours. The telephone number of the YSAQMD shall also be visible to ensure compliance with YSAQMD rules. **3.8-1c:** New groundwater wells powered by diesel fuel shall be located more than 200 feet away from sensitive receptors. **3.8-1d:** Electric energy shall be used to power new groundwater well pumps , to the extent practicable. **3.8-1e:** Screening-level DPM assessments should be conducted for diesel–powered groundwater pump operations proposed within 500 feet of residences or other sensitive receptors. These analyses should include exact distances between the receptors and operations, and include the actual DPM emissions for the engines proposed. If the analysis shows an annual average DPM concentration from project operations at residences within 500 feet of the DPM source to be greater than 0.024 ug/m3, the engine location shall be moved to a location where the annual average DPM concentration from project emissions is less than 0.024 ug/m3. The acceptable concentration of 0.024 ug/m3 was determined using the current OEHHA cancer potency factor and methodology for diesel exhaust (OEHHA, 2003). If diesel exhaust concentrations at the affected receptor would be below 0.024 ug/m3, then the cancer health risk would be less than 9.9 cancers in a million population.			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.8-2: The Project would conflict with or obstruct implementation of the applicable air quality plan.	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect. Air quality impacts during operations will be less than significant.	SU/LS	SU/LS	SU/LS
Impact 3.8-3: Project construction and/or operation would expose sensitive receptors to substantial pollutant concentrations.	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect. Air quality impacts during operations will be less than significant.	SU/LS	SU/LS	SU/LS
Impact 3.8-4: Project operation would create objectionable odors affecting a substantial number of people.	No mitigation required	LS	LS	LS
SECTION 3.9. NOISE				
Impact 3.9-1: Proposed Project construction and/or operation would expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect. Air quality impacts during operations will be less than significant with mitigation measures in place. **3.9-1a:** In order to avoid noise-sensitive hours of the day and night, construction contractors shall comply with the following: • Construction activities within the City of Woodland jurisdiction, including the Option 1 and 2 WTP site, if this site is selected, and a portion of the treated water transmission pipeline, shall be limited to between 7 a.m. to 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. • Construction activities within the City of Davis jurisdiction (i.e., a portion of the treated water transmission pipeline) shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday, and between the hours of 8 a.m. and 8 p.m. on Saturdays and Sundays. • Construction activities in the County of Yolo jurisdiction, including the Option 1 and 2 WTP site, the intake facility, and water pipeline segments, shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and only interior construction shall be allowed between the hours of 7:00 a.m. and 7:00 p.m. on Saturday to avoid noise-sensitive hours of the day. • Pile-driving shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday, with no pile-driving permitted between 12:30 p.m. and 1:30 p.m.	SU/LSM	SU/LSM	SU/LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.9-1b:** To further address potential nuisance impacts of proposed Project construction, construction contractors shall implement the following: • Signs shall be posted at all construction site entrances to the property upon commencement of proposed Project construction, for the purposes of informing all contractors/subcontractors, their employees, agents, material haulers, and all other persons at the applicable construction sites, of the basic requirements of Mitigation Measures 3.9-1a and 3.9-1c through 3.9-1e. • Signs shall be posted at the construction sites that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number in the event of problems. • An onsite complaint and enforcement manager shall respond to and track complaints and questions related to noise. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.9-1c:** To reduce daytime noise impacts due to construction of the diversion/intake facility and treated water transmission pipelines in urban areas, the Project Partners shall require construction contractors to implement the following measures: • Equipment and trucks used for proposed Project construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible). • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for proposed Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible.			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• Stationary construction noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction purposes. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.9-1d:** To further mitigate pile driving noise impacts at the diversion/intake facility, the Project Partners shall require construction contractors to implement "quiet" pile-driving technology (such as sonic or vibratory pile-driver use; pre-drilling of piles; jetted pile-driving), where feasible, if geotechnical and structural requirements and conditions permit this type of technology. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.9-1e:** No amplified sources (e.g., stereo "boom boxes") shall be used in the vicinity of residences during proposed Project construction. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.9-1f:** Groundwater wells shall be located as far from sensitive receptors as feasible. Also, if new wells are to be constructed in the direct line of sight of sensitive receptors within 1,000 feet of the drill rig, the applicant shall include construction specifications requirements for installation and maintenance of a temporary noise barrier (engineered sound wall or noise blanket) during 24-hour construction activities. Specifications shall include use of appropriate materials and shall be installed to a height that intercepts the line of sight between the drill rig and sensitive receptors in order to achieve attenuation of between 10 and 15 dBA. Performance standard for this noise mitigation measure shall be reduction of noise levels within 1,000 feet of the drill rig to 60 dBA or less. No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	3.9-1g: The applicant shall design and construct all above ground proposed Project facilities that include stationary equipment (e.g., emergency generators, the WTP HVAC systems, pumps, motors, blowers, and compressors and the diversion/intake and groundwater well pump equipment) with acoustically baffled/shielded enclosures around the stationary, noise-generating equipment to meet the jurisdictionally applicable City or County sound level requirements at nearby land use property lines. If the City or County with jurisdiction over the facility area does not have established exterior sound level requirements for sensitive receptors, such as Yolo County, the locations of the water seller's potential groundwater wells, then operation of the intake or groundwater wells shall be designed such that the generation of noise levels at the exterior of residences or commercial/industrial uses in the vicinity is no more than 45 dBA Leq or 55 dBA Leq, respectively. However, for sensitive receptors in areas with existing elevated ambient night-time noise levels, such as receptors near major roadways, the enclosures for stationary equipment shall be designed such that noise levels from the stationary equipment shall not exceed the existing ambient night-time hourly Leq noise levels at the receptor.			
Impact 3.9-2: Proposed Project construction would expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.	No mitigation required	LS	LS	LS
Impact 3.9-3: The proposed Project would cause a substantial permanent increase in ambient noise levels in the proposed Project vicinity above levels existing without the proposed Project.	Implement Mitigation Measure 3.9-1g.	LSM	LSM	LSM
Impact 3.9-4: The proposed Project would cause a substantial temporary or periodic increase in ambient noise levels in the proposed Project vicinity above levels existing without the proposed Project.	No mitigation available to lessen temporary construction-related impacts to less-than-significant levels, however, measures will contribute to minimizing effect. Noise impacts during operations will be less than significant with mitigation measures in place. Mitigation Measures 3.9-1a through 3.9-1g will contribute to minimizing effect and are incorporated by reference.	SU/LSM	SU/LSM	SU/LSM
Impact 3.9-5: The proposed Project, if located within two miles of an airport, would expose people residing or working in the proposed Project area to excessive noise levels.	No mitigation required	LS	LS	LS

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
SECTION 3.10. HAZARDS AND HAZARDOUS MATERIALS				
Impact 3.10-1: The Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	**3.10-1a:** The Project Partners shall ensure, through the enforcement of contractual obligations, that all contractors transport, store and handle construction-related hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the Department of Transportation, California RWQCB, the local fire departments, and the local environmental health department. • Recommendations shall include as appropriate transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using applicable federal, state and/or local regulatory agency protocols. In addition, all precautions required by the CVRWQCB issued NPDES construction activity stormwater permits will be taken to ensure that no hazardous materials enter any nearby waterways. In the event of a spill, the Project Partners shall ensure, through the enforcement of contractual obligations, that all contractors immediately control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. If required by the local fire departments, the local environmental health department, or any other regulatory agency, contaminated media shall be collected and disposed of at an offsite facility approved to accept such media. **3.10-1b:** The storage, handling, and use of the construction-related hazardous materials shall be in accordance with applicable federal, state, and local laws. Construction-related hazardous materials and hazardous wastes (e.g. fuels and waste oils) shall be stored away from stream channels and steep banks to prevent these materials from entering surface waters in the event of an accidental release. These materials at sufficient distance (at least 500 feet) from nearby residences or other potential sensitive land uses. This includes materials stored for expected use, materials in equipment and vehicles, and waste materials. **3.10-1c:** Implement Best Management Practices described in Mitigation Measure 3.4-1b for controlling pollutant sources that could affect stormwater discharges from construction sites. **3.10-1d:** The Project Partners or their designated construction contractor shall prepare a Hazardous Materials Management Plan (HMMP) for construction of the Project. The HMMP will shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction, including waste materials. The plan shall include, but shall not be limited to, the following:	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	• A description of hazardous materials and hazardous wastes • Handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste • Preparedness, prevention, contingency, and emergency procedures, including emergency contact information • Personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility • An MSDS shall be kept on-site for each on-site, hazardous chemical • Hazardous material storage areas, including temporary storage areas, shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank • Equipment maintenance procedures The HMMP shall be made a condition of contractual obligation and shall be available for review by construction inspectors and implementation compliance shall be monitored.			
Impact 3.10-2: The Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	**3.10-2**: To mitigate potential release of acutely hazardous substances within one-quarter mile of any school, an investigation of the extent of LUST-related contamination shall be undertaken as part of Project engineering and design. The investigation shall assess the potential for disturbing contaminated areas by the treated water pipeline installation, within the areas indicated in Table 3.10-10. The contaminated areas shall either be avoided, or any work done within contaminated areas shall be undertaken in compliance with standards approved by the DTSC or Yolo County Health Department (Yolo County Health Department, 2007) to ensure that the soil disturbance will not result in the release of hazardous materials.	LSM	LSM	LSM
Impact 3.10-3: The Project could be located on a site that is included on a list of hazardous materials sites and, as a result, would create a significant hazard to the public or the environment	**3.10-3:** To mitigate potential hazards resulting from disturbing contaminated areas, the extent of contamination from hazardous materials sites within or adjacent to the Project construction area shall be delineated during final design. Disturbance to contaminated areas during Project construction shall be avoided, or any work done within contaminated areas shall be undertaken in compliance with standards approved by the DTSC or Yolo County Health Department (Yolo County, 2007) to ensure that hazardous materials will not be released as a result of the ground disturbance.	LSM	LSM	LSM

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		Option 1	Option 2	Option 3
	Additionally, if unidentified contaminated soil and/or groundwater are encountered, or if suspected contamination is encountered during any construction activities, work shall be halted in the area of potential exposure, and the type and extent of contamination shall be identified. A qualified professional, in consultation with appropriate regulatory agencies, will then develop and implement a plan to remediate the contamination and properly dispose of the contaminated material.			
Impact 3.10-4: The Project could be located within two miles of an airport and result in a safety hazard for people residing or working in the Project area.	No mitigation Required	LS	LS	LS
Impact 3.10-5: The Project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	**3.10-5a:** Implement Mitigation Measure 3.12-1b, Traffic control plan from the Transportation section, which includes provisions for notifying emergency responders as well as local residents of scheduled or potential Project-related impairments to roadway operations, traffic movement and circulation. **3.10-5b:** Ensure that, in areas where construction activity is taking place within a roadway, sufficient roadway width remains so that roadway is passable by emergency vehicles.	LSM	LSM	LSM
Impact 3.10-6: The Project could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	**3.10-6a:** The Project Partners shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The Project Partners shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. **3.10-6b:** Work crews shall be required to carry sufficient fire suppression equipment to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	LSM	LSM	LSM
SECTION 3.11. PUBLIC HEALTH AND SAFETY				
Impact 3.11-1: The Project would create a significant public health risk through the introduction of contaminants to the drinking water supply at concentrations with known adverse effect.	No mitigation Required	NI	NI	NI

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		Option 1	Option 2	Option 3
SECTION 3.12. TRANSPORTATION AND TRAFFIC				
Impact 3.12-1: Project construction would substantially increase traffic in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).	**3.12-1a:** Construction contractors shall implement measures consistent with provisions of the *Work Area Protection and Traffic Control Manual* including requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles (CJUTCC, 1996). **3.12-1b:** The Project Partners shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction (i.e., Caltrans, Yolo County, City of Davis, City of Woodland, UC Davis, Yolo Shortline) prior to construction. The plan shall: • Include a discussion of work hours, haul routes, limits on the length of open trench, work area delineation, traffic control and flagging; • Identify all access and parking restriction and signage requirements; • Layout a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints; • Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers would be notified of the timing, location, and duration of construction activities. All roads would remain passable to emergency service vehicles at all times; • Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and • Specify the street restoration requirements pursuant to agreements with the local jurisdictions. **3.12-1c:** Use special construction techniques (e.g., horizontal boring, directional drilling or night construction) on roadways with high traffic volume to avoid creating traffic conditions with a Level of Service D or worse.	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	3.12-1d: Prepare vehicle movement and detour plans to minimize impact to local street circulation, driveway access, and displacement of on-street parking. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. Pipeline construction in urban areas will limit trench length to no more than 75 feet to minimize displacement of on-street parking. **3.12-1e:** Identify and utilize areas for equipment parking, staging, and construction crew parking to limit lane closures in the public right-of-way. **3.12-1f:** Coordinate with Caltrans, Yolo County, City of Davis, City of Woodland, UC Davis, and any other appropriate entity, regarding measures to minimize the cumulative effect of simultaneous construction activities. **3.12-1g:** Consult with Yolobus and Unitrans Transit to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.			
Impact 3.12-2: The Project would exceed, either individually or cumulatively, a level of service standard established by the Yolo County Congestion Management Agency for designated roads or highways.	No mitigation Required	LS	LS	LS
Impact 3.12-3: The Project would result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	No mitigation Required	NI	NI	NI
Impact 3.12-4: Project construction would increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways.	**3.12-4a:** Implement Mitigation Measure 3.12-1a. **3.12-4b:** Implement Mitigation Measure 3.12-1g.	LSM	LSM	LSM

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

(Legend: NI = No Impact; LS = Less-Than-Significant -impact; LSM = Less-Than-Significant-Impact With Mitigation; SU = Significant And Unavoidable Impact)

Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	3.12-4c: Roads damaged by construction would be repaired to a structural condition equal to that which existed prior to construction activity. The Project Partners and the local jurisdiction shall enter into an agreement prior to construction that will detail the pre-construction conditions and the post-construction requirements of the rehabilitation program.			
Impact 3.12-5: Construction would adversely affect access to adjacent land uses and temporarily block access routes used by city police departments, Yolo County Sheriff's Department, fire departments, and emergency services.	Implement Mitigation Measures 3.12-1b through 3.12-1g.	LSM	LSM	LSM
Impact 3.12-6: Construction of the Project would displace existing on-street parking and result in inadequate parking capacity.	Implement Mitigation Measures 3.12-1d and 3.12-1e.	LSM	LSM	LSM
Impact 3.12-7: The Project would conflict with adopted policies, plans, or programs supporting alternative transportation.	No mitigation Required	LS	LS	LS
SECTION 3.13. PUBLIC SERVICES AND UTILITIES				
Impact 3.13-1: The Project would generate the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times of other performance objectives for any of the public services (i.e., fire protection, police protection, other public facilities, the construction of which could cause significant environmental impacts).	No mitigation Required	LS	LS	LS
Impact 3.13-3: The Project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	No mitigation Required	NI	NI	NI

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.13-4: The Project would be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs.	No mitigation Required	LS	LS	LS
Impact 3.13-5: The Project would violate federal, state, and local statutes and regulations related to solid waste.	No mitigation Required	LS	LS	LS
Impact 3.13-6: Construction of the Project would result in conflict with other existing utilities, causing interference with their operation or function.	**3.13-6:** A Utility Avoidance Plan shall be prepared and implemented to ensure that the project plans and specifications contain a detailed engineering and construction plan to avoid utility conflicts. Measures to avoid utility conflicts may include, but are not limited to: • Utility locations will be verified through field survey and use of the Underground Service Alert services. • Detailed specifications will be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utilities shall be notified of construction plans and schedule. Arrangements may be made with these entities regarding protection, relocation, or temporary disconnection of services. • Residents and businesses in the project area of planned utility service disruption will be notified of any outages two to four days in advance, in conformance with county and state standards. • In the event cables and lines are disconnected, they will be reconnected as soon as possible.	LSM	LSM	LSM
SECTION 3.14. CULTURAL RESOURCES				
Impact 3.14-1: Project construction would cause a substantial adverse change in the significance of a historical or unique archaeological resource within the Project area.	**3.14-1:** The following tasks shall be conducted, where appropriate, by the Project Partners. The tasks described satisfy not only CEQA, but federal rules and regulations as well (in particular, Section 106 of the National Historic Preservation Act and its implementing regulations). Collectively, these tasks represent a cultural resource management approach designed to ensure compliance with applicable General Plans, CEQA, and federal rules and regulations.	LSM	LSM	LSM

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	Task I. Identifying Historic Properties A. Upon selection of a preferred diversion/intake pipeline option, the Project Partners, where appropriate, shall complete the identification process per 36 CFR Part 800.4 (which includes, among other identification efforts, a Class I literature search and a Class III field survey) in the area of potential effect (APE) for a specific undertaking. A Class III pedestrian survey will not be required when: 1. The California Historical Information System and SHPO agree that previous cultural resources surveys have already adequately identified historic properties, or 2. The California Historical Information System and SHPO agree that previous disturbance has eliminated the possibility of identifying historic properties. B. An undertaking shall be considered to exist, and an APE shall be defined, when the Project Partners, directly or through the issuance of appropriate permits, undertake construction of the facilities identified in project development and construction plans. The APE will be the land area affected by construction of new facilities, from the point of diversion at the Sacramento River, along pipelines, and at water treatment and storage facilities; C. Where the Project Partners conduct an intensive (Class III) inventory, required consultation with California SHPO shall be undertaken and coordinated by the lead federal agency with approval authority over Project features. **Task II. Assessing Effects** A. The lead agency, in consultation with SHPO, will assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP. If the Project Partners, and federal lead agency, determine that construction and operation of the project would result in unavoidable effects, or an adverse effect, to historic properties within the APE, in accordance with 36 CFR Part 800.5, then the lead agency, other interested parties, the Project Partners, and SHPO will consult to resolve the adverse effect (see Task III below). **Task III. Treating Effects** A. The Project Partners shall implement one or more of the following measures for treating effects to historic properties: 1. Avoid effects through redesign of the project; 2. Avoid effects by not executing the proposed contract;			

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
	3. If avoidance is not feasible, mitigate effects through measures such as data recovery or archival documentation (for example, the Historic American Buildings Survey/ Historic American Engineering Record). The Project Partners, in consultation with the U.S. Army Corps of Engineers, SHPO, the Advisory Council, and other interested agencies, shall work together to find measures to mitigate the effects of a particular undertaking on historic properties. The Project Partners shall develop plans to implement the agreed upon mitigating measures and shall submit such plans—in the form of a Memorandum of Agreement—to the SHPO, the Advisory Council, and interested agencies for review and comment. B. The Project Partners shall ensure that any mitigating measures agreed on during consultation will be included as a specification in Project development. Mitigation measures will be completed before the start of ground disturbing activities that would affect the physical integrity of an historic resource. Mitigating measures for visual, audible, or atmospheric effects will be completed before completion of Project construction. **Task IV. Properties Discovered During Implementation Of An Undertaking** A. If a previously undiscovered historic property is inadvertently encountered during construction, all work in the immediate vicinity of the property except that necessary to secure and protect the property will cease until the Project Partners can secure assistance from a professional archaeologist who evaluate and, if necessary, mitigate effects to the discovery. Evaluation and mitigation will be carried out in consultation with the federal lead agency and SHPO pursuant to 36 CFR Part 800.11(b)(2)(ii). B. If human remains are discovered during archaeological survey, any archaeological testing or data recovery or any construction activities, work in the immediate vicinity of the discovery will cease except to secure and protect the remains. The Project Partners or their consulting archaeologist will immediately notify the County Coroner, per State law. As well, the Project Partners shall ensure that any human remains and grave-associated artifacts discovered are also managed in accordance with California Statutes, their chapters and sections, which include but are not necessarily limited to: Chapter 1492, Statutes of 1982, Section 7050.5 of the Health and Safety Code, and Sections 5097.94, 5097.98, and 5097.99 of the Public Resources Code.			
Impact 3.14-2: Project construction would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Implement Mitigation Measure 3.14-1.	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.14-3: Project construction would disturb any human remains, including those interred outside of formal cemeteries.	Implement Mitigation Measure 3.14-1.	LSM	LSM	LSM
SECTION 3.15. RECREATION				
Impact 3.15-1: The Project could increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	No mitigation Required	NI	NI	NI
Impact 3.15-2: The Project could include recreational facilities or require the construction or expansion of recreational facilities which might have a significant adverse physical effect on the environment.	No mitigation Required	NI	NI	NI
Impact 3.15-3: Construction and operation of the intake could reduce access to, or interfere with the use of existing recreational opportunities or facilities, including recreational use of the Sacramento River.	**3.15-3a:** During Project construction and operation, waterway markers, including buoys and/or signs, shall be placed in, on, or near the water to protect the safety of boat operators as specified in Title 14 Department of Boating and Waterways Section 7000 et seq. The shapes of aids to navigation shall be compatible with the shapes established by Coast Guard regulations for the equivalent Coast Guard aids to navigation. When lights are placed on buoys as an aid to navigation, their characteristics shall be compatible with those designated by federal regulations for federal aids to navigation. **3.15-3b:** The design of the intake facility shall provide for continued public access to the Sacramento River during construction and operational phases. Pedestrian access shall be designed to discourage trespassing on adjacent properties, where applicable.	LSM	LSM	LSM
SECTION 3.16. AESTHETICS				
Impact 3.16-1: The Project could have a substantial adverse effect on scenic vistas.	No mitigation Required	LS	LS	LS

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 3.16-2: The Project could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No mitigation Required	NI	NI	NI
Impact 3.16-3: The Project could substantially degrade the existing visual character or quality of the site and its surroundings.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect **Measure 3.16-3a:** The design of the proposed water storage tanks, including the choice of color and materials, shall seek to reduce the visual contrast of the facility. Bright and reflective colors shall be avoided. Additionally, landscaping including revegetation of disturbed areas, plantings of trees, and/or minor topographic enhancements, shall be utilized to minimize textural and aesthetic contrasts with surrounding areas. No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.16-3b**: The design of the diversion/intake facility and WTP, including the choice of color and materials, shall seek to reduce the visual contrast of the facility. Bright reflective materials and colors shall be avoided. No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.16-3c:** The Project Partners shall develop a landscaping plan that utilizes native vegetation to shield the new intake/diversion facility and the WTP from adjacent properties, the Sacramento River, and nearby residences, to the extent feasible.	SU	SU	SU
Impact 3.16-4: The Project would create a new source of substantial light or glare that would adversely affect nighttime views in the area.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect **3.16-4**: Outdoor light sources shall be properly shielded and installed to prevent light trespass onto adjacent properties. Flood or spot lamps installed for purposes other than waterway navigation shall be directed downward when the source is visible from any offsite residential property or public roadway. To the extent that security levels would be maintained, automatic lighting shall be employed to reduce non-critical light emissions.	SU	SU	SU

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
SECTION 4.0 GROWTH INDUCING POTENTIAL AND SECONDARY EFFECTS OF GROWTH				
Growth Inducement: The proposed Project would facilitate population growth and development by removing an obstacle to planned growth that is limited by the supply of municipal drinking water available to the Project Partners or by limits on wastewater discharge quality that may be imposed by the CVRWQCB. As discussed in detail within Chapter 4.0 of this EIR, significant and unavoidable environmental effects related to growth inducement by the Proposed Project include the following:				
Land Use and Agriculture: Continued development within the spheres of influence of the Project Partners would result in displacement of existing agricultural land uses by urban land uses.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Biological Resources: Agricultural areas, areas near Putah Creek, areas near Cache Creek, and isolated riparian and grassland habitats support valuable biological resources. Conversion of these areas to urban use would result in loss of biological resources.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Air Quality: The Sacramento Valley is a non-attainment area for both ozone and PM_{10}. Further increases in vehicle emissions, construction activities, and other air pollutant sources would contribute to regional ozone and particulate matter concentrations.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Noise: Levels of noise would be expected to increase as human activities increase in area and density, amounting to a general increase in ambient noise levels.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Transportation and Traffic: An increase in road traffic would potentially result in certain road segments and intersections operating at lower levels of service. This could in turn result in reduced traffic movement and increased traffic congestion.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Aesthetic Resources: Planned and unplanned population growth would result in the loss in scenic views, changes in aesthetic character, and production of new sources of light and glare.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
CHAPTER 6.0 OTHER CEQA SECTIONS				
Impact 6.1-1: Project operations, when combined with other existing, planned or foreseeable future Sacramento River or Delta diversions or water management projects, would adversely affect Sacramento River hydrologic conditions or Delta inflows or outflows in a way that would conflict with other water management objectives or existing beneficial uses.	No mitigation Required	LS	LS	LS
Impact 6.1-2: Project operations, when combined with other planned or under-construction Sacramento River or Delta diversion or water management projects, would substantially degrade groundwater quality or water quality of the Sacramento River or Delta.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Impact 6.1-3: Construction of the proposed Project in combination with other planned projects or projects under construction in the area, would cumulatively contribute to changes in the existing environment that, due to the Project's location or nature, would result in conversion of farmland, to non-agricultural uses.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU

TABLE ES-1
SUMMARY OF DIVERSION/INTAKE IMPACTS AND MITIGATION MEASURES

(Legend: NI = No Impact; LS = Less-Than-Significant -impact; LSM = Less-Than-Significant-Impact With Mitigation; SU = Significant And Unavoidable Impact)

Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 6.1-4: The Project, when combined with other planned projects or projects under construction in the area, would cumulatively contribute to the loss of special-status species, riparian, sensitive natural community, or wetland habitat.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Impact 6.1-5: The Project, when combined with other planned projects or projects under construction in the area, would cumulatively contribute to the loss of fish species.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Impact 6.1-6: The Project, when combined with other planned projects or projects under construction in the area, would cumulatively contribute to substantial soil erosion or the loss of topsoil.	No mitigation Required	LSM	LSM	LSM
Impact 6.1-7: Construction of the proposed Project in combination with other planned projects or projects under construction in the area, would contribute to cumulative air quality impacts in the region.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Impact 6.1-8: Operation of the proposed Project, when combined with other planned projects or projects under construction in the area, would contribute to cumulative air quality impacts in the region.	No mitigation Required	LS	LS	LS
Impact 6.1-9: The Project, when combined with other planned projects or projects under construction in the area, would contribute to construction-related short-term increases in excess of applicable standards and short-term increases in ambient noise levels.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
Impact 6.1-10: The proposed Project, when combined with other planned projects or projects under construction in the area, would contribute to construction-related short-term cumulative impacts to traffic and transportation (roadway capacity, traffic safety, access, and parking).	No mitigation Required	LSM	LSM	LSM

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Threshold of Significance	Mitigation Measures	Residual Impact with Mitigation		
		Option 1	Option 2	Option 3
Impact 6.1-11: The Project, when combined with other planned projects or projects under construction in the area, would result in cumulative impacts to buried archaeological and/or human remains.	No mitigation Required	LSM	LSM	LSM
Impact 6.1-12: The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to reducing access to, or interfering with the use of existing recreational opportunities or facilities, including recreational use of the Sacramento River.	No mitigation Required	LSM	LSM	LSM
Impact 6.1-13: The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to aesthetic impacts.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
6.1-14: The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to hazards or conflict with management of hazardous materials.	No mitigation available to lessen impacts to less-than-significant levels, however, measures will contribute to minimizing effect	SU	SU	SU
6.1-15: The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to conflicts with utilities and public services.	No mitigation Required	LS	LS	LS

Significant Unavoidable Effects

The following text summarizes the significant unavoidable effects of implementation of the Proposed Project, as required under Section 21100(b)(2) of the CEQA. Table ES-2 provides a list of impacts that are associated with construction and operation of the proposed Project, and that have been determined to be significant and unavoidable:

TABLE ES-2
SIGNIFICANT UNAVOIDABLE EFFECTS OF PROJECT IMPLEMENTATION

Impact	Level of Significance
Land Use and Agriculture	
Construction of the proposed Project would involve changes in the existing environment that, due to its location or nature, would result in conversion of farmland, to non-agricultural uses.	SU
Operation of the proposed Project would convert economically viable prime farmland, unique farmland, or farmland of statewide importance as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program, to non-agricultural use.	SU
Air Quality	
Project construction and/or operation would violate any air quality standard or contribute substantially to an existing or projected air quality violation.	SU
The Project would conflict with or obstruct implementation of the applicable air quality plan.	SU
Project construction and/or operation would expose sensitive receptors to substantial pollutant concentrations.	SU
Noise	
Project construction and/or operation would expose persons to or generate noise levels in excess of applicable standards.	SU
The Proposed Project would cause a substantial temporary or periodic increase in ambient noise levels in the Proposed Project vicinity above levels existing without the Proposed Project.	SU
Public Services and Utilities	
The Project would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	SU
Aesthetics	
The Project could substantially degrade the existing visual character or quality of the site and its surroundings.	SU
The Project would create a new source of substantial light or glare that would adversely affect nighttime views in the area.	SU
Growth Inducing Effects	
The proposed Project would facilitate population growth and development by removing an obstacle to planned growth that is limited by the supply of municipal drinking water available to the Project Partners or by limits on wastewater discharge quality that may be imposed by the CVRWQCB. As discussed in detail within Chapter 4.0 of this EIR, significant and unavoidable environmental effects related to growth inducement by the Proposed Project include the following:	
• **Land Use and Agriculture:** Continued development within the spheres of influence of the Project Partners would result in displacement of existing agricultural land uses by urban land uses.	SU
• **Biological Resources:** Agricultural areas, areas near Putah Creek, areas near Cache Creek, and isolated riparian and grassland habitats support valuable biological resources. Conversion of these areas to urban use would result in loss of biological resources.	SU

TABLE ES-2
SIGNIFICANT UNAVOIDABLE EFFECTS OF PROJECT IMPLEMENTATION

Impact	Level of Significance
• **Air Quality:** The Sacramento Valley is a non-attainment area for both ozone and PM_{10}. Further increases in vehicle emissions, construction activities, and other air pollutant sources would contribute to regional ozone and particulate matter concentrations. • **Noise:** Levels of noise would be expected to increase as human activities increase in area and density, amounting to a general increase in ambient noise levels. • **Transportation and Traffic:** An increase in road traffic would potentially result in certain road segments and intersections operating at lower levels of service. This could in turn result in reduced traffic movement and increased traffic congestion. • **Aesthetic Resources:** Planned and unplanned population growth would result in the loss in scenic views, changes in aesthetic character, and production of new sources of light and glare.	SU
Cumulative Effects	
• **Water Quality:** Project operations, when combined with other planned or under-construction Sacramento River or Delta diversion or water management projects, would substantially degrade water quality of the Sacramento River or Delta.	SU
• **Land Use and Agriculture:** Construction of the proposed Project in combination with other planned projects or projects under construction in the areas, would cumulatively contribute to changes in the existing environment that, due to the Project's location or nature, would result in conversion of farmland, to non-agricultural uses.	SU
• **Special-Status Species (non-fish) and Habitat:** The Project, when combined with other planned projects or projects under construction in the area, would cumulatively contribute to the loss of special-status species, riparian, sensitive natural community, or wetland habitat.	SU
• **Fisheries Impacts:** The Project, when combined with other planned projects or projects under construction in the area, would cumulatively contribute to the loss of fish species.	SU
• **Air Quality:** Construction of the proposed Project in combination with other planned projects or projects under construction in the area, would contribute to cumulative air quality impacts in the region.	SU
• **Noise:** The Project, when combined with other planned projects or projects under construction in the area, would contribute to construction-related short-term increases in excess of applicable standards and short-term increases in ambient noise levels.	SU
• **Aesthetic Resources:** The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to aesthetic impacts.	SU
• **Utilities and Public Services:** The Project, when combined with other planned projects or projects under construction in the area, could cumulatively contribute to conflicts with utilities and public services.	SU

It should be noted that the cumulative impacts found to be significant and unavoidable in Table ES-2 primarily would result from impacts of other projects being considered in combination with the proposed Project. The proposed Project would add an incremental increase to these impacts, and therefore, because they were already are considered to be significant, the Project Partners also consider them to be significant.

CHAPTER 1.0
Project Background/Introduction

1.1 Introduction

The City of Davis, the University of California, Davis (UC Davis), and the City of Woodland (collectively referred to as the Project Partners) are jointly proposing to develop a surface water supply for use within each of the Project Partners' service areas to meet substantial portions of their respective water supply needs through 2040. New surface water supplies would become the Project Partners' primary water supply while demands that could not be met with surface water supplies would continue to be met with local groundwater supplies.

The Davis-Woodland Water Supply Project (Project) would acquire a new surface water supply from the Sacramento River using a new water intake/diversion facility, untreated and treated-water conveyance pipelines, and a new water treatment plant (WTP). Surface water diverted from the Sacramento River would consist of water appropriated for use by the Project Partners and water purchased from upstream users with senior water rights. The Project Partners propose to divert up to approximately 46.1 thousand acre-feet per year (TAF/yr) of surface water from the Sacramento River and convey it for treatment and subsequent use in Davis and Woodland and on the UC Davis campus by the year 2040. Local groundwater would continue to be used for meeting demands that could not be met with surface water supplies.

The City of Davis is the lead agency for the purposes of complying with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) of 1970 (as amended), and the CEQA Guidelines for Implementing the California Environmental Quality Act (California Code of Regulations, Title 14). The City of Davis has prepared this Final Environmental Impact Report (Final EIR) to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project and alternatives.

1.1.1 Contents and Format of the Final EIR

This report has been prepared to accompany the Draft Environmental Impact Report (DEIR) for the Partners' Davis-Woodland Water Supply Project (Project). The DEIR identified the environmental impacts associated with the construction and operation of the Project and recommended mitigation measures to reduce potential significant impacts. The statutes and Guidelines of the California Environmental Quality Act (CEQA) require the Lead Agency to consult with public agencies having jurisdiction over a proposed project and to provide the public

and other interested parties with an opportunity to comment on the DEIR. This "Responses to Comments" document responds to environmental issues raised by the comments on the DEIR and makes revisions to it as necessary in response to these comments.

This document, together with the DEIR, constitutes the Final EIR. CEQA Guidelines (Section 15132) specify that a final environmental impact report shall consist of:

(a) The draft of the environmental impact report or a revision of the draft.

(b) Comments and recommendations received on the draft of the environmental impact report, either verbatim or in summary.

(c) A list of persons, organizations, and public agencies submitting comments.

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

(e) Any other information added by the Lead Agency.

1.1.2 Completion of the CEQA Process

The City of Davis City Council will review this Final EIR for adequacy and consider it for certification pursuant to the requirements of Section 15090 of the CEQA Guidelines. If the City Council certifies the FEIR and decides to approve the Project, the Council will then be required to adopt findings on the feasibility of reducing or avoiding significant environmental effects (CEQA Guidelines, Section 15091, subd. (a)) and to adopt a statement of overriding considerations identifying the project benefits that outweigh the project's significant unavoidable effects (*id*., Section 15093).

Public Resources Code Section 21081.6, subdivision (a)(1) requires lead agencies to "adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." Where applicable, mitigation measures have been clearly identified in the DEIR. Any mitigation measures adopted by the City as conditions for the approval of the project will be included in a monitoring and reporting program to verify compliance. The Mitigation Monitoring and Reporting Program for the Project is included in Appendix A of this Final EIR.

When the City Council certifies completion of the Final EIR and approves the project (with the accompanying findings, statement of overriding considerations, and Mitigation Monitoring and Reporting Program), the City will file a Notice of Determination with both the Yolo County Clerk's office and the State Clearinghouse. Other responsible agencies making decisions to approve or implement the Project will also file Notices of Determination at the times their respective actions are undertaken.

1.2 Project Description

The Project Partners have filed applications to the State Water Resources Control Board (SWRCB) for new water-right permits to divert and use unappropriated water from the Sacramento River. The new water-right permits would comply with the SWRCB's Standard Water Right Permit Term 91, which the SWRCB has included in appropriative water right permits for projects in the Sacramento Valley for more than 40 years. Term 91 imposes diversion limitations on certain junior water rights holders in the Sacramento Valley by prohibiting water diversions by them when in-basin entitlements require the release of supplemental Project water by the Central Valley Project (CVP) or the State Water Project (SWP). "Supplemental Project water" is composed of stored water which is released from upstream state- or federally-owned reservoirs to meet downstream water quality and environmental standards to protect the Sacramento-San Joaquin Delta.

During periods when Term 91 is in effect, the Project Partners would divert and use surface water acquired and transferred from upstream water users. The volume of water transferred on an annual basis would vary according to water year type (wet, normal, dry), the period in which Term 91 is in effect, and the mix of groundwater to be blended in each Partner's water distribution system. Water would be transferred in accordance with applicable sections of the California Water Code, under orders from the SWRCB.

Each Project Partner would continue to operate and maintain groundwater wells to meet May to September peak daily demands, and additional demands in dry years that could not be met with surface water transfers. Treated surface water would be blended with groundwater as needed to meet water quality targets.

1.2.1 Project Location

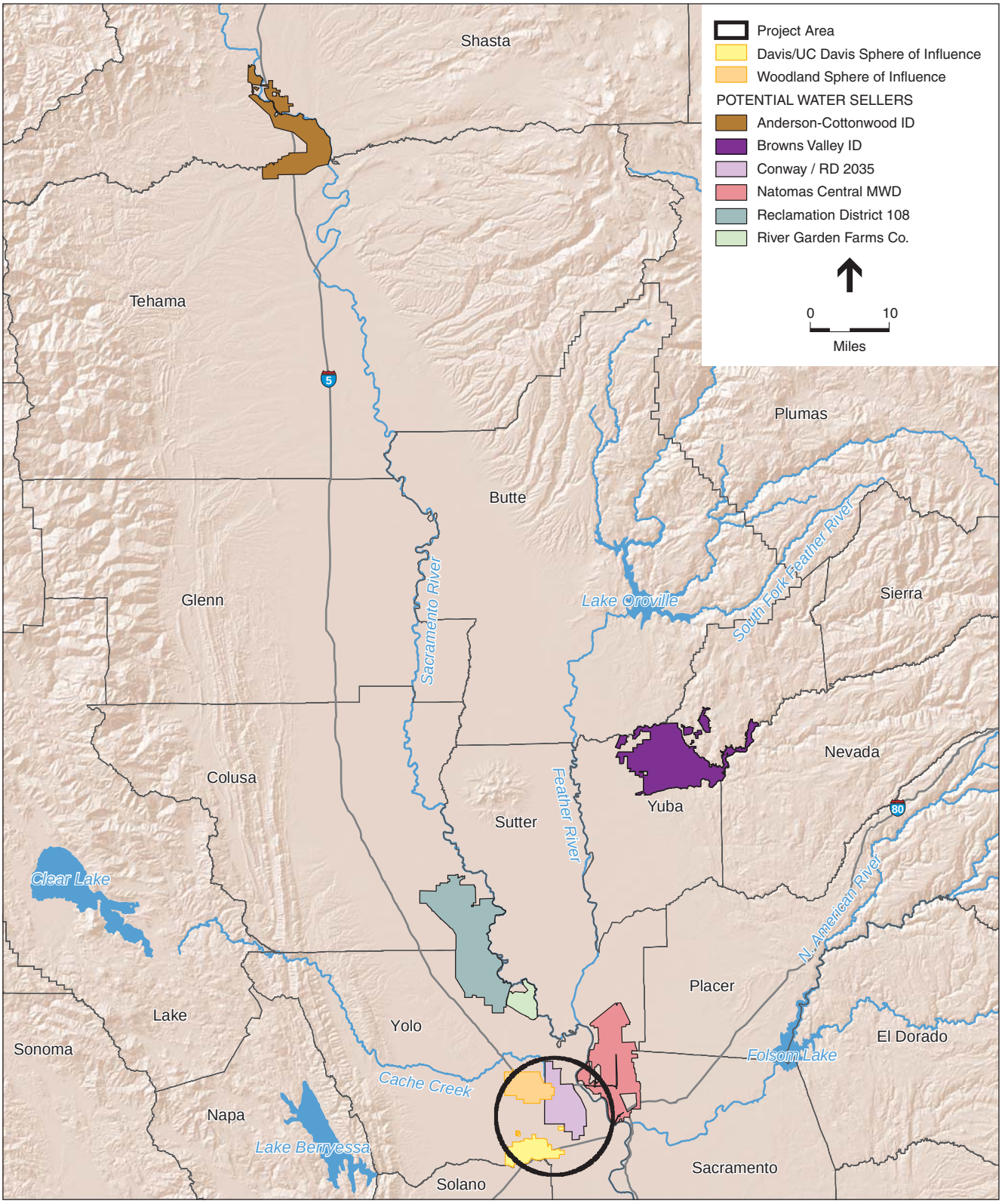
The major features of the Project would be located in the east-central portion of Yolo County, California (see Figure 1-1, Regional Location). The diversion/intake facility and untreated water conveyance pipelines would divert and convey water from the Sacramento River westward to a regional water treatment plant (WTP) on Road 102, east of the City of Woodland. Treated-water transmission pipelines would convey water from the regional WTP to the Project Partners' respective service areas.

Figure 1-2 shows the locations of six potential water sellers who may transfer water to the Project Partners. The water transferred to the Project Partners would be conveyed in existing river channels from their existing points of diversion to the preferred diversion/intake location selected for this Project.

SOURCE: ESRI, 2005; and ESA, 2006

Davis-Woodland Water Supply Project EIR . 205413

Figure 1-1
Regional Location



SOURCE: ESRI, 2005; and ESA, 2006

Davis-Woodland Water Supply Project . 205413

Figure 1-2

Location of Potential Water Sellers

1.2.2 Project Objectives

The purpose of this project is to address the issues and limitations that the three Project Partners jointly share. The following objectives were established for the Project:

- Provide a reliable water supply to meet existing and future needs,
- Improve water quality for drinking water purposes
- Improve the quality of treated wastewater effluent discharged by the Project Partners and
- Achieve these objectives without using agricultural irrigation supplies in a manner that would cause long-term or permanent fallowing of agricultural land. Therefore, as a condition of the transfer, the transferors would need to substitute the surface water supplies with a replacement, such as groundwater, or implement conservation measures enabling continued agricultural production.

These objectives have been developed by the Project Partners in response to challenges posed by aging water systems, more stringent water quality standards and regulations, and adopted plans that anticipate increases in water demand.

Improve Water Supply Reliability

To some extent, the Project Partners have increasingly obtained water from the deep aquifer (ranging from 700 to 2,700 feet below the surface) to alleviate water quality concerns associated with groundwater from shallower aquifers. Available information indicates that untreated water from the deep aquifer beneath Woodland is unsuitable for municipal use due to high concentrations of arsenic and other constituents; however Davis and UC Davis have increasingly relied on the deep aquifer. Technical studies indicate that groundwater pumping exclusively from the deep aquifer in quantities sufficient to meet estimated future demands could exceed the long-term yield available from this aquifer. These studies have shown conflicts between existing wells when pumping from the deep aquifer (City of Davis and UC Davis, 2002, 2004). If implemented, excessive pumping could cause overdraft of the deep aquifer, leading to additional well failures and posing a threat to a stable, reliable groundwater supply (Brown & Caldwell, 2005).

UC Davis currently relies entirely on the deep aquifer groundwater source for its municipal and industrial (M&I) water supplies. If additional deep aquifer pumping cannot be maintained without overtaxing the aquifer, then UC Davis's existing M&I groundwater supply could be jeopardized. Establishing deeper wells to serve the City of Davis would further tax the deep aquifer and potentially jeopardize both the City's and UC Davis groundwater supplies. Studies have shown that the City of Woodland would not benefit by establishing deeper wells because of degraded groundwater quality underlying its service area (City of Woodland, 2005d). While the volume of surface water supplies varies from year to year, its reliability can be readily estimated based on historic rates of precipitation, runoff, and river flow. By combining various sources of supply, including appropriated surface water, water transferred from senior water rights holders, and local groundwater, the Project Partners can secure a reliable M&I water supply that can be used without damaging or jeopardizing existing sources.

Provide Improved Drinking Water Quality

The cities of Davis and Woodland and UC Davis each prepare annual reports of their drinking water quality to keep their users informed in accordance with State regulations. The groundwater supplies extracted from the shallow/intermediate depth aquifer by the cities of Davis and Woodland, as measured in 2004, have been found to consistently contain elevated concentrations of salts, nitrates, and other elements. These constituents are found in concentrations that both approach maximum concentration levels (MCLs) for drinking water supplies as defined by current primary and secondary standards (DHS, Title 22, 2005) and at times exceed MCLs, usually resulting in the abandonment or destruction of the well.

While these supplies normally meet applicable standards, more stringent drinking water standards are expected to go into effect in the near future. Specifically, the CVRWQCB has undertaken development of a Central Valley drinking water policy, which is expected to be adopted as a revision to the Sacramento and San Joaquin Rivers Water Quality Control Plan by 2009. A current factsheet describing this effort is posted to the CVRWQCB website at: http://www.waterboards.ca.gov/centralvalley/available_documents/dw-policy/dwp-fact-sheet-update1.pdf.

Since 1987, seven groundwater supply wells in the City of Davis have been abandoned and destroyed. Additionally, four wells that pumped from the shallow/intermediate depth aquifer have been taken out of production because of water quality concerns, while two additional wells are retained only in standby mode (City of Davis and UC Davis, 2002).

Many older wells in developed urban areas cannot be retrofitted with wellhead treatment facilities capable of providing sufficient quality because of limited space at the well site, conflicts with residential land uses, and because many of these wells are at the end of their useful life expectancies and cannot be relied upon for continued future service.

The water quality of the local groundwater, combined with restrictions on wellhead retrofits, would likely force the City of Davis to install new, deeper wells that reach the deeper aquifer where water quality is better and to abandon use of the intermediate-depth aquifer, from which the majority of the municipal wells now extract water. Furthermore, local water users incur costs associated with using water with high levels of TDS and hardness, including costs associated with the purchase of bottled water, water softening or domestic treatment systems, and the replacement or repair of plumbing, water heaters, appliances, or water treatment systems because of scaling and/or deterioration. To address these issues, many consumers purchase home water softening units and bottled water, use more cleaning agents, replace water heaters, household plumbing, and water-using appliances more frequently than would otherwise be necessary if the water supply had lower hardness and TDS. A more detailed discussion of each Partner's drinking water quality is presented in Section 3.2 of this DEIR.

Reduce Salt Load in Wastewater Discharge

The Central Valley Regional Water Quality Control Board (CVRWQCB) is enforcing limits set forth in the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (CVRWQCB, 1998). To implement the Basin Plan objectives, the CVRWQCB has established limits on electrical conductivity in treated wastewater effluent. These limits are requiring wastewater dischargers to take steps to reduce salinity concentrations in their treated effluent. Additionally, the CVRWQCB is currently developing a Central Valley drinking water policy, which is expected to be adopted by 2009. A current factsheet describing this effort is posted to the CVRWQCB website at: http://www.waterboards.ca.gov/centralvalley/cv-salts/progs-polic-rpts/index.html.

A primary objective of the Project Partners is to reduce the TDS levels in their water supplies as a means of reducing wastewater effluent salt loads in an economically feasible manner. Wastewater treatment processes, such as reverse osmosis (RO), that would remove salts from the wastewater prior to discharge are very costly and considered to be economically infeasible. RO treatment systems would also require collection, storage, and disposal of large quantities of saline brine that would be produced as a RO wastewater treatment by-product.

Currently, the City of Davis, the City of Woodland, and UC Davis together discharge about 13 million gallons of treated wastewater each day (mgd). Over the course of a year, this wastewater contains more than 49 million pounds of dissolved salts directly derived from the groundwater supply. Water softeners and other commercial activities further increase the amount of salt that is discharged. For example, assuming 2002 water softener efficiencies, for every pound of hardness removed from the water supply by residential water softeners, over 6 pounds of salt would be added (Karajeh and King, 2005). The additional salt from water softeners is conveyed to the Project Partners' WWTPs and eventually discharged into receiving waters. The total amount of salt equals 14.9 million pounds per year discharged from the Project Partners' WWTPs. Substituting treated surface water from the Sacramento River for a substantial portion of existing groundwater supplies would decrease the amount of salt in the discharged wastewater effluent of each Project Partner by up to 70 percent. This would be accomplished by reducing the amount of salt and hardness in the water supply. This would provide the Project Partners with a sensible and cost-effective strategy for reducing the salt loads in their treated wastewater effluent.

Protect Agricultural Land Uses

The Project Partners do not want to implement water transfers that would use irrigation supplies in a manner leading to the long-term or permanent fallowing of agricultural lands. The Project Partners will only enter into water transfer agreements with willing sellers who would use a substitute water supply, such as local groundwater, or implement water conservation measures that would make water available for transfer without adversely affecting existing agricultural land uses.

1.2.3 Identification of the Preferred Facility Options and Alternative

The DEIR introduced several facility location options for siting the diversion/intake, conveyance pipeline, and regional WTP. The Partners deferred selecting a preferred siting option until completion of the DEIR, receipt of comments by interested public and regulatory agencies, and after considering the conclusions and findings of the environmental impact analysis.

Based on the information presented in the DEIR and comments presented in this Final EIR, the Project Partners selected the Option 1 diversion/intake location, corresponding pipeline conveyance route, and the Option 1and 2 WTP site for implementation. These facilities are shown in Figure 1-3.

The Partners have selected the Proposed Project alternative for implementation. This alternative would enable the Partners to divert up to 46.1 TAF/yr of surface water by the year 2040 to meet most of their municipal and industrial demands. These surface water supplies would be supplemented with about 7.5 TAF/yr from local groundwater sources and 2.0 TAF/yr of water from the existing Solano Project for use on the UC Davis campus, to meet the Project Partners' anticipated 55.6 TAF/yr water demand.

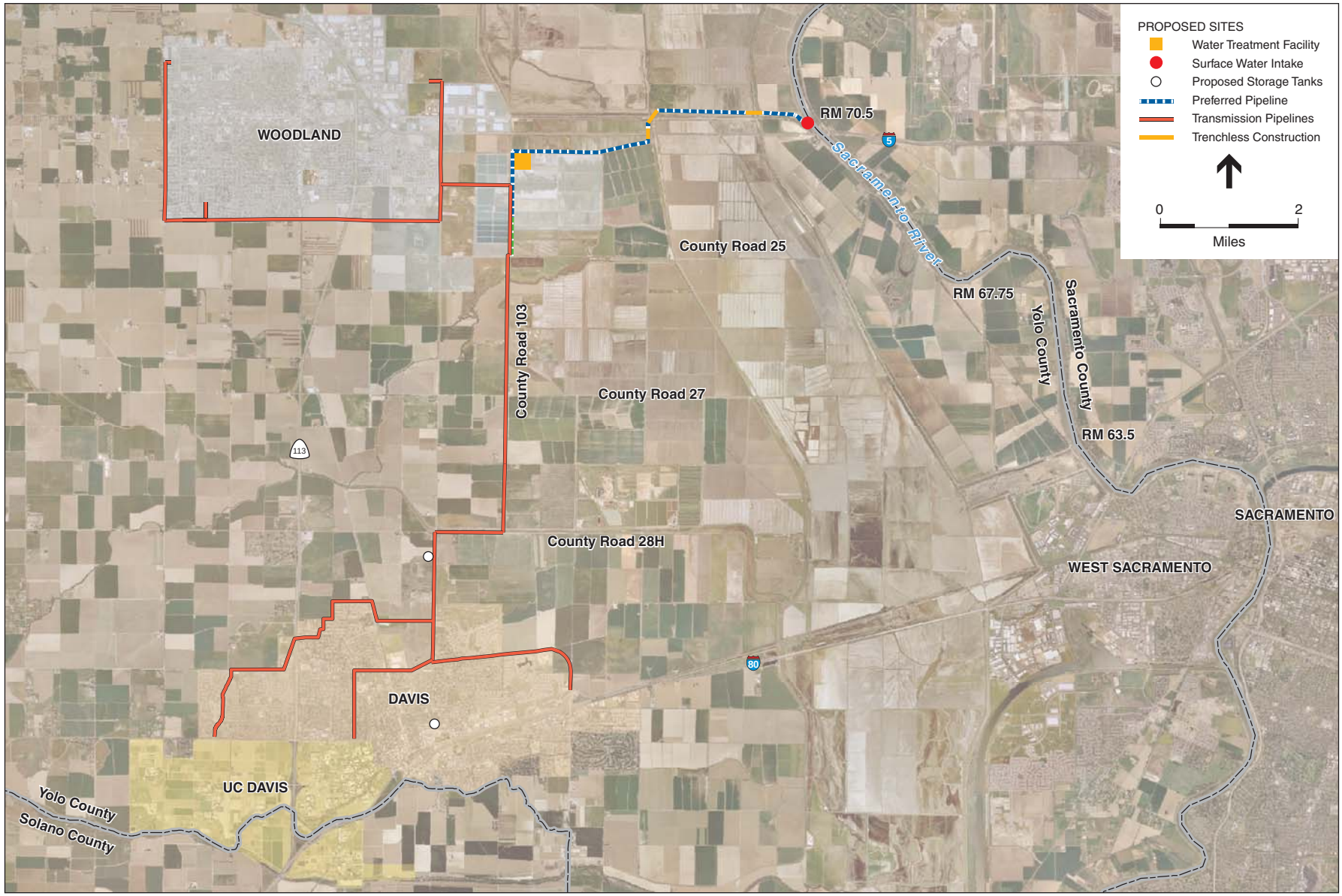
Each Project Partner would continue to operate and maintain groundwater wells to meet May to September peak daily demands, and additional demands in dry years that could not be met with surface water transfers. Wellhead treatment systems would need to be provided in order to meet water quality standards for both drinking water use and wastewater discharge. Treated surface water would be blended with groundwater as needed to meet water quality targets.

The Project Partners have not selected a preferred water transfer source at this time. The Partners will contact several of the upstream senior water rights holders, addressed in the DEIR, to begin negotiations for sale of water. Other upstream senior water rights holders may also be considered pending preparation of appropriate supplemental CEQA documents addressing other potential water transfers.

1.2.4 Description of Preferred Project Features

For the purposes of the EIR, the Project would include the following components, which are described in more detail in the following discussion:

- Diversion/intake facility and untreated water conveyance pipeline
- Water treatment plant (WTP)
- Treated water transmission pipelines
- Local storage and distribution facilities
- New groundwater wells in potential water seller service areas



SOURCE: GlobeXplorer, 2006; West Yost & Associates, 2006; and ESA, 2006

Davis-Woodland Water Supply Project EIR . 205413

Figure 1-3
Preferred Project

Diversion / Intake Facility and Conveyance Pipeline

As shown in Figure 1-4, the Partners have decided to install a new diversion/intake facility at the location of the existing RD 2035 intake structure at RM 70.5. The following discussion describes this facility.

Diversion/Intake Facility Design

The top of the intake structure would be located above the 100-year flood elevation of the Sacramento River and would have an access bridge to connect the structure to the adjacent shore. Pumps and electrical equipment would be installed on the operating floor to provide clearance between the bottom of the access bridge and the 100-year flood stage. The operating floor would be enclosed in a building to provide security and protect the equipment.

Fish Screen

The in-river diversion structure would be equipped with either flat-plate or cylindrical-tee stainless-steel state-of-the-art fish screens. The screens would be oriented so that the screen faces would be parallel to the river flow to minimize the formation of eddies.

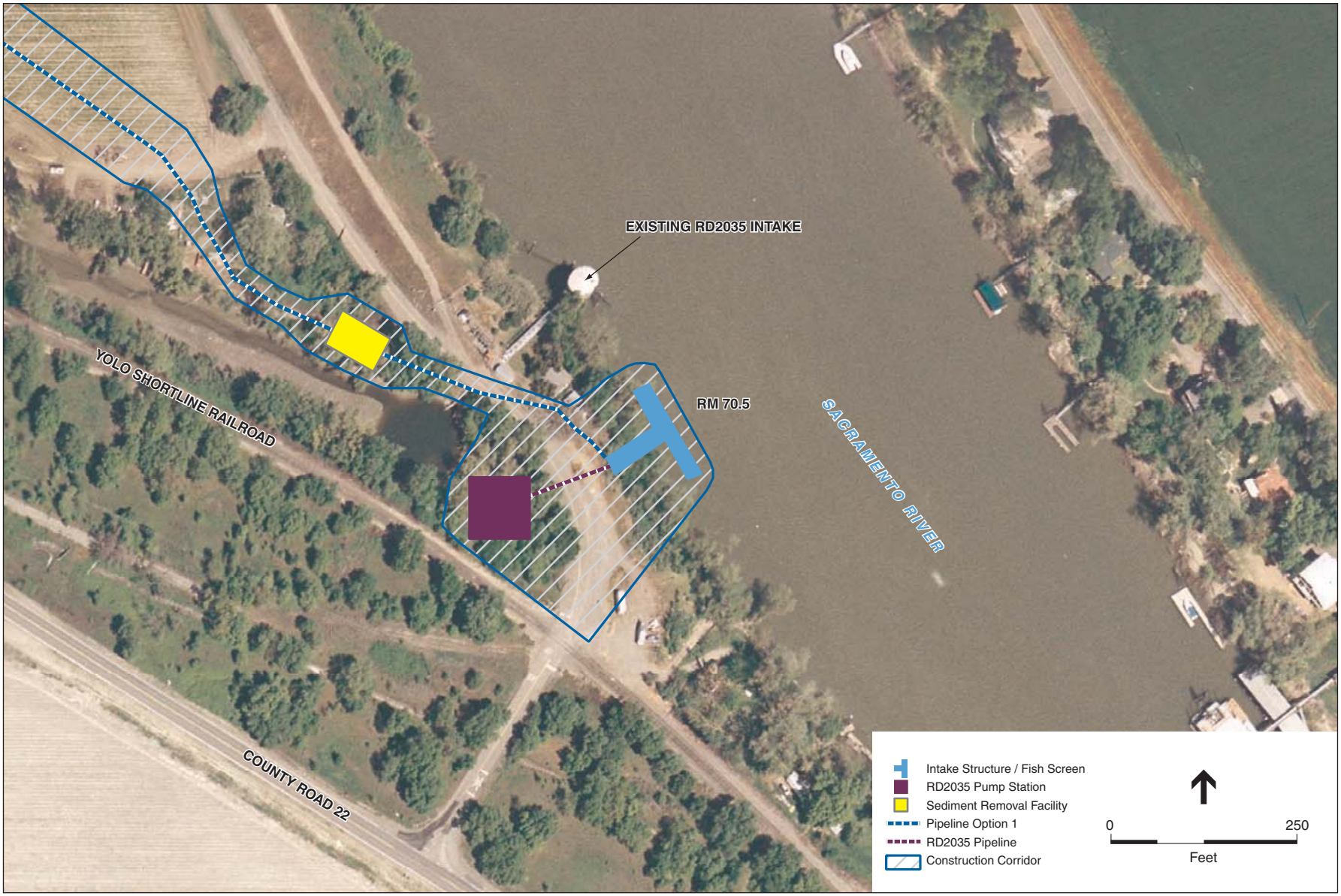
A uniform approach velocity of less than 0.33 foot per second would be provided across the face of the screen. This velocity is consistent with regulatory requirements for the protection of fish. The Project Partners plan to coordinate with the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and California Department of Fish and Game to confirm precise design and operational requirements for the intake screen.

The fish screen would be automatically cleaned on a recurring basis. The fish screens would be cleaned via an airburst system or mechanical brush. The cleaning cycle would be initiated by either a high water level differential across the screens, elapsed time period, or manual actuation. Each screen would be cleaned, consistent with CDFG requirements.

Pipeline Conveyance Features

The conveyance pipeline would be buried and would be located to minimize potential impacts to environmental resources including wetlands and associated habitats. Where appropriate, the pipeline would be installed within public rights-of-way to minimize acquisition of additional rights-of-way and conflicts with adjacent land uses. The pipeline would have appurtenant facilities such as air and vacuum/air release valves, intertie stations, and access portals.

Air and vacuum valves would admit air into the pipe to prevent the formation of a vacuum that might result from valve operations, rapid draining from circumstances such as a pipeline break, or column separation. Access portals would provide access into the pipelines for inspection, maintenance, and repair.



SOURCE: GlobeXplorer, 2006; West Yost & Associates, 2006; and ESA, 2006

Davis-Woodland Water Supply Project EIR . 205413

Figure 1-4
Preferred Diversion Location

The untreated water conveyance pipeline would consist of a diversion/intake at River Mile (RM) 70.5, where a new 400-cubic-foot-per-second (cfs) capacity water intake structure would be constructed to serve the needs of both Reclamation District 2035 (RD 2035) and the Project Partners. This new facility would replace RD 2035's present 400-cfs capacity unscreened intake facility. Untreated water diverted from the Sacramento River would be conveyed to the water treatment facilities through either a 4.5-mile-long, 60-inch-diameter buried pipeline or dual 4.5-mile-long, 42-inch-diameter pipelines.

Water Treatment Plant (WTP)

The Project would include a WTP to treat the surface water diverted from the Sacramento River so that it could be used to meet the Project Partners' water supply needs. As part of the Project, a new WTP, about 40 acres in size, would be constructed at a location that could be used to treat surface water supplies and distribute the treated water to each of the Project Partners. The WTP would have an ultimate capacity of about 51.8 mgd. It is expected that the WTP would be constructed in two stages corresponding with the actual water demands that are anticipated to develop in the Project Partners' service areas.

It is anticipated that the first-stage treatment facilities would be sized to serve the Project Partners' water demands from initial project operations through 2025, while the second stage would be sized to serve the Project Partners' water demands from about 2025 through 2040. Staging of the WTP capacity would help minimize the initial facility investment and allow the Project Partners to optimally choose when to implement future increases in WTP capacity.

The new WTP would be located at the east end of County Road 24 on property owned by the City of Woodland. This site was formerly used as storage for tomato processing waste. The site is currently not in use.

Local Water Transmission Facilities

Treated water transmission facilities required for the implementation of this Project include new transmission pipelines within the cities of Davis and Woodland, a connecting pipeline to UC Davis, pump stations, water storage facilities, vaults, and other appurtenant facilities to operate and maintain the water supply systems. The anticipated treated water transmission facilities are shown on Figure 1-3.

The transmission pipeline would consist of up to a 48-inch steel pipe. Smaller diameter transmission pipelines would be installed within each Partner's service area. Existing water distribution pipelines would be connected to the transmission pipelines for delivering water to individual users. The new transmission pipeline would be located primarily in available rights-of-way or on agricultural lands in areas of unincorporated Yolo County between the WTP and the Project Partners' service areas. Within the Project Partners service areas, the pipelines would be installed in existing street rights-of-way where available.

Table 1-1 lists the approximate lengths of various transmission pipeline segments that would be constructed as part of the Project.

TABLE 1-1
DESCRIPTION OF TRANSMISSION PIPELINE SEGMENTS

Segment	Pipeline Length (feet)
WTP to Woodland service area	5,400
WTP to Davis/UC Davis service areas	42,000
Woodland service area	73,000
Davis/UC Davis service areas	54,000

Source: WYA, 2006; ESA, 2007 unpublished calculations

Additional Groundwater Wells and UC Davis Solano Project Water

In addition to acquiring surface water supplies, the Project Partners would continue to use intermediate and deep-aquifer groundwater sources currently serving the Project Partners' service areas as necessary to meet daily peaking demands and other demands that could not be met with surface water supplies.

As aging intermediate-aquifer wells are taken out of service, replacement deep-aquifer wells would be installed to meet future demands that cannot be met with surface water. Each Project Partner would independently manage its own groundwater wells and supplies. As intermediate-aquifer wells are taken off-line, each Project Partner would close and abandon wells in-place, consistent with applicable ordinances. It is expected that deep-aquifer wells would eventually replace all wells that currently pump water from the intermediate-depth groundwater aquifer, except in the City of Woodland which continue to use intermediate-depth wells.

UC Davis currently only uses groundwater to supply its domestic water needs. While UC Davis also has a contract for delivery of up to 4.0 TAF/yr of Solano Project water from the Solano County Water Agency, it currently uses this surface water supply for field teaching and agricultural research purposes through a separate water delivery system. UC Davis is evaluating the feasibility of meeting its future domestic demand by changing the use of about 2.0 TAF/yr of Solano Project water to domestic uses. UC Davis would construct a new water treatment plant and associated facilities to treat this separate water supply and convey the treated water to the UC Davis campus domestic water system. The changing of the purpose of use and construction of new water treatment and conveyance facilities would be a separate project from the Davis-Woodland Water Supply Project and would be subject to a separate analysis in accordance with the requirements of CEQA.

Water Storage Facilities

The City of Davis currently has two storage facilities; a 200,000 gallon elevated storage tank near Elmwood Drive and Eight Street, and a 4 million gallon (MG) ground-based storage reservoir along John Jones Road in west Davis, adjacent to Sutter Davis Hospital. This West Area water storage tank and booster pump station were built in 2002. An additional 4 MG tank is currently being planned to be installed near Mace Boulevard. This storage facility underwent environmental review in accordance with CEQA in 2005 (City of Davis, 2005).

The City of Davis has identified additional water storage and pump station requirements as part of conducting water system studies for the Proposed Project. As shown in Figure 1-3, two additional water storage tanks and pump stations are proposed to be installed. The tanks would be 3 to 4 MG pre-stressed concrete tanks similar to the existing West Area and planned East Area tanks. The tank height would be no more than three stories or about 30 feet. The booster pump station will be sized to provide approximately 2,500 gpm firm capacity with a total of three pumps. An emergency generator will be installed on-site. The pumps and electrical equipment will be housed in a concrete block building.

To achieve the tank foundation elevation, the existing ground at the site will be excavated approximately 5 to 8 feet beneath the ground surface. The exterior wall facing can be painted or other architectural treatment administered as desired for aesthetic purposes.

If the other Project Partners find that water storage is needed, such facilities would be subject of future CEQA documentation at the time they are proposed and considered.

Description of Water Transfer Source Options

Surface water diversions taking place in accordance with the Project Partners' water right permits would be made in compliance with the State Water Resources Control Board's Standard Water Right Permit Term 91. Term 91 prohibits surface water diversions by junior appropriators when water is being released from CVP or SWP storage reservoirs to meet in-basin entitlements, including water quality and environmental standards for protection of the Sacramento-San Joaquin Delta. To provide a reliable water supply during such conditions, the Project Partners would enter into water supply transfer agreements with several senior water rights holders within the Sacramento River watershed. During periods when Term 91 is in effect, the Project Partners would divert water that is provided by the transferring senior water rights holders.

Table 1-2 lists the several senior water rights holders who have agreed to have their water rights identified and analyzed for potential water transfers in this EIR. The table also identifies the maximum volume of water that the Project Partners assume would be made available from each potential water seller.

TABLE 1-2
POTENTIAL SOURCES OF WATER SUPPLY ACQUIRED THROUGH TRANSFER

Senior Water Rights Holder	Potential Maximum Transfer Volume (TAF/yr)
Anderson-Cottonwood Irrigation District	10.0
Browns Valley Irrigation District	3.1
Conaway Preservation Group	10.0
Natomas Central Mutual Water Company	10.0
Reclamation District 108	10.0
River Garden Farms	5.0

The locations of these senior water rights holders in relation to the Project Partners are shown in Figure 1-2**.**

When SWRCB Standard Permit Term 91 is in effect, surface water would be supplied by senior water right holders willing to transfer water under their existing surface water rights to the Project Partners. Water available for transfer would be created when the potential transferor:

- Implements a groundwater substitution program by pumping groundwater in lieu of using its surface water supplies during certain months, thereby freeing up surface water for transfer to the Project Partners during these months; or,

- Implements conservation measures and transfers the conserved water to the Project Partners.

Water made available for transfer by the senior water rights holders through implementation of groundwater substitution or conservation would flow downstream for subsequent diversion by the Project Partners. It is expected that the purchase agreements with the senior water rights holders would be for long-term periods, ranging from 30 to 50 years in duration, and would include rights of renewal to ensure a long-term supply to the Project Partners. As a condition to the purchase agreements, the Project Partners would not purchase any water from these sellers that would result in the fallowing of agricultural lands.

CHAPTER 2.0
Comments Received and Responses on DEIR

Parties and individuals who submitted comments on the April 2007 DEIR are listed in Table 2-1. For each party commenting, the table identifies the assigned letter number and the number of individual comments identified in each letter. Persons who submitted verbal comments at the April 23rd, May 2nd, and May 16th, 2007 public meetings are listed in Table 2-2.

Copies of the actual comment letter and responses to comments are presented after table 2-1.

TABLE 2-1
LIST OF DEIR COMMENTING PARTIES

Commenter		Comment Letter	Comment Number
CA Department of Water Resources, Floodway Protection Section	Christopher Huitt, Staff Environmental Scientist/Floodway Protection Unit	1	1
CA Department of Health Services	Bridget Binning, Environmental Review Unit	2	1 – 2
City of West Sacramento	Caroline Quinn, Asst. Director of PW and Community Development	3	1 – 7
CA Department of Conservation	Brian Leahy, Asst. Director	4	1 – 5
Yolo County Board Of Supervisors	Mariko Yamada, Chair	5	1 – 27
City of Davis Natural Resources Commission	Bruce Kemp, Chair		1 – 25
Sue Greenwald		7	1
Andrew Bale		8	1
Yolo County Health Council	Carrie Jones, Chair	9	1
Tehama-Colusa Canal Authority	Jeff Sutton, General Manager	10	1 – 15
Michael Shepley		11	1 - 5
Contra Costa Water District	Leah Orloff, Sr. Water Resources Specialist	12	1 – 7

TABLE 2-1
LIST OF DEIR COMMENTING PARTIES

Commenter		Comment Letter	Comment Number
BJ Klosterman		13	1 – 9
Seth Bigelow		14	1 – 3
U.S. Bureau of Reclamation	Richard Woodley, Regional Resources Manager	15	1 – 6

TABLE 2-2
LIST OF PARTIES PROVIDING VERBAL COMMENTS

Commenter	Comment Number
April 23, 2007 Meeting at City of Davis Natural Resources Commission	
Tim Williams	1-1
Mike Shepley	2-1 to 2-2
Kurt Schmalenberger	3-1 to 3-3
May 2, 2007 Meeting at City of Woodland Council Chambers	
Loretta Hanson	4-1 to 4-5
May 16, 2007 Meeting at City of Davis Natural Resources Commission	
David Hart	5-1 to 5-5
Mike Shepley	6-1 to 6-3
Jim Leonard	7-1 to 7-4
Paula Ospina	8-1

The following discussion presents copies of the 15 letters of comment and 8 parties who submitted verbal comments on the DEIR. The comment letters have been reproduced on the following pages, and specific comments within the letters have been bracketed and numbered sequentially for each identification. Verbal comments are paraphrased based on review of meeting transcripts. Each response is numbered to correspond to an individual comment, and is presented across the page from the comment.

Letter 1

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

CITY OF DAVIS
APR 18 2007
PUBLIC WORKS

April 16, 2007

Jacques DeBra
City of Davis
1717 5th Street
Davis, California 95616

Davis-Woodland Water Supply Project
State Clearinghouse (SCH) Number: 2006042175

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control. You may refer to the California Code of Regulations, Title 23 and Designated Floodway maps at http://recbd.ca.gov/. Please be advised that your county office also has copies of the Board's designated floodways for your review. If indeed your project encroaches on an adopted food control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities. The attached Fact Sheet explains the permitting process. Please note that the permitting process may take as much as 45 to 60 days to process. Also note that a condition of the permit requires the securing all of the appropriate additional permits before initiating work. This information is provided so that you may plan accordingly. 1-1

If after careful evaluation, it is your assessment that your project is not within the authority of the Reclamation Board, you may disregard this notice. For further information, please contact me at (916) 574-1249.

Sincerely,

Christopher Huitt
Staff Environmental Scientist
Floodway Protection Section

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Responses to Comment Letter 1

1-1 This comment was submitted by DWR on behalf of the State Reclamation Board. It is acknowledged on Table 2-23 of the DEIR that the State Reclamation Board has permit authority over portions of the project which may encroach into jurisdictional floodways and floodplains.

Encroachment Permits Fact Sheet

Basis for Authority
State law (Water Code Sections 8534, 8608, 8609, and 8710 – 8723) tasks the Reclamation Board with enforcing appropriate standards for the construction, maintenance, and protection of adopted flood control plans. Regulations implementing these directives are found in California Code of Regulations (CCR) Title 23, Division 1.

Area of Reclamation Board Jurisdiction
The adopted plan of flood control under the jurisdiction and authority of the Reclamation Board includes the Sacramento and San Joaquin Rivers and their tributaries and distributaries and the designated floodways.

Streams regulated by the Reclamation Board can be found in Title 23 Section 112. Information on designated floodways can be found on the Reclamation Board's website at http://recbd.ca.gov/designated_floodway/ and CCR Title 23 Sections 101 - 107.

Regulatory Process
The Reclamation Board ensures the integrity of the flood control system through a permit process (Water Code Section 8710). A permit must be obtained prior to initiating any activity, including excavation and construction, removal or planting of landscaping within floodways, levees, and 10 feet landward of the landside levee toes. Additionally, activities located outside of the adopted plan of flood control but which may foreseeable interfere with the functioning or operation of the plan of flood control is also subject to a permit of the Reclamation Board.

Details regarding the permitting process and the regulations can be found on the Reclamation Board's website at http://recbd.ca.gov/ under "Frequently Asked Questions" and "Regulations," respectively. The application form and the accompanying environmental questionnaire can be found on the Reclamation Board's website at http://recbd.ca.gov/forms.cfm.

Application Review Process
Applications when deemed complete will undergo technical and environmental review by Reclamation Board and/or Department of Water Resources staff.

Technical Review
A technical review is conducted of the application to ensure consistency with the regulatory standards designed to ensure the function and structural integrity of the adopted plan of flood control for the protection of public welfare and safety. Standards and permitted uses of designated floodways are found in CCR Title 23 Sections 107 and Article 8 (Sections 111 to 137). The permit contains 12 standard conditions and additional special conditions may be placed on the permit as the situation warrants. Special conditions, for example, may include mitigation for the hydraulic impacts of the project by reducing or eliminating the additional flood risk to third parties that may caused by the project.

Additional information may be requested in support of the technical review of your application pursuant to CCR Title 23 Section 8(b)(4). This information may include but not limited to geotechnical exploration, soil testing, hydraulic or sediment transport studies, and other analyses may be required at any time prior to a determination on the application.

Environmental Review
A determination on an encroachment application is a discretionary action by the Reclamation Board and its staff and subject to the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.). Additional environmental considerations are placed on the issuance of the encroachment permit by Water Code Section 8608 and the corresponding implementing regulations (California Code of Regulations – CCR Title 23 Sections 10 and 16).

In most cases, the Reclamation Board will be assuming the role of a "responsible agency" within the meaning of CEQA. In these situations, the application must include a certified CEQA document by the "lead agency" [CCR Title 23 Section 8(b)(2)]. We emphasize that such a document must include within its project description and environmental assessment of the activities for which are being considered under the permit.

Encroachment applications will also undergo a review by an interagency Environmental Review Committee (ERC) pursuant to CCR Title 23 Section 10. Review of your application will be facilitated by providing as much additional environmental information as pertinent and available to the applicant at the time of submission of the encroachment application.

These additional documentations may include the following documentation:

- California Department of Fish and Game Streambed Alteration Notification (http://www.dfg.ca.gov/1600/),
- Clean Water Act Section 404 applications, and Rivers and Harbors Section 10 application (US Army Corp of Engineers),
- Clean Water Act Section 401 Water Quality Certification, and
- corresponding determinations by the respective regulatory agencies to the aforementioned applications, including Biological Opinions, if available at the time of submission of your application.

The submission of this information, if pertinent to your application, will expedite review and prevent overlapping requirements. This information should be made available as a supplement to your application as it becomes available. Transmittal information should reference the application number provided by the Reclamation Board.

In some limited situations, such as for minor projects, there may be no other agency with approval authority over the project, other than the encroachment permit by Reclamation Board. In these limited instances, the Reclamation Board

may choose to serve as the "lead agency" within the meaning of CEQA and in most cases the projects are of such a nature that a categorical or statutory exemption will apply. The Reclamation Board cannot invest staff resources to prepare complex environmental documentation.

Additional information may be requested in support of the environmental review of your application pursuant to CCR Title 23 Section 8(b)(4). This information may include biological surveys or other environmental surveys and may be required at anytime prior to a determination on the application.

Letter 2

State of California—Health and Human Services Agency
Department of Health Services

SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

CITY OF DAVIS
APR 25 2007
PUBLIC WORKS

April 19, 2007

Jacques DeBra
City of Davis
1717 Fifth Street
Davis, CA 95616

RE: Davis-Woodland Water Supply Project – SCH#2006042175

The California Department of Health Services (CDHS) is in receipt of the Notice of Completion for the above project.

If the City of Davis plans to develop a new water supply well, a new water treatment plant or make modifications to the existing domestic water treatment system to serve the Davis-Woodland Water Supply Project site, an application to amend the water system permit must be reviewed and approved by the CDHS Sacramento District Office. 2-1

The CDHS considers our permit and permit amendment process a "discretionary act" under the California Environmental Quality Act (CEQA) for various projects. New water supply wells and new treatment plants are among those activities. Therefore, the construction of new wells briefly discussed in the Draft EIR and the replacement of the deep-aquifer wells are subject to separate environmental review. 2-2

Please contact Terry Macaulay in the Sacramento office at (916) 449-5600 for further information.

Sincerely,

Bridget Binning
California Department of Health Services
Environmental Review Unit

Division of Drinking Water and Environmental Management
Environmental Review Unit/State Revolving Fund/Prop 50
1616 Capitol Avenue, MS 7418, P.O. Box 997413, Sacramento CA 95899-7413
(916) 449-5600 Fax: (916) 446-5656
Internet Address: www.dhs.ca.gov/ps/ddwem

Responses to Comment Letter 2

2-1 The Project Partners will apply to the Department of Health Services (DHS), now known as the California Department of Public Health (CDPH), to amend their water system permits to address new groundwater wells, the new water treatment plant, and modifications to existing water treatment plants, where applicable. New groundwater wells are not components of the Project and are subject to separate environmental review.

2-2 Comment noted. The Project Partners will undertake appropriate CEQA review for future projects not addressed in this Draft and Final EIR.

Cc:

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Letter 3

CITY OF DAVIS
MAY 08 2007
PUBLIC WORKS

CITY OF WEST SACRAMENTO

CITY HALL
1110 West Capitol Avenue
West Sacramento, CA 95691

City Council
City Manager
City Clerk
Human Resources
(916) 617-4500
Fax (916) 372-8765

Building
(916) 617-4683
Fax (916) 371-0845

Community Development
Planning
Engineering
(916) 617-4645
Fax (916) 371-0845

Finance
(916) 617-4575
Fax (916) 373-9006

Fire Administration
(916) 617-4600
Fax (916) 371-5017

Housing & Community Investment
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Fax (916) 372-1584

Information Technology
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Fax (916) 372-8765

Parks & Recreation
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Fax (916) 372-5329

Redevelopment
Economic Development
(916) 617-4535
Fax (916) 373-5848

Refuse & Recycling
(916) 617-4590
Fax (916) 373-9006

Utility Billing
(916) 617-4589
Fax (916) 373-9006

POLICE
550 Jefferson Boulevard
West Sacramento, CA 95605

Administration
(916) 617-4900
Fax (916) 373-2377

Code Enforcement
(916) 617-4925
Fax (916) 617 4340

PUBLIC WORKS
1951 South River Road
West Sacramento, CA 95691
(916) 617-4850
Fax (916) 371-1516

www.cityofwestsacramento.org

May 1, 2007

Mr. Jacques DeBra
City of Davis, Public Works
1717 Fifth Street
Davis, CA 95616

Subject: Comments to Draft Environmental Impact Report for Davis-Woodland Water Supply Project

Dear Mr. DeBra:

Thank you for the opportunity to review and comment on the project partner's draft Environmental Impact Report (DEIR) for the Davis-Woodland Water Supply Project. The following comments on the DEIR are provided for your consideration.

1. Section 3.3-1b. What is the impact of a 106 mgd demand directly upstream of the City of West Sacramento's (City) intake structure during drought or low seasonal river level conditions? 3-1

2. Are the proposed intake screens compliant with the Delta smelt regulation? The City was required to mitigate this issue by installing fish screens with a larger diameter than originally designed, causing air intrusion during low river levels. This situation could be compounded by conditions described in comment number 1. 3-2

3. Section 3.3-1a. All groundwater discharges to the Sacramento River should be compliant with Title 22 primary and secondary drinking water MCl's. A high constituent level, primary or secondary, during low summer river levels and high consumer demand could impact the City's water treatment facilities and violate the City's water supply permit. How will project dewatering operations ensure compliance with Title 22 and ensure that the City of West Sacramento's supply is not adversely impacted? 3-3 3-4

4. Being a CVP contractor, the City of West Sacramento is mandated by state law to install water meters on all services by 2013. Will the project partners be under the same mandate to fully meter all services since they will also be CVP contractors? 3-5

5. How are the City of West Sacramento's water rights, which are subject to seasonal restrictions, impacted by the proposed project? 3-6

Responses to Comment Letter 3

3-1 The proposed Project's maximum daily demand, and thus maximum average daily diversion under the Project Partners' water rights (when Term 91 is not in effect), would be 51.8 million gallons per day, which is 80.1 cubic feet per second ("cfs"). As listed in Table 4-1 of Appendix B (the Modeling Technical Appendix), the dry-period average Sacramento River flow downstream of the proposed Project is about 10,100 cfs, and the proposed Project would reduce this average flow by 29 cfs. This 0.3 percent reduction in flow would not have any significant effects on Sacramento River flows at West Sacramento's intake structure.

Historically, flows in this reach of the Sacramento River always have exceeded 5,000 cfs (See Draft EIR Figure 3.2-11). Even at this lowest flow rate, the proposed Project's maximum diversion rate of 80.1 cfs under the Project Partners' water rights would result in only a 1.6 percent change in flow, which also would not have any significant effects on Sacramento River flows at West Sacramento's intake structure.

As discussed on page 3.2-36 of the draft EIR, when Term 91 is in effect the proposed Project would not divert water under the Project Partners' water rights. During those times, the proposed Project would divert only water that was transferred from upstream senior water rights holders. As a result, the proposed Project would not reduce the flows in the Sacramento River that otherwise would occur during these times.

3-2 The Project would have a fish screen installed designed for the protection of fish consistent with intake screen guidance developed by California Department of Fish and Game, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, as applicable. In addition, see response to Comment 3-1.

3-3 The construction of the Project does not intend to discharge groundwater to the Sacramento River upstream of the City of West Sacramento. Groundwater removed during construction dewatering will be discharged to local drainages that flow to the Tule Canal and Toe Drain. This waterway enters the Sacramento River downstream of the City of West Sacramento. No impact to City of West Sacramento surface water supplies diverted from the Sacramento River will occur as a result of discharging groundwater during project construction.

6. Will downstream entities be impacted by the project since no return flows from either of the project partners will put back into the Sacramento River through a wastewater treatment facility? | 3-7

If you have any questions concerning these comments please contact Michael Bessette, Dan Mount, or me at 617-4645. Thank you again for the opportunity to provide comments.

Sincerely,

CAROLINE QUINN, P.E.
Assistant Director of Public Works and Community Development

cc: File - W.O. #2112
Chron

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3-4 See response to Comment 3-3; the project will not discharge groundwater to the Sacramento River upstream of the City's water supply intake.

3-5 The Project Partners are not Central Valley Project (CVP) water service contractors and are therefore not mandated by federal regulations to install meters to monitor water use. However, each Partner has either installed or is planning to install meters to monitor water use in its respective services area; the City of Davis has already installed meters, UC Davis has installed meters on portions of the campus and campus residents; the City of Woodland is planning to install meters on about one-fourth of its customers by 2010 and its remaining customers by 2018.

3-6 The proposed Project would divert water under the Project Partners' water rights only during times when Term 91 is not in effect. During such times, there is sufficient water in the Sacramento River system to serve senior water rights holders and discharge flows out to the San Francisco Bay and the Pacific Ocean, so diversions under the Project Partners' water rights would not affect West Sacramento's water rights.

As discussed in the response to Comment 3-1, during times when Term 91 is in effect, the proposed Project would divert only water that was transferred from upstream senior water rights holders, and, as a result, the proposed Project would not reduce Sacramento River flows. Diversions by the proposed Project therefore would not affect West Sacramento's water rights during these times.

Because diversions by the proposed Project would not affect West Sacramento's water rights during times when Term 91 either is in effect or is not in effect, the proposed Project would not affect West Sacramento's water rights.

3-7 No surface water users located downstream of the proposed diversion/intake location would be adversely affected by operation of the Project. At present, none of the Partners discharges wastewater effluent directly to the Sacramento River. Effluent may return to the Delta at a location downstream of the City of West Sacramento.

The DEIR concludes on page 3.2-36 that the Project would affect Sacramento River flows by less than 0.5 percent during non-Term 91 periods. This reduction would not impact any senior downstream water users. During periods when Term 91 is in effect, the Project would not impact downstream users; only water acquired and made available from upstream users would be diverted by the Partners.

Letter 4

STATE OF CALIFORNIA, RESOURCES AGENCY — ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE conservation.ca.gov

CITY OF DAVIS
MAY 2 9 2007
PUBLIC WORKS

May 17, 2007

Mr. Jacques DeBra
City of Davis
1717 5th Street
Davis, CA 95616

Subject: SCH# 2006042175 – Draft Environmental Impact Report for the Davis-Woodland Water Supply Project, Yolo County

Dear Mr. DeBra:

The Department of Conservation's Division of Land Resource Protection (Division) has reviewed the above-referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs.

The proposed project consists of a diversion of up to 46.1 thousand acre-feet per year from the Sacramento River, under new water rights that are based on the pending water right applications and through water transfers from holders of existing senior water rights. The proponents propose to construct and operate water intakes, diversions and conveyance structures and a water treatment facility. The water treatment plant would be located on city-owned land. The project would serve UC Davis and the cities of Davis and Woodland in Yolo County.

The basic objectives of the proposed project consist of improving the water supply reliability, improving the drinking water quality, reducing the salt load in the wastewater discharge, and protecting the agricultural land uses by not using irrigation supplies that would result in permanent or long term fallowing of agricultural lands.

We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources:

What contingencies will be in place in the event of a drought? Will the agricultural water users experience a reduction in deliveries? If Conway Ranch surface or ground water is being considered for use, what mechanisms must be in place for such use? 4-1

Section 3.5-3 of the document indicates that the project would conflict with existing zoning for agricultural use if Option 3 were selected for the water treatment plant location. The land is currently zoned within the AP zone within the City of Davis, which does not allow construction of such structures. The mitigation measure provided in the document states that the zoning would be changed to accommodate the water treatment plant. The land is not under Williamson Act 4-2

The Department of Conservation's mission is to protect Californians and their environment by: Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling; Conserving California's farmland; and Saving energy and resources through recycling.

Responses to Comment Letter 4

4-1 As discussed on DEIR p. 2-2, the Project Partners will maintain operation of groundwater wells in their respective service areas to aid in meeting May to September peak daily demands and to provide sufficient supply in the event of a drought.

The DEIR pp. 2-8 and 2-12 discusses the Project's commitment to protect agricultural lands and ensure no disruption would occur to water deliveries to agricultural users.

Conaway Preservation Group (Conaway Ranch) is discussed as a possible water transfer source option starting on DEIR p. 2-41. Details about how a transfer for use by the Project Partners would be accomplished are on DEIR p. 2-43. Sacramento River water, to which Conaway Preservation Group has appropriative water rights could be diverted at the RD 2035 diversion/intake or at a Project intake further downriver for use by the Project Partners. Conaway Ranch would then use local groundwater and remaining available surface supplies for its agricultural operations. New wells could be constructed in addition to the 13 existing wells at Conaway if needed. The potential environmental impacts of increased groundwater use at Conaway Ranch were analyzed in the DEIR. (See, DEIR, p. 3.3-23).

4-2 The commenter's interest in protection of agricultural lands is acknowledged. Implementation of Options 1 or 2 would avoid impact to agricultural lands. Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR.

Mr. Jacques DeBra
May 17, 2007
Page 2 of 2

contract, however, in order to retain valuable agricultural land resources and to avoid impacting the resource, staff suggests that Options 1 or 2 be given preference over Option 3. | 4-2 cont'd

Construction of the project diversion, intake and conveyance structures would disturb agricultural activities. If there is any acreage under Williamson Act contract that would be publicly acquired and permanently removed from production as a result of the proposed project, we ask that the Department be notified. Any acquisition of contracted land by a public agency must meet the requirements set forth in Government Code sections 51290 to 51295. Specific findings would need to be reported to the Department of Conservation in the required notice to the Director (The notice should be mailed to Bridgett Luther, Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 18-01, Sacramento, CA 95814-3528.). The requirements for findings may be waived under Government Code section 15993 (h). Termination of a Williamson Act/Farmland Security Zone contract by acquisition can only be accomplished by a public agency, having the power of eminent domain, for a public improvement. The Department must be notified in advance of any proposed public acquisition (Government Code §51290 - 51292), and specific findings must be made. The property must be acquired in accordance with eminent domain law by eminent domain or in lieu of eminent domain in order to void the contract (§51295). The public agency must consider the Department's comments prior to taking action on the acquisition. We recommend discussion in any response to comments of how the acquisition will meet the required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation to the address noted above. | 4-3

There may be some indirect impacts associated with the proposed water transfer. Section 3.4 of the document briefly discusses the proposed water transfer as posing no conflict with senior water users in the Sacramento River basin, and would not conflict with the management and maintenance of levees or other flood control facilities. How would transfer of 46.1 thousand acre-feet per year of water affect other plans and efforts such as the Environmental Water Account? | 4-4

Section 4.3.2 of the document indicates that the Project Partners have mitigation programs that would lessen the impact of conversion of agricultural lands to other uses, but does not elaborate or describe these mitigation programs. A brief discussion regarding the specific mechanisms that would be implemented should be added to the document. | 4-5

Thank you for the opportunity to review this DEIR. Please contact Jeannie Blakeslee at (916) 323-4943 if you have any questions regarding these comments.

Sincerely,

Brian Leahy
Assistant Director

cc: State Clearinghouse

4-3 The finding presented on page 3.5-22 of the DEIR is being revised in this Final EIR to conclude that implementation of Option 1 and 3 facilities would have no permanent impact on Williamson Act lands and Option 2 would permanently affect 1 acre of Williamson Act lands. Other Williamson Act lands would only be affected on a temporary basis. Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR. If Option 2 is selected for implementation, the Partners will notify the Department as requested.

4-4 The transfer of water will be made by willing sellers that can substitute surface water supplies with groundwater. The transfer would be done on the open market and may compete for available supplies with other water purchasers, including the EWA. The result of this competition may be an increased water cost over that which would otherwise occur. In an open market, sufficient water for the Project and other potential transfers are expected to be available.

4-5 One of the primary Project objectives is to avoid long-term or permanent fallowing of agricultural lands. This would require transferors to provide a replacement for the transferred surface water supplies such as groundwater or conservation measures to facilitate continued agricultural production. Therefore, Project operations would not result in loss of farmland due to water transfers. However, as discussed in DEIR Section 3.5, under Impacts 3.5-3 and 3.5-4, impacts to some important agricultural lands will be significant due to implementation of some Project facility options. Mitigation Measures 3.5-4a and 3.5-4b would lessen the impacts to agricultural lands and impacts associated with conversion or loss of important agricultural lands to other uses. Measure 3.5-4a requires pipelines be buried at depths to avoid interfering with ongoing agricultural uses following completion of Project construction. Measure 3.5-4b requires the establishment of an agricultural conservation easement at a ratio of 2:1 to mitigate for the acres of Prime Farmland lost due to Project implementation. Impacts associated with loss of Prime Farmland would remain significant and unavoidable if Intake/Diversion Option 2 and/or WTP Option 3 are constructed. Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR.

JUN-05-2007 12:21 CITY OF DAVIS Letter 5 530 758 4738 P.002

County of Yolo

BOARD OF SUPERVISORS

625 Court Street, Room 204
Woodland, California 95695-1268
(530) 666-8195 FAX (530) 666-8193
www.yolocounty.org

CITY OF DAVIS
JUN 04 2007
PUBLIC WORKS

May 31, 2007

Jacques DeBra, Senior Utility Resource Specialist
City of Davis, Department of Public Works
1717 5th Street
Davis, CA. 95616

Re: Comments on Draft Environmental Impact Report for the Davis-Woodland Water Supply Project

Dear Mr. DeBra,

This letter sets forth the comments of the County of Yolo ("County") on the Draft Environmental Impact Report ("Draft EIR") for the Davis-Woodland Water Supply Project ("Project"), which is the culmination of many years of cooperative planning by the Project Partners (Davis, Woodland, and UC Davis).

The County recognizes that the Project has several laudable goals. Among other things, the Project will address a number of existing water quality problems, reduce the potential for aquifer overdraft, and also reduce future conflicts between urban and agricultural users of local groundwater. However, the Project has also been designed to allow for significant urban growth over the next few decades. The Draft EIR projects a year 2040 population of 99,294 for Davis, 87,928 for Woodland, and 65,790 (daytime) for UC Davis. Of course, regardless of whether these projections prove accurate, some amount of urban growth is inevitable and cannot reasonably be debated. And, like the Project itself, such growth will impact the County in many ways.

5-1

Accordingly, while the County recognizes that the Project will benefit local residents, businesses, and farmers in many ways, the County is also greatly concerned with the impact of the urban growth that will follow. The addition of over 65,000 new residents to Davis and Woodland over the next 30 years will significantly impact County facilities, including roads and parks, as well as farmland and other resources of the unincorporated area. The growth projections in the Draft EIR highlight the vital need for other cooperative advance planning efforts. To this end, the County strongly encourages the Project Partners to work with the County to plan for and address the impacts of the future growth projected in the Draft EIR. Some cooperative planning efforts—such as the Water Resources Association and the Yolo County Habitat JPA—have already achieved some success. Other efforts, however, may falter without a shared commitment to addressing the Countywide impacts that result from responsible growth.

Responses to Comment Letter 5

5-1 The DEIR addresses the environmental effects resulting from planned growth in the Partners' service areas as foreseen by existing plans, as well as, growth that may occur beyond the plans' respective buildout horizons. In recognition of future increased infrastructure and public service demands that would occur with population growth and development, the Partners are participating in local forums, such as the Water Resource Association and Yolo County Habitat JPA (now known as the Yolo Natural Heritage Program) to facilitate cooperative planning efforts.

JUN-05-2007 12:22 CITY OF DAVIS 530 758 4738 P.003

Adequacy of the Project Description and Related Issues

The County has several comments on the Project Description included in the Draft EIR.

First, the Draft EIR states that Standard Water Right Permit Term 91 will be included in any water rights permits issued by the State Water Resources Control Board to the Project Partners. (Draft EIR at p. 2-2.) The County questions why this is so. Yolo County (as a region) is entitled to preference over Term 91 beneficiaries because of its location within the area of origin. There is a good argument that Term 91 should not be included in the Project Partners' water rights permits, or that it should be modified (at the very least) to allow greater levels of diversion by the Project Partners. The Draft EIR should explain why the Project Partners appear willing to acquiesce to the inclusion of Term 91 in their water rights permits, and it should also provide an analysis of the impacts associated with an alternative that would assume Term 91 is *not* a limit on water rights for the Project. 5-2

Second, the Draft EIR states that "[t]he year 2040 was chosen as the long-term planning horizon because it would encompass a 35-year life cycle expectancy of most Project components subject to replacement or retrofit." (Draft EIR at p. 2-15.) The Project, however, will not begin operation until about 2015. This would seem to support a planning horizon of 2050—not 2040—assuming the 35-year life cycle expectancy of Project components is measured from the time the Project is operational. The County suggests that the Draft EIR be revised to include a planning horizon of 2050 or, alternatively, to explain why 2040 is appropriate. 5-3

Third, the actual water demand of the Project Partners in 2040 seems to be understated in the Draft EIR. Water demand for the City of Davis as of 2040 is projected to be 22.9 TAF/year. This figure, however, "assumes that conservation measures will be implemented to achieve a 20 percent reduction in per-capita water use from historic levels, in conformance with the City's adopted Urban Water Management Plan." (Draft EIR at p. 2-15.) Additional information should be provided to explain why this assumption is sound, particularly as other discussion in the Draft EIR dismisses conservation levels of 10 percent (for the City of Woodland and UC Davis) to 33.2 percent per capita (in the City of Davis) as "socially unacceptable." (Draft EIR at pp. 5-11, 5-23 to 5-25, and 5-56.) 5-4

Similarly, the calculation of total water demand of the Project Partners in 2040 frequently excludes 2.0 TAF/year that UC Davis currently purchases from the Solano County Water Agency. (E.g., Draft EIR at p. 2-15.) It is not clear why this amount is excluded. Nor does it appear accurate to state that the University's continued reliance on that water source would "*reduce* the 2040 water demand of the Project Partners." (*Id.*, italics added.) Accordingly, these conclusions each require additional explanation. 5-5

Fourth, the County recommends that the Project Partners evaluate whether it would be feasible to obtain all of the water needed for the Project from entities that—like the Browns Valley Irrigation District—can make water available through conservation efforts. The Draft EIR includes only a limited number of potential suppliers. (Draft EIR at pp. 2-35 through 2-51.) Consequently, it assumes that water will also need to be obtained from entities that will make it available through the in-lieu pumping of groundwater. It is possible, however, that there are other potential suppliers that could make water available solely by initiating conservation efforts. The EIR should discuss this possibility, 5-6

2

5-2 Except for permits that are based on State filings (discussed below), the State Water Resources Control Board ("SWRCB") includes Term 91 in all new water-right permits for diversions from the Sacramento River or other streams in the Sacramento River system that are contiguous to the Sacramento River and that exceed 1 cubic foot per second. The SWRCB has included Term 91 in all water-right permits that are based on applications for such permits filed since 1965. The SWRCB includes Term 91 in such permits to prohibit diversions from these streams and rivers by holders of junior appropriative rights during times when there is not sufficient natural flow in the Sacramento River system for all of the diversions that are being made by the holders of senior appropriative rights. The statement in this comment that Term 91 should not be included in the Project Partners' water-right permits therefore is incorrect.

The statement in this comment that "Yolo County (as a region) is entitled to preference over Term 91 beneficiaries because of its location within the area of origin" also is incorrect. During times when Term 91 is in effect, all natural flow water in the Sacramento River system already is being diverted and used within the area of origin by holders of senior water rights, so there is no unappropriated natural flow water to which the Project Partners could be given preference over exports by the Central Valley Project or the State Water Project (the "Term 91 beneficiaries').

The only type of new water-right permits for diversions from the Sacramento River or other streams in the Sacramento River system that may not contain Term 91 are permits based on State filings that were made pursuant to Water Code sections 10500-10506. (See *El Dorado Irrigation Dist. v. State Water Resources Control Bd.* (2006) 142 Cal.App.4th 937.) However, there are no such State filings that could be used for the proposed Project.

The analysis proposed by this comment is not appropriate, because, as discussed above, the SWRCB will not issue new water-right permits to the Project Partners without Term 91.

5-3 For planning purposes, the project has assumed the year 2040 as the planning horizon. This horizon was chosen for two reasons: 1) The anticipated life expectancy of major mechanical parts of the Project facilities; and 2) the time period in which water available under the water rights permits must be put to full beneficial use.

The life expectancy of major mechanical equipment is expected to about 25 to 35 years in duration, depending on level of use, maintenance, and normal wear and tear. If the project goes online in about 2015, it is expected that the project would function until about 2040 without major replacements, overhauls, or reconstruction. It is possible the project may require substantial equipment replacement prior to 2040 or after, but for planning purposes this time period was selected.

The water rights application filed in 1994 also specified a 2040 time period for putting surface water to full beneficial use. Project planning is therefore intended to be consistent with the original period during which water demand will develop for the surface water supplies.

5-4 The 20 percent reduction of water demand for the City of Davis is based on the combination of ongoing conservation measures and future expected savings resulting from: (1) metering all users in the City, (2) applying metered water rates, and (3) implementing the fourteen Best Management Practices (BMPs) set forth in the California Urban Water Conservation Memorandum of Understanding (MOU)[1]. This assumption is consistent with the City's 2005 Urban Water Management Plan (see DEIR, page 2-15).

The referenced discussion on pages 5-23 through 5-25 of the DEIR describes Water Supply Alternative 3, and reflects 'aggressive conservation". That discussion includes the following statement: " This 10 percent reduction would be in addition to existing water conservation measures currently being implemented and already planned to be implemented by the Project Partners" (DEIR, page 5-23). The DEIR goes on to describe a number of measures (potential Best Management Practices, pBMPs) that go beyond the current MOU that would need to be considered to implement Water Supply Alternative 3. It is clear that these measures go beyond what is set forth in the City's 2005 Urban Water Management Plan.

[1] http://www.cuwcc.org/memorandum.lasso

The comment misconstrues the DEIR wherein it states, "dismisses conservation levels … as 'socially unacceptable….'" The language in the DEIR states: "Alternative 3 would also require the implementation of water conservation measures that may not be feasible or socially acceptable" (emphasis added). Alternative 3 would require a level of conservation beyond the currently planned assumed levels. Future gains in urban water conservation at a more aggressive level than assumed in current plans will require actions by homeowners, renters, business operators and others to implement individual conservation actions.

As indicated above, conservation at this additional level will require actions beyond those set forth in the MOU, and could include some of the actions in the pBMPs set forth in the DEIR and referenced above. Indications are that future significant conservation savings will need to come from landscape water savings.

The 2005 State Landscape Task Force report to the Governor and Legislature included 43 recommendations "…for improving the efficiency of water use in new and existing urban irrigated landscapes in California"[2]. Since the Task Force's recommendations go beyond provisions in the Davis and Woodland Urban Water Management Plans and the provisions of the MOU, it would be questionable to count on water savings from these additional proposed actions without broad public support and comprehensive actions and investments in urban landscapes by homeowners and others. While the potential for additional urban landscape water savings is not disputed, the DEIR statement regarding potential feasibility and social acceptability is a proper characterization.

[2] Water Smart Landscapes for California, AB 2717 Landscape Task Force Findings, Recommendations, & Actions, Executive Summary, December 2005, page 3

5-5 Footnote 2 to the table of projected future water demands in page 2-15 of the DEIR states: "With use of 2.0 TAF/yr surface water on the UC Davis campus from the Solano project, total Project Partner water demand is 53.6 TAF/yr." Consequently the 2,000 acre-feet per year of water from the Solano Project is not excluded. That same footnote is the explanation of, and justification for, the statement of page 2-15 of the DEIR: "Agency. This supply would reduce the 2040 water demand of the Project Partners to 53.6 TAF/yr." There is no inconsistency in assumptions.

5-6 During previous Project planning phases, the Partners distributed a solicitation of interest to potential willing water sellers that may have supplies available for transfer during Term 91 periods. As a result of initial solicitation several upstream senior water rights holders responded and agreed to be considered and addressed in the DEIR. The Partners chose to not to consider other sellers whose water rights appeared too complicated or subject to potential controversy.

The upstream senior water rights holders included in the DEIR compose a list of willing sellers capable of meeting all of the needs of the Partners during Term 91 periods. Other willing sellers could be considered with completion of appropriate supplemental CEQA documentation, conducted separately from this analysis.

Other sellers similar to BVWD may be present. However, none are readily known to the Partners nor have any expressed interest in transferring water supplies in response to the Partner's solicitation.

This comment provides no information or evidence to support its concern toward water availability by the Natomas CMWC. In order to implement a transfer, Natomas CMWC will need to demonstrate that it can make available water that would otherwise have been consumptively used.

The Yolo County Board of Supervisors may have regulatory jurisdiction over the construction and operation of groundwater wells in Yolo County, as specified in Section 10-7.301 of the Yolo County Code. Any new wells constructed as part of this Project, would need to comply with this and/or other local ordinances, to the degree applicable. However, an ordinance for a permit to construct and operate a new well delivering water to areas within Yolo County has not been identified.

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and also explain whether suppliers other than those identified in the Draft EIR will be allowed to sell water (including conserved water) to the Project Partners if the Project is approved. The County also questions whether Natomas Central Mutual Water Company has the ability to develop groundwater wells to replace transferred surface water. (Draft EIR at p. 2-46.). Similarly, Reclamation District 108 and River Garden Farms are both at least partially within the County. Any new wells required for increased groundwater extraction will be subject to County approval. This should be noted in the EIR. The EIR should explore these issues in more detail. 5-6 cont'd

Fifth, the County observes that implementation of Diversion/Intake Conveyance Pipeline Option 1 has certain unique benefits that the Project Partners should consider at the appropriate time. (Draft EIR at p. 2-20.) Not only will that option address the Project Partners' needs, it will also allow for diversion facility upgrades that are much needed. This will help ensure the continued maintenance of irrigated agriculture and habitat on the Conaway Ranch, which could be at risk over time due to the poor condition of the existing fish screen and diversion facilities. 5-7

Finally, the Draft EIR does not state whether the Project will provide water fluoridation. The Project represents an important opportunity to provide the health benefits of water fluoridation to local residents. About two-thirds of the United States population is now served by fluoridated public water systems, which are widely recognized as the most cost-effective means of preventing tooth decay and related health problems. Water fluoridation should be a component of the Project (if it is not already), as fluoridation would add to the many potential public health and welfare benefits of the Project. 5-8

Surface Water Hydrology and Water Quality

At page 3.2-28, the Draft EIR discusses the Sacramento Valley Water Management Agreement and Integrated Regional Water Management Plan. Among other things, the County understands that the Plan committed its participants to making water available to meet Bay-Delta standards. The Draft EIR does not, however, discuss whether potential suppliers of water to the Project that participate in the Plan have the ability to both make water available to the Bay-Delta and also make water available for the Project. The EIR should discuss this issue, as well as potential environmental impacts associated with the possible "over" or "duplicate" commitment of water by proposed suppliers. 5-9

In addition, the Draft EIR discussion of the CALSIM II model is vague in some respects. (Draft EIR at p. 3.2-32.) The reference to "Sacramento Valley Groundwater" is somewhat ambiguous, and some explanatory language should be included in the EIR. The Sacramento Valley is made up of multiple watersheds and aquifer basins and is not a uniform feature. Further, the statement that limited historical data causes "pumping rates to be uncertain" should also be further discussed. The lack of seemingly important information makes it questionable whether CALSIM II is, as the Draft EIR concludes, "useful for comparative purposes." 5-10

Land Use and Agriculture and Related Mitigation

As the Draft EIR notes, "[r]egardless of which location option is chosen for Project development, a majority of the Project features would be located on unincorporated lands of Yolo County" currently devoted to agricultural use. (Draft EIR at p. 3.5-5.)

3

5-7 Comment noted. The Partners recognize the benefits of selecting Option 1 diversion /intake site. Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR.

5-8 The comment is noted. Fluoridation is a decision to be made by the individual Partners prior to delivery of water supplies to their service areas. Fluoridation would not be added to the regional water system, unless agreed upon by all parties. Whether to use fluoride in the treatment process at the proposed WTP is a policy decision and is not addressed in this document.

5-9 Water to be made available to the Partners by upstream senior water right holders could not be used for dual purposes, including meeting downstream water quality objectives. The willing sellers would be precluded from committing to dual uses of their water supplies. Table 6-7 of the DEIR indicates that there is sufficient groundwater to supply the proposed Project and other projects that also may use Sacramento Valley groundwater.

5-10 CALSIM II modeling analyzes surface water movement within the CVP and SWP systems. CALSIM II explicitly models groundwater within the Sacramento Valley to account for water use and demand estimates. The CALSIM model was not used to estimate changes in groundwater elevation that could result from project implementation.

CALSIM II is considered to be the best available tool for calculating changes in surface water conditions as a result of water diversion, management, or other action in the Sacramento River system. CALSIM II is generally accepted within the community of expert water modelers. Reclamation, DWR, SWRCB, and every other water authority that has jurisdiction over water management in the Sacramento-San Joaquin Valley and effects on the Bay-Delta use and rely on this model. The Project Partners have discretion to choose the appropriate methodology with which to analyze impacts, and the Partners have concluded that CALSIM II is the appropriate methodological tool to analyze effects on surface water hydrology. .

Chapter 3.3 of the DEIR provides a detailed discussion of groundwater hydrology in the Sacramento Valley, including a discussion of the various aquifers and subbasins found in the Valley. For instance Figure 3.3-1 illustrates the groundwater basins that could be affected by the Project.

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Unfortunately, the discussion of Project impacts on farmland resources appears to be deficient in several respects. 5-11

First, although the Williamson Act is mentioned at page 3.5-10, it is virtually ignored in the rest of Chapter 3.5. This may be because the Draft EIR erroneously states that "[n]o lands subject to Williamson Act contracts would be affected as a result of implementing the proposed Project." (Draft EIR at p 3.5-22.) This is not true, and the Project (particularly its conveyance pipelines) will actually affect many properties subject to Williamson Act contracts. This should be noted in the EIR.

Upon correcting this oversight, the Project Partners will likely need to evaluate whether the Williamson Act imposes any requirements that have not been considered to date. In particular, if the Project will significantly impair the agricultural use of affected contracted parcels (temporarily or permanently), the Project Partners must comply with the notice requirements and make the findings set forth in Government Code sections 51291 and 51292, respectively. The Draft EIR appears to make clear that the Project will significantly impact some farmland (Draft EIR at p. 3.5-23), but as noted above, the EIR does not consider whether any of the significantly impacted farmland is subject to Williamson Act contracts. This should be clarified and, if necessary, the need to comply with Government Code sections 51291 and 51292 should be evaluated. 5-12

Second, the Draft EIR does not clearly state, or even approximate, the total number of acres of agricultural land that may be *permanently* affected by the Project. Table 3.5-9 indicates that between 201 and 292 acres of farmland will be "affected either temporarily or permanently by construction of the facilities" associated with the Project. (Draft EIR at p. 3.5-23.) Related text, however, does not appear to quantify the total acreage that may be permanently affected. This is important information that should be clearly stated in the EIR. Also, it appears integral to the implementation of Mitigation Measure 3.5-4b (requiring the establishment of permanent agricultural conservation easements), and should be clearly stated in the EIR for this additional reason. 5-13

Third, the County questions the apparent conclusion that only the permanent loss of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance should be mitigated. (Draft EIR at p. 3.5-25.) It is not clear whether this is the sole basis for requiring mitigation for the loss of Prime Farmland (if the Option 3 Wastewater Treatment Plant is built), while no mitigation is required for the loss of other open space. Regardless, the basis for the proposed mitigation should be explained in the EIR. The County discourages the Project Partners from adopting a farmland mitigation strategy that requires mitigation only for the loss of certain types of farmland, as such an approach would effectively deem other classifications of farmland to be unimportant. 5-14

Fourth, the County has some concerns with the present language of Mitigation Measure 3.5-4a, which states as follows: 5-15

> **Mitigation Measure 3.5-4a:** The water conveyance or transmission pipelines shall be installed at a depth ranging from 4 to 7 feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depth shall be established in consultation with an agricultural specialist and landowners to ensure consistency with future agricultural practices.

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5-11 The discussion of potential impacts on the potential loss of prime, unique, or other important farmland is not deficient. Specific analysis can be found on pages 3.5-23 through 3.5-27 of the DEIR.

5-12 The DEIR indicated that no Williamson Act lands would be affected as a result of implementing the proposed Project. This was a misstatement. The Final EIR has been revised to read, "Implementation of Options 1 or 3 facilities will not permanently affect any land subject to Williamson Act contract; implementation of Option 2 facilities would permanently affect 1 acre of land subject to a Williamson Act contract. Portions of the Option 2 and 3 conveyance pipelines and Project water transmission pipelines would be located on ten and seventeen separate parcels, respectively. The installation of the pipelines would temporarily affect 63 acres within the Option 2 pipeline alignment, and 80 acres within the Option 3 pipeline alignment, respectively. The water transmission pipeline that is common to all options would temporarily affect nine parcels occupying 34 acres." Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR.

To avoid this impact, a mitigation measure has been recommended. This mitigation measure requires relocating the Option 2 diversion/intake pumping facilities to the east side of River Road or nearby lands that are not subject to Williamson Act. This mitigation measure would reduce the potential impact to less than significant. This information clarifies the information in the DEIR, and so is not significant new information requiring recirculation.

Furthermore, Option 1 is the preferred location of the Project Partners. As indicated above, locating the Project facilities at Option 1 will not result in any impacts to any lands under Williamson Act contract.

5-13 This comment fails to recognize the discussion regarding temporary and permanent impacts to agricultural lands presented in the DEIR on pages 3.5-23 through 3.5-25. As discussed in this text, the Project options would result in some acreage being permanently displaced from future agricultural use. This includes:

- Option 2 Diversion/Intake – 1.0 acre (Discussed on page 3.5-23)
- Option 3 Water Treatment Plant – 15 acres (Discussed on page 3.5-25)

All other impacts to agricultural lands are noted as temporary in duration. As noted in response to Comment 5-12, a mitigation measure has been identified to reduce the impact of implementing Option 2 to a less-than-significant level.

5-14 Impact 3.5-4 on DEIR page 3.5-23 addresses conversion of farmland to other uses. This impact is based on the significance criterion on DEIR page 3.5-17 that states an agriculture impact would be considered significant if it would "convert economically viable Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use." This criterion is adapted from Appendix G of the CEQA Guidelines as stated on DEIR page 3.5-17 and the categories of farmland included in this criterion are taken directly from that appendix. The DEIR analyzed both temporary and permanent impacts to farmlands, the former of which were determined to be less than significant.

The DEIR analyzed the Project's potential impacts related to land use designations, including Open Space. (see DEIR, pages 3.5-20 to 3.5-21.) The DEIR concluded that the only potential land use conflict related to the WTP associated with Option 3, since that location is within the City of Davis' Agricultural Preserve. This conflict could be mitigated through a rezoning of the property,

5-15 This comment requests changes to Mitigation Measure 3.5-4a to clarify the depth of pipeline burial during construction. In response to this comment and Comment 5-17, the measure has been revised as follows:

> **Mitigation Measure 3.5-4a:** The water conveyance or transmission pipelines shall be installed at a depth <u>(to the top of the pipe)</u> ranging from 4 to 7 feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depth shall be established in consultation with an agricultural specialist and landowners to ensure <u>no conflict</u> ~~consistency~~ with future agricultural practices.

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Presumably, the burial depth is to the top of the pipelines (which may be up to 60 inches in diameter), and Mitigation Measure 3.5-4a should be revised to make this clear. In addition, Mitigation Measure 3.5-4a states that installation of the pipelines at 4-7 feet below the ground surface "should be sufficient to avoid conflict with expected agricultural production activities." This statement should be supported by a discussion of what "expected agricultural production activities" were considered, and how the Project Partners determined that no conflicts are likely to occur. Finally, the last sentence of Mitigation Measure 3.5-4a could be read to allow for pipeline placement at a lesser depth, so long as "consistency with future agricultural practices" is ensured. If "consistency" is intended to mean that there will be no conflicts with existing and reasonably foreseeable future agricultural practices, Mitigation Measure 3-5.4a should be revised to so state. The current language appears to leave the door open for future changes to the specific requirements (i.e., 4-7 foot pipeline burial depth) of Mitigation Measure 3-5.4a without any clear performance guidelines to ensure effective mitigation. 5-15 cont'd 5-16 5-17

Fifth and finally, that language of Mitigation Measure 3-5.4b appears to omit some key requirements. It states as follows:

> **Mitigation Measure 3.5-4b**: The Project Partners will establish an agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be displaced with Project development.

The County has already expressed its concern with the lack of a clear statement of the total amount of farmland that will be permanently converted in connection with the Project. In addition, Mitigation Measure 3.5-4b should be revised to state that the agricultural conservation easement will be permanent, and that it will be placed on Prime Farmland (preferably land with some potential for conversion to urban development). Each of these requirements, presumably, is consistent with the intent of the Project Partners. The County commends the Project Partners for mitigating at a 2:1 ratio. 5-18

Biological Resources and Related Mitigation

The County has three concerns with the discussion of impacts to biological resources and related mitigation.

First, the Draft EIR notes that "Valley oak woodlands have become increasingly rare in the California landscape and their conservation has become a growing concern statewide for resource managers." (Draft EIR at p. 3.6-2.) The Draft EIR also concludes that "construction of Project facilities and pipelines would require the removal of trees, including riparian and oak species . . . ." (Draft EIR at p. 3.6-44.) Information appearing elsewhere in Chapter 3.6 indicates that up to 12.1 acres of Valley oak and riparian habitat could be impacted if Option 2 for intake and pipeline facilities is chosen. (Draft EIR at p. 3.6-55.) This potential impact is deemed less than significant with mitigation, which will apparently consist of the preparation of a vegetation mitigation plan for review by CDFG and compliance with related CDFG conditions of approval. (Draft EIR at p. 3.6-74; Mitigation Measure 3.6-8a.) 5-19

The County encourages the Project Partners to reconsider some aspects of this analysis. As noted in the Draft EIR, the County is required to review impacts to oak

5

5-16 The root depth of various agricultural crops was considered in developing a recommended pipeline depth. Crops including tomato, alfalfa, sugar beets, and melons have root depth down to six feet, if not obstructed. Wheat may grow from 4 to 5 feet deep in areas with no obstructions.[3] The depth of 4 to 7 feet is suitable to provide adequate depth for crops that would likely occur along the pipeline alignment.

5-17 In response to this comment Mitigation Measure 3.5-4a has been revised as discussed in response to Comment 5-15.

5-18 In response to this comment Measure 3.5-4b has been revised as follows:

> **Mitigation Measure 3.5-4b:** The Project Partners will establish ~~a~~n permanent Prime Farmland agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be permanently displaced with Project development.

5-19 Mitigation measure 3.6-8 is revised to include specific performance requirements that would be met as part of developing a vegetative mitigation plan. These requirements would consist of one or more of the following provisions:

Mitigation Measure 3.6-8a: Prior to construction, the Project Partners shall conduct an assessment within the proposed Project area to provide the basis of a vegetation mitigation plan. A vegetation mitigation plan will be developed for submittal to CDFG. The plan shall contain species expected to be found in the vicinity of Project sites. Details about the species and their past occurrence shall be included in the plan. The Project Partners shall comply with all terms of conditions for approval, including additional mitigation provisions to be implemented. The Project Partners would follow performance standards in developing the plan. The requirements would consist of one or more of the following provisions:

[3] http://www.westlandswater.org/wtrcon/handbook/crops/Crops.htm

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woodlands within its jurisdiction under Public Resources Code section 21083.4.[1] The County concurs with the conclusion that the conversion of oak woodlands and other riparian habitat would be significant in the absence of effective mitigation. (Draft EIR at p. 3.6-74.) It questions, however, whether the proposed mitigation—submission of a "vegetation mitigation plan" to CDFG—is legally adequate. Public Resources Code section 21083.4(b) contains specific mitigation requirements for oak woodland impacts. Mitigation Measure 3.6-8a in the Draft EIR does not incorporate any of the specific mitigation alternatives set forth in Public Resources Code section 21083.4(b), nor does it recognize the County's authority to approve alternative forms of mitigation. At a minimum, Mitigation Measure 3.6-8a should be revised to conform to Public Resources Code section 21083.4(b) with regard to oak woodlands.

5-19 cont'd

The County also encourages the Project Partners to review the recently adopted Yolo County Oak Woodland Conservation and Enhancement Plan.[2] The Plan is intended to promote voluntary efforts to conserve and enhance oak woodlands in Yolo County. Project mitigation may provide a means for advancing such efforts by helping to direct mitigation to areas with the highest oak woodland resource values and greatest need for protection. County staff look forward to discussing possible mitigation opportunities with the Project Partners.

Second, the Draft EIR does not adequately discuss potential impacts to Swainson's hawk foraging habitat. The EIR should include information about the total amount of foraging habitat that would be permanently affected by the Project. The County understands that this information will be included in the Final EIR, together with appropriate mitigation measures that require permanent conservation of Swainson's hawk foraging habitat if either the Option 3 Water Treatment Plant (15 acres) or the Option 2 pipeline (1 acre) is selected. The County discourages the Project Partners from "stacking" habitat and agricultural preservation easements on preserved acreage, as the establishment of habitat easements restricts the range of potential agricultural crops that may be grown on the affected property. Finally, the County questions whether the permanent loss of 15 acres of Swainson's hawk foraging habitat is properly treated as "less than significant with mitigation" (as the Project Partners' Consultant has suggested in communications with County staff), particularly as the permanent loss of 15 acres of farmland is treated elsewhere in the Draft EIR as significant despite the implementation of similar mitigation requirements (Draft EIR at p. 3.5-26.).

5-20

Third, the Draft EIR recognizes that the County is working with state and federal agencies on a Habitat Conservation Plan/Natural Community Conservation Plan ("HCP/NCCP"). The EIR should recognize, however, that the HCP/NCCP is not a County project. It is instead an effort of the Yolo County Habitat Joint Powers Authority ("Habitat JPA"), of which the Project Partners are members. Consistent with the commitment that Habitat JPA membership entails, the County encourages the Project Partners to at least include a provision in the EIR requiring future coordination of Project implementation activities, to the extent feasible, with the HCP/NCCP upon its adoption.

5-21

[1] Section 21083.4 does not state whether the County's submission of comments on an EIR prepared by another agency is legally adequate. For the purposes of commenting on this Draft EIR only, the County assumes that this comment letter discharges its legal duty to consider whether impacts on oak woodlands are potentially significant.

[2] An electronic copy of the Plan is available at /www.yolocounty.org/prm/events.htm.

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- Establish an oak tree conservation easement in coordination with Yolo County to protect and preserve trees commensurate with the removal of large oaks as a result of project implementation

- Replace and maintain trees, for seven years, at a rate of 1 tree per 1-inch of tree diameter removed as measured at diameter breast height. Because this measure would only fulfill one-half of the required mitigation for the Project, one or more of the other provisions would need to be implemented to fulfill the remaining mitigation requirements.

- Contribute funds to a suitable oak woodland conservation fund, as established in accordance with § 1363 of the Fish and Game Code

- Consult with Yolo County and CDFG to determine and agree to implement other suitable measures consistent with the Yolo County Oak Woodland Conservation and Enhancement Plant 2007 and §21083.4(a) of the California Public Resources Code.

With addition of these performance requirements, the vegetation mitigation plan will have identifiable standards on which to gage mitigation success.

5-20 A detailed discussion of potential impacts on Swainson's hawk foraging habitat is presented on page 3.6-61 of the DEIR. Table 3.6-22 presents an itemized accounting of Swainson's hawk habitat that would be potentially affected by the various project options. The acreage of Swainson's hawk foraging habitat that would be permanently affected by Project implementation would be limited to a 1-acre area occupied by the Option 2 diversion/intake pumping facility and the 15-acre Option 3 WTP. This potential impact would be avoided with implementation of the mitigation measure to relocate the Option 2 pumping facilities. The Option 1 facilities would not occupy lands considered suitable Swainson's hawk foraging habitat. Option 1 has been identified as the environmentally superior alternative and the preferred project in this FEIR.

The permanent displacement of Swainson's hawk habitat is considered a potential significant impact. With suitable mitigation, this impact would be reduced to a level less than significant. The following mitigation measure will be included in the Final EIR to address mitigation for this potential impact.

Mitigation Measure 3.6-7s(1): To mitigate for permanent loss of Swainson's hawk foraging habitat associated with the construction of the WTP facility in Options 2 or 3, compensation shall follow guidance in the *Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County* entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency (Habitat JPA), now known as the Yolo Natural Heritage Program. Text of this Agreement is provided in Appendix C-3. The Agreement requires that:

- Urban development permittees shall pay an acreage-based mitigation fee in an amount, as determined by the Habitat JPA Board, sufficient to fund the acquisition, enhancement and long-term management of one (1) acre of Swainson's hawk foraging habitat for every one (1) acre of foraging habitat that is lost to urban development.
- A calculated fee of $5,800.00 per acre is sufficient to fund the acquisition and preservation as of January 2004 (*Staff Report on Swainson's Hawk Mitigation Fee Update*). This fee amount may be adjusted to reflect updated costs for acquisition of habitat.
- With written approval of and subject to conditions determined by CDFG, an urban development permittee may transfer fee simple title or a conservation easement over Swainson's hawk foraging habitat, along with appropriate enhancement and management funds, in lieu of paying the acreage-based mitigation fee.

5-21 The Project Partners would coordinate with the Yolo County Habitat Joint Powers Authority when the Yolo County HCP/NCCP is completed and adopted to determine if any applicable provisions would place new requirements on Project implementation.

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Growth Inducing Effects

The Draft EIR observes that the Project is growth-inducing within the meaning of CEQA Guidelines section 15126.2, as it "would remove an obstacle to additional growth and development . . . [by] increasing the capacity of a required public service." (Draft EIR at p. 4-1.) Indeed, not only would the Project facilitate growth "consistent with each Project Partner's General Plan or LRDP," it would also "provide surface water supplies to support population growth beyond that envisioned in these plans." By the year 2040, this may result in a 65 percent increase in the population of the City of Davis, the City of Woodland, and the UC Davis campus.

If growth beyond the Project Partners' General Plan/LDRP horizons occurs, it will have a number of significant environmental effects on land use and agriculture, biological resources, air quality, noise, transportation and traffic, aesthetic resources, and public services. (Draft EIR at pp. 4-21 and 4-22.) The Draft EIR discusses these potential impacts briefly and in very general terms. It also includes a table (Table 4-2) and certain figures (Figure 4-1 through 4-6) that show current and future land uses in the vicinity of each Project Partner.

In reviewing this discussion, the table, and the accompanying figures, the County had difficulty determining whether the "future" scenario shown and discussed in each is a projection of land uses and population in 2040, and whether the same "future" scenario is used consistently. For instance, Table 4-2 states that the total acreage of the urban footprint of the City of Davis will nearly double in the "future." This is not reflected, however, in Figure 4-4 (Future City of Davis Land Use), which shows essentially the same urban footprint that exists today. Figure 4-4 should be revised to reflect the "future" shown in Table 4-2, and the Draft EIR should be revised to clarify whether the "future" scenario employed in this discussion, the table, and the accompanying figures is 2040 or some other point in time. These corrections should be straightforward, and they are necessary for the EIR to fulfill its purpose as an informational document—particularly since the urban growth identified in Table 4-2 will occur largely on farmland and open space in the unincorporated County. 5-22

In particular, the EIR should include a detailed analysis of the potential impacts the proposed project may have on services provided by the County. The urban growth facilitated by the Project would increase the demand for numerous County services including mental health, emergency medical services, public health, libraries, employment and social services, jail, probation, public defender, sheriff, district attorney, assessor, courts, planning and public works (both roads and landfill) and general administration. It is critical that sufficient financial resources be provided to ensure that the County is adequately reimbursed for its costs in providing vital public services attributable to the resulting growth. The EIR should clearly analyze the level of impacts anticipated to result from the Project, as well as a clear recognition of the Project Partners' obligation to provide sufficient funds to ensure that existing County services are not adversely impacted by new growth. 5-23

Alternatives to the Proposed Project

The Draft EIR considers the extension of the Tehama-Colusa Canal as one of several alternatives to the Project. (Draft EIR at p. 5-3.) After some analysis, however, the Draft EIR dismisses the Tehama-Colusa Canal extension alternative as infeasible on cost and 5-24

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5-22 Figure 4-4 is consistent with acreage estimates presented in Table 4-2 and reflects a total future City acreage of about 8,950 acres. The source of possible confusion, as expressed in this comment, may possibly result when taking into account the footnote presented in Table 4-2.

While this table states that the current acreage of the City is 4,924 acres, this table does not include an additional 1,431 acres that consist of streets and other public rights-of-way. Therefore the current total acreage of the City actually equals 6,355 acres. As noted in the footnote in Table 4-2, the increase in acreage from current to future conditions in the City of Davis not including right-of-ways is approximately 2,825 acres. The acreage occupied by these land uses could not be assigned to a specific land use category because of limitations in the City's mapping system.

Figure 4-4 is correct in its depiction of future 2040 City land uses, as currently anticipated by City Planning staff, and no revisions are warranted.

5-23 Consistent with the requirements of CEQA, this document does not provide an analysis of economic effects of the Project. Secondary impacts of growth are evaluated in DEIR Chapter 4. Growth impacts have been evaluated at a sufficient level at this stage in Project development.

Specifically, the DEIR summarized the potential impacts that could occur from build out of the Partners' General Plans, and projected that similar impacts could occur as a result of growth beyond each Partner's planning horizon. Notably, CEQA requires only a general analysis of projected growth associated with the Project. A more detailed analysis is not possible for this Project for several reasons.

- First, this Project relates only to the provision of water supplies and facilities for each Project Partner; but does not include any specific development proposals beyond the Project facilities.

- Second, the impacts of growth resulting from the Project are indirect only, and so the timing and magnitude of growth made possible by the Project depend largely on other factors such as economic conditions and population trends, among other factors.

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environmental grounds. The County believes that this conclusion requires additional discussion that addresses at least the following issues.

One of the concerns noted in the Draft EIR is that the Tehama-Colusa Canal currently conveys only enough water to meet the demand of existing water service contractors. The Draft EIR also notes, however, that the Tehama-Colusa Canal is being considered as a conveyance system for the Sites Reservoir, and that more water would therefore be available to new purchasers. This opportunity should be discussed in detail, together with a discussion of the potential enlargement of the Shasta Dam and planned transfers from the Orland Project. A consideration of these potential sources of additional water is necessary for a full evaluation of the Tehama-Colusa Canal extension alternative.

Other potential drawbacks to this alternative appear less significant. For instance, the Draft EIR states that a pump and a 13 to 15 mile long conveyance pipeline would need to be built to implement this alternative. The Draft EIR should recognize, however, that this alternative would eliminate the need to build, operate, and maintain a diversion facility and fish screen on the Sacramento River. That would likely result in a cost savings that is not considered in the Draft EIR, which instead seems to simply conclude that the pump and somewhat longer pipeline (13 to 15 miles, versus 4.5 to 7.5 miles for the Project conveyance pipeline) required under this alternative makes it more costly than the Project. More discussion of these and other costs is required for a meaningful consideration of this alternative. 5-24 cont'd

Finally, an extension of the Tehama-Colusa Canal could convey water to serve uses other than just the Project. This should be discussed in the EIR, as it is another means of reducing the costs (and increasing the potential benefits) of this alternative. Also, the Draft EIR makes a brief and unsupported reference to potential water quality concerns associated with this alternative. This should be further explained, as it presently appears to be unfounded.

Altogether, the County strongly encourages the Project Partners to take a close look at the Tehama-Colusa Canal extension alternative. Additional information, including a response to the above comments, should be added to the EIR to support the Project Partners' consideration of this alternative.

Cumulative Effects

The Cumulative Effects discussion in the Draft EIR contains a list of "past, present, and probably future projects producing related or cumulative impacts." (Draft EIR at pp. 6-2 to 6-5.) The County notes that while the list contains a couple of projects proposed for construction in the unincorporated area---a matter that is addressed separately below—it ignores all projects recently approved (or soon to be considered) by the County. The list is therefore clearly incomplete. It should be revised to include County projects, which clearly affect many of the same resources as the Project. After this correction is made, the Project Partners should consider whether any revisions are necessary in the rest of the Cumulative Effects discussion. 5-25

Significant and Unavoidable Impacts

The summary of significant and unavoidable impacts (Draft EIR at pp. 6-35 to 6-37) does not accurately quantify the impact of the Project on farmland. This should be corrected. 5-26

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- Third, the precise location and magnitude of future growth will depend on the future legislative actions of the future decision-makers of the Project Partners, and so such impacts cannot be projected with precision.

Finally, impacts of future growth would be subject to future CEQA analyses for specific projects, and mitigation of these effects would be required where deemed necessary by these future analyses. Many of the services mentioned in the comment will be provided to the constituents of each Project Partner, and the impacts of providing those services have been addressed in each Partner's General Plans, as discussed above. An analysis of the environmental impacts of providing other County services, for the reasons described above, cannot be described in any greater detail than already provided in the DEIR.

5-24 The DEIR addresses and evaluates the TC Canal as a water conveyance alternative, but that alternative involves higher costs, be complications of other ongoing environmental issues, and be inability to provide adequate supplies throughout the year. Because of these concerns, this alternative was found to be infeasible, incapable of meeting the Project's primary objective of providing a reliable source of water, and not environmentally superior to the proposed Project. Responses to Comment Letter 10 further address the feasibility of the TC Canal alternative.

The DEIR notes that plans to connect the TC Canal to Sites Reservoir are being considered. That proposal could reduce the TC Canal's availability to convey the Partner's water supplies if its capacity is dedicated to conveying water to and from storage in a new reservoir. This would in turn conflict with the Project's objective of providing a reliable source of water. Both the Sites Reservoir proposal and the raising of Shasta Dam are water storage concepts that have not undergone feasibility, engineering, or environmental impact analyses. They are long-term proposals that are not likely to be implemented within the next 10 to 15 years and would require federal approvals and Congressional authorization before proceeding.

The comment fails to recognize water from a raised Shasta Dam or new Sites Reservoir would likely be dedicated for use by existing Central Valley Project or State Water Project Contractors, environmental purposes, or replace existing contracted-water supplies that have been reduced because of various environmental restrictions. There is no provision or guarantee that water developed by these potential projects would available for use by non-CVP or non-SWP contractor agencies such as the Project Partners.

Extension of the TC Canal into Yolo and Solano Counties has been discussed for over 30 years but never implemented because of lack of local support and Congressional authorization. While extending the TC Canal may provide regional benefits to multiple parties, the Project Partners cannot link the development of their water supply to another project that has not demonstrated financial feasibility, interest by other local communities, or federal authorization and funding. Therefore, the Shasta Dam and Sites Reservoir proposals would not provide a feasible alternative water supply proposal to the proposed Project.

At present, Solano County water users are relying on North Bay Aqueduct facilities and the Solano Project for water deliveries. There is no ongoing discussion to extend the TC Canal by these parties.

5-25 During preparation of the DEIR, Yolo County staff was consulted on November 17, 2006 to obtain a full list of projects to be considered for potential contribution of cumulative effects. No additional projects were identified by the Principal Planner at the Yolo County Planning Department during this consultation. Therefore, the Partners sought the best available information regarding possible cumulative projects, even going beyond the date of the Notice of Preparation, which was released in February 2006. It is noted that the comment does not provide any information indicating that the Project would result in any new or more severe cumulative impacts beyond those analyzed in the DEIR.

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As noted above, the County also encourages the Project Partners to reconsider whether the permanent loss of Swainson's hawk foraging habitat—just like the permanent loss of farmland—should be treated as a significant and unavoidable impact of the Project. | 5-27

Conclusion

The County appreciates the opportunity to comment on the Draft EIR. The Project reflects a proactive effort that will help resolve an array of existing problems and prevent many future problems from arising. As noted above, the County recognizes that the Project is likely to benefit local residents, farmers and businesses in many ways. The County looks forward to working cooperatively with Davis, Woodland, and UC Davis to identify and resolve other land use issues that are properly of shared concern.

If you have any questions regarding the issues raised in this letter, please contact David Morrison, Assistant Director, Planning, at (530) 666-8041, and/or Phil Pogledich, Deputy County Counsel, at (530) 666-8275.

Sincerely,

Mariko Yamada, Chair
Yolo County Board of Supervisors

9

TOTAL P.010

5-26 The discussion of significant and unavoidable land use and agriculture impacts presented on page 6-36 of the DEIR will be revised to include a discussion of the permanent effects of constructing the Option 3 WTP on 15 acres of "Prime" farmland and the Option 2 diversion/intake on 1 acre of farmland.

5-27 The permanent loss of prime farmland resulting from implementation of the Project alternatives is addressed in the DEIR. See responses to Comments 5-12 to 5-14. No further discussion of this impact is warranted.

The potential impact to Swainson's hawk foraging habitat is not considered to be unavoidable because of the measures available to protect and preserve lands in Yolo County consistent with the provisions of *Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County* entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency. Mitigation Measure 3.6-7s(1) has been added to the Final EIR for the Partners to contribute to the protection of Swainson's hawk foraging habitat.

Letter 6

Responses to Comment Letter 6

CITY OF DAVIS, CALIFORNIA
NATURAL RESOURCES COMMISSION

June 12, 2007

Mr. Jacques DeBra
Senior Utility Resource Specialist
City of Davis
Department of Public Works
1717 5th Street
Davis, CA 95616

Re: **Comments on the Davis-Woodland Water Supply Project**
Draft Environmental Impact Report (SCH No. 2006042175)

Dear Jacques:

The City of Davis Natural Resources Commission (NRC) has reviewed the Draft Environmental Impact Report (EIR) for the Davis-Woodland Water Supply Project. Our review of the EIR focused primarily on issues and resource areas within our commission's purview, although for this particular EIR that purview encompassed most of the document.

Our general and specific comments on the Draft EIR, as discussed in two NRC public meetings, are attached. Thank you for considering our comments in the preparation of the Final EIR.

Sincerely,
Natural Resources Commission

Bruce Kemp
Chair

GENERAL COMMENTS

Greenhouse Gas Emissions

There are strong policy reasons, supported by strong statewide and local commitments, to reduce greenhouse gas emissions. Accordingly, the NRC requests that the EIR analyze impacts from the project's greenhouse gas emissions as well as mitigation measures that would reduce those impacts.

The California Legislature has found that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." (Health & Saf. Code, § 38501, subd. (a).) On June 1, 2005, the Governor of California set the following ambitious targets for the reduction of greenhouse gases (GHG):

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels;
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

(Governor's Exec. Order No. S-3-05; June 1, 2005.) In 2006, the California Legislature similarly adopted in Assembly Bill 32 ambitious targets for reduction of GHG: by 2020, reduce GHG emissions to 1990 levels. (Health & Saf. Code, § 38550.)

Likewise, the City of Davis has established ambitious goals for the reduction of GHG emissions. The Council adopted Resolution Numbers 8675 and 06-57 on September 29, 1999, and April 18, 2006, respectively. In the latter resolution, the Council voted to "strive to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012." More recently, on April 3, 2007, the Council adopted a Davis Climate Protection/Community Sustainability Framework Strategy. In implementing that strategy, among other things, the City is looking at the possibility of "[d]evelop[ing] standards for zero energy use development projects." (See Staff Report, dated March 26, 2007, page 7.)

6-1

A Water Supply Project partner, the University of California, also has adopted policies designed to reduce greenhouse gas emissions. For instance, the University of California has "Policy on Sustainable Practices," which provides:

> With an overall goal of reducing greenhouse gas (GHG) emissions while maintaining enrollment accessibility for every eligible student, enhancing research, promoting community service and operating campus facilities more efficiently, the University will develop a long term strategy for voluntarily meeting the State of California's goal, pursuant to the "California Global Warming Solutions Act of 2006" that is: by 2020, to reduce GHG emissions to 1990 levels. In addition, … the University will pursue the goal of reducing GHG emissions to 2000 levels by 2014 and provide an action plan for becoming climate neutral ….

The Policy on Sustainable Practices includes green building standards that require all "new building projects … to outperform the required provisions of the California Energy Code (Title 24) energy-efficiency standards by at least 20 percent." The policy also requires

6-1 As noted in the comment, the Draft EIR discusses climate change on page 3.8-12. Please also refer to the overview of greenhouse gases (GHG) on page 3.8-4 of the Draft EIR.

Greenhouse gas emissions may occur during both construction and operation phases of the Project. The DEIR analyzed construction-related emissions for several criteria pollutants in detail. Given the temporary nature of construction impacts, construction emissions do not provide an indication of the Project's greenhouse gas emissions. While the methodologies used in the DEIR did not measure CO_2 emissions resulting from construction, the DEIR does propose several mitigation measures that would address such emissions.

For example, pursuant to Mitigation Measure 3.8-1a, the Project Partners will require contractors to use catalyst and filtration technologies, and retrofit existing engines in construction equipment, limit idling to no more than 5 minutes, and manage operation of heavy-duty equipment to reduce emissions such as maintain heavy-duty earthmoving, stationary and mobile equipment in optimum running conditions which can result in 5 percent fewer emissions. These measures are listed among measures suggested by the California Attorney General to address potential global warming impacts. (Office of the California Attorney General, "Mitigation Measures and Global Warming Resources," June 15, 2007.)

While the Draft EIR qualitatively discusses the emissions from the project construction, another important consideration is the long-term GHG emissions from the project when compared to existing and alternative future water systems that would rely upon groundwater wells. As discussed in response to Comment 6-5, an energy analysis was performed which determined that total energy use would be reduced as a result of implementing the Project. Based upon this energy analysis, GHG emissions would be reduced proportionally. The results of the analysis are presented in the following table.

ESTIMATE OF ANNUAL GREENHOUSE GAS EMISSIONS

Scenario	*Greenhouse Gas Emissions (CO_2e metric tons per year)*[a]	*Comments*
No Project		
2005 Groundwater Pumping	***6,575***	***Emissions limited to groundwater pumping equipment only.***
2040 Groundwater Pumping	***9,999***	***Emissions limited to groundwater pumping equipment only. No additional treatment emissions estimated.***
With Project		
2040 Surface Water Pumping	***4,848***	***Emissions associated with surface water diversion***
2040 Upstream Water Replacement	***606***	***Emissions associated with upstream groundwater replacement of surface water***
2040 Groundwater Pumping	***1,487***	***Emissions associated with future local groundwater pumping anticipated with project implementation***
2040 Surface Water Pumping + Upstream Water Replacement + Local Groundwater Pumping (Total)	***6,941***	***Total of all emissions associated with project operations***

[a] All scenarios assume that electricity to power the pumps is and will be from the electrical grid. Emissions from the electrical grid are considered indirect emissions since the combustion source is at the power plant. Equations and conversion factors used for the calculations are those recommended on pages 32, 35, 85, and 87 of the California Climate Action Registry Report Protocol, 2006. CO2e refers to carbon dioxide equivalent emissions. CO2e emissions are primarily CO2, but also include a smaller percentage of emissions of nitrous oxide and methane gases.

This analysis indicates that the project would reduce GHG emissions when compared to future No Project Conditions where groundwater pumping would provide all of the Partner's water supply. The results show that the Project GHG emissions (6,941 metric tons of CO2) would be about 30 percent less than the estimated 2040 groundwater pumping GHG emissions (9,999 metric tons of CO2), which would occur if the Partners continue to rely on groundwater supplies into the future.

When compared to existing 2005 GHG emissions, the Project would generate about 5 percent more GHG emissions by 2040. The increase of GHG emissions would ultimately reach 366 metric tons/yr by 2040.

At present, there is no GHG emission standard or limit that constitutes a defined threshold for determining a significant impact in accordance with CEQA. A recent opinion by the California Attorney General's Office proposes using the targets, declared in the Governor's Executive Order S-3-05 and Assembly Bill 32, as relevant benchmarks for determining significance[4] More recently, Governor Schwarzenegger signed Senate Bill 97 directing the Office of Planning Research to publish impact thresholds and mitigation measures for GHG emissions..

Using these targets as benchmarks for significance criteria, the Project would not have a significant cumulative effect on the environment because it would contribute to meeting the GHG goals be reducing future GHG emissions associated with water deliveries to the Partners by about 30 percent from the levels that would otherwise occur.

[4] Greenhouse gas emission reduction targets by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. (Executive Order S-3-05 and Assembly Bill 32)

that " all new buildings … [meet] a minimum standard equivalent to a LEED™ 2.1 'Certified' rating."

Therefore, the NRC finds that EIR prepared for the Davis-Woodland Water Supply Project should improve and expand its analysis of the project's potential contribution to GHG emissions. (See EIR, p. 3.8-12.) We recognize that agencies across the state are struggling to develop methodologies to quantitatively analyze GHG emissions as well as to develop standards for evaluating the significance of GHG emissions. Global warming is a significant environmental issue, possibly the greatest of our age, and yet we are still developing thresholds of significance for our CEQA documents. Similarly, in our own Climate Protection/Community Sustainability Framework Strategy, the City may be faced with the problem of developing appropriate standards. 6-1 cont'd

In the meantime, it is a challenge to undertake a detailed and quantitative impact analysis. Despite this, it is reasonable to assume that the project will result in both short and long-term GHG emissions, which will contribute to a significant cumulative impact. The EIR should make at least some attempt to qualitatively describe the project's emissions. 6-2 Moreover, given the reduction targets set out above by the City, State, and U.C. Davis, it is not unreasonable to conclude that the project could interfere with meeting those reduction targets unless mitigation is undertaken. Therefore, we recommend that EIR look at and recommend the adoption of feasible mitigation to reduce the project's GHG emissions. 6-3

Feasible mitigation measures could include the possible use of solar panels or other renewable technology to power part of the pumping system and the water treatment plant. Feasible mitigation could also include compliance with the University's Policy on Sustainable Practices, including its policies to employ green building standards that require all "new building projects … to outperform the required provisions of the California Energy Code (Title 24) and to requires that " all new buildings … to [meet] a minimum standard equivalent to a LEED™ 2.1 'Certified' rating." 6-4

Energy

According to recent reports, about twenty percent of the state's electricity consumption is related to water-supply treatment and distribution. (See, e.g., Lon W. House [December 2006] Water Supply Related Electricity Demand in California; prepared for the Demand Response Research Center and the California Energy Commission, Public Interest Energy Research; California Energy Commission [November 2005] Integrated Energy Policy Report.) Nevertheless, the treatment of energy consumption in the EIR is extremely limited.

The NRC recommends that the EIR include an analysis of the energy consumption of the proposed project as against the energy consumption of baseline conditions. For example, the EIR should discuss the energy consumption of a typical well as compared to the energy needed to pump surface water and treat it appropriately. In addition, the energy consumption of the "senior water rights holders" needed to pump water out of their wells for domestic and agricultural uses should be estimated and discussed in relation to the time of day and time of year when these water resources will be required for Davis when water 6-5 6-6

6-2 A quantitative analysis is described in response to Comment 6-1. As shown, diversion of surface water from the Sacramento River would result in long-term GHG emissions. However, these emissions are not considered a significant project impact because the Project would result in reduced GHG emissions when compared to those associated with groundwater pumping through 2040. The project would not contribute to a significant cumulative impact from the generation of GHG emissions.

6-3 Based upon the results of the quantitative analysis, conducted in response to Comment 6-1, the Project would not interfere with meeting the reduction goals of the City, State, and U.C. Davis. The project would result in a reduction in GHG emissions when compared to the future emissions that would occur without the Project.

6-4 The project would reduce GHG emissions when compared to existing and future groundwater pumping conditions and would not require additional mitigation.

6-5 The average annual energy required by the Davis Woodland Water Supply Project sufficient to meet 2040 water demand equals about 20,000 megawatt-hours/year (MWhr/yr). This estimate includes an energy estimate to treat and convey surface water to the Partner's service area, an allowance of about 2,000 MWhr/yr for pumping replacement water by upstream senior water rights holders who transfer supplies to the Project Partners, and an allowance of about 5,000 MWHr/yr for continued groundwater pumping in the local area.

This level of energy demand is about 13 percent more than the existing energy requirements to supply groundwater, totaling about 17,000 MWhr/yr, and 25 percent less than energy required to meet future 2040 demand with groundwater sources which totals about 27,000 MWhr/yr. The reason for the higher energy consumption with local groundwater pumping is because groundwater must be raised about 200 feet to the ground surface, whereas surface water only needs to be raised about 20 feet.

cannot be taken out of the river. If downstream water users are expected to begin replacing surface water with pumped well water, then their energy costs too should be estimated. 6-6 con't

Along these same lines, it makes sense to evaluate the Colusa-Tahema canal option especially in relation to its energy generation potential due to the elevation differences between Davis and the terminus of that canal. As the NRC commented previously, there are currently available technologies to produce hydropower on a small scale (such as conduit hydropower) in a manner that does not have the same impacts and constraints as large-scale hydropower. We urge the City to give more consideration to such a possibility. 6-7

SPECIFIC COMMENTS

#	Section(s) or Pages(s)	Comment(s)	
1	Generally	**Process Concerns** Appendix A of the EIR, at least as posted on the website, still does not include all comments such as those submitted in response to the notice of preparation as found at: http://www.daviswoodlandwatersupply.com/watersupply/pdfs/publiccommentletters01.pdf In particular, a comment from Diepenbrock Harrison law firm representing the Westlands Water District is missing. Furthermore, even the comments included on the above document are incomplete and seem to be missing many pages making it impossible to comprehend the reviewer's comments. Finally, we note that the Draft EIR documents are mislabeled on the main Davis Woodland Water Supply web site: http://www.daviswoodlandwatersupply.com/watersupply/deir.cfm The appendices are in Volume II, but it is labeled as Volume I on the above web page. Someone looking for the Appendices and the written summary of the verbal comments found therein would be unable to find them.	6-8 6-9
2	Generally	**Clarification** Throughout the Draft EIR—including in the Executive Summary, other summary tables, and in the itemized impacts highlighted in bold type and numbered—thresholds of significance appear to be presented as project-specific impacts. This approach blurs the nature and significance of the project-specific effect and creates "disconnects" in logic when tracking any associated mitigation measures and determination of impact (NI, LS, LSM, SU, etc.) . For example, in Table ES-1, the first item, presented in the column under "Environmental Impact," states: "Impact 3.2-1. The Project	6-10

Therefore, implementation of the Project will reduce that annual energy use by the Partners for water delivery when compared to future 2040 energy requirements that would occur without implementation of the Project. Chapter 6.3 of the DEIR acknowledges that the Project would result in the irreversible commitment of energy resources, including fossil fuels and electricity, but this is not considered a significant environmental change.

There is a role for using alternative and/or renewable energy resources for operation of the Project which is not practical for pumping groundwater supplies. Alternative energy resources could be installed for portions of the diversion/intake facility and WTP to provide a variety of functions.

6-6 See response to Comment 6-5; the replacement of surface water supplies by pumping groundwater in the potential water sellers' service areas would require about 2,000 MWhr/yr. The cost of energy is not an environmental issue subject to consideration in this EIR; however, for information purposes, it is estimated that the energy to operate replacement water wells could cost about $330,000/yr based on the cost of $0.14/kwhr.

6-7 Because the TC Canal would not provide a reliable water supply and would not meet basic Project objectives, further consideration of its use as an hydroelectric energy source in conjunction with water deliveries is not warranted. To accommodate hydroelectric production capabilities, pipeline facilities would need to be enlarged, turbine/generators added, a connection with local utilities or installation of new transmission lines would need to be added. Such facilities would add substantial cost to the Project.

In addition, because the TC Canal is a federally-owned facility for the sole purpose of conveying irrigation supplies, a federal approval, including possible Congressional authorization, would be needed to install a hydroelectric generating facility. Such an authorization may require substantial planning and feasibility analysis, consistent with federal planning guidelines and additional environmental impact analysis consistent with NEPA and, possibly, Federal Energy Regulatory Commission (FERC) requirements.

Based on the potential energy value and foreseeable obstacles to development, the installation of an inline hydroelectric facility does not appear feasible.

6-8 Appendix A has been revised to include all letters submitted in response to the Notice of Preparation. All comments received on the NOP, including those submitted by the Westlands Water District, were considered in the preparation of the DEIR.

6-9 The labeling of Volume II of the DEIR as Volume I on the Project webpage has been corrected. The hyperlink to Volume II correctly takes the reader to the Appendices.

6-10 Table ES-1 is intended to summarize the findings and conclusions presented in Section 3 and 4 of the DEIR. Because the column headings appear to have confused the reader, Table ES-1 is revised and replaced in this Final EIR. For impacts found to be significant and unavoidable, the table will be revised to show that no mitigation is available to reduce the effect to a less-than-significant level. The change to this table does not modify any findings or conclusions presented in the DEIR.

#	Section(s) or Pages(s)	Comment(s)
		would violate water quality standards or waste discharge requirements." We understand that it's meant to be a threshold, but as presented, it sounds like an effect of the project. If it were an effect, it would be significant, and there would need to be some mitigation; however, the next column, Mitigation Measures, states that "No mitigation [is] required," and the final column states that the "residual impact with mitigation" is "NI." As another example, on page ES-41, Impact 6.1-4 appears to be a significant, unavoidable impact for which no mitigation is offered. Impact 6.1-6 appears to be an impact for which no mitigation is required, but which, after mitigation, is less-than-significant. This is more that just the specialized language of EIR-writing—it's potentially very misleading to readers. We suggest that thresholds of significance be identified in each resource area as applicable. In all summary tables and statements of impact, however, the actual potential environmental effect of the project should be stated.
3	Generally	**Clarification** The document may contain some inconsistencies in terms of effects on public services. Table ES-2 and Table 3.13-9 both indicate that the Water Supply Project would result in the construction or expansion of wastewater treatment facilities, which could cause significant effects. The NRC is concerned about this statement, given our experience in hearing updates of the City's ongoing wastewater facility upgrade project. The brief discussion provided on page 3.13-11 appropriately notes the separate CEQA process for the WWTP; however, the nature of the expected "significant, unavoidable" impact needs to be more specifically characterized. Further, in Section 4.3.3, "Public Services" (which presumably would include wastewater treatment) are included in a category of "other less-than-significant impacts." We suggest that statements regarding the City's WWTP be carefully reviewed and revised as needed.
4	Generally	**No-Project Alternative** The No Project Alternative should be more clearly and explicitly defined and analyzed. What would happen if the Project Partners continue to rely on groundwater sources? This is an important discussion for this project and this EIR. In developing this discussion, make sure that statements regarding groundwater reliability are internally consistent, accurate, and consistent with the previous studies. The discussion on page 2-9 should be further analyzed under the No Project Alternative on page 5-17. Incorporate the major findings of the previous water supply,

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6-11 The threshold of significance presented as Impact 3.13-2 specifically states that a project which would require or result in construction of new or expanded water or wastewater treatment plants, which in turn could cause significant adverse impact, should be considered a significant impact of the project. The analysis presented in the DEIR concluded that increased water use within the Partner's respective service areas would result in increased wastewater flows that would exceed the capacity of each Partner's existing wastewater treatment plants. This conclusion does not presuppose any particular impacts that may, or may not, ultimately occur as a result of construction of any particular wastewater treatment plant.

It is more accurate to conclude that implementation of the water supply project would not directly result in construction of new or expanded wastewater treatment plants. However, as discussed in Table ES-2 and Section 4 of the DEIR, future population growth and development that could be facilitated by implementation of the water supply project would create a need for increased wastewater treatment capacity. Therefore, the water supply project would have an indirect effect on public services by removing an obstacle to population growth which in turn would result in a need for increased wastewater treatment capacity.

Table ES-1 will be revised to show that the water supply project will have no direct effect on the need for new or expanded wastewater treatment facilities.

6-12 The description of the No Project Alternative presented on page 5-17 is intended to provide a brief discussion of how the Partners would meet their future water demand without implementing any alternative project and relying on local groundwater supplies. The discussion of environmental impacts found on pages 5-33 through 5-52 addresses in detail the environmental consequences of the No Project Alternative, as well as Alternatives 1 through 5.

#	Section(s) or Pages(s)	Comment(s)	
		capacity, and aquifer studies.	
5	Table ES-1	**Clarification** Provide a key to the codes used in the columns under "Residual Impact with Mitigation" as found elsewhere in the Draft EIR.	6-13
6	Figure 2-19	**Clarification** Label the City of Davis Wetlands.	6-14
7	3.5-20	**Clarification** In the first full paragraph, the statement is made that "...the proposed Project would implement a portion of the County's General Plan." Explain.	6-15
8	3.11-9	**Clarification** The statement is made at the bottom of the page that "there are at least five major urban areas upstream of the proposed intake location." Major upstream municipal wastewater discharges should be identified more precisely. A statement should be included to indicate the downstream locations of the points of wastewater discharge for the City of Davis, City of Woodland, and City of West Sacramento.	6-16 6-17
10	Alternatives, Generally	**Alternatives Should Address Bureau of Reclamation's Activities** In terms of alternatives, the EIR should address as appropriated the Bureau of Reclamation's ongoing investigation of providing increased water storage in Shasta Lake by raising Shasta Dam.	6-18
11	Section 4.2.3	**Include Discussion of County General Plan Policies** This section needs to include an analysis of Yolo County General Plan policies, comparable to the discussion for the "Project Partners." The County is the local land use authority for components of the project on unincorporated lands.	6-19

For example, the discussion on page 5-47 addresses how the No Project Alternative, would increase groundwater pumping by up to 20.4 TAF/yr. This increase in pumping could result in greater depletion of groundwater resources, when compared to existing conditions, and no mitigation is available to reduce this impact to less-than-significant levels.

As noted on page 2-9, previous studies by the City of Davis and UC Davis have concluded that future water demands could exceed long-term groundwater yield and conflicts between deep-aquifer wells have already been encountered. Excessive pumping would contribute to conflicts associated with using the deep aquifer, failure of additional wells, and pose a threat to a stable, reliable groundwater supply. Therefore, the information in the DEIR provides sufficient information to evaluate the No Project Alternative.

6-13 Table ES-1 has been changed to include a key to codes used in the table. It has been included in Table ES-1 to the Final EIR.

6-14 Comment acknowledged. The City of Davis Wetland label has been added to Figure 2-19. The revised figure can be found in Section 3 of the Final EIR.

6-15 This statement was corrupted during preparation of the document and should be removed. Section 3 of this Final EIR presents the corrected paragraph with this sentence deleted.

6-16 The five major urban areas upstream from the Project that are identified on DEIR p. 3.11-9 and contribute wastewater discharges to the Sacramento River and tributaries are cities of Redding, Red Bluff, Chico, Oroville, and Yuba City/Marysville.

6-17 The WWTP effluent discharge locations for the Partners consist of:

- City of Davis – Willow Slough Bypass and Conaway Toe Drain. Both streams are tributary to the Yolo Bypass
- City of Woodland – Tule Canal, a tributary to the Yolo Bypass
- UC Davis – South Fork Putah Creek

6-18 The U.S. Bureau of Reclamation is currently assessing the feasibility of raising Shasta Dam and increasing the storage capacity of Lake Shasta. This action is being considered as part of a larger investigation to develop additional water storage for use by California agriculture, urban users, and environmental purposes.

Increased storage would enable Reclamation to alter Sacramento River hydrology during non-Term 91 periods by diverting more water to storage rather than bypassing that water downstream. The operation of an expanded Lake Shasta would need to be authorized by a new water rights permit issued by the SWRCB.

If approved and constructed, Reclamation would need honor the Project Partners' senior water rights and ensure that water stored in a larger Lake Shasta would not have been otherwise used to meet the Partners' needs. A raised Shasta Dam would have no further effect on the Partners' project.

As explained in Response to Comment 5-24, due to the uncertainty of the Shasta Lake storage enhancement project being approved, it would not provide a feasible alternative to the proposed Project.

6-19 Section 3 of this Final EIR presents a discussion of relevant Yolo County General Plan growth management goals and policies, similar to that provided in the DEIR for the Project Partners.

#	Section(s) or Pages(s)	Comment(s)
12	Section 4.3	**Include Discussion of Direct and Indirect Impacts of Growth in the County** Include a discussion of the potential direct or indirect effects of growth on the County. This discussion should include such matters as the potential induced changes in agricultural land, effects of increased traffic on County roads, and potential loss of natural resources protected under County planning policy.
13	Table 3.14-1 and similar tables	**Clarification: Eliminate Erroneous Implication that County Is a Project Partner** The title of this table should specify Yolo County in addition to the "Project Partners," as in Table 3.13-1. Check this throughout the document. The NRC supports the inclusion of Yolo County in this analysis; however, care should be taken not to misrepresent the County as a "partner."
14	Section 6.3.	**Expand Discussion of Growth Inducing Impacts** This limited discussion should be expanded to consider whether the Project's significant and unavoidable growth-inducing impacts would lead to irreversible environmental changes.
15	Section 5.2.2	**The Tehama-Colusa Canal Extension Alternative** This section begins by suggesting possible higher water quality and ends by concluding infeasibility because "several Sacramento River water users" have filed a protest with SWRCB, and "it is not known what measures would be required to resolve this protest." Declaring infeasibility because of possible legal issues is a legal and political choice, which should be left for the Project Partners' governing bodies under legal advisement. There might be protests filed against the proposed project as well. Rather than determining infeasibility, the EIR should give governing bodies the tools with which to reach their own conclusions about whether to pursue the Tehama-Colusa option. It should address: 1. Will diversion at the RBDD diminish the water quality of the complaining parties? Are they facing reduced water supply? Are there other environment impacts these complainants fear? 2. Does the Tehama-Colusa canal pick up agricultural waste and run-off, or will the water at the end of the canal be as clean as that taken from the river, minus evaporation? Specifically, how much of various pollutants would there be, compared to water the Project Partners receive under the proposed project?

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6-20 Section 4.3 of the DEIR identifies several environmental effects that are anticipated to occur with implementation of the General Plans and Long Range Development Plan (LRDP) of the Project Partners. The environmental impacts of each plan are identified and discussed.

These impacts would not be restricted in geographic area to the existing boundaries of each Partner. The impacts may extend beyond the Partner's boundaries and include broader, regional impacts. For instance, the impact to air quality resulting from General Plan implementation in the City of Davis would disperse throughout much of Yolo County and the Central Valley air basin, depending on the direction of prevalent winds. The impact to air quality would not be restricted to the City of Davis city limits.

Although lands and resources located in unincorporated Yolo County that could be adversely affected are not specifically defined, it is anticipated that implementation of the respective General Plans and LRDP would affect farmlands, air quality, traffic and circulation and biological resources found on lands currently in unincorporated Yolo County or public services provided by the County. As explained in response to Comment 5-23, CEQA requires only a general analysis of potential growth- inducing impacts.

6-21 The comment is acknowledged. Yolo County is not a Project Partner. To clarify this, the words "and Yolo County" have been added to the titles of the following tables: Table 3.2-4, Table 3.3-4, Table 3.7-3, Table 3.12-3, and Tables 3.14-1, 3.15-1, and 3.16-1.

6-22 The discussion presented in Section 6.3 has been revised to include the acknowledgement that growth inducing impacts of the Project would lead to irreversible environmental changes. See response to Comments 5-23 and 6-20

6-23 An EIR need only consider feasible alternatives to a project that would feasibly attain most project objectives and that would avoid or substantially lessen the impacts of the project. Infeasible alternatives need not be considered in detail. Rather, alternatives that are capable of eliminating an environmental impact need to be considered in an EIR unless they are found to be infeasible. Therefore, if considered infeasible, this conclusion needs to be stated to inform and disclose the finding to the public.

The DEIR explained that the TC Canal Alternative is not feasible for multiple reasons, including higher costs, complications of ongoing environmental issues, and inability to provide adequate supplies throughout the year. Further, that alternative was determined to be incapable of meeting the Project's primary objective of providing a reliable source of water. These are all factors that affect the feasibility of the TC Canal Alternative.

Diversion of water from the Sacramento River at the RBDD is not expected to significantly affect water quality of downstream users or water rights protestants. If water for the Project were diverted at the RBDD, downstream reaches of the Sacramento River would experience a minor reduction in water volume corresponding to the volume diverted. No other environmental effects to other Sacramento River water users have been identified with diversion of water at RBDD.

Water in the TC Canal does contain agricultural runoff from upstream uses. No additional agricultural runoff enters the canal after it has been diverted from the Sacramento River. The quality of water diverted at the RBDD is expected to be slightly better than that diverted at the proposed Project's point of diversion because of agricultural runoff and municipal discharges entering the River. Water quality at the proposed Project's point of diversion is considered good and meets all applicable standards, except for odor and bacteria.

#	Section(s) or Pages(s)	Comment(s)
16	Generally	**Sea Level Rise** Many experts, including the State of California, predict considerable sea level rise in the next century that will affect the Sacramento Delta to varying degrees. The experts predict varying rates and levels of rise over different time frames, and while it may be useful to describe the various predictions, we think it would be more helpful to the decisionmakers to describe whether and how the project will function given the scenario of 1 meter rise in sea level, which is certainly within the range of sea level rise. Please provide this information in the final EIR for the decision makers.
17	Generally	**Snow Melt and Change in Hydrology Patterns** Many experts, including the State of California, predict considerable changes in the hydrology patterns of the state, in particular less snow pack and more rain. This is anticipated to affect water supply substantially because at present the state relies on snow pack as a de facto reservoir. We think it would be useful information for the decisionmakers if the EIR were to describe how these changes in hydrology will affect our project. Please add a discussion of this in the final EIR.

6-24

6-25

6-24 The water surface elevation of the Sacramento River varies according to the volume of water present in the channel. Surface water elevations range from about 4.5 feet mean sea level (msl) when flows are about 5,600 cfs to over 24 feet msl when flows are about 57,000 cfs. A sea level increase of up to 1 meter at the I Street Bridge in Sacramento (4.2 miles downstream of the Option 3 diversion/intake site) could result in raising water surface elevations to about 7.5 feet msl at 5,600 cfs and 27 feet msl at 57,000 cfs. Water surface elevation increases would likely be less because of limited tidal influence upstream of the I Street Bridge. A three foot rise in water surface elevation would have no impact on Project operations because the Project would be designed to operate in conditions of both lower and higher surface water elevations.

6-25 Page 3.2-42 of the DEIR discusses the effect of climate change on future water supply. If snowpack volume declines in the future, the operations and volumes of water in upstream reservoirs would be affected. This change could increase the duration of Term 91 limits and reduce water available under the Project Partners' new water-right permits. These reductions would need to be addressed by increasing water transfers or with additional groundwater pumping.

The degree of future change is not known; however, an increase of Term 91 restrictions up to several weeks could occur. Water needed to replace water rights water supplies in a two week period could equal about 2.5 TAF. Changes of this magnitude would not adversely impact Project operations.

Letter 7

From: Sue Greenwald [suegreen@dcn.davis.ca.us]
Sent: Wednesday, May 30, 2007 2:16 PM
To: jdebra@cityofdavis.org
Cc: bemlen@ci.davis.ca.us
Subject: submission of surface water EIR comment

I would like to submit the following official comment concerning the surface water EIR:

I feel that the EIR is inadequate because the effects of climate change on future water supply and future city options, and all related ramifications, has not been adquately addressed. | 7-1

Sue Greenwald
233 Rice Lane
Davis, CA
Phone: 530-756-5831

Responses to Comment Letter 7

7-1 The DEIR presents a discussion of potential global climate change on pages 3.2-14 and -15, and summarizes the most current theories addressing its potential effect on California water supplies as developed by the Department of Water Resources.[5] The DEIR presents conclusions on pages 3.2-42 and 3.2-46 regarding impact of climate change on water supply and water quality.

Based on recent studies, global warming could result in the following types of water resources impacts in California, including impacts on the Sacramento River and associated watersheds:

- Reductions in the average annual snowpack due to a rise in the snowline and a shallower snowpack in the low- and medium-elevation zones, and a shift in snowmelt runoff to earlier in the year
- Changes in the timing, intensity, and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow
- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality
- Sea level rise and an increase in saltwater intrusion
- Increased water temperatures with accompanying adverse effects on some fisheries
- Increases in evaporation and concomitant increased irrigation need
- Changes in urban and agricultural water demand

[5] Department of Water Resources, 2006d. Progress on Incorporating Climate Change in to Planning and Management of California's Water Resources. Technical Memorandum Report. Available at: baydeltaoffice.water.ca.gov/swpreliability/SWPRel05_final.pdf

However, other than the general trends listed above, there is no reliable indication of how global warming will quantitatively affect California water supplies. It would be speculative to try to predict the ramifications of future global climate change beyond the detail presented in this discussion and the DEIR.

As concluded in the DEIR, the primary effect of global climate change would be to reduce to volume of water available for diversion during non-Term 91 periods. This would require the Partners to obtain additional supplies from upstream senior water rights holders who are willing to transfer portions of their surface supplies. Also as concluded in the DEIR, it is not possible to accurately estimate the specific changes to water supplies and duration of Term 91 limits that may occur because of climate change.

Letter 8

From: Andy Bale [aebale@sbcglobal.net]
Sent: Wednesday, May 30, 2007 10:24 PM
To: jdebra@ci.davis.ca.us
Cc: bemlen@ci.davis.ca.us
Subject: Davis-Woodland Water Supply Project Draft EIR

Dear Mr. DeBra:

First, I apologize for the lateness of this comment. I had thought that the comment period on Davis-Woodland Water Supply Project extended through the end of May, but I've just learned that it ended yesterday, May 29, 2007. I hope that you will accept this comment with my apologies.

My comment is in regards to the possibility of increased methylmercury (MeHg) production in Davis (and, if applicable, in UC Davis and Woodland) wetlands as a result of importing Sacramento River water.

Currently, wetlands in the City of Davis are replenished with groundwater and, seasonally, rainwater. Groundwater is directed to the wetlands from landscape irrigation and residential runoff. Both rainwater and groundwater likely have no detectable mercury (Hg). A very small amount of Hg is deposited over the entire area from the atmosphere.

Once river water replaces groundwater as the City's potable water source, the Hg load to City wetlands will increase. Even after water treatment, it is likely that small (but significant) amounts of Hg will remain in the water that the City and homeowners will use for irrigation. This irrigation water will enter the Davis wetland system. Studies worldwide have shown that even small amounts of Hg can result in significant MeHg production.

Once in the wetland system, Hg will tend to accumulate in sediments and MeHg will bioaccumulate in the food chain. Winter storms may flush pulses of MeHg into the Yolo Bypass.

Without some study, the potential for increased MeHg contamination in Davis wetlands due to imported Sacramento River water is unknown. Several important questions must be addressed to assess the current state of MeHg contamination and the potential for increase. But I believe that the potential for increased MeHg production exists and a study should be undertaken before costs of this project are assessed. 8-1

Sincerely, Andy Bale

****

Andrew E. Bale, Ph.D. Civil and Environmental Engineering
303 Avocet Ave., Davis, CA. 95616
Phone: (530) 753-7597

Responses to Comment Letter 8

8-1 This comment incorrectly assumes that surface water diverted from the Sacramento River contains greater concentrations of mercury than existing groundwater supplies, and would therefore result in potential greater mercury (Hg) and methylmercury (MeHg) production in the City of Davis' wastewater treatment plant (WWTP) effluent. Based on a review of available records, it was determined that mercury levels, ranging from about 400 ng/l (0.4 ppb) to 1,000 ng/l (1.0 ppb), can be found in groundwater of the Cache Creek and Putah Subbasins (Yolo CFC&WCD, 2006). This can be compared to mercury levels found in the Sacramento River of about 4.0 ng/l (Roth, et al, 2000)[6].

When observed in groundwater, mercury levels have been reported to be 100 times greater than levels in the Sacramento River. Therefore, use of Sacramento River water as a source could substantially reduce both the concentration and total volume of mercury entering the City's WWTP.

In addition, the City and other Project Partners may limits to the concentration and total volume of mercury that may be discharged from their respective WWTPs. The City of Woodland has been assigned a mercury effluent limit of 0.051 µg/l (51 ng/l) and an interim limit on discharges of 1.06 pounds/twelve months. This limitation is based on maintaining the mercury loading at the current level until a final TMDL can be established (CVRWQCB, 2005)[7].

The Central Valley Regional Water Quality Control Board has proposed a tentative mercury limit of about 0.5 ng/l for the City of Davis WWTP. This limit is intended to cap the WWTP's discharge of mercury at the current mass loading (CVRWQCB, 2007)[8].

6 Roth, D.A., et al. 2000 Distribution of Inorganic Mercury in Sacramento River Water and Suspended Colloidal Sediment Material. Archives of Environmental Contamination and Toxicology 40, 161–172 (2001).

7 Central Valley Regional Water Quality Control Board, 2005 Order No.R5-2003-0031-R01, NPDES No. Ca0077950 Waste Discharge Requirements – Revised For City of Woodland Water Pollution Control Facility Yolo County

8 CVRWQCB, 2007. Order No. R5-2007-Xxxx NPDES No. Ca0079049 Waste Discharge Requirements for the City of Davis Wastewater Treatment Facility Yolo County

Email: aebale@sbcglobal.net
****
* Numerical modeling of surface water quality
* Mercury cycling, fate and transport, and management
* Runoff monitoring, data analysis, and pollutant load estimates
* TMDL development

Therefore, diversion and use of Sacramento River water will not introduce increased mercury to the City of Davis WWTP process and that limits to be imposed on the WWTP operations will prevent increases in effluent mercury discharges. The Project would not have a significant impact on mercury or MeHg production in the WWTP effluent.

JUN-15-2007 13:18 CITY OF DAVIS 530 758 4738 P.002

CITY OF DAVIS
JUN 15 2007
PUBLIC WORKS

YOLO COUNTY
HEALTH COUNCIL

137 N. COTTONWOOD STREET
SUITE 2100
WOODLAND, CA 95695
(530) 666-86550
FAX (530) 666-7337

Letter 9

June 14, 2007

Jacques DeBra, Senior Utility Resource Specialist
City of Davis, Department of Public Works
1717 5th Street
Davis, CA. 95616

Dear Mr. DeBra:

The Yolo County Health Council would like to express their concern about the lack of plans for water fluoridation in the Draft Environmental Impact Report ("Draft EIR") for the Davis-Woodland Water Supply Project ("Project").

Since February 2003, we have supported efforts to fluoridate Yolo County water. We believe fluoridating public water systems is a crucial step in protecting and promoting the dental health of Yolo County's residents. In 2006, we supported the Salud Clinic Advisory Board's effort to fluoridate the City of West Sacramento, a campaign that recently was approved by the West Sacramento City Council. The project to fluoridate the West Sacramento water system has found funding and implementation is expected in 2008.

9-1

Fluoridation of public water systems is widely recognized as the most cost-effective means of prevention of tooth decay and related health problems. The Yolo County Health Council believes water fluoridation should be a component of the Project, as fluoridation would add to the many potential public health and welfare benefits of the Project.

Sincerely,

Carrie Jones, M.D.

Carrie Jones, M.D., Chair
Yolo County Health Council

Cc: Supervisor Mariko Yamada, Chair,
and Members of the Board of Supervisors

TOTAL P.002

Responses to Comment Letter 9

9-1 Adding fluoride to local water supplies is a policy decision that would be made by each respective Partner for its respective service area. No regional fluoride system would be installed unless unanimously agreed upon by all Partners. The addition of fluoride therefore is not part of the proposed Project and is not an environmental issue to be addressed in this EIR.

Letter 10

Tehama-Colusa Canal Authority

P.O. Box 1025 ~ 5513 Hwy 162 ~ Willows, CA 95988 ~ Phone: (530) 934-2125 ~ Fax: (530) 934-2355

June 25, 2007

Jacques DeBra
City of Davis, Public Works
1717 Fifth Street
Davis, CA95616

RE: Tehama-Colusa Canal Authority Comments on the Davis-Woodland Water Supply Project

Dear Mr. DeBra:

The following are comments submitted on behalf of the Tehama-Colusa Canal Authority (TCCA) on the Environmental Impact Report (EIR) prepared for the Davis-Woodland Water Supply Project.

Summary

The Davis-Woodland EIR incorrectly describes and analyzes the T-C Canal extension and should correct this deficiency for the Final EIR. This conclusion is based on the following points, all of which are described in further detail in subsequent sections below.

1. The T-C Canal extension is superior to the Davis-Woodland preferred alternative, because canal extension better meets project objectives as outlined in the EIR.
2. The basis for "consideration and elimination," as outlined in Chapter 5 of the Davis-Woodland EIR, contains factual errors that should be corrected, particularly the EIR's conclusions on river flows, evaporation and seepage, construction cost, Warren Act payments, and access to water sellers.
3. Errors in the description of the T-C Canal operations should be corrected.
4. Extension of the T-C Canal may provide flexibility with regard to project implementation that other alternatives do not.
5. The Final EIR would benefit from active collaboration with TCCA on the development of the T-C Canal extension alternative.

10-1

Responses to Comment Letter 10

10-1 See the following responses to the detailed comments submitted as part of this comment letter. For reasons discussed in these responses, the Project Partners have concluded that using the TC Canal to convey water supplies is not superior to the other alternatives considered in the DEIR.

Objectives of the Davis-Woodland Water Supply Project

The Davis-Woodland EIR analyzed alternatives for ability to meet project objectives. The EIR concluded that the T-C Canal extension was found to meet most of the following objectives and was therefore subject to detailed evaluation.

- **Improve Water Supply Reliability** – Groundwater pumping exclusively from the deep aquifer (ranging from 700 to 2,700 feet below the surface) to meet estimated future demands of the City of Davis and UC Davis could exceed the long-term yield available from this aquifer; in contrast, surface water supplies are available on a reliable basis.
- **Improve Drinking Water Quality** – While existing groundwater supplies normally meet applicable drinking water standards, the Project would provide water supplies with less total dissolved solids (TDS) and electrical conductivity (EC).
- **Reduce Salt Load in Wastewater Discharge** – A primary objective of the Project Partners is to reduce the concentrations of TDS in their water supplies.
- **Protect Agricultural Land Uses** – The Project Partners do not want to implement a water transfer program that would use irrigation supplies in a manner leading to the permanent or long-term fallowing of agricultural lands.

Although the EIR carries the T-C Canal extension forward for further analysis, it is silent on the comparative evaluation of alternatives relative to the preferred alternative. Relative to the preferred alternative, the T-C Canal extension is superior in meeting project objectives.

10-2

Water Supply Reliability

Both the preferred alternative and the T-C Canal extension would improve water supply reliability by supplementing the existing groundwater systems with access to surface water. The EIR is silent regarding the relative *frequency* of water availability between the preferred alternative and the T-C Canal extension. Projections of the frequency of diversions will require analysis of upcoming trends in system-wide reservoir operations and coordinated management of the Bay-Delta, both of which will affect availability of non-Term 91 water, and ultimately the frequency of water availability.

10-3

Drinking Water Quality

The EIR concludes that Sacramento River water quality is superior at Red Bluff as compared to Woodland. Water diversions taken from a T-C Canal extension are therefore better than diversions at the preferred alternative's proposed location at RD 2035 with regard to providing high-quality drinking water to the project proponent's customers.

10-4

Reduced Salt Load

As noted previously, water quality at Red Bluff is superior to the projected water quality under the preferred alternative. The benefit of higher quality water will also allow for lower levels of salt loading in the wastewater discharge, thus improving overall water quality and easing the permitting efforts for future wastewater operations.

10-2 Based on the information presented in the DEIR, it is not certain that the TC Canal could provide a reliable water supply to the Project Partners. Operation of the Red Bluff Diversion Dam (RBDD) faces continuing concerns and restrictions because of its past and ongoing conflicts with fisheries management in the Sacramento River. The U.S. Bureau of Reclamation (Reclamation) has been studying alternative mechanisms for resolving these concerns. To date, no resolution has been adopted.

The Project Partners must obtain a reliable water supply that is not embroiled in ongoing controversy that may delay or interrupt the water supply or that requires resolution by other parties. The supplies to be obtained by the Partners must be deliverable and not be subject to reductions or terminations beyond the Partners' control. The TC Canal and the RBDD are subject to the discretionary decisions of Reclamation and therefore, would not achieve one of the basic project objectives.

Other factors that adversely affect the TC Canal's desirability include: higher cost to construct and deliver sufficient water supplies, the potential environmental impacts of constructing thirteen miles of additional pipeline connecting to the TC Canal, the need to construct a new pump station at the RBDD, and the potential complexity of involving Reclamation and other parties in matters related to the operation of the Partner's water supply facilities.

10-3 Use of the RBDD as a diversion site would provide water with improved water quality, as would a diversion at one of the other site options considered in the DEIR. The frequency of available water at RBDD is the same as other downstream diversions options. Availability is determined by when Term 91 is in effect. When in effect, it applies to the entire Sacramento River and, therefore, would affect the availability of supplies in the River system.

Protect Agricultural Land Use

The project proponents have established the protection of agriculture as a project objective, evidenced by an unwillingness to promote agricultural land fallowing. However, they have not indicated a willingness to enter into long-term partnerships that would meet project proponent's needs and still protect the long-term viability of agricultural land use. A long-term partnership with the TCCA and its agricultural membership would be superior to the scattered water marketing approach described in the EIR.

10-5

Consideration of the T-C Canal Extension in the EIR

Several factual errors are presented in the EIR regarding characterization of how a T-C Canal extension would operate. The T-C Canal is owned by the U.S. Bureau of Reclamation and operated by TCCA. Original operations of the Red Bluff Diversion Dam included a 12-month gates-in period, allowing for full diversions year-round. Current pumping capacity at RBDD during the gates-out period is 485 cfs, sufficient to serve the proposed project.

10-6

TCCA and Reclamation are currently in the process of producing a Final EIS/EIR for the Fish Passage Improvement Project at the Red Bluff Diversion Dam, scheduled for completion this summer (2007). The project is considering a range of options for improving fish passage at RBDD, all of which include increased pumping capacity at RBDD, ranging from 1,700 to 2,500 cfs. Reclamation's preferred alternative would require 2,000 cfs of total capacity, while TCCA's calls for 2,500 cfs of new capacity. Either alternative would resolve the diversion limitations outlined in the Davis-Woodland Water Supply EIR.

10-7

It is also important to note that the pipeline route shown in Figure 5-1 of the Davis-Woodland EIR is likely misleading. In order to take full advantage of gravity distribution, the pipeline from the T-C Canal would deliver water to the western (upslope) edge of Woodland. This would require some rearrangement of proposed facilities, but may also allow for gravity deliveries to the Woodland, Davis, and UC Davis supply systems, a significant benefit to the service areas and customers.

10-8

Availability of Non-Term-91 Water

The EIR concludes that average river flows are 30 percent lower in Red Bluff as compared to Woodland during non-Term 91 periods, which generally occur during high-flow flood releases. If access to higher volumes of flow is the preferred measure of reliability, the T-C Canal extension is superior because canal capacity at the current terminus is 1,700 cfs, compared to the proposed 100 cfs of capacity under the Davis-Woodland EIR preferred alternative. Likewise, the canal itself could provide some short-term storage of flood flows, adding management flexibility as flood water could be temporarily stored in the canal prior to distribution into the Davis-Woodland systems. The 111-mile canal typically stores approximately 10,000 acre-feet when full. Additional storage could be achieved through the construction of a regulating reservoir along the canal. Again, such a facility would need to be coordinated into the overall system operations of the Davis-Woodland proposal.

10-9

10-4 The DEIR found that an intake at RBDD would enable water to be diverted prior to mixing with downstream agricultural runoff. However, the DEIR concluded that water quality at the diversion/intake site options would meet all water quality standards and need only treatment for turbidity, odor, and disinfection. Water diverted at RBDD would also require treatment for turbidity, odor, and disinfection. There would be no substantive advantage for diverting water at RBDD to achieve better water quality.

Salinity concentrations at upstream locations are lower than at the other diversion site options. Sacramento River TDS levels of 40 to 70 mg/l have been reported in the Redding area[9]. While the lower salinity and TDS would result in lower wastewater effluent salinity levels, the previous factors regarding water supply reliability and cost preclude selection of this alternative.

10-5 The Project Partners broadly distributed solicitations for interest in transferring surface water supplies. TCCA and other did not respond to this solicitation. The Project Partners would consider transfer of TCCA water supplies to the Partner's selected diversion/intake site upon completion of appropriate supplemental CEQA documentation.

10-6 Information available to the Partners indicates that the TC Canal does not have capacity to serve the Project. The TCCA webpage, for example, reports, "…current regulations generally prevent the dam gates (RBDD) from being lowered until May 15th…"[10]. In addition, TCCA reports that available pumping capacity is sufficient to meet irrigations need only, "… To overcome this limitation, current practice is to dam up Stony Creek in Orland and back flow water through canal gates that were actually intended to let water out of the canal into Stony Creek. Between the pumps on the Sacramento River at Red Bluff, and the reverse flow diversion at Stony Creek, the demands of irrigators have been met, but generally without any reserve. …" It therefore appears that current pumping capacity at RBDD would not be sufficient to serve the Project Partners.

9 City of Redding Water Utility 2006 Consumer Confidence Report

10 http://www.tccanal.com/

10-7 The Fish Passage Improvement Project EIS/EIR has been undergoing preparation since 2002 and has not yet been completed at the time of preparing this Final EIR. Congressional authorization of any improvements is likely to be required and there is no schedule for implementing changes to the RBDD even if the NEPA/CEQA documentation is completed in a timely manner. It therefore is uncertain whether the proposed new pumping capacity will ever be constructed, and, if it is constructed, where the construction would occur.

10-8 The layout of the pipeline was presented to only demonstrate the minimum distance of additional pipeline needed to connect to the TC Canal. The actual pipeline length would be much longer because of topography, alignment issues associated with roads, utilities, land use, and other factors. It is likely that a pipeline alignment could be 30 percent longer than described, adding to the cost of constructing this alternative.

10-9 This comment confuses canal capacity with Sacramento River hydrology. There is no relation between TC Canal capacity and the difference in hydrology between the RBDD and RD 2035 diversion locations.

This comment implies that water diverted for agricultural uses could be retained in the TC Canal for use by the Partners. It fails to recognized that the Partners are not CVP water service contractors and have no right to use water diverted or pumped by Reclamation's facilities. Use of the TC Canal as a storage facility would conflict with the delivery of water to other CVP contractors.

Evaporation and Seepage Losses in Canal

The Davis-Woodland EIR estimates that losses due to conveyance in the T-C Canal would be approximately 10 percent. It is unclear whether this estimate is based on empirical evidence or other experience. Measured operations of the canal are available for review and indicate a much lower loss rate than the 10 percent estimate. Further, evaporation is seasonally dependent and will vary based on the time of year water would be wheeled to Davis-Woodland system. Lastly, no comparative loss estimate is given for the project proponent's preferred alternative. The appropriate measure should be the relative losses in the two systems.

10-10

Construction Cost Estimates

Comparative construction cost estimates were developed by CH2M HILL based on planning-level unit cost estimates developed by West-Yost Engineers, consultant to the project proponents. CH2M HILL's cost estimates were provided to project proponents in August 2006. CH2M HILL concluded that construction of the T-C Canal extension would be more expensive than the preferred alternative due to the longer conveyance distance (approximately 15 miles versus 5 miles). However, the T-C Canal extension would eliminate the need for a new diversion on the river, which partially offsets the increased cost from the longer conveyance route. The construction cost of the diversion facility, therefore becomes an important element in comparing the two alternatives.

Additional cost savings would also accrue from operations and maintenance (O&M) savings because the T-C Canal extension could potentially supply water via gravity – eliminating the need for pump stations required to move Sacramento River water to the western (upslope) edges of the service areas. Storage reservoirs included as part of the proposed project might also be eliminated by virtue of the existing storage in the 111-mile canal. However, as noted in August 2006, further operational analysis would allow a more accurate comparison and would require cooperative engagement between the project proponents and TCCA.

10-11

It is also important to note the uncertain nature of planning-level cost estimates. Although the estimates developed previously provide a sense of relative costs, actual costs may differ widely after accounting for environmental, engineering, construction management, and other "soft" costs. Accordingly, the alternatives outlined here are considered to have *comparable* capital costs because they are approximately the same order of magnitude. Construction costs, therefore, are not significantly different and do not provide an adequate basis for elimination of the T-C Canal alternative, particularly in light of the additional savings possible from realignment (or elimination) of common features such as pump stations and storage tanks and lower O&M costs.

Warren Act Payments

Project proponents conclude that Warren Act payments could substantially exceed pumping costs associated with the Davis-Woodland preferred alternative, but do not disclose the basis for this conclusion. Warren Act contracts are used to compensate for the use of federal facilities for conveyance of non-CVP water, and can be estimated through cooperative efforts with the US Bureau of Reclamation. Recent Warren Act contracts have been completed for City of Roseville, Sacramento Suburban Water

10-12

10-10 Regardless of the actual amount of water loss because of evaporation and seepage from the TC Canal, any loss would require additional diversion/pumping by the Partners to meet their needs. No evaporation losses would occur with diversion at the RD 2035 location and the proposed pipelines.

10-11 While use of the RBDD site would avoid the need for a new diversion/intake facility, a new pump and fish screen would be required because existing capacity is limited to the needs of the CVP water service contractors. The costs of such a new pump and fish screen facility may be similar to the cost of a downstream diversion/intake. It has been concluded that the costs of new facilities required for use of the TC Canal would be substantially higher than the costs of other alternatives addressed in the DEIR. Ongoing conflicts with fishery management on the Sacramento River raises major concern about this location's ability to provide a reliable water supply.

10-12 This comment fails to recognize that charges for use of federal water conveyance facilities vary depending on whether or not the user is a CVP contractor. Because the Project Partners are not CVP contractors, it can be reasonably expected that they would be charged a higher Warren Act fee for water conveyance. If the charges were about $25 per acre-foot, annual fees would be about $775,000 for conveying an average year water supply (31 TAF). In comparison, the City of Roseville, EID, and Sacramento Suburban are existing CVP contractors using Federal facilities for conveying non-CVP water supplies and are charged about $15.51 per acre-foot. If the Partners were to pay only the rate ($15.51) charged to other CVP contractors, the annual fee would be about $480,800 to convey an average year water supply.

District, and the El Dorado Irrigation District. Given the substantial, and likely increasing, cost of pumping, undertaking a partial project repayment obligation though execution of a Warren Act contract may be economically preferable, even if current estimates indicate that Warren Act payments exceed current costs of pumping. 10-12

Access to Potential Water Sellers

The Davis-Woodland EIR concludes that ACID is the only potential water seller upstream of RBDD, and would require exchanges with other upstream sellers. As noted in August 2006, there are at least two major water purveyors with senior water rights and direct access to the T-C Canal, the Orland Unit Water Users Association, and the Glenn-Colusa Irrigation District. Discussions with the 16 member districts of the TCCA are also warranted. 10-13

Project proponents also assert that existing water users have expressed concern over the reduction of instream flow between RBDD and Woodland, but do not provide the specifics of this complaint. The TCCA is unaware of any protests specific to diversions at the RBDD. It is anticipated that any attempt to assert non-Term 91 diversions by the project proponents will result in a protest before the SWRCB, whether the project proponents divert from RBDD or RD 2035, therefore the alternatives are similar in this regard.

Additional Project Flexibility

Development of a T-C Canal extension alternative would fundamentally change some elements of the project proponent's preferred alternative, possibly changing the operations of the proposed project, and also possibly providing substantial benefits over the proposed project. One of the major potential benefits of the T-C Canal extension is the implementation of major integrated water management opportunities. Such a collaborative use of water by multiple stakeholders may provide additional opportunities for protecting the long-term viability of agriculture, and an improved ability to achieve the stated project objectives. For example, the T-C Canal extension could provide opportunities to partner with water purveyors associated with the Lake Berryessa system, Solano County, the Delta, statewide environmental issues, and others. The integration of multiple systems could provide valuable flexibility over a range of future conditions. 10-14

Another potential benefit from the T-C Canal extension would be an improved ability to implement a phased approach to water system improvements. For example, a canal extension could be used initially as a source for high-quality groundwater recharge. In the event that wastewater standards continue to become more stringent, treatment plants could be added at a later date. Likewise, if the groundwater recharge were sufficient for the needs of one community, but not the other, a smaller-scale treatment facility could be built to meet the needs of one community rather than two. The canal extension, therefore provides flexibility in the face of uncertain future conditions and avoids large-scale stranded investment in the event that not all of the project components are needed. 10-15

10-13 The DEIR states that transferring supplies from sellers located downstream of the RBDD would require an exchange with other water users located on or upstream of the TC Canal if diversion of the supplies were to occur at the RBDD. Water rights holders on the TC Canal, including the Orland Unit Water users Association or Glenn-Colusa Irrigation District could be considered as potential participants if such an exchange is implemented.

The Partners solicited interest with senior upstream water users. To date, only the potential water sellers identified in the DEIR have expressed willingness to participate in a water transfer to the Project Partners.

A water rights protest was filed in 1994 by RD 108, RD 1004, Pelger Mutual Water Company, Natomas Central Mutual Water Company, and Sutter Mutual Water Company regarding a potential diversion location at RBDD. This protest does not object to water diverted at the RD 2035 diversion site.

10-14 Extension of the TC Canal into Yolo and Solano Counties has been discussed for over 30 years but never has been implemented because of lack of local support and Congressional authorization. While extending the TC Canal might provide regional benefits to multiple parties, the Project Partners cannot link the development of their water supply to another project that does not have demonstrated financial feasibility, interest by other local communities, or federal authorization or funding.

At present, Solano County water users are relying on North Bay Aqueduct facilities and the Solano Project for water deliveries. There is no ongoing discussion by these parties to extend the TC Canal to Solano County.

10-15 See response to previous comment. The Partners are not currently considering groundwater recharge as a component of the Project. Groundwater recharge is an objective beyond the scope of this project.

TCCA as a Cooperating Agency

TCCA formally requested status as a CEQA cooperating agency to develop the T-C Canal extension as a full alternative for consideration. Review of the Davis-Woodland EIR indicates that cooperative efforts between the agencies could develop mutually beneficial options that could provide a better alternative than the project proponent's preferred alterative.

In closing, the TCCA again formally requests status as a CEQA cooperating agency to develop the T-C Canal extension as a full alternative for consideration. I welcome the opportunity to discuss the foregoing and to explore the development of a mutually beneficial option that may likely be more beneficial than the current preferred alternative.

I remain,

Jeffrey P. Sutton
General Manager

10-16

10-16 CEQA does not support a category of "cooperating agency" as requested in this comment. No action has been identified would be taken by TCCA that would qualify it as a responsible agency, as defined by CEQA.

JUN-25-2007 14:39 CITY OF DAVIS 530 758 4738 P.002

Mr. Jacques De Bra
Public Works
CITY OF DAVIS
1717 5th Street
Davis, CA 95618

Letter 11

25 June 2007

RE: correction to water supply EIR comment

Dear Sir:

In going over my comment in the last Commission EIR meeting dealing with the water supply plan I see I got tangled in the extemp time warp again. In short I spoke of Davis being able to grow at "point oh five to point oh seven *per cent* a year" against the existing population base figure, using conservation strategies as opposed to taping into the river.

Of course that confounded the multiplier with the per centage.

The multiplier would be .05 to .07. The *per centages* thus would be half a per cent to 7/10ths a per cent.

As we both know approximately 1/20th of the water supply is actually used for human consumption, and thus 95 per cent of our water concerns are met by intermediate well water. Theoretically, drinking water could be delivered by tanker trucks to neighborhood distribution sites for less than the full cost (infrastructure PLUS water purchases) of the current and long studied plan. 11-1

I would like to add a comment on the *Rights of Origin* application. The hoped for entitlement may well be less than 20,000 AFY, given the increasing demand for water in state. At 1% growth per year we can not justify a need for even half that. Further, it is *winter delivery*. We will need the water in SUMMER, and it is clear that will involve purchases (with the current rate approx. one million dollars per AF. If only 5,000 AF needs purchase in 2016, that still is a significant, if not exactly *environmental*, impact). 11-2

Naturally I assume the intent is to trade winter water for summer, perhaps at an exchange rate of 2 for 1. And, also, to sell excess in early years to help retire the infrastructure financing. But such intent would be sufficient cause for legal blocking action by other H2O deprived municipalities (of larger size, vote power, and wealth). 11-3

Responses to Comment Letter 11

11-1 The Partners' estimated 2040 demand of 55,600 af/yr translates to an average demand of 49 million gallons per day. Even if only 5 percent of this demand had to be supplied with tanker trucks, it would take over 400 tanker truck trips per day (assuming that each truck has a capacity of 6,000 gallons) to supply the water that this comment estimates would be needed for human consumption. Also, some type of distribution process would be needed to distribute this water from tanker trucks to all of the water users in the Partners' service areas. This level of additional truck track and the associated process to distribute the trucked water to water users would have substantial impacts on traffic movement and circulation, air pollutant emissions, noise and increased traffic hazards to pedestrians and other motorists.

Also, if the other 95 percent of this demand were supplied solely with groundwater, then many of the problems associated with a groundwater-only supply that are described in Chapter 5 of the draft EIR still would be present. In particular, if this groundwater were not treated, then the problems with high TDS levels in the Partners' wastewater effluents would remain.

The EIR considered a reasonable range of alternatives that would meet the basic Project objectives and avoid significant impacts of the Project. This alternative is neither feasible nor environmentally superior to the proposed Project, and it need not be considered further.

11-2 No evidence is provided demonstrating that the Partner's full water right request cannot be approved by the SWRCB. The DEIR discusses the availability of water in the Sacramento River and concludes that unappropriated supplies are available for the Partner's use during Term 91 periods.

The DEIR also discusses the unavailability of unappropriated water during Term 91 periods. In recognition of this condition, the Partners propose to acquire supplies from upstream water rights holders through long-term agreements.

11-3 This comment is not correct. The Project Partners do not intend to sell or trade water diverted under their water rights permits. The Partners would put the water directly to beneficial use within their respective service areas. The Partners would not acquire water in excess of their needs. The full water right would be perfected and put to use by 2040.

JUN-25-2007 14:39 CITY OF DAVIS 530 758 4738 P.003

Pipeline letter
25 June 2007
page 2 of 2

While much noise is made about rising state water quality standards, it seems City Staff has neglected to mention that we are dancing around these now with a successful mixing in the existing system of intermediate and deep well "harvests". Further, that we can continue to do so for more than ONE decade in any event- short a massive growth spurt like the Ramos driven one that began in ignoring the voter's expressed desire for the opposite, which as we know started in 1987 (and which the 1989 study was part of).

Finally, having read the 1989, 1994 and 2002 studies, the question of waste water 'salting' was never so prominent as it has become as excuse for this pipeline project as it has in just the past 15 months. The reliance on precious potable river to dilute or avoid a "salt pass on" to WWT in flow may be fool's gold. I would point to the complex conundrum, being limited to half previous Eel water delivery, the municipality of Santa Rosa is soon to find itself tackling.

11-4

If the state is demanding things unreasonable for small towns, perhaps we should turn to the courts. A workable state financed method of saline removal seems a sine qua non, and a culpable dereliction. It would also seem that some emergency process for delivery of water through the state in emergency situations, a pipeline- on- the- rails (in short, train tanker cars dedicated for the use) to deliver from state financed river water treatment sites, would be a diligence due from the Water Department and legislators.

11-5

To end, with the subject of suit mentioned, one can conceive a suit being entered by the far-sighted against the pipeline arguing it is based on failed analysis that did not study all workable alternatives. And is injury due the motives of a small insider group working to make house building developers happy at the average residents' expense.

All moving along without proper Council authorization for it, *prima facie* , to boot.

I hope I will find my self-correction the misspoke of my public comment in the record. Thank-you.

Truly,

Michael J. Shepley
1317 Alder Place
Davis, CA 95618

TOTAL P.003

11-4 This comment fails to recognize recent regulatory actions by the Central Valley Regional Water Quality Control Board to reduce salinity concentrations in wastewater effluent of multiple Central Valley communities. A recent example of increasingly restrictive requirements being placed on salinity concentrations in municipal wastewater effluent is found in the CVRWQCB Waste Discharge Requirement (WDR) Order R5-2007-0036 (NPDES No. CA00779154) issued to the City of Tracy. This order sets a limit of 700 to 1,000 µmhos/cm of electrical conductivity (EC) with the requirement that a plan be implemented to achieve 500 µmhos/cm EC.

These initial EC levels range from about 35 to 90 percent of the Partners' wastewater effluent EC, while the future requirement is about 25 to 50 percent of the Partners' wastewater effluent EC. As shown in Table 3.2-10 of the DEIR, use of surface water will reduce the wastewater effluent EC to about 510 to 890 µmhos/cm.

Regulatory limits by the CVRWQCB are now being established. These limits are not an "excuse" for implementing this project but are real, enforceable restrictions being placed on WWTP operations with the intent of minimizing adverse effects to downstream beneficial uses and environmental values.

11-5 Reliance on court-ordered relief from State-imposed regulatory limits is not a prudent course of action that can be relied upon to address the requirement reduce salinity concentrations in wastewater effluent. Each Project Partner is obligated to operate its respective WWTP in a manner consistent with the discharge requirements mandated by the CVRWQCB.

The delivery of water through use of trucks or rails cars cannot be considered an emergency action unless water supplies were accidentally or through an act of nature, interrupted. An emergency condition cannot be planned through intentional actions.

There is no known funding mechanism for establishing state-funded water treatment sites and facilities that could be used in lieu of the Partners' proposed Project. The availability for funds to undertake engineering and environmental studies, and their construction and operation is not foreseeable and is considered speculative. The EIR considered a reasonable range of alternatives that would meet the basic Project objectives and avoid significant impacts of the Project. This alternative is not feasible and would not meet the basic Project objectives. As such, it need not be considered further.

Letter 12

CONTRA COSTA WATER DISTRICT

1331 Concord Avenue
P.O. Box H20
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122

June 25, 2007

Mr. Jacques DeBra
Senior Utility Resource Specialist
City of Davis Department of Public Works
1717 Fifth Street
Davis, CA 95616

Subject: Davis-Woodland Water Supply Project Draft EIR

Dear Mr. DeBra:

Contra Costa Water District (CCWD) appreciates this opportunity to comment on the draft Environmental Impact Report (EIR) for the proposed Davis-Woodland Water Supply Project (Project) released for public review and comment on April 9, 2007. The Project includes construction of a new intake facility and a new water right for diversions from the Sacramento River upstream of the Sacramento-San Joaquin Delta (Delta). CCWD submitted scoping comments in response to the Notice of Preparation for the EIR on June 12, 2006.

CCWD supplies drinking water to approximately 550,000 people in northern, central and eastern Contra Costa County. CCWD's water supply comes almost exclusively from the Sacramento-San Joaquin Delta so new diversions by the City of Davis, City of Woodland and the University of California at Davis (the 'Project Partners') from the Sacramento River have the potential to reduce both the quantity and quality of CCWD's water supply. The proposed Project does not appear to have significant impacts on CCWD's operations. However, should practical operation of the project differ from the analysis within the EIR, CCWD should be notified immediately. 12-1

To limit the impact on CCWD's operations and protect CCWD's senior water rights, we request that the Project Partners accept standard water right terms 80, 90, and 91 on any water right permit issued for the Project. It is our understanding that the Project Partners have agreed to these terms for any permit issued on current water rights applications 30358A and 30358B, which will be used to divert water for this Project. 12-2

Additionally, CCWD requests that the Project Partners report their daily diversions on a publicly accessible website. This request is consistent with State Water Board policy to protect senior rights, does not unduly burden or affect the Project Partners, and contributes to the necessary advancement in the State Water Board's ability to account for water use. 12-3

CCWD appreciates that one of the Project objectives is to reduce the salt load discharged to the Delta from the Davis-Woodland service area.

Responses to Comment Letter 12

12-1 Comment noted.

12-2 In a September 2006 protest-dismissal between the Project Partners and the California Department of Water Resources, the Project Partners agreed that the SWRCB's Standard Permits Terms 80, 90 and 91 shall be included in any permit that is issued on water-right Application 30358A or Application 30358B. The Project Partners' November 2006 protest-dismissal agreement with the Westlands Water District and their March 2007 protest-dismissal agreement with the Conaway Preservation Group contain similar provisions. These standard permit terms therefore will be included in any water-right permits that are issued on Application 30358A or Application 30358B.

12-3 The Project Partners will comply with reporting requirements established by the SWRCB in the water rights permits that are issued for the project.

Mr. Jacques DeBra
Davis-Woodland Water Supply Project Draft EIR
June 25, 2007
Page 2

We encourage the Project Partners to pursue conservation and recycling to the maximum extent possible, and to provide a full discussion of these efforts in the final EIR. If the Project Partners have not already signed the California Urban Water Conservation Council (CUWCC) BMP MOU, we encourage them to do so. 12-4

We have noted some inaccuracies in the EIR descriptions of CCWD's facilities and operations, and request that the following changes be made:

1. **Project impact on CCWD operations**
   As recognized on page 3-7 of Appendix B, analysis conducted in support of the Draft EIR represents "CCWD Delta diversions as a pre-processed time series" and "does not dynamically model impacts to CCWD diversions due to changes in water quality, operation of Los Vaqueros Reservoir, or imposed deficiencies on CVP water service contracts." However, the Draft EIR on page 3.2.-40 of Volume I states that "(m)odel results indicate that diversions by Contra Costa Water District (CCWD) would not be altered." Similar statements are made on page 3.2-47, 3.2-48, and 6-17. These statements are not true as the Draft EIR does not analyze CCWD operations and diversions. Therefore, please remove any statements that CCWD operations and diversions are not impacted. 12-5

2. **Location of CCWD's Intakes**
   The locations of CCWD's Mallard Slough and Old River intakes are misrepresented in Figure 3.2-2. Please see Attachment for the correct locations. 12-6

3. **Mallard Slough Intake and Los Vaqueros operation**
   High chlorides at Mallard Slough do not cause CCWD to begin blending with Los Vaqueros reservoir water as CCWD often diverts higher quality water from Rock Slough and Old River to meet demands when Mallard Slough is too salty. The reference to Mallard Slough in the last sentence of the first paragraph on page 3.2-6 should be deleted. 12-7

CCWD appreciates the collaborative way that the Project Partners have worked with CCWD to ensure than our water supply and water quality concerns are addressed. If you have any questions regarding CCWD's comments, please call me at (925) 688-8083, or call Deanna Sereno at (925) 688-8079.

Sincerely,

Leah Orloff
Senior Water Resources Specialist

LSO/DS:wec

Attachment

cc: Steve Macaulay

12-4 Each of the Project Partners is implementing water conservation measures consistent with the policies and goals of the respective entities. Those conservation measures are described in detail in the Cities' Urban Water Management Plans and the UC Davis LRDP. Each partner is considering signing the CUWWC Best Management Practices Memorandum of Agreement.

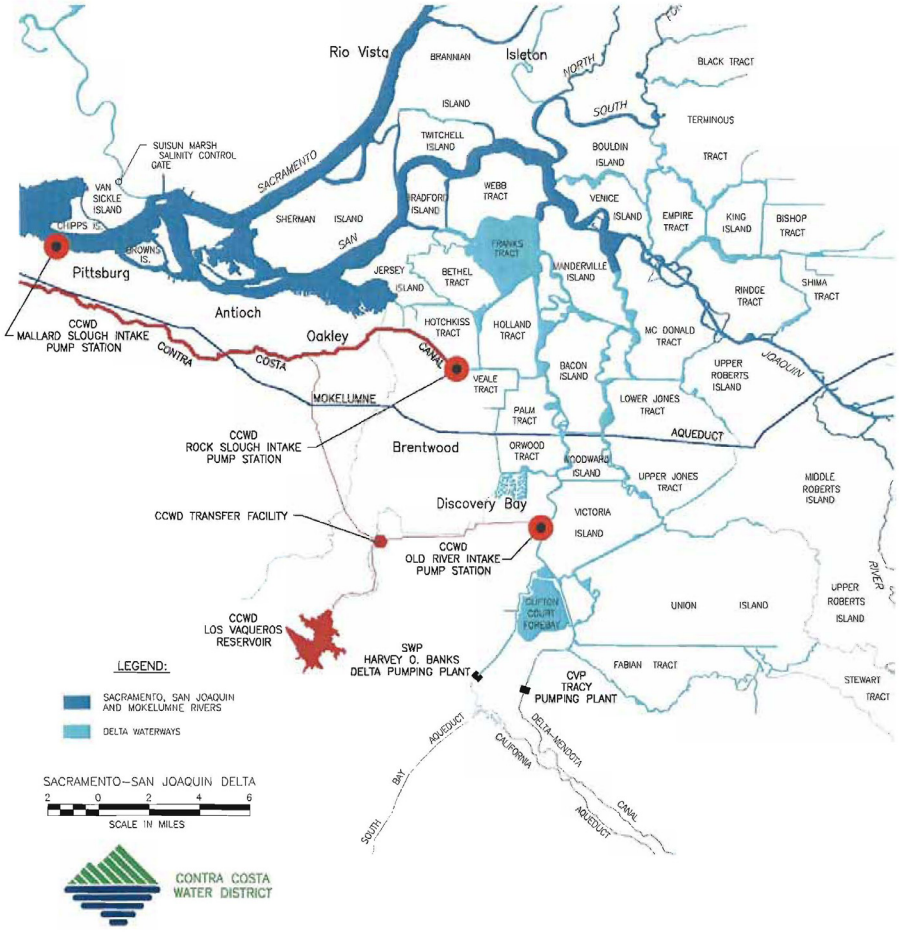
12-5 This comment correctly states that the DEIR does not analyze CCWD operations; however, the analysis of Delta hydrology and water quality does analyze conditions which could influence CCWD operations. Therefore, the FEIR will be revised to reflect that Delta hydrology and water quality would not be altered to a degree that would induce a change in CCWD water exports.

12-6 Comment noted. Figure 3.2-2 of the DEIR has been corrected and is presented in Section 3 of this document. The change will not affect the results or conclusions presented in the DEIR

12-7 Comment noted. The discussion presented on 3.2-6 has been revised and is presented in Section 3 of this document.

Mr. Jacques DeBra
Davis-Woodland Water Supply Project Draft EIR
June 25, 2007

Attachment



JUN-26-2007 07:54 CITY OF DAVIS 530 758 4738 P.002

Letter 13

From: BJ Klosterman, 2906 Pole Line Rd. Unit #4, Davis, CA 95618 'phone #(530)756-3920

To: Jacques DeBra, Senior Utility Resource Specialist, City of Davis,
Department of Public Works at 1717 5th St., Davis, CA 95616

IN RE: Public Comment regarding adequacy of Draft Environmental Impact Report, Addressing the Proposed Davis-Woodland Water Supply Project (SCH# 2006042175)

Comments submitted 25 June 2007; two pages.

My concerns as a resources management specialist and Davis citizen regarding adequacy of the above-noted Draft EIR are as follows:

*Proposed Place of Use for Davis area potentially growth inducing, showing future urban water supply territory as including (class 1+2 soils unincorporated and not-urban-use-zoned) agricultural lands at the periphery of Davis (lands not included in Davis General Plan). "cart before horse" and piece-meal planning that doesn't relate to the other city infrastructure and utilities the city plans to provide these lands. Places speculative pressure and value on some peripheral ag land parcels but not others, creating unfair treatment of similarly zoned lands. 13-1

*Project very large, and largely non-incremental, also having largely non-incremental maintenance and to lesser extent operations costs(that is, costs that are substantially the same over wide range of potential water supply units actually transported or treated by project). This is fundamentally a cost disincentive to conservation and demand-side management, as infrastructure is sized to "peak" use and individual consumer's use of fewer units of water has relatively little cost reducing effect on the utility related charges the consumer/taxpayer must pay the utility provider/city. As such the proposed project is inherently not only cost-risky, involving a commitment of big sum of funds to build and large annual sum to operate and maintain, with virtually no "forgiveness" for errors in projected need/project size. The project also is inherently "anti-conservation" and therefore more sever in environmental impacts (excessive water demand in a water limited region, and excessive effluent released to inland waterways) than reasonable and feasible alternatives. 13-2

* To solve a projected discrepancy in quality water supply with demand, the city seems prone over the next several year period to spend many tens of millions to build this project and millions of dollars to O+M/year the project. However, with the exception of installing meters with an increasable rate schedule, the city seems inclined to spend only hundreds of thousands of dollars per year on demand-side-management, best management practices, conservation measures involving consumer use of CIMIS, Xeriscape, and aggressively up-dating its outdoor water use conservation ordinance and providing technically assistance to consumers to implement these methods. Nor has the city implemented net-zero water demand requirements on significant new developments, with water savings achievable through retro-fits of existing developments as well as features included within the borders of the new development itself. Nor does the city seem inclined to use in-house grey-water systems (such as use of "used" sink water within a domestic building to flush toilets in the same building), satellite treatment plants (to use treated / reclaimed wastewater from a limited area to supply lower-quality uses in that area, such as landscape irrigation) that would Not release effluent to waterways, use of medium or deep well water to supply non-potable uses via a "dual" piping system, and other ways of protecting higher quality supplies for potable / residential uses while not releasing lower quality used water into inland waterways. Many of these strategies are also more incremental in nature, and can be used in a multi-prong approach, responding to the uncertainties of planning over long time periods and involving less whole-scale commitments of funds. 13-3

Many of these approaches would not only selectively supply the higher quality water to higher quality demands, but also would reduce the release of wastewater effluent to inland waterways.

BJ Klosterman comments on Water Supply Draft EIR 25 June 2007 page 1

Responses to Comment Letter 13

13-1 The place of use identified in the DEIR corresponds to the boundaries of the spheres of influence of the probable physical boundaries and service area of the local government agencies as defined the Yolo County Local Agency Formation Commission (LAFCO). These boundaries are commonly accepted as the foreseeable limits of urban land use and serve as an essential planning tool to combat urban sprawl and provide well planned efficient urban development patterns. Using these existing boundaries to demarcate the place of use avoids piece-meal planning consistent with prior decisions by LAFCO.

13-2 It has been determined that the full installation of the proposed pipeline and diversion facilities is needed for the cost-effect development of the project. Multiple pipeline and diversion installations would be more costly and have reoccurring environmental impacts. . See response to Comment 12-4, above, discussing the Partners' conservation efforts.

13-3 The Project Partners have multiple objectives to be achieved, including providing a reliable water supply, improving drinking water quality, improving quality of treated wastewater effluent, and avoiding impacts to irrigated farmland with installation of project facilities. As separate and ongoing actions, each Partner is implementing water conservation measures consistent with its community policies. Moreover, the DEIR explained that a Conservation-Only alternative would be infeasible. (See DEIR, pp. 5-9 to 5-11.)

Reducing water demand and increasing water recycling may partially achieve the Partners' objectives by reducing demand on available groundwater supplies; however, water conservation would not improve the reliability of the existing groundwater supplies, improve drinking water quality by removing salts and minerals, or improve treated wastewater effluent quality. In fact, additional water conservation may actually further concentrate salts and minerals in the effluent flow.

Promoting further water conservation and recycling requires an integrated and coordinated approach to consider the location and layout of new recycled-water conveyance systems, suitable land uses to receive recycled water, storage facilities to avoid discharges during winter months, restrictions on water use to avoid contamination for recycled purposes, and a variety of other considerations that involve extensive community planning and coordination. The implementation of these measures extend beyond the scope of this regional water supply project and are not considered in this EIR beyond the discussion of water conservation that are presented in this EIR.

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*Surface water supplies are more at risk for non-point source pollution impacts such as the drainage of chemicals (including pesticides and herbicides, and fertilizers used in recent decades as well as in the current season as well as road/driveway runoff into storm-drain systems) and animal and plant waste pollutants from agricultural practices. The long trip through ground substrates and microbes on the way to mid and deep aquifers helps to strain out or alter some of these contaminants. In contrast, removal of affected surface water to a treatment facility that filters and chlorinates the water does not protect the water consumer from many of these complex pollutants. 13-4

*The city has Not considered a reasonable spectrum of health impacts of switching from "mineral water" at higher pH / alkalinity to water much lower in many minerals (besides selenium) and pH. 13-5

*What evidence can the city show that switching to a chlorinated surface supply would significantly reduce consumer-related costs to customers. Customers could find the heavy chlorination a problem related to rust staining in fixtures and a problem for perceived health concerns / taste such that they continue to buy bottled water and filtration systems. (My extended family live in areas with low TDS, treated surface supply water, and seem to use far more bottled water or filter systems, and clean mineral problems out of pipes and water heaters far more often than I do.) 13-6

*Compared to reasonable alternatives, this project increases demand on the Sacramento River, including directly or indirectly via appropriative or riparian rights holders, and as regional water demand rises with Sacramento Valley population growth, this puts competitive demand/strain on river water supplies for fish and wildlife, especially in periods of drought. 13-7

*There was inadequate identification or consideration of reasonable and less environmentally damaging alternatives; 13-8

*Anybody in this process think about using the Rocky Mountain Institute for their comments/help? 13-9

BJ Klosterman comments on Water Supply Draft EIR 25 June 2007 page 2

TOTAL P.003

13-4 Both surface water and groundwater supplies are susceptible to contamination from natural and manmade pollutants. Local groundwater has been found to contain concentrations of nitrates, selenium, boron, arsenic, chromium, and other elements that could pose potential health risks if present in excessive amounts. Many of these constituents are not filtered or strained from the water supply through migration in the subsurface geology or soils.

Surface water supplies may contain trace concentrations of pesticides, chemicals, and other compound that are found in runoff from upstream land uses. As discussed in the Section 3.11 of the DEIR, the water quality of the Sacramento River near the proposed diversion/intake is considered good and meets all drinking water criteria, except for turbidity and odor. These latter constituents are normally reduced to acceptable levels through water treatment.

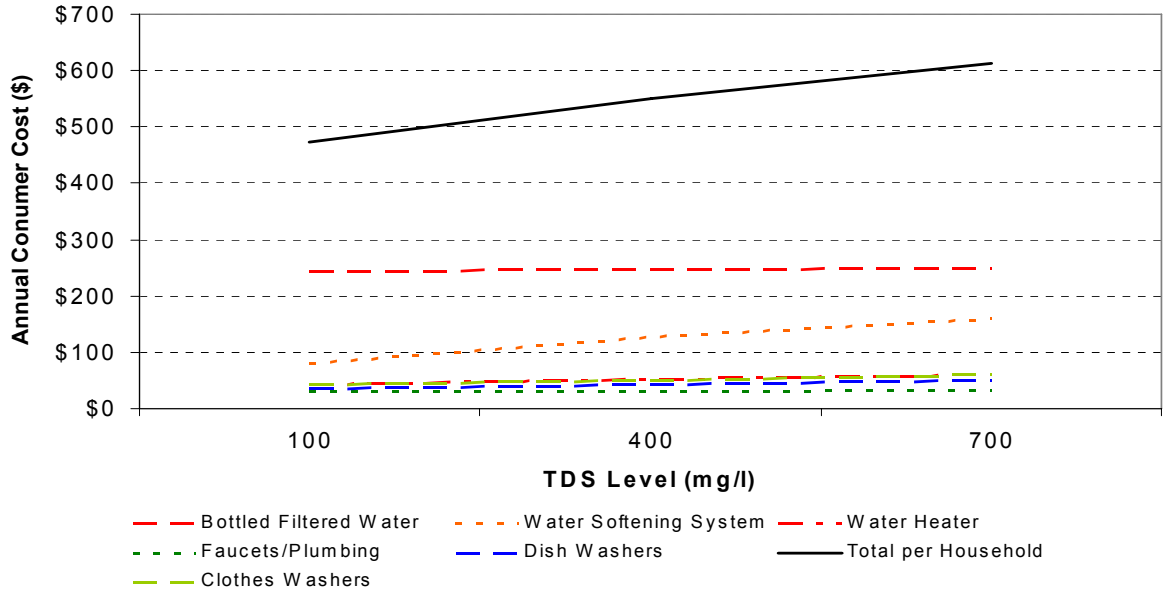
If an upstream pollutant is accidentally discharged to the Sacramento River, the operation of the water system can compensate by ceasing diversion during the period (hours/days) that it takes for the pollutant to pass. If groundwater becomes contaminated by pollutants, it may take months to years before local wells become operational. Therefore, while surface water may be susceptible to upstream pollutants, high pollutant concentrations are not unlikely to jeopardize the long-term water supply of the system when compared to pollutants in groundwater sources.

13-5 There is no evidence indicating a potential health risk associated with surface water supplies containing lower mineral content when compared to higher mineralized groundwater. It should be noted that surface water may contain less minerals but is not considered a low-mineral water source as is deionized or water treated by reverse osmosis or microfiltration.

As described in Table 3.11-1 of the DEIR, both surface and groundwater sources contain concentrations of certain salts, minerals and metals, including calcium, magnesium, potassium, sodium, zinc. While these elements are important nutritional components, drinking water is not considered an important nutritional source of these nutrients. The World Health Organization concludes, “Although certain mineral waters may be useful in providing essential micro-nutrients, such as calcium, WHO is unaware of any convincing evidence to support the beneficial effects of consuming such mineral waters. As a consequence, WHO *Guidelines for Drinking-water Quality* do not make recommendations regarding minimum concentrations of essential compounds.” (http://www.who.int/mediacentre/factsheets/fs256/en).

13-6 The Project Partners have undertaken several studies to document the consumer costs associated with using poorer quality water that can corrode appliances, water systems, require softeners, or promote the use of alternative bottled water supplies. As shown in the following figure, the costs to consumers are directly related to the concentrations of total dissolved solids (TDS) (composed of salts and minerals).

Based on this information, annual consumer costs could increase by about 27 percent as TDS increases from 100 mg/l up to 700 mg/l. The TDS concentrations in the Project Partners' water supplies range from over 300 mg/l up to 525 mg/l. Therefore, water users served by the Project Partners are experiencing higher costs than otherwise would be experienced, because of the poorer water quality of the local groundwater supplies.



Water Quality Impact on Consumer Cost

It should be noted that consumer cost is not an issue that requires analysis in an EIR, though the Project Partners will take this information into account in their consideration of the Project.

13-7 The purpose of obtaining water right from the SWRCB is to be assigned a priority for using available water in the Sacramento River. Once issued water right permits, the Partners would become senior to any subsequent applications for available water in the River.

As part of issuing a water right permit, the SWRCB considers the instream flows needed to protect fish, wildlife, and other beneficial uses. The Partners are obligated, in accordance with the California Environmental Quality Act (CEQA) to avoid taking actions that would have significant environmental impacts where suitable mitigation or alternatives are available. The SWRCB will consider this EIR during its review of the Partners' water right applications.

As concluded in the DEIR, the Project would not have a significant adverse impact on fish and wildlife with implementation of mitigation measures identified in this document.

13-8 The DEIR has considered and analyzed a range of reasonable alternatives, compared their relative impacts, and identified the environmentally superior alternative among them. As discussed on page ES-56, the proposed Project is considered the environmentally superior alternative because it will provide the greatest water quality benefits while having similar construction-related impacts as the other alternatives addressed. This comment fails to identify or suggest any other reasonable alternatives that would be less damaging that those addressed in the DEIR.

13-9 The Project Partners are responsible for providing water supplies to their respective service areas. To support the Partners, professional engineers, planners, and scientists were consulted to plan, design, and evaluate various water supply alternatives and options. Several of these consultants are considered among the state's experts in matters related to water supply management, infrastructure development, and planning. The Partners are entitled to rely on the analysis of their chosen experts.

During preparation of the DEIR, multiple agencies with expertise in water resources development were provided the opportunity to submit comments on the Project. To date, only minor comments have been received with none concluding that the Project is infeasible or would not meet the objectives intended by the Project Partners.

Letter 14

Name:	Seth Bigelow
Email:	seth.bigelow@sbcglobal.net
Address:	1718 Balsam place
City/State/Zip:	Davis CA, 95618
Included in project updates:	Yes
Receive method:	email
Heard about this project:	City of Davis 'Utility Connection'
Comments:	So: we have exhausted our groundwater supply for practical purposes, and now we propose to move on to exploit another resource that can ill-afford it--the water supply for the Delta. Why is there no mention of water conservation for the partners in the DEIS executive summary? The profligate use of water in Davis astounds me. I have only to walk out on my street to see bright green lawns and water in the gutters. I am told that the average household in northern Ca uses 2X that in in southern Ca. The water conservation measures applied in the City of Davis, at least, are toothless. Exhortations on the back of the "Utility Connection" don't cut it. It is quite apparent that the City of Davis/Woodland is facing a water crisis, and the response is incommensurate with the magnitude of the problem. Why is getting more water in ten years time from a resource that is over-subscribed today supposed to be a answer? Why would I support an environmentally destructive option such as the one being proposed, while the City of Davis is supporting the right of my neighbors to sprinkle as much water on their lawns and driveways as they please? And to flush as much water down the toilet as they care to? Is that a wise use of resources? Is that visionary leadership? No.

14-1

14-2

14-3

Responses to Comment Letter 14

14-1 The purpose of the Executive Summary is to provide the reader with a brief description of the project and its consequences, including mitigation measures and alternatives that would avoid significant effects, discussion of areas of controversy, and a discussion of issues to be resolved including the choice among alternatives and how to mitigate significant effects. The City of Davis' water conservation program is introduced on page 2-15 of the DEIR. See also response to Comment 12-4, discussing the Partners' conservation efforts.

14-2 The Sacramento River is not an oversubscribed resource nor is it fully appropriated. During winter months, there are sufficient flows in the Sacramento River to satisfy all senior water rights holders and environmental requirements while also providing water for the Project Partners to divert and. There are also water supplies available from senior water rights holders willing to sell their supplies to meet the Project Partner's needs during other times of the year. The DEIR fully documents the availability of these supplies.

14-3 The DEIR concluded that construction and operation of the Davis-Woodland Water Supply Project could be accomplished with less-than-significant impacts to most environmental resources. The environmental effects found to be potentially significant include the impact of installing a new diversion/intake on the visual resources of the Sacramento River; and potential loss of farmland associated with the Option 2 and 3 pipeline routes. There would be no other identified significant adverse impacts on the environment resulting from Project implementation.

The City of Davis has undertaken a water conservation program intended to reduce water demand by about 20 percent. Achieving greater conservation may require more stringent measures or greater public education. No one condones wasting water.

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Letter 15

United States Department of the Interior

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

IN REPLY
REFER TO:

CITY OF DAVIS
JUN 27 2007
PUBLIC WORKS

JUN 25 2007

MP-410
WTR-4.00

Mr. Jacques DeBra
City of Davis
Public Works Department
23 Russell Blvd.
Davis, CA 95616

Subject: Comments on the Davis-Woodland Water Supply Project Draft Environmental Impact Report (DEIR) Dated April 2007

Dear Mr. DeBra:

The Bureau of Reclamation appreciates the opportunity to comment on the subject April 2007 DEIR. The following comments are in addition to those previously submitted by Reclamation in its letter dated June 11, 2006, on the Notice of Preparation.

Anderson-Cottonwood Irrigation District (ACID), Natomas Central Mutual Water Company (MWC), Reclamation District 108 (RD-108), and River Garden Farms, are under contract with Reclamation and each holds a Sacramento River settlement contract for the diversion and use of water from the Sacramento River. These contracts, among other things, govern the water right holders' use of water from the Sacramento River under their respective claim of right(s), during the period April through October of each year.

15-1

Under the terms and conditions of the respective Sacramento River settlement contracts, any transfer of Sacramento River water by these contractors requires the prior written consent of Reclamation. Such consent will, among other things, require compliance with applicable State and Federal law, including, but not limited to, the National Environmental Policy Act (NEPA) and the Endangered Species Act, as amended. The project partners should recognize that a Federal action (i.e., Reclamation's prior written consent) is required for these contractors to transfer Sacramento River water under any water supply agreement(s) to be entered into by the project partners. The final Environmental Impact Report can be used for reference during the preparation of Reclamation's NEPA document.

Responses to Comment Letter 15

15-1 The listed upstream senior water right holders that enter into agreements for water transfers will be obligated to obtain needed approvals from the SWRCB and US Bureau of Reclamation, as appropriate. The Partners will coordinate with these water sellers to enable use of this EIR to meet Reclamation's NEPA requirements.

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2

The DEIR contemplates that most of the water made available for transfer to the project partners will be the result of groundwater substitution. The discussion in Section 3.2.2 of ACID and RD 108's groundwater supplies, states that, "...based upon a review of Department of Water Resources (DWR) criteria, groundwater pumping in a potential transferor's service area would not adversely affect Sacramento River flow." Reclamation requests using the same language used in the discussion of groundwater supplies for River Garden Farms, Conaway Preservation Group, and Natomas Central MWC. That language is: "The location and design of the replacement water supply wells would need to comply with criteria established by DWR (2002) to avoid groundwater/surface water interactions. If sited consistent with this criteria, the operation of these wells would not have an adverse impact on Sacramento River flow." 15-2

The DWR criteria require wells used in a groundwater substitution transfer must be reviewed and approved prior to the initiation of the transfer; this review will be coordinated with Reclamation. All parties involved with the Davis-Woodland Water Supply Project should understand that the 2002 White Papers are currently under revision by interested parties. If the 2002 criteria contained in the White Paper is changed as a result of this review, any wells used by the parties for the Water Supply Project will have to conform with the revised criteria. Once such revisions are finalized, Reclamation will evaluate all proposed transfers in the Sacramento Valley based upon the revisions and any criteria affecting groundwater substitution and/or crop shifting and crop idling. 15-3

Reclamation takes exception to one of the methods proposed by Natomas Central MWC to make water available; since this method is inconsistent with the recommended criteria contained in the 2002 White Papers-specifically, "Water Transfers Based on Crop Shifting and Crop Idling - How to Make Them Work in the Sacramento Valley in 2002". Natomas Central MWC proposes to make available 10,000 acre-feet of water per year as a result of existing agricultural lands being converted to a mix of agriculture, habitat conservation, and urban land uses, resulting in a reduced surface-water demand in the Natomas service area (2007 DEIR, p. 2-45). While these changes in land use may result in reduced surface diversions and/or reduced return flow, they do not result in any reduction in the amount of water consumptively used, which is a consideration under both State and Federal law for the transfer of surface water. 15-4

Reclamation also takes exception to the transfer by Browns Valley Irrigation District (BVID). BVID proposes to make water available as a result of a conservation project that may eliminate the loss of water from a leaking water conveyance ditch and subsequent evapotranspiration. While this conservation project may result in reduced surface diversions and reduced return flow, it does not result in any reduction in the amount of water consumptively used by BVID, which is a consideration under both State and Federal law for the transfer of surface water. 15-5

In addition, ACID is participating in the proposed Redding Basin Water Resources Management Plan (Redding Basin Plan) being considered by Shasta County stakeholders to improve water supply reliability throughout the Redding Basin. The Redding Basin Plan contemplates ACID implementing groundwater substitution program(s) and water conservation measures to make water available for transfer and sale to other water users within the Redding Basin. As the 15-6

15-2 Chapter 3 of this Final EIR will revised to add the language addressing ACID and RD 108 replacement wells to the corresponding discussions regarding the other potential water sellers.

15-3 The Partners will work with the upstream water sellers to coordinate with Reclamation regarding future changes to existing DWR criteria used to evaluate potential water transfers.

15-4 The proposed changes in land use within the Natomas Central Mutual Water Company service area may result in reduced consumptive water us, which may, in turn, result in transferable water as defined in Water Code §1011. These changes may also result in some these lands receiving water from a different water supplier which may, in turn, give NCMWD the ability to transfer water under its water rights. Any such transfers will have to comply with applicable legal requirements, including applicable requirements of Reclamation because NCMWD is a settlement contractor subject to federal requirements.

15-5 BVID completed a study[11] which concluded that replacement of the Upper Main Canal with an enclosed pipeline would make available about 3,100 af/yr of water which would have been otherwise consumptively used through evaporation and other canal losses. As noted on page 2-41 of the DEIR, BVID has historically transferred this water to other various users on multiple occasions from 1990 through 1997 and 2003 through 2006. The combination of engineering documentation and historic transfers indicates that BVID can make up to 3,100 af/yr available for transfer to the Partners. California Water Code § 1011 et seq declares that water made available through conservation can be transferred to other users.

[11] MBK, 2002. Analysis of Water Conserved Under the Upper Main Water Conservation Project

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3

Redding Basin Plan and subsequent analysis were not addressed in Section 3.2.2 and Section 6 of the DEIR, Reclamation requests inclusion of the Redding Basin Plan and subsequent analysis. | 15-6 cont'd

We appreciate the opportunity to comment on the DEIR.

If you need further clarification regarding these comments, please contact Water Transfer Specialist Joel Zander at (916) 978-5270.

Sincerely,

Richard J. Woodley
Regional Resources Manager

cc: Mr. Stan Wangberg, Manager
Anderson-Cottonwood Irrigation District
2810 Silver Street
Anderson, CA 96007

Mr. Steve Gidaro, President
Conaway Preservation Group
2251 Fair Oaks Boulevard, Suite 300
Sacramento, CA 95825

Mr. Daniel Peterson, Manager
Natomas Central Mutual Water Company
2601 West Elkhorn Blvd
Rio Linda, CA 95673

Mr. Lewis Bair, Manager
Reclamation District No. 108
P.O. Box 50
Grimes, CA 95950

Mr. Marty Stripling
River Garden Farms
41758 County Road 112
Knights Landing, CA 95645

15-6 The DEIR does consider and summarizes the Redding Basin Water Resources Management Plan on page 3.3-19. The Redding Basin Water Management Plan Draft Environmental Impact Report[12] was released in January 2007. To date, Reclamation has taken no steps to prepare an analysis for purposes of NEPA. The preferred alternative is to use a mix of surface water and groundwater supplies to meet existing and future needs in the basin. The environmental impacts associated with this plan are considered to be less than significant.

[12] Shasta County Water Agency, 2007. Redding Basin Water Management Plan Draft Environmental Impact Report. Prepared by CH2M HILL.

4

Mr. Dean Reynolds, Land & Water Use Scientist
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Mr. Craig Trombly, Chief, Project Water Contracts Branch
California Department of Water Resources
1416 9th Street, Room 1620
Sacramento, CA 95814

Mr. Steve Herrera, Permitting Section
California State Water Resources Control Board
P.O. Box 2815
Sacramento, CA 95812-2815

TOTAL P.005

Responses to Verbal Comments

RESPONSES TO VERBAL COMMENTS

Commenter	Comment Number	Comment	Response
April 23, 2007 Meeting at City of Davis Natural Resources Commission			
Tim Williams	1-1	Will reduced salinity in surface water result in reduced salt loading to the Delta from improved wastewater quality?	Yes, reduced salinity in the Partners' water supplies will reduce salt loads discharged from their WWTPs which eventually reach the Delta.
Mike Shepley	2-1	Has there ever been a shortage of the intermediate aquifer water at any point in time?	Shortages of intermediate aquifer water supplies have not been observed.
	2-2	The economic cost of the surface water project and water supplies argue very strongly for looking at the alternative of groundwater treatment and looking at what can be done about salinity.	Removing salinity from water supplies requires reverse osmosis or microfiltration, both technologies require special equipment and high energy use. Chapter 5.2.3 of the DEIR addresses treating groundwater supplies to remove salinity and concluded that this alternative is infeasible.
Kurt Schmalenberger	3-1	I am not aware of anybody talking about long-term water transfers; the project would need to buy some water now, then buy some tomorrow, some the next day, and some the next day while the cost goes up.	The Partners are proposing implement long-term water transfers with willing sellers. As discussed on page 2-36 of the DEIR, the transfers would have a duration of 30 to 50 years. Recently, the City of Tracy entered into a long-term transfer with Westside Irrigation District and the Banta Carbona Irrigation District for the permanent transfer of irrigation water for urban use.
	3-2	Where is the surface water, that would be diverted, going now and who is using it?	The surface water that would be diverted by the Partners under new water rights is now either being diverted at the south Delta pumps as Article 21 water supplies or flows out into the Pacific Ocean. The surface water that the Project Partners would purchase is now being diverted by the upstream water users. They would make water available by substituting the surface supplies with local groundwater.

RESPONSES TO VERBAL COMMENTS

Commenter	Comment Number	Comment	Response
	3-3	The DEIR discusses eliminating well use in Davis and saving energy, and also discusses replacing farm water with well supplies which also use more power.	As discussed in response to written-Comment 6-5, energy demand will be less with use of surface water when compared to future groundwater pumping by the Project Partners.
May 2, 2007 Meeting at City of Woodland Council Chambers			
Loretta Hanson	4-1	What will happen to rates and costs with Project implementation?	Water rates and costs are not subject of the environmental impact review process. Each Partner will need to conduct an analysis of the effect that Project costs will have on its water rates.
	4-2	What will happen during dry year conditions, especially to the river flows?	The Partners will divert water from the Sacramento River under their water rights when Term 91 is not in effect. When Term 91 is in effect, the Project Partners will transfer water supplies from upstream sellers. In drier years, the transfers may need to start earlier and last longer. The Partners would not be subject to water shortages if sufficient transfer supplies are contracted for transfer.
	4-3	Are there any other water intakes along this stretch of the river?	As shown in Figure 6-1, there are numerous agricultural water diversions and the downstream City of West Sacramento Intake along this stretch of the River.
	4-4	What's to say that existing conditions upstream of the intake will remain the same and how would that affect the project?	The purpose of the water right permit system is to provide a stable and predictable mechanism for diverting water. Hydrologic conditions will vary from year to year; however, there will be no change in the Partner's seniority to divert water upon approval by the SWRCB. Upstream changes which could alter the volume of water available to the Partners are not anticipated. Potential climate changes are discussed on page 3.2-42 and in response to written-Comment 6-25. Even with climate change, surface water would continue to be available for the Partners' use, however, a larger portion may need to be purchased from upstream users.

RESPONSES TO VERBAL COMMENTS

Commenter	Comment Number	Comment	Response
	4-5	There are conflicts between water, fish, agriculture, etc; would we be getting into these issues with this project?	The DEIR concluded that water for the Partners is available for diversion without adversely affecting other uses including fish and wildlife, agriculture and other beneficial uses and the SWRCB would need to concur with that conclusion in order to grant the necessary approvals for the Project.
May 16, 2007 Meeting at City of Davis Natural Resources Commission			
David Hart	5-1	What is our guarantee that we will have water in the future?	The SWRCB water rights permit will guarantee the priority of the Partners' permits to divert and use water from the Sacramento River. However, the volume of water available under water rights permit will be subject to hydrologic variations, requiring additional water to be purchased from upstream users during drier conditions.
	5-2	At what point would the project be infeasible based on cost of water yield?	This environmental impact report does not address the feasibility of the Project based on the cost of water yield.
	5-3	How will operation of the Project affect water quality of the Delta? It seems that there would be an improvement with reduced salt load from the City WWTP.	Replacing groundwater with surface water will cause an improvement in Delta salinity levels by reducing salt load in the Partner's WWTP effluent discharges. The diversion of water from the Sacramento River will have a minor effect on Delta salinity by removing up to 100 cfs from the River. Neither change will be substantial.
	5-4	What happens to discontinued wells? Are they filled, abandoned, or what?	Wells are sealed and closed when use is complete.
	5-5	What is the water quality of the Sacramento River at the intake locations? What is the effect of upstream agricultural uses, such as Glenn Colusa ID?	Table 3.2-2 summarizes the quality of the River at the intake locations. Generally, the water quality of the River is good and meets all drinking water standards except for odor and bacteria, which require treatment and disinfection. Upstream agriculture land uses are known to discharge runoff into the Sacramento River. As discussed on page 3.11-8 of the DEIR, a variety of pesticides and herbicides have been detected in the River. While some of these substances have been detected at very low levels, all concentrations have been below MCLs.

RESPONSES TO VERBAL COMMENTS

Commenter	Comment Number	Comment	Response
Mike Shepley	6-1	An alternative to reducing salt concentration in the City WWTP effluent would be to divert water upstream from the Sacramento River, transporting it to storage, and add about 1 AF/day to the WWTP effluent for dilution.	The Partners prefer to divert and make available higher quality surface water for use by their customers, rather than use it as WWTP effluent dilution. Also, there is no location or facilities to store water at this time. The approach suggested would not result in any reduction of total salt load downstream of the WWTP or Delta. Salt concentration may be reduced, but total salt load would remain the same. In addition, simply diverting water from the Sacramento River to dilute WWTP effluent would probably not be authorized by the SWRCB or RWQCB.
	6-2	A better alternative would be to partner with the State of California to develop a regional WWTP with West Sacramento or Sacramento and discharge to the river.	The high salinity content in the Partners' wastewater would not be reduced by changing the location of effluent discharge. Connecting the Partners' WWTP to other effluent discharge facilities would require substantial pipeline construction, changes in the other facility permit limits, and possible changes in wastewater treatment processes.
	6-3	Davis does not need this project. No matter how negligible, insubstantial, vague, or uncertain the environmental impacts may be; they are unacceptable.	All potential environmental impacts are less than significant except for the loss of 1 to 15 acres of prime farmland, visual impacts of a new diversion on the Sacramento River, and temporary impacts to air quality associated with project construction, temporary construction noise, and potential effects associated with facilitating population growth and development. In considering the EIR, each Partner must reach a conclusion regarding the acceptability of the identified significant impacts in light of the Project's objectives.
Jim Leonard	7-1	If you provide water to the City, more housing will occur and less farmland will remain.	The Project will not induce urban development beyond that planned for each Project Partner. The water supply would serve approved housing but would not induce its development.
	7-2	How would the Project costs compare with installing water purification in every kitchen to achieve similar water quality?	Domestic reverse osmosis systems are not practical because the high-saline waste brine would need to be disposed. If 15 to 20% of the water used turns into high-saline brine, each residence would need to store or discharge up to 43 gallons per day (120 x 2.4 people per residence x 15 %) for eventual treatment and disposal. It is not practical to recollect the waste brine and

RESPONSES TO VERBAL COMMENTS

Commenter	Comment Number	Comment	Response
			convey to a suitable disposal location such as the San Francisco Bay. If the brine were to be discharged to the sewer, there would be no change in salinity of treated wastewater effluent from existing conditions.
	7-3	If surface water is used to support growth, will it be available in the future to maintain those homes?	Yes. See responses to verbal Comments 3-1 and 5-1.
	7-4	Would we be responsible to future homeowners by using a water source that is in competition with southern California?	Some of the water to be diverted by the Partners currently flows to the Pacific Ocean and therefore would not be taken in competition with users in southern California. Under the area-of-origin laws, the Partners would have senior water rights for use of the water diverted that would conflict with export projects.
Paula Ospina	8-1	The Project would provide another water source in the event groundwater is not sufficient in the future. This maybe an appropriate time to plan ahead.	Comment noted.

CHAPTER 3.0
Changes, Clarifications, or Modifications to the DEIR

Introduction

This section presents changes, clarifications, or modifications to the DEIR based on comments received during the public comment period provided by the City of Davis.

New text that is added to the existing DEIR is shown in ***bold italic font***. Deleted text is shown in ~~strikethrough font~~. New figures or tables are labeled as Figure 4-X or Table 4-X for ease of reference to this section of the Final EIR.

Modifications to the DEIR

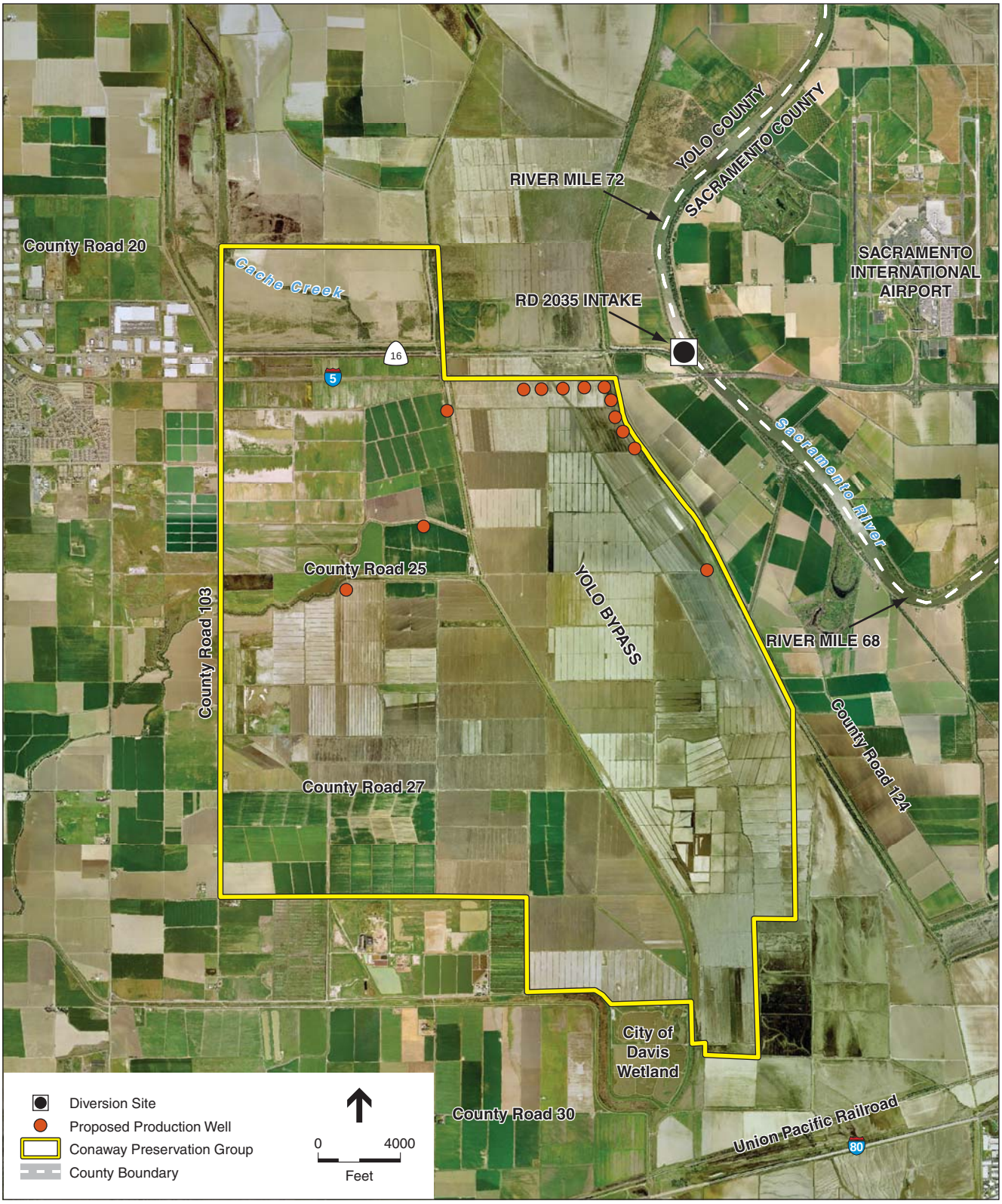
Executive Summary

Table ES-1 has been revised, updated, and replaced with the Executive Summary of this Final EIR. It is not reproduced in this chapter.

Chapter 2.0 Description of the Proposed Project

Figure 2-19

Figure 2-19 has been revised to show the City of Davis wetlands. The revised figure is included on the next page.



SOURCE: Bureau of Reclamation, 2001; ESRI, 2005; GlobeXplorer, 2006; and ESA, 2006

Davis-Woodland Water Supply Project . 205413

Figure 2-19
Conaway Preservation Group

Chapter 3.0 Environmental Analysis

Figure 3.2-2 has been revised to show the correct location of CCWD intakes. The revised figure is presented on the next page.

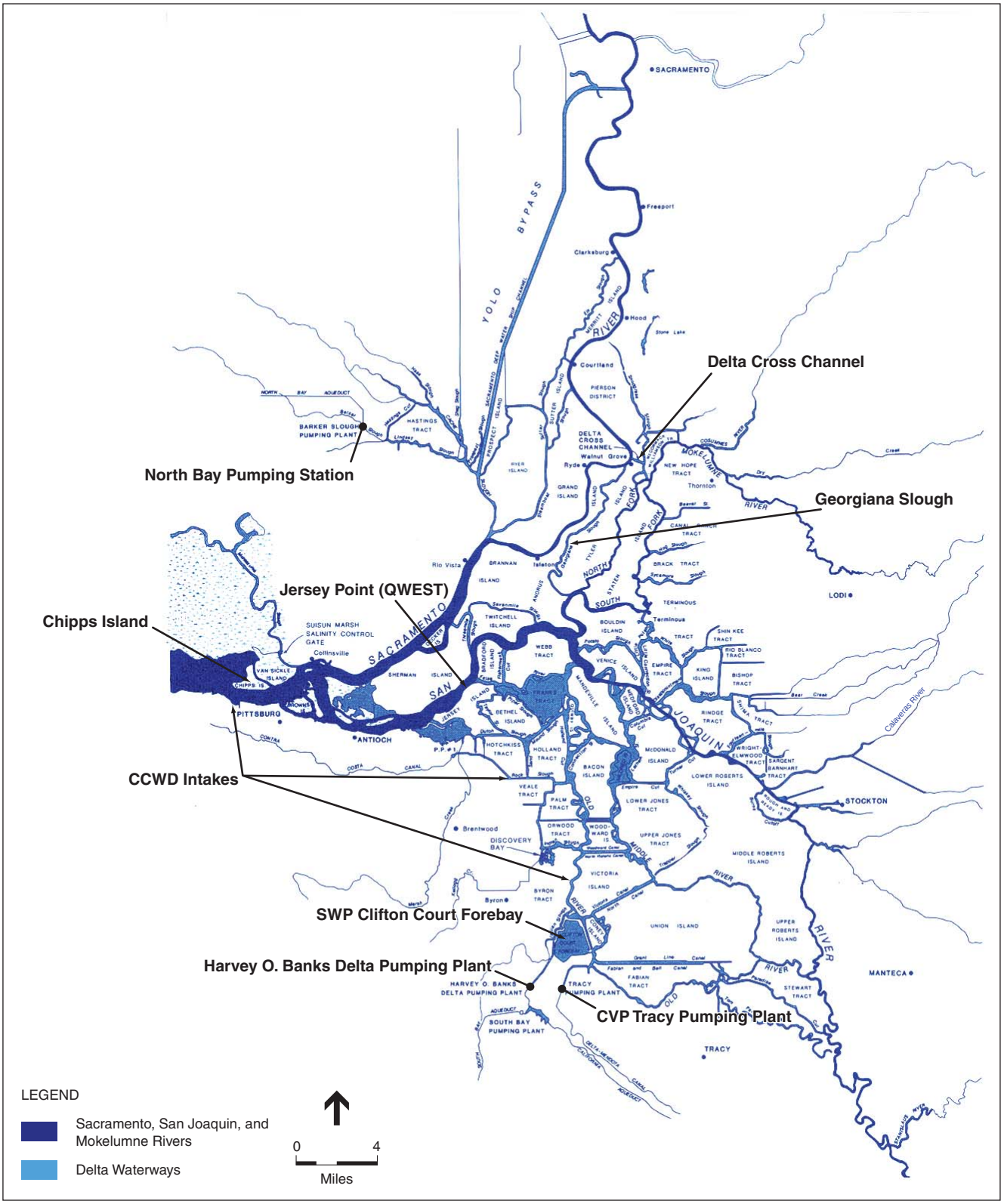
1st paragraph p. 3.2-6 is revised to read:

> The Contra Costa Water District (CCWD) diverts CVP water at the Rock Slough Pumping Plant. CCWD also diverts water from the Old River Pump Station where it conveys water to both the Los Vaqueros Reservoir and directly to users in the CCWD service area. Los Vaqueros Reservoir is filled only when the chloride concentration of these supplies is relatively low. ~~Water stored in Los Vaqueros Reservoir is blended and delivered to CCWD water users when the chloride concentration at Rock Slough, Mallard Slough, and Old River is greater than 65 mg/L.~~

The titles to Table 3.2-4, Table 3.3-4, Table 3.7-3, Table 3.12-3, Tables 3.14-1, 3.15-1, and 3.16-1 are revised to show that Yolo County is not a Project Partner.

1st paragraph p. 3.5-20 in regards to Impact 3.5-2 is revised to read:

> ***Construction Impacts***
>
> Construction of the Project diversion/intake and pipeline conveyance Options 1, 2, or 3 would be consistent with the Yolo County General Plan. All three sites are on the banks of the Sacramento River and are designated Agricultural General (A-1). Construction of the diversion/intake structures would not conflict with existing General Plan designations or existing land uses because they would not interfere with existing agricultural uses, nor would construction of any other Project components located in unincorporated Yolo County (pipelines, etc.). The proposed Project would not conflict with or prevent the implementation of applicable land use plans. ~~In addition, the proposed Project would implement a portion of the County's General Plan.~~



SOURCE: California Department of Water Resources, 1993; and ESA, 2007

Figure 3.2-2
Sacramento-San Joaquin Delta
Water Management Facilities

1st paragraph p. 3.2-29 and subsequent text is revised to read:

Anderson-Cottonwood Irrigation District

During average water year conditions, Project-related pumping by ACID would result in temporary drawdown of groundwater levels in the regional aquifer system underlying the area. End-of-the-year drawdown is estimated to be about 8 to 10 feet when measured at a distance of about 0.25 mile from ACID production wells. This drawdown is expected to be seasonal, and groundwater levels would naturally recharge to pre-pumping levels by early spring of the following year.

During multiple-year drought conditions (assuming a 3-year drought), Project-related pumping would result in a groundwater level decline of about 6 to 8 feet at 0.25 mile from proposed ACID production wells. However, this drawdown is not expected to be long-term. Groundwater levels would return to pre-pumping levels following one or more normal to above-normal water years. These estimated drawdowns are within the historical range of groundwater level fluctuations during drought conditions. ~~Based upon a review of DWR criteria, groundwater pumping in ACID's service area associated with the proposed Project would not adversely affect Sacramento River flow (MWH, 2007b).~~ ***The location and design of the replacement water supply wells would need to comply with criteria established by DWR (2002) to avoid groundwater/surface water interactions. If sited consistent with this criteria, the operation of these well would not have an adverse impact on Sacramento River flow.***

Approximately 320 domestic wells and 5 irrigation wells are located within the vicinity of proposed ACID groundwater production wells. Existing domestic wells range in depth from 11 to 387 feet, while existing irrigation wells range in depth from 80 to 200 feet. The aquifer containing very shallow domestic wells (e.g., less than 50 feet depth below the ground surface) is not readily hydrologically connected to the deeper aquifer where Project-related pumping would occur. Therefore, increased reliance upon groundwater within ACID's service area would not result in a loss of domestic or agricultural wells.

Existing wells screened at depths greater than approximately 200 feet could be affected by estimated drawdowns resulting from proposed pumping, potentially affecting pumping performance and resulting in increased energy consumption due to an increase in pumping lift. Environmental effects related to this potential increase in energy consumption are discussed in Chapter 3.8 of this EIR, addressing air quality. This impact would be less than significant.

Reclamation District 108 (RD 108)

Project-related groundwater pumping in the RD 108 service area would result in temporary drawdown of groundwater levels in the regional aquifer system underlying the area. End-of-the-year drawdown is estimated to be about 18 to 27 feet at distances approximately 0.25 mile from proposed RD 108 production wells. This drawdown is

expected to be seasonal, and groundwater levels would naturally recharge to pre-pumping levels by early spring of the following year. These estimated drawdowns are within the historical range of groundwater level fluctuations during average water year conditions.

During multiple-year drought conditions, Project-related pumping would result in a groundwater level decline of about 36 to 52 feet at 0.25 mile from proposed RD 108 production wells. However, this drawdown is not expected to be long-term, and groundwater levels would return to pre-pumping levels following one or more normal to above normal water years. These estimated drawdowns are within the historical range of groundwater level fluctuations during drought conditions. ~~Based upon a review of DWR criteria, groundwater pumping in RD108's service area associated with the proposed Project would not adversely affect Sacramento River flow (MWH, 2007b).~~ ***The location and design of the replacement water supply wells would need to comply with criteria established by DWR (2002) to avoid groundwater/surface water interactions. If sited consistent with this criteria, the operation of these well would not have an adverse impact on Sacramento River flow.***

Approximately 3 domestic wells and 3 irrigation wells are currently located in the vicinity of the proposed RD 108 production wells. Existing domestic wells range in depth from 83 to 197 feet, while existing irrigation wells range in depth from 145 to 550 feet. Groundwater pumped from the water transfer production wells would not affect domestic wells in shallower groundwater zones above 200 feet in depth. However, irrigation wells existing at depths close to 550 feet could be affected by estimated drawdowns resulting from proposed pumping, potentially affecting pumping performance and resulting in increased energy consumption due to an increase in pumping lift. The additional drawdown would not draw water levels below screened segments of existing irrigation wells.

Existing wells screened at depths greater than approximately 600 feet could be affected by estimated drawdowns resulting from proposed pumping, potentially affecting pumping performance and resulting in increased energy consumption due to an increase in pumping lift. Environmental effects related to this potential increase in energy consumption are discussed in Chapter 3.8 of this EIR, addressing air quality. This impact would be less than significant.

5th paragraph p. 3.2-40 is revised to read:

~~**Diversions at the North Bay Aqueduct/City of Vallejo (NBA) would not be altered, on average. Model results indicate that diversions by Contra Costa Water District (CCWD) would not be altered.**~~ ***Operation of the Project would not substantially affect downstream flows available for diversion by either the North Bay Aqueduct/City of Vallejo (NBA) or the Contra Costa Water District (CCWD).***

2nd paragraph p. 3.2-47 is revised to read:

> Project operation would result in withdrawal of up to 46 TAF per year of water from the Sacramento River. Diversions would consist of water appropriated under the Project Partners' new water rights permits and water transferred from willing senior water rights holders. While Project operations could have minor effects on SWP and CVP operations, all Project diversions would be in accordance with the new water rights permits issued in accordance with state law. ~~Project operations also would not affect Contra Costa Water District (CCWD)or other diversions from the Delta.~~ ***No substantial change to downstream flows available for diversion would occur.*** Therefore, no impact would occur.

1st paragraph p. 3.2-48 is revised to read:

> Diversions at the North Bay Aqueduct/City of Vallejo (NBA) would not be altered, on average. However, a maximum estimated annual reduction of 1.7 TAF, or approximately 5.0 percent, would occur during a dry-year type. The maximum estimated annual reduction in pumping at the North Bay Aqueduct during a critical year would be about 0.78 TAF, or approximately 2.4 percent. ~~Model results indicate that CCWD diversions would not be not altered.~~ ***Model results indicated no substantial change to downstream flows available for diversion by CCWD would occur.***

2nd paragraph p. 3.5-22 in regards to Impact 3.5-3 is revised to read:

> No lands subject to Williamson Act contracts would be affected as the result of implementing the ~~proposed Project~~ ***Options 1 and 3 diversion/intake and pipeline alignments***. Therefore no conflicts with Williamson Act contracts are anticipated ***with selection of these options. Selection of Option 2 diversion/intake and pipeline alignment would permanently affect 1 acre of land under Williamson Act contract. The construction and installation of other project components would have only a temporary effect on lands with Williamson Act contracts. The conflict with the existing Williamson Act contract resulting from implementing the Option 2 diversion/intake and pipeline alignment is considered a potentially significant impact.***
>
> As discussed above, the proposed Option 3 WTP would be located on land currently zoned as Agricultural Preserve (AP). Because no provision for a WTP exists within the AP zone, siting of the WTP within this area would represent a conflict with Yolo County zoning code. This is considered a potentially significant impact.

Mitigation Measure 3.5-3 is added to p. 3.5-23 addressing impacts to Williamson Act contract lands.

> ***Mitigation Measure 3.5-3: The location of the Option 2 diversion/intake pump station shall be relocated to lands not within Williamson Act contracts or to lands where change in land use would not affect Williamson Act contract requirements.***

Measure 3.5-4a p. 3.5-26 is revised to read:

> **Mitigation Measure 3.5-4a:** The water conveyance or transmission pipelines shall be installed at a depth ***(to the top of the pipe)*** ranging from 4 to 7 feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depth shall be established in consultation with an agricultural specialist and landowners to ensure ***no conflict*** ~~consistency~~ with future agricultural practices.

Measure 3.5-4b p. 3.5-26 is revised to read:

> **Mitigation Measure 3.5-4b:** The Project Partners will establish a~~n~~ ***permanent Prime Farmland*** agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be ***permanently*** displaced with Project development.

Mitigation Measure 3.6-7g on page 3.6-68 is revised as follows:

> **Mitigation Measure 3.6-7g:** If impacts to vernal pool and seasonal wetlands cannot be avoided but ~~that~~ can be protected from direct fill or ground disturbance, then these wetlands shall be identified and protected using temporary fencing, which shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the pool. The distance between the pool and protective fencing shall be maximized wherever possible. These pools will be considered as "indirectly affected" by project activities and shall be mitigated in accordance with the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California* (Appendix C2). Some pools may be considered avoided if it can be shown that the proposed project activity would not adversely impact their surface and subsurface hydrology. This shall be considered on a case-by-case basis by a qualified biologist and hydrologist.

Mitigation Measure 3-6.7s(1) is added to p. 3.6-61 addressing impacts to Swainson's hawk foraging areas.

> ***Mitigation Measure 3.6-7s(1): To mitigate for permanent loss of Swainson's hawk foraging habitat associated with the construction of the WTP facility in Options 2 or 3, compensation shall follow guidance in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency (Habitat JPA). Text of this Agreement is provided in Appendix C-3. The Agreement requires that:***
>
> - ***Urban development permittees shall pay an acreage-based mitigation fee in an amount, as determined by the Habitat JPA Board, sufficient to fund the acquisition, enhancement and long-term management of one (1) acre of Swainson's hawk foraging habitat for every one (1) acre of foraging habitat that is lost to urban development.***
> - ***A calculated fee of $5,800.00 per acre is sufficient to fund the acquisition and preservation as of January 2004 (Staff Report on Swainson's Hawk Mitigation FeeUpdate). This fee amount may be adjusted to reflect updated costs for acquisition of habitat.***

- ***With written approval of and subject to conditions determined by CDFG, an urban development permittee may transfer fee simple title or a conservation easement over Swainson's hawk foraging habitat, along with appropriate enhancement and management funds, in lieu of paying the acreage-based mitigation fee.***

Mitigation Measure 3.6-8a p. 3.6-74 is revised to read:

Mitigation Measure 3.6-8a: Prior to construction, the Project Partners shall conduct an assessment within the proposed Project area to provide the basis of a vegetation mitigation plan. A vegetation mitigation plan will be developed for submittal to CDFG. The plan shall contain species expected to be found in the vicinity of Project sites. Details about the species and their past occurrence shall be included in the plan. The Project Partners shall comply with all terms of conditions for approval, including additional mitigation provisions to be implemented. ***The Project Partners would follow performance standards in developing the plan. The requirements would consist of one or more of the following provisions:***

- ***Establish an oak tree conservation easement in coordination with Yolo County to protect and preserve trees commensurate with the removal of large oaks as a result of project implementation***

- ***Replace and maintain trees, for seven years, at a rate of 1 tree per 1-inch of tree diameter removed as measured at diameter breast height. Because this measure would only fulfill one-half of the required mitigation for the Project, one or more of the other provisions would need to be implemented to fulfill the remaining mitigation requirements.***

- ***Contribute funds to a suitable oak woodland conservation fund, as established in accordance with § 1363 of the Fish and Game Code***

- ***Consult with Yolo County and CDFG to determine and agree to implement other suitable measures consistent with the Yolo County Oak Woodland Conservation and Enhancement Plant 2007 and §21083.4(a) of the California Public Resources Code.***

Last paragraph p. 3.8-20, a new discussion is added to read:

An analysis of greenhouse gas emissions (GHGs) was conducted to determine if the Project would result in increased GHG emissions when compared to existing and future without-project conditions. This analysis indicates that operation of the Project would reduce GHG emissions when compared to both existing and future conditions where groundwater pumping provides the Project Partner's water supply.

Table3.8-9 shows the results of a quantitative analysis that estimates GHG emissions. The results show that the Project GHG emissions (6,941 metric tons of CO_2) would be about 31 percent less than the estimated 2040 groundwater pumping GHG emissions (9,999 metric tons of CO_2) which would occur if the Project Partners continue to rely

on groundwater supplies into the future. When compared to existing 2005 GHG emissions, the Project would generate about 5 percent more GHG emissions by 2040. The increase of GHG emissions would ultimately reach 366 metric tons/yr by 2040.

These estimates include consideration of additional wells for pumping replacement water supplies to upstream water rights holders who would transfer water to the Project Partners during Term 91 periods and continued local groundwater pumping to meet peak demands.

TABLE 3.8-9
ESTIMATE OF ANNUAL GREENHOUSE GAS EMISSIONS

Scenario	Greenhouse Gas Emissions (CO_2e metric tons per year)[a]	Comments
No Project		
2005 Groundwater Pumping	6,575	Emissions limited to groundwater pumping equipment only.
2040 Groundwater Pumping	9,999	Emissions limited to groundwater pumping equipment only. No additional treatment emissions estimated.
With Project		
2040 Surface Water Pumping	4,848	Emissions associated with surface water diversion
2040 Upstream Water Replacement	606	Emissions associated with upstream groundwater replacement of surface water
2040 Groundwater Pumping	1,487	Emissions associated with future local groundwater pumping anticipated with project implementation
2040 Surface Water Pumping + Upstream Water Replacement + Local Groundwater Pumping (Total)	6,941	Total of all emissions associated with project operations

[a] *All scenarios assume that electricity to power the pumps is and will be from the electrical grid. Emissions from the electrical grid are considered indirect emissions since the combustion source is at the power plant. Equations and conversion factors used for the calculations are those recommended on pages 32, 35, 85, and 87 of the California Climate Action Registry Report Protocol, 2006. CO2e refers to carbon dioxide equivalent emissions. CO2e emissions are primarily CO2, but also include a smaller percentage of emissions of nitrous oxide and methane gases.*

Based on this analysis, it is concluded that the Project would contribute to reducing future GHG emissions and contribute to achieving the State's goal of reducing GHG emissions to historic levels

At present, there is no GHG emission standard or limit that constitutes a defined threshold for determining a significant impact in accordance with CEQA. A recent opinion by the California Attorney General's Office proposes using the targets, declared in the Governor's Executive Order S-3-05 and Assembly Bill 32, as relevant benchmarks

for determining significance[1]. If these targets are considered a relevant threshold, the Project would not have a significant cumulative effect on the environment because it would contribute to meeting the GHG goals be reducing future GHG emissions associated with water deliveries to the Partners by about 30 percent from the levels that would otherwise occur.

Discussion on p. 4-17 is added to read:

Yolo County General Plan

The Yolo County General Plan was adopted in July 1983 and was last amended December 2005. Several Project components would be constructed in unincorporated Yolo County and would be within the purview of this General Plan.

The Yolo County General Plan identifies key strategies to control and accommodate growth. Growth accommodation goals and policies include the following:

TABLE 4-6
RELEVANT YOLO COUNTY GENERAL PLAN GROWTH MANAGEMENT GOALS AND POLICIES

Objective	Objective Description
General Plan Goals	Protect prime and other agricultural land from urban development.
	Provide for industrial growth in the County to provide employment, services, and tax base while minimizing hazards and nuisances and while conserving resources and agricultural lands.
	Discourage urban sprawl.
	Continue to improve existing urban uses and place new urban uses in existing planned urban areas.
Land Use Policies	
LU 2 (applicable portions)	Land Use, Basic.
	j. Supports efficient use of land.
	n. Allows development only in accord with the needs of the community and State law, not only as a result of development pressures.
	p. Restricts the extension of urban services (sewers, water, roads, electricity) into areas not identified in these adopted plans for contiguous urban growth.
	q. Induces redevelopment and reuse of existing urban cores.
	r. Requires that new development be located according to these priorities: ▪ First: Renew and maintain existing urban areas. ▪ Second: Develop vacant land within urban areas, presently served by streets, water, sewer, and other public services. ▪ Third: Where necessary to develop outside existing developed urban areas, only develop land immediately adjacent to the existing urban developments. ▪ Fourth [sic]: Prohibit urban development in agricultural areas.

[1] Greenhouse gas emission reduction targets by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. (Executive Order S-3-05 and Assembly Bill 32)

TABLE 4-6
RELEVANT YOLO COUNTY GENERAL PLAN GROWTH MANAGEMENT GOALS AND POLICIES

Objective	*Objective Description*
	t. Seeks to coordinate facilities planning with provider agencies to identify areas for extensions of facilities and utilities in increments and to base capital improvements on those plans.
	u. Provides for revision of the General Plan to reflect prioritization of development.
	v. Requires assured mitigation of environmental and economic problems generated by development or redevelopment.
LU 5	***Urban Uses. New urban development, other than replacement or redevelopment of present urban uses in urban places shall be discouraged in the following places:***
	▪ ***Areas without current adequate public service and utility capacities and without capital improvement plans or installations, and where such facilities have not been budgeted or programmed to accommodate the development proposed.***
	▪ ***In areas of substantial congestion, or where adequate transportation and transit cannot be assured without substantial public cost, and without substantial, unmitigated damage to the social or physical environment.***
	▪ ***In areas where the proposed development would continue the existing socioeconomic imbalance.***
	▪ ***In areas where there are moderate to substantial natural resources which would be prevented from being developed and used by the new development proposed.***
	▪ ***In areas not contiguous to existing urban development.***
	▪ ***In areas not designated in this General Plan for urban uses.***
LU 6	***Protect and Conserve. It is the policy of Yolo County to vigorously conserve and preserve the agricultural lands in Yolo County. Yolo County shall protect and conserve agricultural land use especially in areas presently farmed or having prime agricultural soils and outside of existing planned urban communities and outside of city limits.***
Open Space Policies	
OS 1	***Open Space, Basic. The County shall preserve appropriate open space land through available means of land use controls, regulations, and advice or guidance and through coordination with the other elements of this General Plan, as amended, and with other agencies.***
OS 2	***County will Preserve Open Space. Yolo County shall use the Land Use Element policies, together with Specific Plans, zoning, use permits, site plan review, building permits, subdivision maps, the Agricultural Preserve-Land Conservation Act of 1965, assessment practices, coordination with the Soil Conservation Service, and other available means to preserve all lands defined as Open Space.***
	Open space is any parcel or area of land or water which is essentially unimproved and devoted to an open space use as listed below:
	▪ ***Banks of lakes, streams, rivers or lakeshores***
	▪ ***Flood control by-pass or channel***
	▪ ***Areas prescribed for ecologic or other scientific study purposes including archaeological sites***
	▪ ***Areas used for managed resource production including:***
	- ***Agricultural land***
	- ***Rangeland***

TABLE 4-6
RELEVANT YOLO COUNTY GENERAL PLAN GROWTH MANAGEMENT GOALS AND POLICIES

Objective	*Objective Description*
	- ***Managed food and fiber production areas***
	- ***Groundwater recharge areas***
	- ***Marshes, rivers, lakes, and streams important for fisheries***
	- ***Areas containing major mineral deposits, including sand and gravel, clays, ores, metals, and oil or gas.***
	▪ ***Areas used or needed for outdoor recreation including:***
	- ***Areas of outstanding scenic, historic, or cultural value***
	- ***Areas particularly suited for park and recreation purposes***
	- ***Areas for access to lakeshores, rivers, and streams***
	- ***Areas linking major recreation and open space reservations including***
	- ***Utility easements***
	- ***Banks of rivers and streams***
	- ***Trails***
	- ***Areas of scenic highway corridors***
	- ***Areas needed for Public Health and Safety, including:***
	- ***Areas needing special management, mitigation or avoidance because of hazardous or special conditions such as:***
	- ***Earthquake fault zones***
	- ***Unstable soil areas***
	- ***Flood plains***
	- ***Watersheds***
	- ***Areas of high wild fire risks***
	- ***Areas for protection of water quality***
	- ***Areas for water reservoirs***
	- ***Areas required for protection and enhancement of air quality***
OS 4	***<u>Urban Uses in Urban Designated Areas.</u> Yolo County shall restrict urban uses to urban areas defined and mapped in the General Plan, as amended, of Yolo County and the several Urban Area Plans and Community Area Plans, as amended.***
OS 5	***<u>Limiting Facility Expansions.</u> Yolo County shall protect open space lands from urban uses by limiting the extension of existing service facilities, particularly sewers. When the County does not directly control the provision of such facilities, it shall respond in the negative to proposals to extend services by respective cities or districts and shall respond in the negative to related environmental impact reports produced by the lead agency on such proposals.***

Source: Yolo County, 2007.

Last paragraph p. 6-17 is revised to read:

> Operation of the proposed Project, in combination with other water projects, would increase ***water available for use by*** ~~average annual withdrawals by~~ Contra Costa Water District (CCWD) by ***an average*** 34 TAF/yr, or approximately 27 percent, and by 26 TAF/yr, or approximately 24 percent, during critical water years. However, operation of the proposed Project would not contribute to any change in CCWD diversions.

Last paragraph p. 6-37 is supplemented to read:

> ***Many of the environmental impacts associated with population growth and development within the Partne's water service areas that would be facilitated by implementation of the Project could result in irreversible changes to the environment.***

Tables 3.2-4, Table 3.3-4, Table 3.7-3, Table 3.12-3, Tables 3.14-1, 3.15-1, and 3.16-1 are modified to highlight Yolo County separately from the Project Partners and are revised to read:.

TABLE 3.2-4
SURFACE WATER-RELATED OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
	Yolo County
CON 23	Sacramento River and Putah Creek. Yolo County shall encourage additional use of Sacramento River and Putah Creek Water.
CON 24	Water Resources Plan. Yolo County shall continue to evaluate water resources and to maintain the Yolo County Water Resources Plan. That Plan shall be carried out, where appropriate, by the implementation of this General Plan, as amended.
CON 38	Provision of Water. Yolo County shall coordinate with providing agencies to assure that sufficient clean water is available for existing, approved, and presently planned uses. First priority for water resources shall go to existing legal land uses.
CON 39	Coordination/Water Agencies. Yolo County shall develop or amend those portions of the Conservation Element which include waters in coordination with any Countywide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the Yolo County or any city or district in Yolo County.
CON 40	Water Pollution Prevention. Yolo County shall prohibit surface water courses or groundwater recharge areas to be used for dumping sites for toxic materials or secondarily treated waste water and shall support agricultural practices to minimize chemical and nutrient runoff, erosion, and siltation, and support the use of check dams.
	City of Woodland
Goal 7.A.	To protect and enhance the natural quantity and qualities of the Woodland area's rivers, creeks, sloughs, and groundwater.
Policy 7.A.3.	The City shall cooperate with other jurisdictions in jointly studying the potential for using surface water sources to balance the groundwater supply so as to protect against aquifer overdrafts and water quality degradation.
Policy 7.A.5.	The City shall continue to require the use of feasible and practical best management practices (BMPs) to protect receiving waters from the adverse effects of construction activities and urban runoff.
	City of Davis
Goal WATER 2	Ensure sufficient supply of high quality water for the Davis Planning Area.
Policy WATER 2.3	Maintain surface water quality.

TABLE 3.2-4
SURFACE WATER-RELATED OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Goal WATER 4	Monitor issues in the region that affect quality and quantity of water in the Davis Planning Area.
Policy WATER 4.2	Maintain contact with other appropriate State, Federal and local agencies.
	UC Davis
Diverse Water Supply.	Maintain existing dependable supplies of high quality water from a variety of sources to serve diverse campus water needs.
Water Conservation.	Conserve and re-use water to safeguard aquifers.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.3-4
LOCAL GROUNDWATER HYDROLOGY AND WATER QUALITY OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Yolo County	
CON 20	Groundwater. Groundwater shall be protected from overdraft and shall not be encroached upon by construction. Impervious surfaces should be reduced or replaced and groundwater recharge enhanced. The use of non-impervious surfaces is encouraged.
CON 24	Water Resources Plan. Yolo County shall continue to evaluate water resources and to maintain the Yolo County Water Resources Plan. That Plan shall be carried out, where appropriate, by the implementation of this General Plan, as amended.
CON 38	Provision of Water. Yolo County shall coordinate with providing agencies to assure that sufficient clean water is available for existing, approved, and presently planned uses. First priority for water resources shall go to existing legal land uses.
CON 39	Coordination/Water Agencies. Yolo County shall develop or amend those portions of the Conservation Element which include waters in coordination with any Countywide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the Yolo County or any city or district in Yolo County.
CON 40	Water Pollution Prevention. Yolo County shall prohibit surface water courses or groundwater recharge areas to be used for dumping sites for toxic materials or secondarily treated waste water and shall support agricultural practices to minimize chemical and nutrient runoff, erosion, and siltation, and support the use of check dams.
City of Woodland	
Goal 7.A	To protect and enhance the natural quantity and qualities of the Woodland area's rivers, creeks, sloughs, and groundwater.
Policy 7.A.3	The City shall cooperate with other jurisdictions in jointly studying the potential for using surface water sources to balance the groundwater supply so as to protect against aquifer overdrafts and water quality degradation.
Policy 7.A.4	The City shall help protect groundwater resources from overdraft by promoting water conservation and groundwater recharge efforts.

TABLE 3.3-4
LOCAL GROUNDWATER HYDROLOGY AND WATER QUALITY OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
City of Davis	
Goal WATER 2	Ensure sufficient supply of high quality water for the Davis Planning Area.
Policy WATER 2.1	Provide for the current and long-range water needs of the Davis Planning Area, and for protection of the quality and quantity of groundwater resources.
Goal WATER 4	Monitor issues in the region that affect quality and quantity of water in the Davis Planning Area.
Policy WATER 4.1	Research, monitor and participate in issues in Yolo County and the area of origin of the City's groundwater that affect the quality and quantity of water.
Policy WATER 4.2	Maintain contact with other appropriate State, Federal and local agencies.
UC Davis	
Diverse Water Supply.	Maintain existing dependable supplies of high quality water from a variety of sources to serve diverse campus water needs.
Water Conservation.	Conserve and re-use water to safeguard aquifers.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.7-3
SEISMIC AND GEOLOGIC HAZARDS OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Yolo County	
Policy S2	Yolo County shall develop an inventory of significant urban, rural, and natural hazards, including geologic hazards, and provide standards for location of uses and for avoidance or mitigation of such hazards.
Policy S24	Yolo County shall require environmental assessments and reports to address safety and seismic safety issues and to provide adequate mitigation for existing and potential hazards identified.
Policy CON 12	Yolo County shall regulate land use and encourage and cooperate with appropriate agencies to conserve, study, and improve soils. Prime soils shall be preserved outside of designated urban areas.
City of Woodland	
Goal 8.A	To minimize the loss of life, injury, and property damage due to seismic and geological hazards.
8.A.1	The City shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e. groundshaking, liquefaction, expansive soils).
8.A.5	The City shall require that new structures and alterations to existing structures comply with the current edition of the *Uniform Building Code* and *City Security Ordinance*.
8.A.8	The City shall avoid siting of structures across soil materials of substantially different expansive soil.
8.A.9	The City shall require the use of special bending-resistant designs where foundations must be slab-on-grade in areas with expansive soils.

TABLE 3.7-3
SEISMIC AND GEOLOGIC HAZARDS OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
City of Davis	
Goal AG 3.1	Conserve soil resources within the planning area.
Policy AG 3.1	Develop programs to help conserve soil resources.
Standards	(1) Tree rows or other windbreaks shall be required in buffers on the edges of urban development and in other areas as appropriate to reduce soil erosion. (2) Drainage facilities shall be designed to control runoff and minimize erosion.
Goal HAZ 2	Minimize risks associated with soils, geology, and seismicity in Davis.
Policy HAZ 2.1	Take necessary precautions to minimize risks associated with soils, geology and seismicity.
Standards	(1) A soils report shall be required for development sites where soils conditions are not well known, as required by the Planning and Building or Public Works departments. (2) As a condition of approval of development, mitigation of any identified soils hazards shall be required.
UC Davis	
Seismic Safety	Continue structural upgrades as required by evolving seismic safety codes.
High Quality Soils for Intensive Agricultural Research.	Use West Campus lands with high quality soils for more intensive agricultural research uses, while shifting agricultural uses to Russell Ranch that do not have as high demand for soil quality and uniformity.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.12-3
TRANSPORTATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Policy Number	Description
Yolo County	
CIR 3	Yolo County shall plan, develop, and maintain a comprehensive, coordinated transportation system and road network to insure all persons the opportunity for safe, efficient, convenient, and pleasant movement of persons and goods without substantial congestion or delay, while encouraging greater efficiency, including the substitution of alternative transportation and consideration of ground, air, and water modes.
CIR 4	Yolo County shall seek to design and implement a circulation and transportation system which: (1) Reduces conflicts between land use and circulation-transportation. (2) Shields adjoining areas and community from noise, fumes, dust, and congestion. (3) Promotes new non-polluting forms of transportation. (4) Requires routing, construction, and operation of transportation facilities to protect or enhance environmental quality. (5) Develops intra-community ties by creating a functional and aesthetically pleasing system of transportation corridors, pedestrian and bicycle ways and landscaped open areas which harmonize development in areas of transition.
CIR 5	Yolo County shall seek to establish, expand, and improve a balanced public transportation system, integrated with the Regional System, to meet basic transportation needs as expeditiously as possible; to encourage diversion of substantial numbers of riders from autos to transit; to meet the transportation needs of the elderly, the handicapped, and the young; and to facilitate interconnections with other modes of transit.
CIR 6	Yolo County shall continue to seek and improve upon measures to relieve traffic congestion and to ensure traffic safety.

TABLE 3.12-3
TRANSPORTATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Policy Number	Description
CIR 7	Yolo County shall require a service level of "C" for all County roads.
CIR 8	Yolo County shall maintain and upgrade all road facilities to the established standards including capacity, curve, alignment, signing, traffic control, access control, and special safety features.
CIR 9	Yolo County shall encourage compact urban development to avoid creating congestion or needs for new traffic facilities and to promote the most efficient use of the existing facilities. Land use development policies shall be used to limit and direct growth and to mitigate the effects of growth, to achieve this policy.
CIR 11	Yolo County shall promote pedestrian safety by providing appropriate pedestrian controls and amenities and by requiring these things to be provided in private developments projects, subject to County approvals.
CIR 12	Yolo County shall promote and ensure the provision of facilities and routes where appropriate for safe and convenient use by pedestrians including sidewalks, pedestrian access to all public facilities and transit stops, and to public areas in the community including waterfront projects and recreation hiking trails. Yolo County shall promote and ensure opportunities for bicycle use. The following means shall be used to achieve this policy: (1) Design streets to accommodate bikeways. (2) Sign and mark bike routes. (3) Provide or receive serviceable bike parking facilities in the central business areas, at public buildings, on school grounds, and at new businesses, industries, and multi-family developments which require development permits, zoning, site plan reviews, or extensions of permits. (4) Require secure bike parking areas in all parking lots subject to use by the public whenever new or renewed permits are required. (5) Require construction of bike routes on all new thoroughfares and arterial highways developed in or for any development project. (6) Provide funding for building and maintenance of bike routes and facilities through application of federal or state aid bicycle registration, licensing, and directed fines for bicycle operation violations. (7) Provision and encouragement of use of bicycle use incentives. (8) Encouragement and establishment of bike routes along trails, on levees, along railroad levees, along drainage canals, and along transmission rights-of-way where feasible.
CIR 14	Yolo County shall plan and promulgate adequate, safe bikeways and pedestrian ways, integrated with other transit modes and coordinated with all forms of development.
CIR 15	Require the designs of buildings, sidewalks, and all other public facilities and transit/transportation modes to facilitate use by the handicapped, including those in wheelchairs.
CIR 17	Yolo County shall discourage truck traffic on residential streets and shall apply traffic controls, speed limits, and load limits on residential street truck routes where assignment to truck traffic is unavoidable.
City of Woodland	
Policy 3.A.1	The City shall plan, design, and regulate the development of the City's street system in accordance with the functional classification system described in this chapter and reflected in the Circulation Diagram and the City's street standards and specifications.
Policy 3.A.2.	The City shall develop and manage its roadway system to maintain LOS "C" or better on all roadways, except within one-half mile of state or federal highways and freeways and within the Downtown Specific Plan area. In these areas, the City shall strive to maintain LOS "D" or better. Exceptions to these level of service standards may be allowed in infill areas where the City finds that the improvements or other measures required to achieve the LOS standards are unacceptable because of the right-of-way needs, the physical impacts on surrounding properties, and/or the visual aesthetics of the required improvement and its impact on community character.
Policy 3.A.3	The City shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile and by promoting pedestrian, bicycle, and transit connections between industrial areas and major residential and commercial areas.
Policy 3.A.4	The City shall require an analysis of the effects of traffic from proposed major development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.
Policy 3.B.1	The City shall consider the effects of new development on local streets in residential areas and require new development to mitigate significant impacts on residential neighborhoods.
Policy 3.B.2	The City shall promote street, alley, and sidewalk maintenance to encourage their safe use.

TABLE 3.12-3
TRANSPORTATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Policy Number	Description
City of Davis	
MOB 1.2	Provide and maintain a roadway network to meet the needs of vehicular traffic in Davis. Unless preempted by the County Congestion Management Plan, Level of Service 'E' for automobiles is sufficient for arterials and collectors (both intersection and segment operations) during peak traffic hours (e.g. rush hour). Level of Service 'D' for automobiles is sufficient for arterials, collectors and major intersections during non-peak traffic hours. Neighborhood plans or corridor plans can allow for a level of service at peak times of 'F' if approved by the City Council. LOS 'F' is acceptable during peak hours in the Core Area.
MOB 1.2	As part of the initial project review for any new project, the City Engineer may determine that a project-specific traffic study shall be prepared. Studies shall identify impacted roadway segments and intersections and recommend mitigation measures designed to reduce these impacts to acceptable levels.
MOB 1.10	Prohibit through truck traffic on streets other than identified truck routes shown in Figure 22 [of the Mobility Element of the General Plan]. (a) Direct through truck traffic away from residential areas and other sensitive land uses. Study alternate truck routing to reduce truck traffic on city streets. (b) Improve signs indicating truck routes. (c) Continue to provide a phone number with a recorder on which citizens can report license numbers and names of trucking companies that violate truck route regulations. (d) Continue to implement a follow-up program with trucking companies with reported violations of truck route regulations. (e) Designate a second truck route other than Covell Boulevard to serve the Hunt Wesson plant. (f) Consider using County roads to divert truck traffic from the intersection of Covell Boulevard and Pole Line Road.
MOB 3.4	Attempt to provide safe and convenient pedestrian access to all areas of the city.
OB 4.1	Facilitate the provision of convenient, frequent, dependable and efficient scheduled transit and demand responsive transit for Davis residents.
MOB 6.2	Cooperate with the school district in promoting safe and convenient student bicycle/pedestrian routes between school and home.
UC Davis	
Transportation Systems Management	Continue to employ Transportation Systems Management to make efficient use of existing transportation infrastructure and resources. These measures include but are not limited to: (1) additional bike parking and improved paths, (2) conversion to alternative fuel vehicles, and (3) incentives to decrease single occupancy vehicle driving, such as transit, rideshare, carpool, and shuttle programs.
Reduce Conflicts	Plan pedestrian, bicycle, transit, and automobile systems to avoid conflicts between different modes.
Multiple Parking Strategies	Employ multiple strategies to keep parking affordable and accessible, including demand reduction measures (such as on-campus housing and shifting support services functions to sites outside the Academic Core) and maintaining low cost parking choices in the overall inventory.
Support Transit Systems.	Continue to support the Unitrans bus system by planning for expanded facilities, routes, and frequency of access.
Transportation.	Integrate campus, local, and regional land use and transportation patterns. The two freeway interchanges that directly serve the campus are valuable transportation assets. Concentrate new parking in locations that are easily accessible from SR 113 at Hutchison Drive and I-80 at Old Davis Road to limit traffic impacts on City of Davis streets. Locate campus venues with large public use in close proximity to these freeway interchanges.
Multi-Modal System.	Provide a multi-modal system of transportation to and from the campus, in ways that reinforce the "residential character of the campus" and foster ease and equity in campus access.
Bicycle and Pedestrian Systems.	Accompany new development with appropriate additions to the bicycle and pedestrian networks.
Local and Regional Bicycle Linkages.	Continue to work with local, regional and state agencies to provide a continuous local bicycle network.

TABLE 3.12-3
TRANSPORTATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Policy Number	Description
Perimeter Road Improvements.	Realign Old Davis Road to the south to create better pedestrian and bicycle connections to lands south of the Arboretum. Extend the perimeter road from the Mondavi Center for the Arts to the east to connect with A Street. Realign the curve at La Rue Road near the Health Sciences district to a standard intersection that joins the Health Sciences perimeter road with the main campus perimeter road. Extend Old Davis Road north of the I-80 interchange to connect to Putah Creek Lodge Road to create a better sense of orientation at the main entry to the campus, and to provide better access to the west side of the Central Campus from I-80.
Old Davis Road Bike Path.	Convert Old Davis Road along the south bank of the Arboretum to a bike path as campus uses extend to the south of the existing road, and a new perimeter location for Old Davis Road is built.
Future Corridors.	Preserve easements for future campus roadways and bikeways beyond the life of the plan by keeping buildings clear of potential roadway and bikeway corridors.
Commute Alternatives.	Continue to actively promote and enable alternatives to solo commuting in an automobile.
Freeway Access.	The two freeway interchanges that directly serve the campus are valuable transportation assets. Concentrate new parking in locations that are easily accessible from SR 113 at Hutchison Drive and I-80 at Old Davis Road to limit traffic impacts on City of Davis streets.
Transit Corridors.	Maintain and improve transit corridors to gain access to the center of campus for Unitrans and regional providers. Unitrans should maintain access routes to provide ease for students and student employees, and add routes as the campus and city grow. A system of bus terminals should be located with convenient access to high use areas and should include adequate space for rider shelters and bus queuing.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.14 -1
HISTORIC AND PREHISTORIC PRESERVATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Yolo County	
2.1	To preserve Yolo County's natural resources with historical significance by designating certain natural resources such as trees and vegetation as "historic" and by supporting a program to preserve them.
2.2	To preserve Yolo County's prehistoric resources by identifying and preserving Native American sites and other significant archaeological sites and by encouraging development of demonstration sites.
2.3	To preserve Yolo County's natural resources with historical significance by designating certain natural resources such as trees and vegetation as "historic" and by supporting a program to preserve them, including (1) Identification of historic resources within the County; (2) Recording the historic resources identified in the 1986 Yolo County Historic Resources Survey on the General Plan map and maintenance and updating of the map for planning purposes; (3) Adoption of a Historic Preservation Ordinance and establishment of a Yolo County Historic Preservation Commission; (4) Support for the conversion of older residential structures in commercial zones to commercial or office use and of older historically significant structures in agricultural areas to tourist uses through the use permit process while maintaining or enhancing their historical authenticity; (5) Encouragement of County efforts to seek financing for the preservation of the County's historic resources; and (6) To encourage the property owners to revitalize their properties through incentives such as utilizing the Historic Building Code, easements, state and federal tax exemptions as well as seeking Community Development Block Grant funds.
2.4	To promote museums to preserve the prehistorical, historical and agricultural heritage of Yolo County by the following actions: (1) Continued support for the Yolo County Historic Museum; (2) Promotion of museums within historic structures; and (3) Support for establishment of additional museums in the County.

TABLE 3.14 -1
HISTORIC AND PREHISTORIC PRESERVATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
City of Woodland	
Goal 6.A	To preserve and maintain sites, structures, and landscapes that serve as significant, visible reminders of the city's social, architectural, and agricultural history.
Policy 6.A.4.	The City shall require that environmental review be conducted on demolition permit applications for buildings designated as, or potentially eligible for designation as, historic structures. The City shall follow the guidelines of the California Environmental Quality Act (CEQA) in reviewing demolition requests for such structures and shall prohibit demolition without a structural and architectural analysis of the structure's ability to be rehabilitated and/or relocated.
Goal 6.B	To combine historic preservation and economic development so as to encourage owners of historic properties to upgrade and preserve their properties in a manner that will conserve the integrity of such properties in the best possible condition.
Goal 6.C	To preserve the character and livability of Woodland's neighborhoods and strengthen civic pride through neighborhood conservation.
Goal 6.D	To integrate historic preservation more fully into Woodland's comprehensive planning process.
Goal 6.E	To promote community awareness and appreciation of Woodland's history and architecture.
Goal 6.F	To protect Woodland's Native American heritage.
Policy 6.F.1.	The City shall refer development proposals that may adversely affect archaeological sites to the California Archaeological Inventory, Northwest Information Center, at Sonoma State University.
Policy 6.F.2.	The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without first consulting the Archaeological Inventory, Northwest Information Center, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist. City implementation of this policy shall be guided by Appendix K of the CEQA Guidelines.
City of Davis	
Goal HIS 1.	Designate, preserve and protect the archaeological and historic resources within the Davis community.
Policy HIS 1.2	Incorporate measures to protect and preserve historic and archaeological resources into all planning and development.
Goal HIS 2.	Promote public awareness of the prehistoric and historic past of the Davis area.
Policy HIS 2.1	Add to the knowledge and understanding of Davis' past.
UC Davis	
Native American Heritage	Look for opportunities to express Native American heritage in the campus to honor and celebrate the early inhabitants of this region.
Historic Resources	As the campus grows, evaluate historic resources to determine their value and incorporate appropriate protection measures.
Early Shingle-Sided Buildings	Continue to find adaptive re-use for shingle buildings from the early years of the campus where feasible.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.15 -1
RECREATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Yolo County	
RP5	The County shall promote and support the clustering of commercial/recreational opportunities in an effort to provided "linked" activities for tourists (i.e., activities tourists can link together in a single trip, such as eating, rafting, gaming, shopping, lodging, gas stations, wine tasting, visiting a museum, etc.).
RP8	The County shall encourage and support the development of private recreation facilities that preserve scenic and environmentally sensitive resources and that do not result in the creation of land use conflicts.
RP-24	The County shall promote and support the growth of individual and collective private sector agri-tourism and eco-tourism operations of all sizes that benefit from wide expanses of open space and agricultural land, including overnight agricultural adventures (staying overnight and working on a farm), other lodging, markets and farmers markets, restaurants, wineries, bird watching, fishing and hunting lodges and clubs and equestrian centers.
RP-25	The County shall encourage development of small-scale/niche visitor services and attractions such as wineries, bed and breakfasts, cafes, etc. in areas that would cater to interested travelers.
City of Woodland	
Goal 5.A	To establish and maintain a public park system and recreational facilities suited to the needs of woodland residents, employees, and visitors.
5.A.1	The City shall continue to develop, expand, and promote the use of its park system to include a balance of passive and active recreation opportunities.
5.A.2	The City shall strive to achieve the standard of six acres of parks per 1,000 population for the development of City-owned park facilities. Typically, neighborhood parks are ten to 15 acres, community parks are 20 to 50 acres and sports parks are three to 30 acres.
City of Davis	
Goal POS1	Provide ample, diverse, safe, affordable and accessible parks, open spaces and recreation facilities and programs to meet the current and future needs of Davis' various age and interest groups and to promote a sense of community, pride, family, and cross-age interaction.
Policy POS 1.1	Use systematic and comprehensive planning to guide the development, operation and allocation of resources for all City parks, facilities, and recreation programs.
UC Davis	
Recreation	Site formal recreational and athletic facilities with reasonable access to student, faculty and staff participant populations. Cluster formal recreational and athletic facilities in proximity to each other, in order to achieve resource efficiencies.
Integrated Open Space Network.	Establish a drainage pond with habitat and recreation value as a shared open space with Davis neighborhoods north of Russell Blvd. Create public space at the heart of the neighborhood to provide identity and a neighborhood gathering place. Locate other public uses adjacent to the Village Square, such as a Community Education Center and recreation fields, destinations that serve neighborhood residents as well as people from the greater community. When development occurs next to agricultural land, assure land uses are compatible with ongoing agricultural use, or include landscape buffers to keep adjacent ag uses viable, such as the area along the western edge of the neighborhood.
Open Space	Continue to develop multi-use open spaces on the edges of campus where UC Davis connects to the local and regional community, to perpetuate an open and inviting edge to the campus, and to foster the role of the campus as a local and regional center. Examples include the recreation fields along Russell Blvd. The new South Entry Quad by the Mondavi Center for Performing Arts, the planned open space and pond along Russell Blvd. west of 113, and the planned vineyard at the I-80 entrance to the campus along Old Davis Road.
New Multi-Use Recreation Fields in the NMP.	Provide multi-use fields in the new neighborhood appropriate for formal and informal use. This area can include parking to support field use and student housing needs.

TABLE 3.15 -1
RECREATION OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Multi-Use Stadium.	Provide a site for modern facilities to accommodate various athletic activities, such as football, lacrosse, and soccer, integrated with the newly constructed Schaal Aquatics Center and replacing venues that are currently limited in function. Continue to use Toomey Field as a track stadium and recreation venue.

Source: Yolo County,1983, City of Woodland, 2002, City of Davis, 2001, UC Davis, 2003

TABLE 3.16 -1
SCENIC RESOURCE MANAGEMENT OBJECTIVES OF THE PROJECT PARTNERS *AND YOLO COUNTY*

Objective Number	Objective Description
Yolo County	
OG-7	Preserve aesthetic resources and values.
OO-9	Identification and preservation of scenic corridors and viewsheds.
OP-14	The County shall support the efforts of the Cache Creek Conservancy and the Yolo Bypass Working Group to preserve open space and improve scenic resources within and along Cache Creek and within the Yolo Bypass.
City of Davis	
Goal UD 3	Use good design as a means to promote human safety.
Policy UD 3.2	Provide exterior lighting that enhances safety and night use in public spaces, but minimizes impacts on surrounding land uses.
Goal HAB 1	Identify, protect, restore, enhance and create natural habitats. Protect and improve biodiversity consistent with the natural biodiversity of the region.
Policy HAB 1.4	Preserve and protect scenic resources.
UC Davis	
Maintain Views.	Maintain long views across open lands and agricultural fields to the hills west of the campus.
Design Review.	Employ site and design guidelines and a design review process for campus neighborhoods and buildings to sustain valued elements of the campus visual environment, to assure new projects contribute to a connected and cohesive campus environment, and to implement more sustainable planning and design practices.
Arboretum Connections to Academic Core.	Find opportunities to better connect the environment of pathways, open spaces, and buildings in the Central Campus to the Arboretum. Extend the landscape character of the Arboretum into the fabric of the Central Campus where appropriate.
Academic Districts and Neighborhood Centers.	Support the creation of distinct neighborhoods and the aesthetic cohesiveness within such neighborhoods.

Source: Yolo County,1983, City of Davis, 2001, UC Davis, 2003

CHAPTER 4.0
List of Preparers

Project Partners

City of Davis

Bob Weir – Director of Public Works
Don Lemmon – Principal Engineer
Jacques Debra - Senior Utility Specialist

City of Woodland

Gary Wegener - Public Works Director
Doug Baxter - Deputy Public Works Director

UC Davis

Sid England – Director of Environmental Planning
Camille Kirk – Associate Environmental Planner
Dave Phillips - Director, Waste and Water Services, Utilities Division, UC Davis Facilities Operations & Maintenance

Consultants

Environmental Science Associates

Richard Hunn - Project Manager
Leslie Moulton - Senior Consultant
Amy Sinsheimer - EIR Preparation
Matt Morales - Air Quality, Noise
Brian Grattidge - Land Use, Growth Inducing Impacts
Jessica Mitchell - Cumulative Effects
Mahala Young - Biological Resources
Sara Lee - Biological Resources
Kiffanie Stahl - Biological Resources
Tom Wyatt – Graphics
Brad Allen - GIS
John Patrus - Word Processing

West Yost

Jim Yost – Principal, Water Resources Planning
Dave Anderson – Civil Engineer
Steve Macauley - Civil Engineer, Water Resources Planning

Montgomery Watson Harza

Roger Putty – Groundwater Analysis
Yung-Hsin Sun - Hydrologic and Water Quality Modeling
Ming- Yen Tu – Hydrologic and Water Quality Modeling
Nansee Parker – Public Health Risk Assessment
Stefani Okasaki – Public Health Risk Assessment

Hanson Environmental

Chuck Hanson, Fish and Aquatic Resources

Genesis Society

Sean Jensen, Cultural and Historic Resources

Best, Best, & Krieger

Jennifer Buckman, Counsel

Bartkiewicz, Kronick, and Shanahan

Alan Lilly, Counsel

Appendix A
Mitigation Monitoring and Reporting Plan

ESA

APPENDIX A
Mitigation Monitoring and Reporting Plan

Introduction

The City of Davis prepared a Final Environmental Impact Report (Final EIR) to provide the public and responsible and trustee agencies with information about the potential environmental effects associated with the construction and operation of a surface water supply project serving the City of Davis, City of Woodland, and UC Davis that is located in Yolo County.

The Final EIR concludes that implementation of the Proposed Project could generate significant adverse environmental impacts. For most potential impacts, the Final EIR prescribes mitigation capable of reducing these impacts to less than significant levels.

In accordance with §15097 of the California Environmental Quality Act (CEQA) Guidelines, a lead agency must adopt a program for monitoring and reporting of revisions or mitigation imposed to avoid significant environmental effects. This Mitigation and Monitoring Reporting Program (MMRP) is intended to satisfy this requirement and provide the City of Davis and other responsible parties with guidance for overseeing the completion of measures minimize and avoid significant environmental impacts.

The MMRP consists adopted mitigation measures, the entity responsible for their implementation, the entity responsible for monitoring, and the timing of implementation. The mitigation measures presented in Table A-1 will be incorporated into the Proposed Project. Mitigation measures in the table are numbered according to the impact that they refer to in Chapters 3.0 and 4.0 of the Draft and Final SEIR.

This table provides locations for responsible parties to initial the completion of mitigation measures, thereby providing a record documenting their implementation.

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Groundwater Hydrology and Water Quality						
Measure 3.3-1a: To control and manage shallow groundwater that is pumped during temporary construction activities, as well as stormwater runoff, the Project Partners shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for all construction phases of the project. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of Best Management Practices (BMPs) to reduce pollutants in storm water discharges. BMPs may include, but would not be limited to: • Measures to reduce turbidity of pumped shallow groundwater prior to discharge, including temporary detention before discharge. • Excavation and grading activities in areas with steep slopes or directly adjacent to open water shall be scheduled for the dry season only (April 30 to October 15), to the extent possible. This will reduce the chance of severe erosion from intense rainfall and surface runoff. • If excavation occurs during the rainy season, storm runoff from the construction area shall be regulated through a storm water management/erosion control plan that shall include temporary onsite silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of offsite sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location onsite, away from concentrated flows, or removed to an approved disposal site. • Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be provided until perennial revegetation or landscaping is established and can minimize discharge of sediment into nearby waterways. For construction within 500 feet of a water body, appropriate erosion control measures shall be placed upstream adjacent to the water body. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • No disturbed surfaces will be left without erosion control measures in place during the rainy season, from October 15th through April 30th. • Erosion protection shall be provided on all cut-and-fill slopes. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15). • A vegetation and/or engineered buffer shall be maintained, to the extent feasible, between the construction zone and all surface water drainages including riparian zones. • Vegetative cover shall be established on the construction site as soon as possible after disturbance. • BMPs selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary. Effective mechanical and structural BMPs that could be implemented at the project site include the following: – Mechanical storm water filtration measures, including oil and sediment separators or absorbent filter systems such as the Stormceptor® system, can be installed within the storm drainage system to provide filtration of storm water prior to discharge. – Vegetative strips, high infiltration substrates, and grassy swales can be used where feasible throughout the development to reduce runoff and provide initial storm water treatment. – Roof drains shall discharge to natural surfaces or swales where possible to avoid excessive concentration and channelizing storm water.	Project Partners and construction contractor	Project Partners	**Impact 3.3-1:** The Project could violate any water quality standards or waste discharge requirements, or otherwise substantially degrade groundwater quality.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Measure 3.3-1a (cont.) – Permanent energy dissipaters can be included for drainage outlets. – The water quality detention basins shall be designed to provide effective water quality control measures including the following: Maximize detention time for settling of fine particles; Establish maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris that may clog basin inlets and outlets Maximize the detention basin elevation to allow the highest amount of infiltration and settling prior to discharge. • Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents will be contained in an area of impervious surface with containment capacity equal to the volume of materials stored. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities. • Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants. The SWPPP shall also specify measures for removing sediment from water pumped for trench dewatering before the water is released to waterways.						
Measure 3.3-1b: During construction, if groundwater from dewatering activities cannot be contained onsite, it shall be pumped into suitable detention facilities or Baker tanks or equivalent with sufficient capacity to control the volume of groundwater. Tanks shall be equipped with either a gel coagulant, a filter system, or other containment to remove sediment. The remaining water will then be discharged to nearby irrigation or drainage ditches, in accordance with CVRWQCB requirements for discharges from general construction activities and trench dewatering. Within upland areas, sprinkler or other irrigation systems may be used to disperse the water over adjacent fields. BMPs, as described in the SWPPP, will also be implemented, as appropriate, to retain, treat, and dispose of groundwater from dewatering activities. Additional measures shall include, but are not limited to: • Temporarily retain pumped groundwater, as appropriate, to reduce turbidity and concentrations of suspended sediments before discharge to surface waterways. • Convey pumped groundwater to a suitable land disposal area capable of percolating flows. • Incorporation of other measures from the Caltrans Storm Water Quality Handbook, Section 7: Dewatering Operations (2004). Groundwater collected during dewatering shall be tested for contamination prior to disposal. Discharges shall comply with CVRWQCB requirements.	Project Partners and construction contractor	Project Partners				
Measure 3.3-1c: A groundwater discharge monitoring program shall be implemented to ensure that receiving water quality does not exceed levels that would impact aquatic resources and agricultural use. If monitoring reveals that water quality would impact these beneficial uses, discharges to surface waterways will be reduced or diluted to acceptable levels, or terminated. If discharges are reduced or terminated, groundwater will be disposed through land application.	Project Partners and construction contractor	Project Partners				
Measure 3.3-1d: Mitigation measures specified as a provision for obtaining a NPDES General Permit for Stormwater Discharges Associated with Construction Activities from the SWRCB shall be implemented. These measures shall be designed to avoid exceedance of applicable standards.	Project Partners and construction contractor	Project Partners				
Measure 3.3-1e: As a condition of water transfer with Natomas Central Mutual Water Company, the Project Partners shall require confirmation, via an appropriate study, that groundwater pumping associated with the proposed Project will not expand the contamination zone associated with the McClellan Air Force Base superfund site.	Project Partners	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Groundwater Hydrology and Water Quality (cont.)						
Measure 3.3-2: In the event that groundwater dewatering activities associated with Project construction temporarily result in interruption of a water supply for agricultural or other beneficial use, the Project Partners shall provide water supply to maintain that beneficial use or payment to the affected party/parties sufficient to fairly compensate for the value of lost agricultural crops or other temporary changes to land use resulting from water supply interruption.	Project Partners	Project Partners	**Impact 3.3-2:** The Project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.			
Measure 3.3-3: Groundwater wells used to replace water that is transferred from upstream water rights holders to the Project Partners shall be located and designed to be consistent with siting and design criteria established by the DWR to avoid interactions with surface water flows of the Sacramento River. Information will be provided regarding well perforations to demonstrate consistency with DWR criteria for avoiding interactions with the Sacramento River or other waterways. Specifically, the following criteria shall be followed: (A) Wells located between one and two miles of a major surface water feature tributary to the Delta will be accepted unless one of the following applies: (1) No driller's log or other sufficient information is submitted to demonstrate that the well is not connected to the surface water system tributary to the Delta, or (2) The well is perforated above 50 feet and insufficient information is submitted to demonstrate that the well is not connected to the surface water system tributary to the Delta. (B) Wells located within one mile or less from a major surface water feature tributary to the Delta will be accepted if the following conditions are met: (1) The uppermost perforations start below 150 feet, or: (2) The uppermost perforations start between 100 and 150 feet and: There is a surface annular seal to at least 20 feet; and There is a total of at least 50-percent fine-grained materials in the interval above 100 feet; and There is at least one fine-grained layer that exceeds 40 feet in thickness in the interval above 100 feet; or (3) Other information is provided to DWR and USBR that demonstrates that the well is not in connection with the surface water system tributary to the Delta (C) Wells located between one half and one mile of minor surface water features tributary to the Delta will be accepted using the same criteria listed for (A) above. (D) Wells located within one-half mile or less from a minor surface water feature tributary to the Delta will be approved using the using the same criteria listed for (B) above (DWR, 2002).	Project Partners	Project Partners	**Impact 3.3-3:** Groundwater pumping associated with Project operations would alter the existing surface hydrology.			
Drainage and Floodplains						
Measure 3.4-1: Implement Measures 3.3-1a and 3.3-1b.	Project Partners and construction contractor	Project Partners	**Impact 3.4-1:** Project construction would substantially alter the existing drainage patterns of the proposed Project site or area in a manner that would result in substantial erosion or siltation on- or offsite.			
Measure 3.4-2: A drainage plan shall be prepared and implemented for the diversion/intake and WTP site. The drainage plan shall include measures to infiltrate, retain, or otherwise channel runoff away from areas of open soil and other features subject to erosion or flooding. Receiving drainage ditches or canals shall be sized appropriately to contain anticipated stormwater flows. Runoff waters shall be discharged in a manner to prevent downstream or offsite flooding, erosion, or sedimentation.	Project Partners and construction contractor	Project Partners	**Impact 3.4-2:** The Project would substantially alter the existing drainage pattern, and in turn, would increase local storm runoff that would exceed the capacity of onsite drainage systems, or create localized flooding or contribute to a cumulative flooding impact downstream.			
Measure 3.4-3: Mitigation Measure 3.3-1a shall be implemented to reduce potential impacts from changes to runoff to less than significant. Additionally, stormwater runoff shall be discharged into a drainage ditch or canal sized appropriately to accept discharge from Project facilities.	Project Partners and construction contractor	Project Partners	**Impact 3.4-3:** The Project would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Drainage and Floodplains (cont.)						
Measure 3.4-4: The diversion/intake shall incorporate a design to minimize changes to flood flow elevation and accumulation of floating debris. These design features would reduce any potential impacts to less than significant.	Project Partners	Project Partners	**Impact 3.4-4:** The Project would place within a 100-year flood hazard area structures which would impede or redirect flood flows.			
Measure 3.4-5a: Existing protective berms shall be maintained around WTP facilities for the Option 1 and 2 WTP site to prevent personnel injury and structure loss due to flooding associated with a levee failure.	Project Partners	Project Partners	**Impact 3.4-5:** The Project would expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.			
Measure 3.4-5b: Levee integrity shall not be degraded by Project implementation and the Project Partners shall ensure that all construction activities abide by applicable Reclamation District guidelines for levee disturbance. Specifically, the Reclamation Districts listed in Table 3.4-6 shall be consulted during intake facility and untreated water pipeline engineering.	Project Partners	Project Partners				
Measure 3.4-6: Mitigation measure 3.3-1b shall be implemented to prevent degradation of surface water quality resulting from dewatering of excavated areas during construction. Additionally, water from dewatering of excavated areas shall be discharged into a drainage ditch or canal sized appropriately to accept the discharge, or shall be land-applied to an area sufficient to receive the discharge without creating additional runoff.	Project Partners and construction contractor	Project Partners	**Impact 3.4-6:** Dewatering of excavated areas during construction in areas of shallow groundwater would affect surface water quality.			
Measure 3.4-7: Trench and tunnel spoils shall be tested prior to their replacement back into excavated areas or transported to offsite disposal. If found to be contaminated by lubrication and hydraulic fluids, spoils will be collected and disposed of at a permitted waste disposal facility. Spoils containing high volumes of water shall be detained and allowed to settle to reduce turbidity.	Project Partners and construction contractor	Project Partners	**Impact 3.4-7:** Removal and stockpiling of trench spoils during Project construction would release chemicals or spoils into the surrounding environment and affect surface water quality.			
Measure 3.4-8: The Project Partners shall ensure that Project construction and operations do not conflict with the management and maintenance of levees and other flood control structures. Project construction and operations shall conform to engineering criteria and other reclamation district requirements, per the requirements of Mitigation Measure 3.4-5b.	Project Partners	Project Partners	**Impact 3.4-8:** The Project would conflict with the management and maintenance of levees or other flood control facilities.			
Land Use and Agriculture						
Mitigation Measure 3.5-2: If the Option 3 WTP is selected for development, the zoning of the Option 3 site shall be changed so that it would no longer conflict with installation and operation of a WTP-related land use.	Project Partners	Project Partners	**Impact 3.5-2:** The Project would conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.			
Measure 3.5-2 Implement Measure 3.5-2. If the Option 3 WTP is selected for development, the zoning of the Option 3 site shall be changed so that it would no longer conflict with installation and operation of a WTP-related land use.	Project Partners	Project Partners	**Impact 3.5-3**: The Project would conflict with existing zoning for agricultural use or a Williamson Act contract in an area in which continued agriculture is economically viable.			
Measure 3.5-3: The location of the Option 2 diversion/intake pump station shall be relocated to lands not within Williamson Act contracts or to lands where change in land use would not affect Williamson Act contract requirements.	Project Partners	Project Partners				
Measure 3.5-4a: The water conveyance or transmission pipelines shall be installed at a depth (to the top of the pipe) ranging from 4 to 7 feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depth shall be established in consultation with an agricultural specialist and landowners to ensure no conflict with future agricultural practices.	Project Partners and construction contractor	Project Partners	**Impact 3.5-4:** Construction of the proposed Project would involve changes in the existing environment that, due to its location or nature, would result in conversion of Farmland to non-agricultural uses.			
Measure 3.5-4b: The Project Partners will establish permanent Prime Farmland agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be permanently displaced with Project development.	Project Partners	Project Partners				
Biological Resources						
Measure 3.6-1: Implement Mitigation Measures for Impacts 3.6-4, 3.6-5, 3.6-6, and 3.6-7.	Project Partners and construction contractor	Project Partners	**Impact 3.6-1:** The Project would interfere substantially with the movement of any native resident or wildlife species or with established native resident or migratory native wildlife corridors, or impede the use of wildlife nursery sites.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-2: Prior to construction, Project Partners shall evaluate impacts to trees within the City of Davis city limits and submit the evaluation to the City for review. If deemed necessary, Project Partners shall apply for a permit and abide by any permit requirements for tree pruning or removal. In addition, sensitive habitats and wildlife shall be identified and protected for projects within the City of Davis, under the HAB 1.1 policy.	Project Partners	Project Partners	**Impact 3.6-2:** The Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.			
Measure 3.6-4a: Implementation of Mitigation Measure 3.4-1a (implementation of a Stormwater Pollution Prevention Plan (SWPPP) and erosion control measures), as well as Best Management Practices (BMPs) for construction activities, would reduce potential impacts to special-status fisheries species and habitat resulting from sedimentation and turbidity. Specific measures aimed at protecting fisheries resources include: • All instream construction activities will be conducted during the low-flow period of April 15 through October 15. • Sediment curtains will be placed around the construction or maintenance zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone. • Silt fencing will be installed in all areas where construction occurs within 100 feet of known or potential steelhead habitat. • Fresh concrete will be isolated from wetted channels for a period of 30 days after it is poured. If a 30-day curing period is not feasible, a concrete sealant approved for use in fisheries habitat may be applied to the surfaces of the concrete structure. If a sealant is used, the manufacturer's guidelines for drying times will be followed before reestablishing surface flows within the work area. • Spoil sites (concrete wash areas) will be located so they do not drain directly into the Sacramento River. If a spoil site drains into the Sacramento River, catch basins will be constructed to intercept sediment before it reaches the channel. Spoil sites will be graded to reduce the potential for erosion.	Project Partners and construction contractor	Project Partners	**Impact 3.6-4:** Construction of the intake facility would have a substantial adverse effect on fish or other aquatic species, such as by increasing turbidity, degrading water quality or otherwise altering suitable aquatic habitat.			
Measure 3.6-4b: Installation of the cofferdam for construction of the intake structure is expected to result in short-term increases in local suspended sediment concentrations that may affect the distribution and behavior of sensitive fish species and their habitat. To avoid and minimize these impacts, site preparation and installation of the sheet pile cofferdam will occur during the summer and fall.	Project Partners and construction contractor	Project Partners				
Measure 3.6-4c: In order to offset the permanent loss of 0.1 acres of channel margin habitat or shallow water habitat because of installation of the diversion/intake facility, off-site mitigation habitat shall be purchased in a ratio agreeable to CDFG and other agencies consulted.	Project Partners	Project Partners				
Measure 3.6-4d: Installation of a cofferdam and dewatering may result in stranding and the loss of protected fish and other species. The Project Partners will ensure that a qualified fisheries biologist will design and conduct a fish rescue and relocation effort to collect fish from the area within the cofferdam involving the capture and return of those fish to suitable habitat within the Sacramento River. To ensure compliance, a fisheries biologist shall provide observation during initial dewatering activities within the cofferdam. The fish rescue plan will be provided for review and comment to NOAA Fisheries, USFWS, and CDFG prior to implementation. The success of this dewatering measure will be the effective capture and removal of fish from the area to be dewatered with a minimum of capture and handling mortality for those fish returned to the Sacramento River. Implementation of the fish rescue and relocation program will avoid and minimize impacts to Chinook salmon, steelhead, other fish, and macroinvertebrate species, and thus reduce impacts to less than significant.	Project Partners	Project Partners				
Measure 3.6-7a: A pre-construction survey for rare plants of the selected diversion/intake site and conveyance pipeline route shall be conducted. The survey shall be conducted by a qualified botanist during the appropriate season for identification, according to CNPS Botanical Survey Guidelines, included in Appendix C2.	Project Partners	Project Partners	**Impact 3.6-7:** The Project would have other substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG, USFWS, or NMFS.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-7b: Identified populations of palmate-bracted bird's beak that would be directly affected by proposed Project construction will be completely avoided. Temporary preservation fencing shall be installed to protect individuals, and fencing shall provide a minimum 25-foot distance exclusion area. Indirect effects due to changes in hydrology or other ecological requirements for this species shall be evaluated and modifications to the Project design/construction shall be incorporated to minimize indirect effects to palmate-bracted bird's beak.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7c: For individual Ferris's milk-vetch, alkali milk-vetch, heartscale, brittlescale, San Joaquin saltbush, Heckard's pepper-grass, rose-mallow, Sanford's arrowhead, Brazilian watermeal, or other special-status species without state or federal status that are detected within the proposed Project area during the pre-construction survey, the Project Partners shall identify and protect their locations with orange fencing, avoid specimens as feasible, and notify CDFG. Where these sensitive plants cannot be avoided by the Project, additional mitigation measures shall be implemented by the Project Partners in consultation with CDFG, prior to construction. These measures may include, but are not limited to the following (see also Mitigation Measure 3.6-8a): • Minimizing impacts by restricting removal of plants to a few individuals of a relatively large population; • Preparing a plan to relocate plants to suitable habitat outside the proposed Project area to a CDFG-approved site; • Restoring or enhancing occupied habitat at an off-site location with appropriate ecological conditions to support the affected sensitive species. • The pipelines shall be located entirely underground and the ground surface will be returned to pre-project grade and contours. • Project Partners shall consult with CDFG on constraints and opportunities for viable off-site habitat enhancement/creation for the species concerned and implement a plan for restoration and enhancement. • The plan shall include a five-year monitoring and maintenance program to evaluate and support the establishment of the sensitive species. • Preserving occupied habitat for the species on-site or at another regional location.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7d: With the implementation of Mitigation Measure 3.6-9a, prior to construction of the Project the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the potential to support vernal pool and seasonal wetlands. All wetlands within 250 feet of the selected diversion/intake pipeline corridor shall be included in the assessment.	Project Partners	Project Partners				
Measure 3.6-7e: All vernal pool and seasonal wetland habitats identified during the wetland delineation shall either be: (a) Surveyed for presence or absence of vernal pool crustaceans according to USFWS survey protocol (Appendix C2), where those pools found to contain vernal pool crustaceans shall be mitigated by Mitigation Measures 3.6-7f, 3.6-7g, and 3.6-7h. All other pools shall be mitigated at a 1:1 compensation ratio. Or, (b) Assumed to be occupied by vernal pool crustaceans and the following Mitigation Measures 3.6-7f, 3.6-7g, and 3.6-7h shall be implemented for all pools.	Project Partners	Project Partners				
Measure 3.6-7f: All vernal pool and seasonal wetland habitats identified shall be avoided completely. The USFWS considers disturbance within 250 feet of all vernal pool wetlands to be an impact. Therefore, all wetlands shall be avoided by 250 feet and protected within that buffer. Protective measures may consist of temporary fencing such as silt fencing and plastic construction fencing. Also, Best Management Practices (BMPs) and Stormwater Pollution Prevention Plan (SWPPP) methods shall be implemented during construction to avoid indirect water quality impacts to wetlands. These pools shall be considered "avoided" and no further mitigation is necessary.	Project Partners and construction contractor	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-7g: If impacts to vernal pool and seasonal wetlands cannot be avoided but can be protected from direct fill or ground disturbance, then these wetlands shall be identified and protected using temporary fencing, which shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the pool. The distance between the pool and protective fencing shall be maximized wherever possible. These pools will be considered as "indirectly affected" by project activities and shall be mitigated in accordance with the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California* (Appendix C2). Some pools may be considered avoided if it can be shown that the proposed project activity would not adversely impact their surface and subsurface hydrology. This shall be considered on a case-by-case basis by a qualified biologist and hydrologist.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7h: For pools that will be directly impacted by project activities, the area of impact shall be calculated. For the purpose of this calculation, any portion of a pool that is directly impacted by project activities would result in the entire pool being permanently impacted. Impacted pools shall then be mitigated in accordance with the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California* (Appendix C2).	Project Partners	Project Partners				
Measure 3.6-7i: With the implementation of Mitigation Measure 3.6-9a, prior to construction of the Project the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the potential to support vernal pool and seasonal wetlands which may support California tiger salamander and western spadefoot. The survey shall include and all areas within 1.24 miles of proposed project activities (where site access allows) for the presence of CTS using the protocol provided in Appendix C2. Should California tiger salamander be detected in the area, all ground squirrel burrows and vernal pools shall be mapped within 1.24 miles of the proposed Project, and all vernal pools areas shall be calculated within this area.	Project Partners	Project Partners				
Measure 3.6-7j: Vernal pools and burrows that can be protected from project activities shall be identified and protected using temporary fencing. Temporary fencing shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the habitat. The distance between the habitat and protective fencing shall be maximized wherever possible. Protective fencing around vernal pools identified as potential habitat for special-status amphibians shall be constructed in a way that allows California tiger salamander and western spadefoot to access these wetlands.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7k: For impacts to vernal pools and occupied California tiger salamander burrows, impacted vernal pools shall be mitigated and compensated in accordance with Mitigation Measure 3.6-7h. Burrows that cannot be avoided shall be excavated by a USFWS-approved biologist prior to construction using hand tools. Excavated California tiger salamanders shall be relocated off the project site to a USFWS-approved site.	Project Partners	Project Partners				
Measure 3.6-7l: Prior to construction of the Project, the selected diversion/intake pipeline corridor area shall be surveyed and assessed for the presence of elderberry shrubs. The survey shall be conducted according to USFWS's *Conservation Guidelines for Valley Elderberry Longhorn Beetle*, included in Appendix C2. The survey may be conducted concurrently with the rare plant surveys in Mitigation Measure 3.6-7a.	Project Partners	Project Partners				
Measure 3.6-7m: Construction of the diversion/intake pipeline corridor shall avoid identified elderberry shrubs by a minimum of 100 feet. If complete avoidance is not feasible, then USFWS shall be consulted regarding impacts to valley elderberry longhorn beetle. Compensation for disturbance within 100 feet of shrubs will be necessary and may include transplanting elderberry shrubs into a conservation area for valley elderberry longhorn beetle. The conservation area must be at least 1,800 square feet and should be planted with 5 additional elderberry plants plus 5 native associated plants for every one transplanted/impacted. Refer to USFWS's *Conservation Guidelines for Valley Elderberry Longhorn Beetle*, included in Appendix C2, for details.	Project Partners	Project Partners				
Measure 3.6-7n: Prior to Project construction, the Project Partners shall survey the selected diversion/intake and pipeline siting option for giant garter snake habitat suitability within one year of anticipated construction. The survey area shall include up to 200 feet of upland habitat surrounding potential aquatic habitat for giant garter snake according to the USFWS programmatic biological opinion for giant garter snake (Appendix C2). Habitat assessments shall follow CDFG guidelines *Appendix D: Protocols for Pre-Project Surveys to Determine Presence or Absence for the Giant Garter Snake and to Evaluate Habitats*, as cited in the *USFWS Draft Recovery Plan for the Giant Garter Snake*. These guidelines are included in Appendix C2.	Project Partners	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-7o: If suitable giant garter snake habitat is present, then the following mitigation measures will be implemented to avoid impacts to potential giant garter snake movement corridors. These mitigation measures are in accordance with the USFWS programmatic biological opinion for giant garter snake and pertain to Level 3 impacts, which are those where (a) there is a permanently loss of less than 3 acres of both aquatic and upland habitat for giant garter snake; (b) there is a permanent loss of less than 1 acre of aquatic habitat for giant garter snake; (c) there is a permanent loss of less than 218 linear feet of bank habitat; and (d) temporary disturbances are less than 20 acres and will occur over greater than 2 seasons. ▪ Construction activity within giant garter snake habitat shall occur between May 1 and October 1, which is the active period for the snake. Between October 2 and April 30, the USFWS Sacramento Fish and Wildlife Office shall be consulted to determine if additional measures are necessary to minimize and avoid take. Such measures might include but are not limited to requiring a biological monitor on site during construction within giant garter snake habitat. ▪ Any dewatered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat. ▪ Construction personnel shall participate in a Service-approved worker environmental awareness program. Under this program, workers shall be informed about the presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about giant garter snake as directed in the USFWS programmatic biological opinion for giant garter snake. Proof of this instruction shall be submitted to the Sacramento Fish and Wildlife Office. ▪ Pre-construction surveys for the giant garter snake shall be conducted by a USFWS-approved biologist within 24 hours prior to ground disturbance. Giant garter snake encounters and field reports shall be addressed per the USFWS programmatic biological opinion for giant garter snake. ▪ Clearing of wetland vegetation will be confined to the minimal area necessary to excavate toe of bank for riprap or fill placement. Excavation of channel for removal of accumulated sediments will be accomplished by using equipment located on and operated from top of bank, with the least interference practical for emergent vegetation. ▪ Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance. ▪ Preserved giant garter snake habitat shall be designated as Environmentally Sensitive Areas and shall be flagged by a qualified biologist approved by the Service and avoided by all construction personnel. ▪ After completion of construction activities, any temporary fill and construction debris shall be removed and, wherever feasible, disturbed areas shall be restored to pre-project conditions. Restoration work may include replanting emergent vegetation as directed in the USFWS programmatic biological opinion for giant garter snake. ▪ More than two season and temporary permanent losses of habitat shall be compensated at the ratios described in Table 1 and meet the criteria listed in the USFWS programmatic biological opinion for giant garter snake. ▪ All wetland and upland acres created and provided for the giant garter snake shall be protected in perpetuity by a Service-approved conservation easement or similarly protective covenants in the deed and comply with provisions in the USFWS programmatic biological opinion for giant garter snake. ▪ The Reporting Requirements shall be fulfilled in compliance with the USFWS programmatic biological opinion for giant garter snake.	Project Partners and Project Partners' construction contractor	Project Partners				
Measure 3.6-7p: The following measures shall be implemented to compensate for Level 3 impacts to giant garter snake: ▪ Replacement of affected giant garter snake habitat at a 3:1 ratio. ▪ All replacement habitat must include both upland and aquatic habitat components. Upland and aquatic habitat components must be included in the replacement habitat at a ratio of 2:1 upland acres to aquatic acres. ▪ If restoration of habitat is a component of the replacement habitat, one year of monitoring restored habitat with a photo documentation report due one year from implementation of the restoration with pre- and post-project area photos. ▪ Five years of monitoring replacement habitat with photo documentation report due each year.	Project Partners	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-7q: If feasible, construction shall commence outside of the March 1 through September 15 nesting season. If construction activities begin between September and March, then construction may proceed until it is determined that an active nest is subject to abandonment as a result of construction activities. Construction activities must be in full force, including at a minimum, grading of the site and development of infrastructure to qualify as "pre-existing construction." A minor activity that initiates construction but does not involve full construction will not qualify as "pre-existing construction." If nesting commences in the vicinity of the project under pre-existing construction condition, then it is assumed that the birds are or will habituate to the construction activities.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7r: If construction must occur during the breeding season (March 1 through September 15), then prior to Project construction, the Project Partners shall survey the chosen siting diversion/intake pipeline corridor for nesting Swainson's hawks during the nesting season the year when construction is anticipated to occur. Surveys shall be conducted by a qualified biologist and according to the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*, included in Appendix C2. The survey area shall include a half-mile radius around the Project construction activities.	Project Partners	Project Partners				
Measure 3.6-7s: No new disturbance shall occur within a half-mile of an active nest. If nesting sites are present within a half-mile of Project construction activities, then the Project Partners shall consult with CDFG regarding impact minimization measures for Swainson's hawk. Such minimization measures may include but are not limited to the following: ▪ In coordination with CDFG, and depending on the level of noise or construction disturbance, line of site between the nest and the disturbance, ambient level of noise and other disturbances, and other topographical or other barriers, a smaller no-disturbance buffer may be established around an active nest site. These factors shall be analyzed in order to make an appropriate decision on zone distances. ▪ Active nests shall be monitored until young have fledged (usually late-June to mid-July).	Project Partners	Project Partners				
Measure 3.6-7s (1): To mitigate for permanent loss of Swainson's hawk foraging habitat associated with the construction of the WTP facility in Options 2 or 3, compensation shall follow guidance in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency (Habitat JPA). Text of this Agreement is provided in Appendix C-3. The Agreement requires that: ▪ Urban development permittees shall pay an acreage-based mitigation fee in an amount, as determined by the Habitat JPA Board, sufficient to fund the acquisition, enhancement and long-term management of one (1) acre of Swainson's hawk foraging habitat for every one (1) acre of foraging habitat that is lost to urban development. ▪ A calculated fee of $5,800.00 per acre is sufficient to fund the acquisition and preservation as of January 2004 (Staff Report on Swainson's Hawk Mitigation FeeUpdate). This fee amount may be adjusted to reflect updated costs for acquisition of habitat. ▪ With written approval of and subject to conditions determined by CDFG, an urban development permittee may transfer fee simple title or a conservation easement over Swainson's hawk foraging habitat, along with appropriate enhancement and management funds, in lieu of paying the acreage-based mitigation fee.	Project Partners	Project Partners				
Measure 3.6-7t: Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk, but modify survey area to include 500 feet around the construction activities, and modify buffer areas to include 500 around a nest.	Project Partners	Project Partners				
Measure 3.6-7u: Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk and apply them to northern harrier and short-eared owl, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 around a nest.	Project Partners	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-7v: The Project Partners shall survey the chosen siting diversion/intake pipeline corridor for burrowing owls according to the *Staff Report on Burrowing Owl Mitigation* (Appendix C2) which includes survey guidelines for burrowing owl. The surveys must be conducted prior to Project construction and shall be conducted by a qualified biologist. The guidelines include the following: ▪ Conduct a winter survey (to be conducted between December 1 and January 31) and a survey during the breeding season (to be conducted April 15 to July 15). ▪ Conduct the survey beginning one hour before sunrise and two hours after, OR two hours before sunset and one hour after. ▪ The survey area shall include suitable habitat within a 500 radius around the Project construction zone.	Project Partners	Project Partners				
Measure 3.6-7w: If occupied burrows are identified, the measures included in the *Staff Report on Burrowing Owl Mitigation* (Appendix C2) will be implemented to minimize impacts to burrowing owl. These include but are not limited to the following measures: ▪ Owls shall not be disturbed from February 1 through August 31. Establish an avoidance buffer of 160 feet (September through January 31) or 250 feet (February 1 through August 31) and monitor the nest burrow during construction activity. Any indication of impacts to the breeding pair as a result of construction shall be reported to CDFG whereby CDFG may have the authority to halt construction until the young have fledged from the nest. ▪ If impacts to owls cannot be avoided, then CDFG shall be consulted on minimization measures such as using passive relocation techniques during the non-breeding season (September 1 through January 31). ▪ A minimum of 6.5 acres of foraging habitat must be preserved for every occupied burrow potentially impacted (within 160 feet or 250 feet of the construction activity, depending on the season). Foraging habitat shall be preserved according to CDFG guidelines.	Project Partners and construction contractor	Project Partners				
Measure 3.6-7x: Implement Measures 3.6-7q, 3.6-7r, and 3.6-7s for Swainson's hawk and apply them to the above-listed species, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 around nesting colonies/locations.	Project Partners	Project Partners				
Measure 3.6-8a: Prior to construction, the Project Partners shall conduct an assessment within the proposed Project area to provide the basis of a vegetation mitigation plan. A vegetation mitigation plan will be developed for submittal to CDFG. The plan shall contain species expected to be found in the vicinity of Project sites. Details about the species and their past occurrence shall be included in the plan. The Project Partners shall comply with all terms of conditions for approval, including additional mitigation provisions to be implemented. The Project Partners would follow performance standards in developing the plan. The requirements would consist of one or more of the following provisions: ▪ Establish an oak tree conservation easement in coordination with Yolo County to protect and preserve trees commensurate with the removal of large oaks as a result of project implementation ▪ Replace and maintain trees, for seven years, at a rate of 1 tree per 1-inch of tree diameter removed as measured at diameter breast height. Because this measure would only fulfill one-half of the required mitigation for the Project, one or more of the other provisions would need to be implemented to fulfill the remaining mitigation requirements. ▪ Contribute funds to a suitable oak woodland conservation fund, as established in accordance with § 1363 of the Fish and Game Code ▪ Consult with Yolo County and CDFG to determine and agree to implement other suitable measures consistent with the Yolo County Oak Woodland Conservation and Enhancement Plant 2007 and §21083.4(a) of the California Public Resources Code.	Project Partners	Project Partners	**Impact 3.6-8:** The Project would have other substantial adverse affects on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.			
Measure 3.6-8b: For any drainage that would be crossed using trenchless construction techniques, the bore pits will be excavated at least 50 feet outside the edge of riparian vegetation to minimize impacts to waterways and adjacent areas.	Project Partners and construction contractor	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Biological Resources (cont.)						
Measure 3.6-8c: All new Project-related groundwater wells within water sellers' service areas shall be sited in areas that are not within 0.25 mile of wetlands and other sensitive biological resources that could be affected by groundwater drawdown.	Project Partners	Project Partners				
Measure 3.6-9a: Prior to construction, the Project Partners shall conduct and submit for approval a formal wetland delineation report for the proposed Project area for verification through the ACOE. The applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the ACOE and/or a Section 401 permit from the RWQCB and shall comply with all conditions of permits received. In association with either or both permits, compensatory mitigation for impacts to jurisdictional wetlands may be required. ACOE mitigation guidelines emphasize on-site mitigation preference, but in the potential case that on-site mitigation is not available, the Project partners shall either purchase wetland mitigation credits from an ACOE -approved mitigation bank that services the area containing the proposed project or prepare a plan to implement mitigation at an off-site location.	Project Partners	Project Partners	**Impact 3.6-9:** The Project would have other substantial adverse effects on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.			
Measure 3.6-9b: For open trench construction crossing minor wetland ditches (less than 15 feet in width), the following measures shall be implemented: ▪ Implement compliance measures, described in Section 3.7, Geology, Soils, and Seismicity for Impact 3.7-1, to reduce indirect impacts to wetlands and other waters during open trench construction; ▪ Conduct trenching and construction activities across drainages during low-flow or dry periods as feasible; ▪ If working in active channels, install cofferdam upstream and downstream of stream crossing to separate construction area from flowing waterway; ▪ Place sediment curtains upstream and downstream of the construction zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone; ▪ Locate spoil sites such that they do not drain directly into the drainages and/or seasonal wetlands; ▪ Store equipment and materials away from the drainages and wetland areas. No debris will be deposited within 250 feet of the drainages and wetland areas; ▪ Prepare and implement a revegetation plan to restore vegetation in all temporarily disturbed wetlands and other waters using native species seed mixes and container plant material that are appropriate for existing hydrological conditions. All disturbed drainages will be restored to pre-construction conditions.	Project Partners and construction contractor	Project Partners				
Geology, Soils, and Seismicity						
Measure 3.7-1a: Prior to construction, a detailed geotechnical study of the Project Area shall be conducted, and shall include liquefaction potential, bearing strength of soils, and levee slope stability. Measures shall be taken to incorporate findings into facility design to minimize damage potential from liquefaction, changes in levee slope stability, levee erosion, and other seismically induced changes.	Project Partners	Project Partners	**Impact 3.7-1:** The Project could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.			
Measure 3.7-1b: The Project Partners shall consult with the appropriate Federal, State, and local agencies to identify and implement specific design and engineering requirements for levees that may be affected by installation of Project facilities; specified design and engineering requirements deemed appropriate by agencies with jurisdiction over local levee integrity shall be incorporated into Project design.	Project Partners	Project Partners				
Measure 3.7-1c: In order to mitigate potential damage caused to Project facilities by corrosive soils, appropriate measures shall be incorporated into Project design to prevent or minimize corrosion to steel and concrete components susceptible to damage from corrosive soils.	Project Partners	Project Partners				
Measure 3.7-2a: Implement Mitigation Measures 3.4-1a and 3.4-1b as discussed in Chapter 3.4 of this document. Additionally, stormwater and runoff from Project facilities shall be directed into drainage ditches, channels, swales, infiltration basins, or other features that have sufficient capacity to divert and contain stormwater flows without inducing substantial soil erosion or loss of topsoil from levees or other areas. During construction, disturbed levees shall be provided with temporary cover to prevent erosion of bare soils. Following construction, disturbed areas shall be hydroseeded with native grasses and other plants suitable for stabilizing unconsolidated sediments and reducing stormwater erosion.	Project Partners and construction contractor	Project Partners	**Impact 3.7-2:** The Project could result in substantial soil erosion or the loss of topsoil.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Geology, Soils, and Seismicity (cont.)						
Measure 3.7-2b: Erosion control plans shall be prepared for installation and construction of new groundwater wells that are established to replace surface water transferred to the Project Partners. The plans shall identify actions to control erosion and prevent materials from entering surface waterways that are located in the vicinity of the well site.	Project Partners	Project Partners				
Air Quality						
Measure 3.8-1a: During construction, the Project partners shall require feasible[1] NOx mitigation measures, which include: ▪ The project owner shall designate an onsite Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for directing compliance with mitigation measures for the project construction. ▪ To the extent that equipment and technology is available and cost effective, the Project Partners shall require contractors to use catalyst and filtration technologies, and retrofit existing engines in construction equipment. ▪ All diesel-fueled engines used in the construction of the Project shall use ultra-low sulfur diesel fuel, which contains no more than 15 ppm sulfur or alternative fuels (i.e., reformulated fuels, emulsified fuels, compressed natural gas, or power with electrification). Low sulfur diesel fuel (500 parts per million sulfur content) shall be used only if evidence is obtained and maintained from the fuel supplier(s) that ultra-low sulfur diesel fuel is unavailable in the Project area. ▪ All construction diesel engines, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, § 2423 (b)(1) unless certified by the onsite AQCMM that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 50 hp, that engine shall be a Tier 1 engine. ▪ To assist the AQCMM in identifying engines that comply with the above requirement over the period of project construction, all diesel-fueled engines used in the construction of the Project shall have clearly visible tags issued by the AQCMM showing that the engine meets the above requirement. ▪ Minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is permitted or required. ▪ To the extent practicable, manage operation of heavy-duty equipment to reduce emissions such as maintain heavy-duty earthmoving, stationary and mobile equipment in optimum running conditions which can result in 5 percent fewer emissions. ▪ To the extent practicable, employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation.	Project Partners and construction contractor	Project Partners	**Impact 3.8-1:** Short-term increases in vehicle trips by construction workers and construction vehicles.			
Measure 3.8-1b: During construction, the Project Partners shall require construction contractors to implement the following fugitive dust mitigation measures in order to keep levels below YSAQMD thresholds of significance: ▪ Limit grading activities to less than 10 acres on a given day. ▪ Water all construction sites as needed to control dust. ▪ Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). ▪ Limit onsite vehicles to a speed of 15 miles per hour on unpaved roads. ▪ Suspend land clearing, grading, earth moving, or excavation activities when winds exceed 20 miles per hour. ▪ Cover inactive soil storage piles.	Project Partners and construction contractor	Project Partners				

[1] CEQA Public Resource Code §21061.1 defines "feasible" meaning capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Air Quality (cont.)						
Measure 3.8-1b (cont.) ▪ Cover all trucks entering or exiting the Project site hauling soil, sand, and other loose materials that could create dust. ▪ Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications; ▪ Sweep or wash all paved streets adjacent to the development site at the end of each day as necessary to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site. ▪ Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours. The telephone number of the YSAQMD shall also be visible to ensure compliance with YSAQMD rules.						
Measure 3.8-1c: New groundwater wells powered by diesel fuel shall be located more than 200 feet away from sensitive receptors.	Project Partners and upstream senior water rights holder party to water transfer	Project Partners				
Measure 3.8-1d: Electric energy shall be used to power new groundwater well pumps, to the extent practicable.	Project Partners and upstream senior water rights holder party to water transfer	Project Partners				
Measure 3.8-1e: Screening-level DPM assessments should be conducted for diesel–powered groundwater pump operations proposed within 500 feet of residences or other sensitive receptors. These analyses should include exact distances between the receptors and operations, and include the actual DPM emissions for the engines proposed. If the analysis shows an annual average DPM concentration from project operations at residences within 500 feet of the DPM source to be greater than 0.024 ug/m3, the engine location shall be moved to a location where the annual average DPM concentration from project emissions is less than 0.024 ug/m3. The acceptable concentration of 0.024 ug/m3 was determined using the current OEHHA cancer potency factor and methodology for diesel exhaust (OEHHA, 2003). If diesel exhaust concentrations at the affected receptor would be below 0.024 ug/m3, then the cancer health risk would be less than 9.9 cancers in a million population.	Project Partners	Project Partners				
Measure 3.8-2: Implement Measures 3.8-1a and 3.8-1b.	Project Partners and construction contractor and upstream senior water rights holder party to water transfer	Project Partners	**Impact 3.8-2:** The Project would conflict with or obstruct implementation of the applicable air quality plan.			
Measure 3.8-3: Implement Measures 3.8-1a through 3.8-1d.	Project Partners and construction contractor and upstream senior water rights holder party to water transfer	Project Partners	**Impact 3.8-3:** Project construction and/or operation would expose sensitive receptors to substantial pollutant concentrations.			
Noise						
Measure 3.9-1a: In order to avoid noise-sensitive hours of the day and night, construction contractors shall comply with the following: ▪ Construction activities within the City of Woodland jurisdiction, including the Option 1 and 2 WTP site, if this site is selected, and a portion of the treated water transmission pipeline, shall be limited to between 7 a.m. to 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. ▪ Construction activities within the City of Davis jurisdiction (i.e., a portion of the treated water transmission pipeline) shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday, and between the hours of 8 a.m. and 8 p.m. on Saturdays and Sundays. ▪ Construction activities in the County of Yolo jurisdiction, including the Option 1 and 2 WTP site, the intake facility, and water pipeline segments, shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and only interior construction shall be allowed between the hours of 7:00 a.m. and 7:00 p.m. on Saturday to avoid noise-sensitive hours of the day[2]. ▪ Pile-driving shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday, with no pile-driving permitted between 12:30 p.m. and 1:30 p.m.	Project Partners and construction contractor	Project Partners	**Impact 3.9-1:** Proposed Project construction and/or operation would expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.			

[2] Although the County of Yolo does not have established time limitations for construction activities, these specified hours are typically used during construction (Morrison, 2006).

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Noise (cont.)						
Measure 3.9-1b: To further address potential nuisance impacts of proposed Project construction, construction contractors shall implement the following: ▪ Signs shall be posted at all construction site entrances to the property upon commencement of proposed Project construction, for the purposes of informing all contractors/subcontractors, their employees, agents, material haulers, and all other persons at the applicable construction sites, of the basic requirements of Mitigation Measures 3.9-1a and 3.9-1c through 3.9-1e. ▪ Signs shall be posted at the construction sites that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number in the event of problems. ▪ An onsite complaint and enforcement manager shall respond to and track complaints and questions related to noise.	Project Partners and construction contractor	Project Partners				
Measure 3.9-1c: To reduce daytime noise impacts due to construction of the diversion/intake facility and treated water transmission pipelines in urban areas, the Project Partners shall require construction contractors to implement the following measures: ▪ Equipment and trucks used for proposed Project construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible). ▪ Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for proposed Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible. ▪ Stationary construction noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction purposes.	Project Partners and construction contractor	Project Partners				
Measure 3.9-1d: To further mitigate pile driving noise impacts at the diversion/intake facility, the Project Partners shall require construction contractors to implement "quiet" pile-driving technology (such as sonic or vibratory pile-driver use; pre-drilling of piles; jetted pile-driving), where feasible, if geotechnical and structural requirements and conditions permit this type of technology.	Project Partners and construction contractor	Project Partners				
Measure 3.9-1e: No amplified sources (e.g., stereo "boom boxes") shall be used in the vicinity of residences during proposed Project construction.	Project Partners and construction contractor	Project Partners				
Measure 3.9-1f: Groundwater wells shall be located as far from sensitive receptors as feasible. Also, if new wells are to be constructed in the direct line of sight of sensitive receptors within 1,000 feet of the drill rig, the applicant shall include construction specifications requirements for installation and maintenance of a temporary noise barrier (engineered sound wall or noise blanket) during 24-hour construction activities. Specifications shall include use of appropriate materials and shall be installed to a height that intercepts the line of sight between the drill rig and sensitive receptors in order to achieve attenuation of between 10 and 15 dBA. Performance standard for this noise mitigation measure shall be reduction of noise levels within 1,000 feet of the drill rig to 60 dBA or less.	Project Partners and construction contractor	Project Partners				
Measure 3.9-1g: The applicant shall design and construct all above ground proposed Project facilities that include stationary equipment (e.g., emergency generators, the WTP HVAC systems, pumps, motors, blowers, and compressors and the diversion/intake and groundwater well pump equipment) with acoustically baffled/shielded enclosures around the stationary, noise-generating equipment to meet the jurisdictionally applicable City or County sound level requirements at nearby land use property lines. If the City or County with jurisdiction over the facility area does not have established exterior sound level requirements for sensitive receptors, such as Yolo County, the locations of the water seller's potential groundwater wells, then operation of the intake or groundwater wells shall be designed such that the generation of noise levels at the exterior of residences or commercial/industrial uses in the vicinity is no more than 45 dBA Leq or 55 dBA Leq, respectively. However, for sensitive receptors in areas with existing elevated ambient night-time noise levels, such as receptors near major roadways, the enclosures for stationary equipment shall be designed such that noise levels from the stationary equipment shall not exceed the existing ambient night-time hourly Leq noise levels at the receptor.	Project Partners and construction contractor	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Hazards and Hazardous Materials						
Measure 3.9-3: Implement Mitigation Measure 3.9-1g.	Project Partners and construction contractor	Project Partners	**Impact 3.9-3:** The proposed Project would cause a substantial permanent increase in ambient noise levels in the proposed Project vicinity above levels existing without the proposed Project.			
Measure 3.9-4: Mitigation Measures 3.9-1a through 3.9-1g are likewise incorporated by reference.	Project Partners and construction contractor	Project Partners	**Impact 3.9-4:** The proposed Project would cause a substantial temporary or periodic increase in ambient noise levels in the proposed Project vicinity above levels existing without the proposed Project.			
Measure 3.10-1a: The Project Partners shall ensure, through the enforcement of contractual obligations, that all contractors transport, store and handle construction-related hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the Department of Transportation, California RWQCB, the local fire departments, and the local environmental health department. ▪ Recommendations shall include as appropriate transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using applicable federal, state and/or local regulatory agency protocols. In addition, all precautions required by the CVRWQCB issued NPDES construction activity stormwater permits will be taken to ensure that no hazardous materials enter any nearby waterways. In the event of a spill, the Project Partners shall ensure, through the enforcement of contractual obligations, that all contractors immediately control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. If required by the local fire departments, the local environmental health department, or any other regulatory agency, contaminated media shall be collected and disposed of at an offsite facility approved to accept such media.	Project Partners and construction contractor	Project Partners	**Impact 3.10-1:** The Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment.			
Measure 3.10-1b: The storage, handling, and use of the construction-related hazardous materials shall be in accordance with applicable federal, state, and local laws. Construction-related hazardous materials and hazardous wastes (e.g., fuels and waste oils) shall be stored away from stream channels and steep banks to prevent these materials from entering surface waters in the event of an accidental release. These materials shall be kept at sufficient distance (at least 500 feet) from nearby residences or other potential sensitive land uses. This includes materials stored for expected use, materials in equipment and vehicles, and waste materials.	Project Partners and construction contractor	Project Partners				
Measure 3.10-1c: Implement Best Management Practices described in Mitigation Measure 3.4-1b for controlling pollutant sources that could affect stormwater discharges from construction sites.	Project Partners and construction contractor	Project Partners				
Measure 3.10-1d: The Project Partners or their designated construction contractor shall prepare a Hazardous Materials Management Plan (HMMP) for construction of the Project. The HMMP will shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction, including waste materials. The plan shall include, but shall not be limited to, the following: ▪ A description of hazardous materials and hazardous wastes ▪ Handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste ▪ Preparedness, prevention, contingency, and emergency procedures, including emergency contact information ▪ Personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility ▪ An MSDS shall be kept on-site for each on-site, hazardous chemical ▪ Hazardous material storage areas, including temporary storage areas, shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank ▪ Equipment maintenance procedures The HMMP shall be made a condition of contractual obligation and shall be available for review by construction inspectors and implementation compliance shall be monitored.	Project Partners and construction contractor	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Hazards and Hazardous Materials (cont.)						
Measure 3.10-2: To mitigate potential release of acutely hazardous substances within one-quarter mile of any school, an investigation of the extent of LUST-related contamination shall be undertaken as part of Project engineering and design. The investigation shall assess the potential for disturbing contaminated areas by the treated water pipeline installation, within the areas indicated in Table 3.10-10. The contaminated areas shall either be avoided, or any work done within contaminated areas shall be undertaken in compliance with standards approved by the DTSC or Yolo County Health Department (Yolo County Health Department, 2007) to ensure that the soil disturbance will not result in the release of hazardous materials.	Project Partners and construction contractor	Project Partners	**Impact 3.10-2:** The Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.			
Measure 3.10-3: To mitigate potential hazards resulting from disturbing contaminated areas, the extent of contamination from hazardous materials sites within or adjacent to the Project construction area shall be delineated during final design. Disturbance to contaminated areas during Project construction shall be avoided, or any work done within contaminated areas shall be undertaken in compliance with standards approved by the DTSC or Yolo County Health Department (Yolo County, 2007) to ensure that hazardous materials will not be released as a result of the ground disturbance. Additionally, if unidentified contaminated soil and/or groundwater are encountered, or if suspected contamination is encountered during any construction activities, work shall be halted in the area of potential exposure, and the type and extent of contamination shall be identified. A qualified professional, in consultation with appropriate regulatory agencies, will then develop and implement a plan to remediate the contamination and properly dispose of the contaminated material.	Project Partners and construction contractor	Project Partners	**Impact 3.10-3:** The Project could be located on a site that is included on a list of hazardous materials sites and, as a result, would create a significant hazard to the public or the environment			
Measure 3.10-5a: Implement Mitigation Measure 3.12-1b, Traffic control plan from the Transportation section, which includes provisions for notifying emergency responders as well as local residents of scheduled or potential Project-related impairments to roadway operations, traffic movement and circulation.	Project Partners and construction contractor	Project Partners	**Impact 3.10-5:** The Project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.			
Measure 3.10-5b: Ensure that, in areas where construction activity is taking place within a roadway, sufficient roadway width remains so that roadway is passable by emergency vehicles.	Project Partners and construction contractor	Project Partners				
Measure 3.10-6a: The Project Partners shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The Project Partners shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	Project Partners and construction contractor	Project Partners	**Impact 3.10-6:** The Project could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.			
Measure 3.10-6b: Work crews shall be required to carry sufficient fire suppression equipment to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	Project Partners and construction contractor	Project Partners				
Transportation and Traffic						
Mitigation Measure 3.12-1a: Construction contractors shall implement measures consistent with provisions of the Work *Area Protection and Traffic Control Manual* including requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles (CJUTCC, 1996).	Project Partners and construction contractor	Project Partners	**Impact 3.12-1:** Project construction would substantially increase traffic in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).			
Mitigation Measure 3.12-1b: The Project Partners shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction (i.e., Caltrans, Yolo County, City of Davis, City of Woodland, UC Davis, Yolo Shortline) prior to construction. The plan shall: ▪ Include a discussion of work hours, haul routes, limits on the length of open trench, work area delineation, traffic control and flagging; ▪ Identify all access and parking restriction and signage requirements; ▪ Layout a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;	Project Partners and construction contractor	Project Partners				

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Transportation and Traffic (cont.)						
Mitigation Measure 3.12-1b (cont.) ▪ Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers would be notified of the timing, location, and duration of construction activities. All roads would remain passable to emergency service vehicles at all times; ▪ Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and ▪ Specify the street restoration requirements						
Measure 3.12-1c: Use special construction techniques (e.g., horizontal boring, directional drilling or night construction) on roadways with high traffic volume to avoid creating traffic conditions with a Level of Service D or worse.	Project Partners and construction contractor	Project Partners				
Measure 3.12-1d: Prepare vehicle movement and detour plans to minimize impact to local street circulation, driveway access, and displacement of on-street parking. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. Pipeline construction in urban areas will limit trench length to no more than 75 feet to minimize displacement of on-street parking.	Project Partners and construction contractor	Project Partners				
Measure 3.12-1e: Identify and utilize areas for equipment parking, staging, and construction crew parking to limit lane closures in the public right-of-way.	Project Partners and construction contractor	Project Partners				
Measure 3.12-1f: Coordinate with Caltrans, Yolo County, City of Davis, City of Woodland, UC Davis, and any other appropriate entity, regarding measures to minimize the cumulative effect of simultaneous construction activities.	Project Partners	Project Partners				
Measure 3.12-1g: Consult with Yolobus and Unitrans Transit to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.	Project Partners	Project Partners				
Measure 3.12-4a: Implement Mitigation Measure 3.12-1a.	Project Partners and construction contractor	Project Partners	**Impact 3.12-4:** Project construction would increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways.			
Measure 3.12-4b: Implement Mitigation Measure 3.12-1g.	Project Partners	Project Partners				
Measure 3.12-4c: Roads damaged by construction would be repaired to a structural condition equal to that which existed prior to construction activity. The Project Partners and the local jurisdiction shall enter into an agreement prior to construction that will detail the pre-construction conditions and the post-construction requirements of the rehabilitation program.	Project Partners	Project Partners				
Measure 3.12-5: Implement Mitigation Measure 3.12-1b through 3.12-1g.	Project Partners and construction contractor	Project Partners	**Impact 3.12-5:** Construction would adversely affect access to adjacent land uses and temporarily block access routes used by city police departments, Yolo County Sheriff's Department, fire departments, and emergency services.			
Measure 3.12-6: Implement Mitigation Measures 3.12-1d and 3.12-1e.	Project Partners and construction contractor	Project Partners	**Impact 3.12-6:** Construction of the Project would displace existing on-street parking and result in inadequate parking capacity.			
Public Services and Utilities						
Measure 3.13-2: As part of the CEQA process for the anticipated future WWTP, mitigation measures comparable to those contained herein shall be implemented by the project proponent.	Project Partners	Project Partners	**Impact 3.13-2:** The Project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Public Services and Utilities (cont.)						
Measure 3.13-6: A Utility Avoidance Plan shall be prepared and implemented to ensure that the project plans and specifications contain a detailed engineering and construction plan to avoid utility conflicts. Measures to avoid utility conflicts may include, but are not limited to: ▪ Utility locations will be verified through field survey and use of the Underground Service Alert services. ▪ Detailed specifications will be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utilities shall be notified of construction plans and schedule. Arrangements may be made with these entities regarding protection, relocation, or temporary disconnection of services. ▪ Residents and businesses in the project area of planned utility service disruption will be notified of any outages two to four days in advance, in conformance with county and state standards. ▪ In the event cables and lines are disconnected, they will be reconnected as soon as possible.	Project Partners	Project Partners	**Impact 3.13-6:** Construction of the Project would result in conflict with other existing utilities, causing interference with their operation or function.			
Cultural Resources						
Measure 3.14-1: The following tasks shall be conducted, where appropriate, by the Project Partners. The tasks described satisfy not only CEQA, but federal rules and regulations as well (in particular, Section 106 of the National Historic Preservation Act and its implementing regulations). Collectively, these tasks represent a cultural resource management approach designed to ensure compliance with applicable General Plans, CEQA, and federal rules and regulations. **Task I. Site-Specific Historic Properties Identification** A. Upon selection of a preferred diversion/intake pipeline option, the Project Partners, where appropriate, shall complete the identification process per 36 CFR Part 800.4 (which includes, among other identification efforts, a Class I literature search and a Class III field survey) in the area of potential effect (APE) for a specific undertaking. A Class III pedestrian survey will not be required when: 1. The California Historical Information System and SHPO agree that previous cultural resources surveys have already adequately identified historic properties, or 2. The California Historical Information System and SHPO agree that previous disturbance has eliminated the possibility of identifying historic properties. B. An undertaking shall be considered to exist, and an APE shall be defined, when the Project Partners, directly or through the issuance of appropriate permits, undertake construction of the facilities identified in project development and construction plans. The APE will be the land area affected by construction of new facilities, from the point of diversion at the Sacramento River, along pipelines, and at water treatment and storage facilities; C. Where the Project Partners conduct an intensive (Class III) inventory, required consultation with California SHPO shall be undertaken and coordinated by the lead federal agency with approval authority over Project features. **Task II. Assessing Effects** A. The lead agency, in consultation with SHPO, will assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP. If the Project Partners, and federal lead agency, determine that construction and operation of the project would result in unavoidable effects, or an adverse effect, to historic properties within the APE, in accordance with 36 CFR Part 800.5, then the lead agency, other interested parties, the Project Partners, and SHPO will consult to resolve the adverse effect (see Task III below). **Task III. Treating Effects** A. The Project Partners shall implement one or more of the following measures for treating effects to historic properties: 1. Avoid effects through redesign of the project; 2. Avoid effects by not executing the proposed contract; 3. If avoidance is not feasible, mitigate effects through measures such as data recovery or archival documentation (for example, the Historic American Buildings Survey/ Historic American Engineering Record).	Project Partners and construction contractor	Project Partners	**Impact 3.14-1:** Project construction would cause a substantial adverse change in the significance of a historical or unique archaeological resource within the Project area.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Cultural Resources (cont.)						
Measure 3.14-1 (cont.) The Project Partners, in consultation with the lead federal agency, SHPO, the Advisory Council, and other interested agencies, shall work together to find measures to mitigate the effects of a particular undertaking on historic properties. The Project Partners shall develop plans to implement the agreed upon mitigating measures and shall submit such plans, in the form of a Memorandum of Agreement, to the SHPO, the Advisory Council, and interested agencies for review and comment. B. The Project Partners shall ensure that any mitigating measures agreed on during consultation will be included as a specification in Project development. Mitigation measures will be completed before the start of ground disturbing activities that would affect the physical integrity of an historic resource. Mitigating measures for visual, audible, or atmospheric effects will be completed before completion of Project construction. **Task IV. Properties Discovered During Implementation of an Undertaking** A. If a previously undiscovered historic property is inadvertently encountered during construction, all work in the immediate vicinity of the property except that necessary to secure and protect the property will cease until the Project Partners can secure assistance from a professional archaeologist who evaluate and, if necessary, mitigate effects to the discovery. Evaluation and mitigation will be carried out in consultation with the federal lead agency and SHPO pursuant to 36 CFR Part 800.11(b)(2)(ii). B. If human remains are discovered during archaeological survey, any archaeological testing or data recovery or any construction activities, work in the immediate vicinity of the discovery will cease except to secure and protect the remains. The Project Partners or their consulting archaeologist will immediately notify the County Coroner, per State law. As well, the Project Partners shall ensure that any human remains and grave-associated artifacts discovered are also managed in accordance with California Statutes, their chapters and sections, which include but are not necessarily limited to: Chapter 1492, Statutes of 1982, Section 7050.5 of the Health and Safety Code, and Sections 5097.94, 5097.98, and 5097.99 of the Public Resources Code.						
Measure 3.14-2: Implement Mitigation Measure 3.14-1.	Project Partners and construction contractor	Project Partners	**Impact 3.14-2:** Project construction would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.			
Measure 3.14-3: Implement Mitigation Measure 3.14-1.	Project Partners and construction contractor	Project Partners	**Impact 3.14-3:** Project construction would disturb any human remains, including those interred outside of formal cemeteries.			
Recreation						
Measure 3.15-3a: During Project construction and operation, waterway markers, including buoys and/or signs, shall be placed in, on, or near the water to protect the safety of boat operators as specified in Title 14 Department of Boating and Waterways Section 7000 et seq. The shapes of aids to navigation shall be compatible with the shapes established by Coast Guard regulations for the equivalent Coast Guard aids to navigation. When lights are placed on buoys as an aid to navigation, their characteristics shall be compatible with those designated by federal regulations for federal aids to navigation.	Project Partners and construction contractor	Project Partners	**Impact 3.15-3:** Construction and operation of the intake could reduce access to, or interfere with the use of existing recreational opportunities or facilities, including recreational use of the Sacramento River.			
Measure 3.15-3b: The design of the intake facility shall provide for continued public access to the Sacramento River during construction and operational phases. Pedestrian access shall be designed to discourage trespassing on adjacent properties, where applicable.	Project Partners	Project Partners				
Aesthetics						
Measure 3.16-3a: The design of the proposed water storage tanks, including the choice of color and materials, shall seek to reduce the visual contrast of the facility. Bright and reflective colors shall be avoided. Additionally, landscaping including revegetation of disturbed areas, plantings of trees, and/or minor topographic enhancements, shall be utilized to minimize textural and aesthetic contrasts with surrounding areas.	Project Partners	Project Partners	**Impact 3.16-3:** The Project could substantially degrade the existing visual character or quality of the site and its surroundings.			

TABLE A-1
MITIGATION MONITORING AND REPORTING PLAN FOR THE DAVIS-WOODLAND WATER SUPPLY PROJECT (CONT'D)

Mitigation Measures	Responsibility for Implementation	Responsibility for Monitoring	Impact(s) Being Mitigated	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)	Initial Completion by Responsible Party (Date)
Aesthetics (cont.)						
Measure 3.16-3b: The design of the diversion/intake facility and WTP, including the choice of color and materials, shall seek to reduce the visual contrast of the facility. Bright reflective materials and colors shall be avoided.	Project Partners	Project Partners				
Measure 3.16-3c: The Project Partners shall develop a landscaping plan that utilizes native vegetation to shield the new intake/diversion facility and the WTP from adjacent properties, the Sacramento River, and nearby residences, to the extent feasible.	Project Partners	Project Partners				
Measure 3.16-4: Outdoor light sources shall be properly shielded and installed to prevent light trespass onto adjacent properties. Flood or spot lamps installed for purposes other than waterway navigation shall be directed downward when the source is visible from any offsite residential property or public roadway. To the extent that security levels would be maintained, automatic lighting shall be employed to reduce non-critical light emissions.	Project Partners	Project Partners	**Impact 3.16-4:** The Project would create a new source of substantial light or glare that would adversely affect nighttime views in the area.			