

# Yolo County Flood Control and Water Conservation District Conjunctive Use Project Feasibility Study for Expanding Yolo County Flood Control and Water Conservation District Surface Water Supplies to Agricultural Water Users in Areas of the City of Woodland

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## 1. Project Description

<b>Project Type:</b>	Groundwater/surface water planning/system improvement
<b>Location:</b>	Colusa Basin in Yolo County
<b>Proponent(s):</b>	Yolo County Flood Control and Water Conservation District (YFCF & WCD or District), farmers within the service area
<b>Project Beneficiaries:</b>	Colusa Basin Drain, Indian Valley Dam and Reservoir, Yolo-Zamora Water District (Y-ZWD)
<b><u>Total Project Components:</u></b>	Development of conveyance facilities
<b>Potential Supply:</b>	5,000 to 7,000 acre-feet per year (ac-ft/yr)
<b>Cost:</b>	\$3.1 million
<b>Current Funding:</b>	\$120,000
<b><u>Short-term Components:</u></b>	Feasibility study for expanding surface water supplies to agricultural areas northwest of the City of Woodland (City)
<b>Potential Supply (by 2003):</b>	None
<b>Cost:</b>	\$640,000
<b>Current Funding:</b>	\$120,000
<b>Implementation Challenges:</b>	Individual farmer participation and practice change; environmental issues
<b>Key Agencies:</b>	California Department of Water Resources (DWR)

## Summary

The proposed project is an in-lieu groundwater recharge or conjunctive water use project identified as an Action Item in the Water Management Plan recently adopted by the District. The purpose of the project is to: improve efficiency of the District's water supplies and water available from the Cache Creek watershed, in conjunction with the groundwater basin; increase groundwater storage; enhance the water supply of the City and agricultural water users; and avoid or minimize continuing land subsidence from groundwater extraction.

The proposed project involves improving existing irrigation canals and constructing new canals to deliver surface water, when available, to agricultural lands where only groundwater is currently used. The potential service area is shown on Figure 19B-1. Preliminarily, it appears with the District's existing surface water supplies, surface water could be delivered in lieu of agricultural groundwater pumping 50 percent of the time. Implementation of the District's proposed Cache Creek Recharge/Recovery Project would increase the reliability of the water supplied.

## District Water Supply

After completing construction of the Indian Valley Dam and Reservoir in 1975, the District determined the opportunity existed to expand the conjunctive use of surface water and groundwater. Based on preliminary analyses, the District also determined the opportunity existed to increase the overall yield of the system. In 1995, the District filed an application to appropriate up to 90,000 ac-ft in any one year as part of a groundwater recharge/recovery project and yield an average of approximately 20,000 ac-ft per year.

These opportunities and interest on the part of the District was reaffirmed when the Board of Directors (Board) adopted its Water Management Plan (Plan) in October 2000. The Plan identifies two areas with opportunities to expand conjunctive use to enhance groundwater storage and outlines two Action Items to address these areas. These two areas involve lands fully developed for agriculture and rely entirely upon groundwater for irrigation. This proposed project focuses on the area west and north of the City; the other area, the Y-ZWD, is the subject of a separate proposed project under the Sacramento Valley Water Management Agreement (Agreement). Projects to service both areas are identified as Action Items in Appendix A of the Plan and are of high priority with the Board.

## Existing Studies and Modeling

The District and City cooperatively performed reconnaissance-level evaluations of the project. The District identified alternative service areas and estimated costs for physical facilities. The City, using a groundwater model developed by the District, evaluated the impact on the groundwater basin of providing surface water supplies to agricultural water users north and west of the City. The City, which extracts 100 percent of its water supply from groundwater, determined the project could beneficially impact the groundwater basin underlying the City, and advised the District of its interest in pursuing the project.

The District's groundwater model is based on the U.S. Geological Survey (USGS) Central Valley Aquifer Project (CVAP) model, which simulates groundwater conditions from Red Bluff to Bakersfield. The USGS CVAP model, developed in 1986, features a uniform 36-square-mile grid with four aquifer layers of variable thickness, and is intended for

regional simulation. The program is capable of simulating groundwater flow in confined and unconfined aquifers in a 3-dimensional or 2-dimensional layered system. For evaluating the impact of the proposed project data sets of the model were refined including: stratigraphy data set; boundary conditions; recharge and pumping; and aquifer parameters.

### **Groundwater Basin**

Yolo County has been described with six hydrogeologic or groundwater storage units. The proposed project is within the hydrogeologic basin identified as the Lower Cache-Putah Basin. This basin is a broad low plain built mainly by Cache Creek, Putah Creek, and Willow Slough. Alluvial fan deposits of late Pleistocene and Recent Age, composed of unconsolidated clay, silt, sand, and gravel, range to 200 feet throughout the basin. The lower 100 feet include some hard silt and clay, and cemented sand and gravel of the Tehama Formation.

Spring groundwater levels in the project area in “normal” hydrologic conditions range from 40 feet to 60 feet below ground surface. Figure 19B-2 shows the spring 2000 groundwater contours for Yolo County. The general movement of groundwater in Yolo County has been from west to east; however, the area of the proposed project has experienced up to a 10-foot lowering from 1996 to 2000.

### **Short-term Component**

The short-term component of the project includes the formulation of the project with the implementation of a feasibility analysis. This is defined by a number of tasks such as managing and coordinating the project; preparing status reports; establishing a stakeholders group and conducting workshops for the group; updating the District’s water supply model and DWR’s groundwater model alternative formulation; selecting preferred alternatives; proceeding with preliminary design, cost-benefit analysis, project feasibility, and implementation scheduling; developing a monitoring program; and preparing the draft and final report.

The project involves improving the District’s existing West Adams and Acacia irrigation canals; improving China Slough, a natural drainage channel; and constructing new canals to deliver surface water to agricultural lands where only groundwater is currently used. Y-ZWD in relation to the District area is shown on Figure 19B-3. In 1991, the District and Y-ZWD performed preliminary work related to implementing a joint conjunctive use project. Critical to the success of the project is participation by the respective landowners/farmers. An important aspect of the feasibility study will be public involvement and outreach to the farmers.

### **Long-term Component**

The primary purpose of this evaluation is to evaluate the potential for this project to provide water supply benefits in the short-term (by end of 2003). As part of this initial evaluation, potential long-term components of the proposed project (defined as any part of the project proceeding past or initiated after December 2003) have been considered on a conceptual level. Further consideration and technical evaluation of long-term component feasibility and cost will occur as the next level of review under the Sacramento Valley Water Management

Agreement. Long-term-component project descriptions are included in these short-term project evaluations only as a guide to the reader to convey overall project intent.

This includes mainly the preparation of environmental documents and the design-construction phase of the project. The project requires California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) documents with permitting compliance. Preparation of a design memo with construction plans and specifications; contract bidding, award, and administration; construction quality assurance; and installation of groundwater monitoring facilities are also part of the total project component.

## **2. Potential Project Benefit/Beneficiaries**

The benefits of implementing the proposed project include more efficient use of the District's water supply from the Cache Creek system, more effective utilization of the groundwater basin along Cache Creek, and maintaining groundwater levels in the vicinity of the City, thus minimizing land subsidence in the future. To the extent flood spills are minimized from Indian Valley Dam and Reservoir, the District will have optimized utilization of the watershed for water supply purposes. With respect to land subsidence, 2 to 3 feet have been documented in the area extending from Davis to north of the City, with five feet occurring near the Colusa Basin Drain between Zamora and Knights Landing.

The results of modeling work performed as part of the City's 1999 Water Master Plan indicated the following:

- Groundwater level drops of 1, 5, and 7 feet for three respective scenarios without the proposed project: Existing Conditions, 2020 Demands, and General Plan Buildout.
- The City's groundwater pumping cost could decrease by up to \$15,000 to \$20,000, depending on the amount of surface water delivered to the proposed project area.

## **3. Project Costs**

The cost opinions shown, and any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation from the information available at the time of the estimate. It is normally expected that cost opinions of this type, an order-of-magnitude cost opinion, would be accurate within +50 to -30 percent. Project costs were developed at a conceptual level only, using data such as cost curves and comparisons with bid tabs and vendor quotes for similar projects. The costs were not based on detailed engineering design, site investigations, and other supporting information that would be required during subsequent evaluation efforts.

The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. As a result, the final project costs will vary from the opinions presented here. Because of these factors, project feasibility, benefit/cost ratios, risks, and funding needs must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

The District and City have performed preliminary work sufficient to determine a favorable interest in proceeding with the proposed project. Table 19B-1 is an estimated budget to implement the proposed project. The budget is divided into two phases: Phase 1, Project Formulation and Feasibility Analysis, and Phase 2, Design and Construction.

**TABLE 19B-1**  
Cost Estimates  
*Yolo County Flood Control and Water Conservation District/City of Woodland Conjunctive Water Use Project*

<b>Budget</b>		
<b>Task/Activity</b>		<b>Amount (\$)</b>
<b>Short-term Component-Project Formulation and Feasibility Analysis Implementation</b>		
1.0	Perform Project Management and Coordination	14,400
2.0	Prepare Status Reports	5,800
3.0	Establish Stakeholders Group	6,800
4.0	Conduct Stakeholder Workshops	28,300
5.0	Update District's Water Supply and Groundwater Model	200,000
6.0	Formulate and Evaluate Alternatives	51,000
7.0	Select Preferred Alternative	4,800
8.0	Prepare Preliminary Design	30,000
9.0	Perform Environmental Assessment and Identify Permits Required	33,000
10.0	Perform Benefit Assessment	76,800
11.0	Determine Opinion of Probable Cost	10,600
12.0	Determine Project Feasibility	13,400
13.0	Develop Implementation Schedule	2,400
14.0	Develop Monitoring Program	9,100
15.0	Prepare Draft Report	18,600
16.0	Prepare Final Report	9,000
	<b>Subtotal</b>	<b>514,000</b>
	Engineering, Environmental, Construction Management and Admin. (25%)	128,500
	Short-term Project Total	642,500
<b>Long-term Component: Design and Construction</b>		
1.0	Prepare CEQA/NEPA and Permitting Compliance	40,000
2.0	Prepare Design Memorandum	10,000
3.0	Prepare Construction Plans and Specifications	80,000
4.0	Bid, Award Contract, Construct Project Facilities	1,230,000
5.0	Perform Contract Administration and Construction Quality Assurance	75,000
6.0	Install Groundwater Monitoring Facilities	30,000
	<b>Subtotal</b>	<b>1,465,000</b>
	Construction Contingency (30%)	439,500
	Total	1,904,500
	Environmental Mitigation (5%)	95,225
	Engineering, Environmental, Construction Management and Admin. (25%)	476,125
	Long-term Project Total	2,475,850
	<b>Project Total (Short-term and Long-term)</b>	<b>3,118,350</b>
	Funding Provided by YCFCWCD and City of Woodland	120,000
	Funding Requested - Phase 8	2,998,350

## 4. Environmental Issues

As noted in Section 2, this project is anticipated to provide benefits in the form of increased reliability of water supply, more effective utilization of the groundwater basin, and maintaining groundwater levels.

Project implementation would also result in impacts to the environment, notably through the construction phase of the project. Construction-related impacts would be similar to other, common construction projects that occur near seasonal drainages and waterways. It is likely that the appropriate level of environmental documentation necessary for this project would be a Mitigated Negative Declaration.

Implementation of the project would also require issuance of permits from various regulatory agencies. Following is a summary of the likely permitting requirements. Additional permitting requirements may be identified pending further project refinement.

- **Regional Water Quality Control Board** – Large amounts of earthwork will be required for the construction of the 60-inch pipe. Depending upon project configuration and location, Water Quality Certification under the federal Clean Water Act may be required for construction.
- **Federal and State Endangered Species Act** – Consultation with state and federal resource agencies (e.g., USFWS, NMFS, CDFG) may be required to protect special-status species and their habitat.
- **U.S. Army Corps of Engineers (COE)** – The project may affect wetland habitat and require a permit for discharge of dredged or fill material pursuant to Section 404 of the federal Clean Water Act.
- **State Reclamation Board** – The project may be subject to rules regarding encroachment into existing floodways.
- **Federal Emergency Management Agency (FEMA)** – Letters of map revision would need to be filed with FEMA for projects that affect Flood Insurance Rate Maps.
- **California Department of Fish and Game** – If alterations to streams or lakes are required as part of project implementation, a Streambed or Lakebed Alteration Agreement may be required.
- **Local governments and special districts** – Specific agreements for rights-of-way, encroachments, use permits, or other arrangements may need to be made with local entities in the vicinity of the project.

A draft CEQA environmental checklist has been prepared for this proposed project and is included as an attachment to this evaluation. The checklist provides a preliminary assessment of the environmental areas of concern, as well as areas that are not likely to be of concern, associated with this project. The checklist would be finalized as part of the environmental compliance required for project implementation.

## 5. Implementation Challenges

The major challenge in implementing the project will be garnering the willing participation of individual farmers. The challenge here, similar to numerous other areas, is to have farmers that have only pumped groundwater change their practices and pump groundwater when sufficient surface water is not available. This practice will not be easy to change and would require a good faith commitment on the part of all involved.

### Key Stakeholders

The key stakeholders in the proposed project are the District, the City, and farmers within the potential service area. Without the full support and willingness of the farmers to utilize surface water supplies when available, the proposed project cannot be implemented. The increments of water supplies involved may appear small; however, the benefits of effecting a collaborative process that allows the proposed project to be implemented, can be significant in terms of relationships and community confidence to address other projects and programs to enhance the management of available water supplies in the future.

A public involvement/stakeholders process would be implemented through the Water Resources Association of Yolo County of which the District and City are members.

A number of environmental impacts must be addressed for a full-scale long-term conjunctive use program in Yolo County. Terrestrial impacts are not anticipated to be significant, and recharge facilities would be sited in areas of previous agricultural activity. However, groundwater level induce impacts would need to be fully examined to determine the secondary impacts associated with varying groundwater levels. In addition, surface water impacts on fisheries because of changed flow regimes would need to be examined.

## 6. Implementation Plan

It is proposed that the project be implemented in two phases, as discussed previously. Phase 1, Project Formulation and Feasibility Analysis, would involve a very deliberate collaborative process involving the stakeholders and general public. The success of this project and the process will aid significantly in implementing similar water management and monitoring programs in other areas of Yolo County.

Below is a description of the tasks anticipated to bring the project to a successful conclusion. The proposed schedule is presented on Figure 19B-4.

### Phase 1 – Project Formulation and Feasibility Analysis

#### 1. Project Management

**1a. Project management** – The work would be managed by a project manager, in general conformance with the project schedule (Figure 19B-4). The project manager will make and track assignments, overall work, and budget. A Project Advisory Group comprised of representatives of the District, City, and stakeholders would be established to provide input and guidance during the course of the feasibility study.

**1b. Coordination with stakeholders and other agencies** – Once the stakeholders group is established, regular communication would be maintained to keep interested parties

apprised of the work. Additionally, the Water Resources Association of Yolo County, the City's Chamber of Commerce Water Resources Committee, and the Farm Bureau would be kept apprised of the study on a regular basis.

**2. Status reports** – The District would prepare a monthly status report. The report would document the status of the work in relation to the schedule and highlight notable items. Also, the status report would document the budget and highlight apparent or potential problems affecting the scope of work or schedule. Quarterly reports would be prepared for the DWR in keeping with the requirements of the grant program.

**3. Stakeholders group** – At the onset of the work, a stakeholders group would be established. The stakeholders group would be convened at timely intervals to review the project purpose, assist in configuring the scope of the project, and fundamentally to assist in defining critical thresholds among water users to determine the financial feasibility of the project.

The principal stakeholders in the proposed project are the individual farmers, the District, and the City. The names and addresses of all property owners within the proposed project service area would be obtained from the Assessor's office. All landowners within the vicinity of the proposed project would be contacted and informed of the project and to determine the interest and willingness to participate as a stakeholder. Notice would also be provided in the local newspaper, *The Daily Democrat*, to ensure the best possible participation of those interested in the project.

**4. Stakeholder workshops** – Workshops would be conducted at strategic times during the study to inform the stakeholders of the work, work progress, and in particular to gain from them, the critical items affecting the success of the project. Input received from the stakeholders would assist in formulating alternatives and details of the project.

**5. District's water supply and groundwater model** – A reservoir operations model was developed for the District in 1976, and updated in the early 1980s, when the District was investigating hydroelectric projects. The model would be updated for this project to facilitate a better understanding of the District's water supply system (Clear Lake, Indian Valley, and Cache Creek). The updated model would be used to assess the reliability of its surface water supply and the benefits to groundwater storage. There have been years when the District has little or no surface water supply. During these periods, groundwater supplies are used entirely to meet agricultural water needs. The updated model may be converted to HEC-5 or another public domain reservoir operations model that can accommodate power operations. Additionally, the District's groundwater model, discussed under the Project Description, would be updated and refined to facilitate evaluating the recharge/recovery potential along Cache Creek and the impacts of the proposed project to support evaluating the environmental impact.

**6. Alternative formulation and evaluation** – Alternatives for delivering irrigation water to the potential service areas would be formulated and reviewed with impacted landowners to determine the location and type of facilities to construct (i.e., open channels, pipelines, gravity or pumped turnouts). The reconnaissance-level work performed by the District would be used to assist in formulating alternatives. With the alternative alignments confirmed, topographic surveys would be performed to determine layouts, costs, and real

estate needs. The manner in which easements and rights-of-way for the construction and ongoing operation and maintenance should be handled would be determined. Comparative cost estimates and qualitative assessments for various service areas would be made. Landowner participation and acceptance would weigh heavily in the ranking of the alternatives.

**7. Preferred alternative selection** – Based upon the evaluation of alternatives performed under task 6 and the response from affected landowners, a preferred alternative would be selected. This alternative would be defined in more detail and subject to more detailed evaluation and assessment in subsequent tasks.

## **8. Preliminary design**

**8a. Supplemental topographic surveys** – The topographic surveys obtained in task 6 would be supplemented, as deemed necessary, to adequately address the preferred alternative.

**8b. Feasibility-level design drawings** – The project facilities, including canals, pipelines, water control structures, and turnouts, would be sized and engineering drawings would be prepared. Plan and profile drawings would be prepared for the canals and pipelines and typical layouts would be prepared for the various structures.

**9. Environmental assessment and permitting** – With the scope of the project defined, an initial study would be prepared to assess the environmental impacts and determine whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is needed. The District would be the lead agency for CEQA compliance issues. It is not apparent at this time that NEPA compliance issues exist. If NEPA needs to be addressed, a determination of the lead agency would need to be made. It is not anticipated that the CEQA process would be completed in this feasibility study. Prior to project implementation, however, the CEQA process would be completed. Similar to CEQA, the NEPA process would be completed after the feasibility study and prior to project implementation. As part of this task, the permits required to construct the project would be identified. Encroachment permits would be required at county road crossings.

**10. Benefit assessment** – The primary purpose of the proposed project is to make more efficient use of the District's surface water supplies by expanding the conjunctive use of surface water and groundwater, thereby increasing the supply of groundwater in storage for use during dry periods. The impact of the project on the groundwater basin would be evaluated using the District's Cache Creek Recharge and Recovery Groundwater Model, which is based upon the USGS CVAP model, similar to the City's evaluation in 1999 (Appendix B). The USGS CVAP model, thus the District's model, uses the 1961 to 1977 hydrologic period for calibration. For the feasibility study, the calibration period would be extended to other hydrologic conditions and the groundwater basin subsequent to the operation of the District's Indian Valley Dam and Reservoir in 1976.

The impact of the project on the groundwater basin would be evaluated to determine the magnitude of increased storage and changes in groundwater levels, and relative effects on subsidence.

**11. Opinion of probable cost** – A feasibility-level Opinion of Probable Cost would be determined for the preferred project. The costs associated with construction, engineering,

contract administration, interest during construction, land acquisition, and environmental mitigation would be estimated.

**12. Project feasibility** – Implementation of the proposed project would dictate the project is economically feasible, financially feasible, and acceptable to the landowners. Accordingly, each aspect of the project feasibility and acceptance would be determined.

**12a. Economic and financial feasibility** – On average, it is estimated the project, depending upon its final configuration, could augment groundwater storage in the order of 5,000 to 7,000 ac-ft per year. The economic feasibility would be evaluated in relation to cost of new supplies elsewhere in California. The cost of the water effectively put in storage would be approximately \$500/ac-ft.

Recognizing the project could be economically feasible and not financially feasible, special attention would be devoted to the District, City, and landowners to determine the threshold for financial feasibility. The financial feasibility certainly would be affected by the terms and conditions of available funding and cost-sharing arrangements with the District, City, landowners, and cost of water delivered to the water users.

**12b. Project acceptance** – The District would hold a special stakeholders meeting to determine overall acceptance of the project. The results of this meeting would be documented and incorporated into the feasibility report. Pending the results of the financial feasibility evaluation and project acceptance, the District would pursue funding through DWR's Groundwater Storage Construction Grant Program.

**13. Implementation schedule** – Given a declaration of financial feasibility from landowners and project acceptance from the stakeholders group, participants of which would also be landowners, the District would prepare an implementation schedule. The schedule would identify all tasks required to implement the project. The tasks would include environmental documentation and compliance, obtaining permits, obtaining funding, preparing construction plans and specifications, and acquiring easements and rights-of-way.

**14. Monitoring program** – A program to monitor impacts from the project would be developed. This would include documenting surface water delivered, the quality of surface water delivered, groundwater, and groundwater levels at an array of wells. The groundwater monitoring network would include wells currently monitored by the District and the City, and wells monitored by the aggregate industry along Cache Creek. To the extent new monitoring wells are required, they would be identified for implementation in Phase 2.

This monitoring program would be a component of the District's surface water and groundwater monitoring program implemented as Action Items D and E of the District's Water Management Plan (Appendix A). The monitoring program, at least the groundwater element, would be implemented in advance to document baseline conditions and confirm the format for compiling and presenting data.

**15. Draft report** – A draft feasibility report would be prepared and made available to the stakeholders group, general public, and DWR for review and comment. A written response would be provided to all comments. The comments and responses would be reviewed at a meeting of the stakeholders group.

**16. Final report**— The study would be finalized. Copies of the comments and responses would be included as an appendix.

## **Phase 2 - Design and Construction**

**1. CEQA/NEPA and permitting compliance**— Documentation for CEQA/NEPA compliance would be prepared consistent with the results from Phase 1, Task 9. Although it is anticipated that a Mitigated Negative Declaration and Finding of No Significant Impact would suffice, this remains to be determined. Encroachment permits from the county and Caltrans would be required for construction of facilities under county roads and Highway 16.

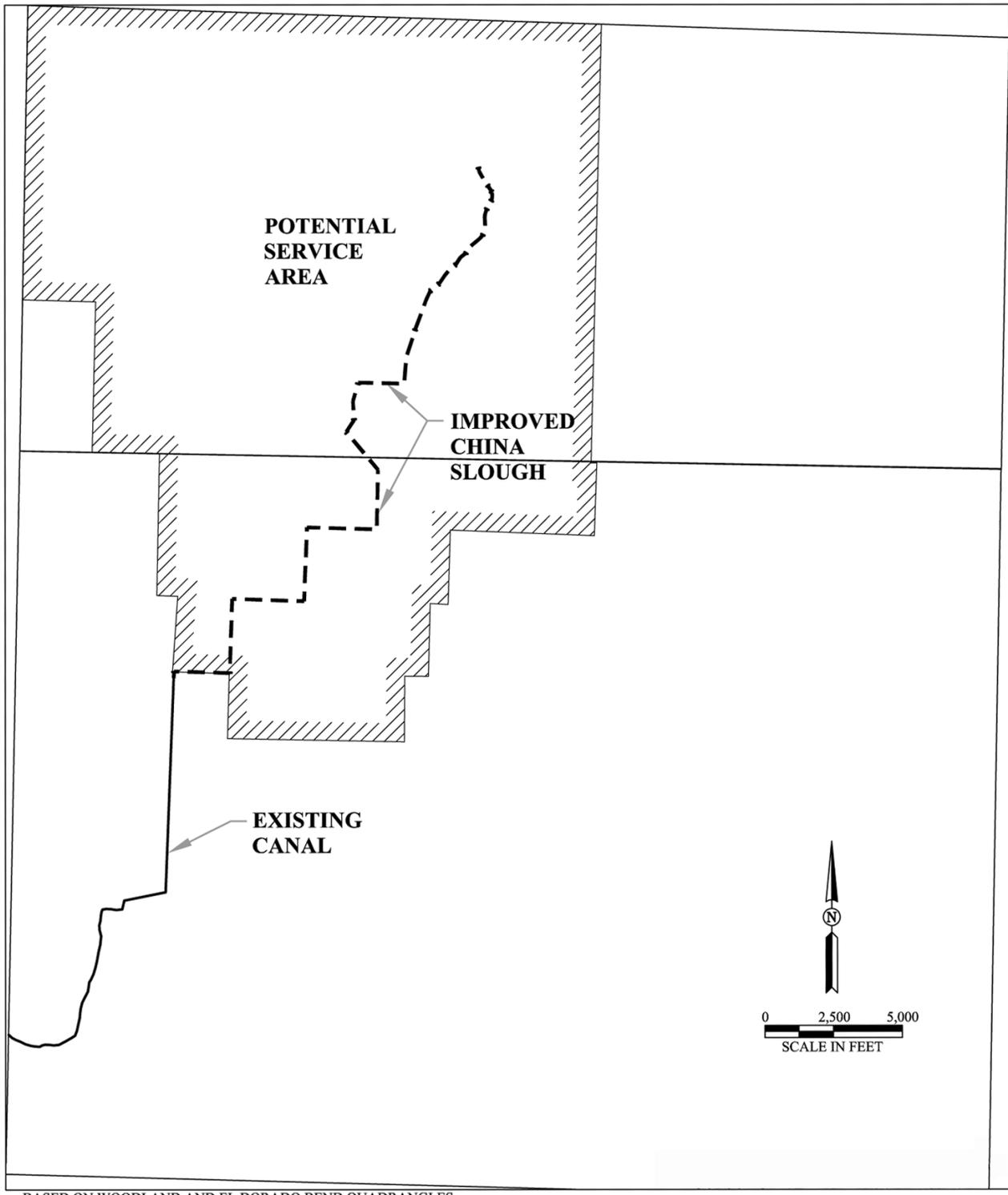
**2. Design memorandum**— Using information developed in Phase 1, a Design Memorandum or Basis for Design would be prepared to guide the design and sizing of project facilities.

**3. Construction plans and specifications**— Construction plans and specifications would be prepared for the selected project. Submittals for review by the District and City would be made at 50 percent, 90 percent, and 100 percent. The specifications would be prepared in CSI format. The specifications would be combined with the District's General Conditions, Notice to Bidders, Contract, etc., for a complete bid package. Separate construction plans and specifications would be prepared for the groundwater monitoring wells.

**4. Contract bid and award, and facilities construction** — The project would be advertised and bid following the District's rules and regulations. The lowest responsible bidder would be selected for construction of the project. The same would be done for constructing the groundwater monitoring wells.

**5. Contract administration and construction quality assurance**— A quality assurance program would be developed and implemented commensurate with the constructed facilities. The construction contract would be administered consistent with the Contract Documents and progress payments processed accordingly.

**6. Groundwater monitoring facilities**— If deemed necessary in Phase 1, Task 14, supplemental wells would be installed.

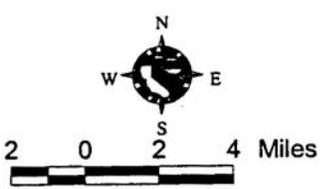
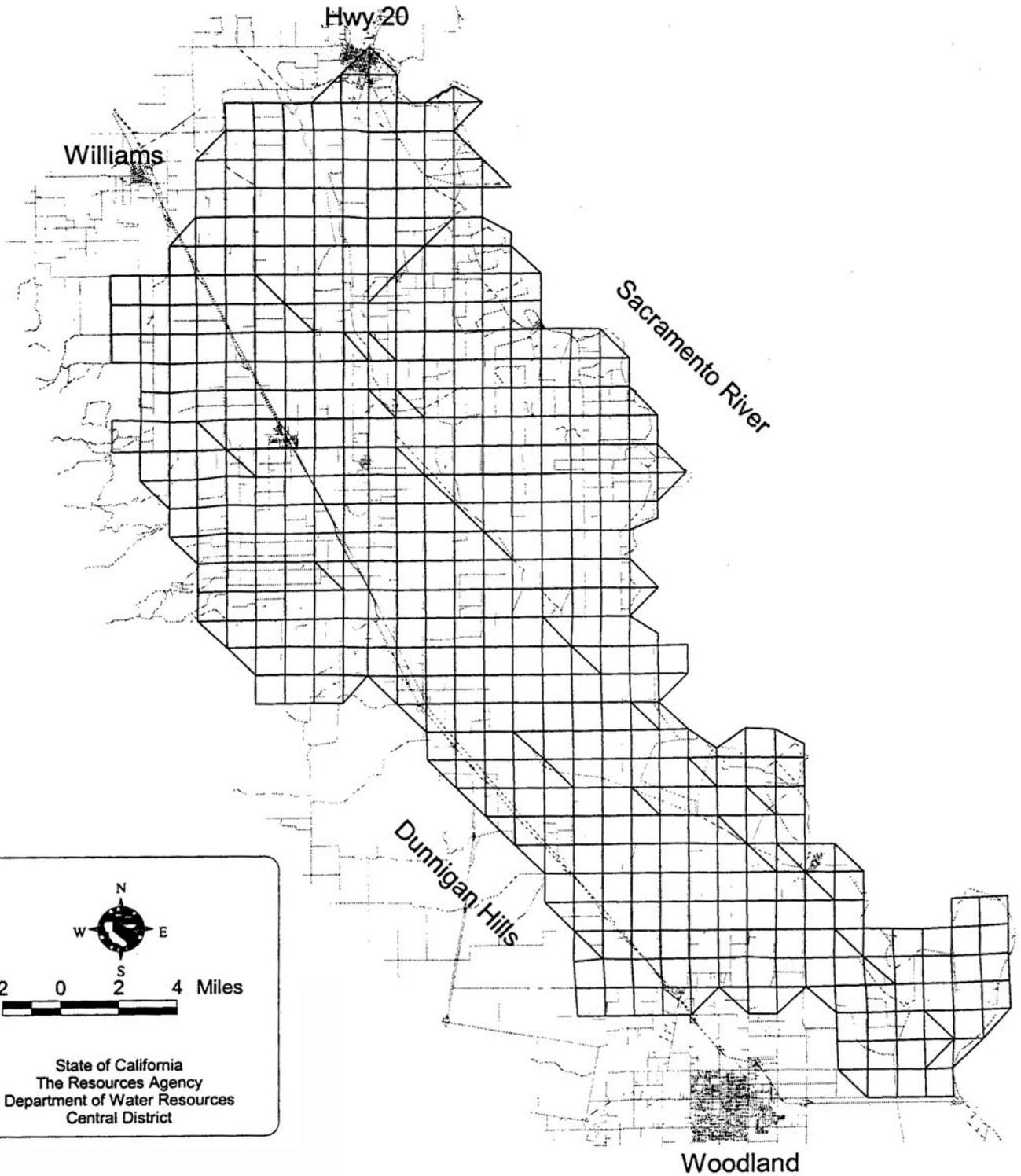


BASED ON WOODLAND AND EL DORADO BEND QUADRANGLES

**FIGURE 19B-1  
PROJECT LOCATION MAP**

YCFC & WCD/CITY OF WOODLAND CONJUNCTIVE WATER USE PROJECT  
SHORT-TERM PROJECT EVALUATIONS  
SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

**CH2MHILL**  
in association with  
**MONTGOMERY WATSON HARZA**  
**MBK**  
**SWRI**

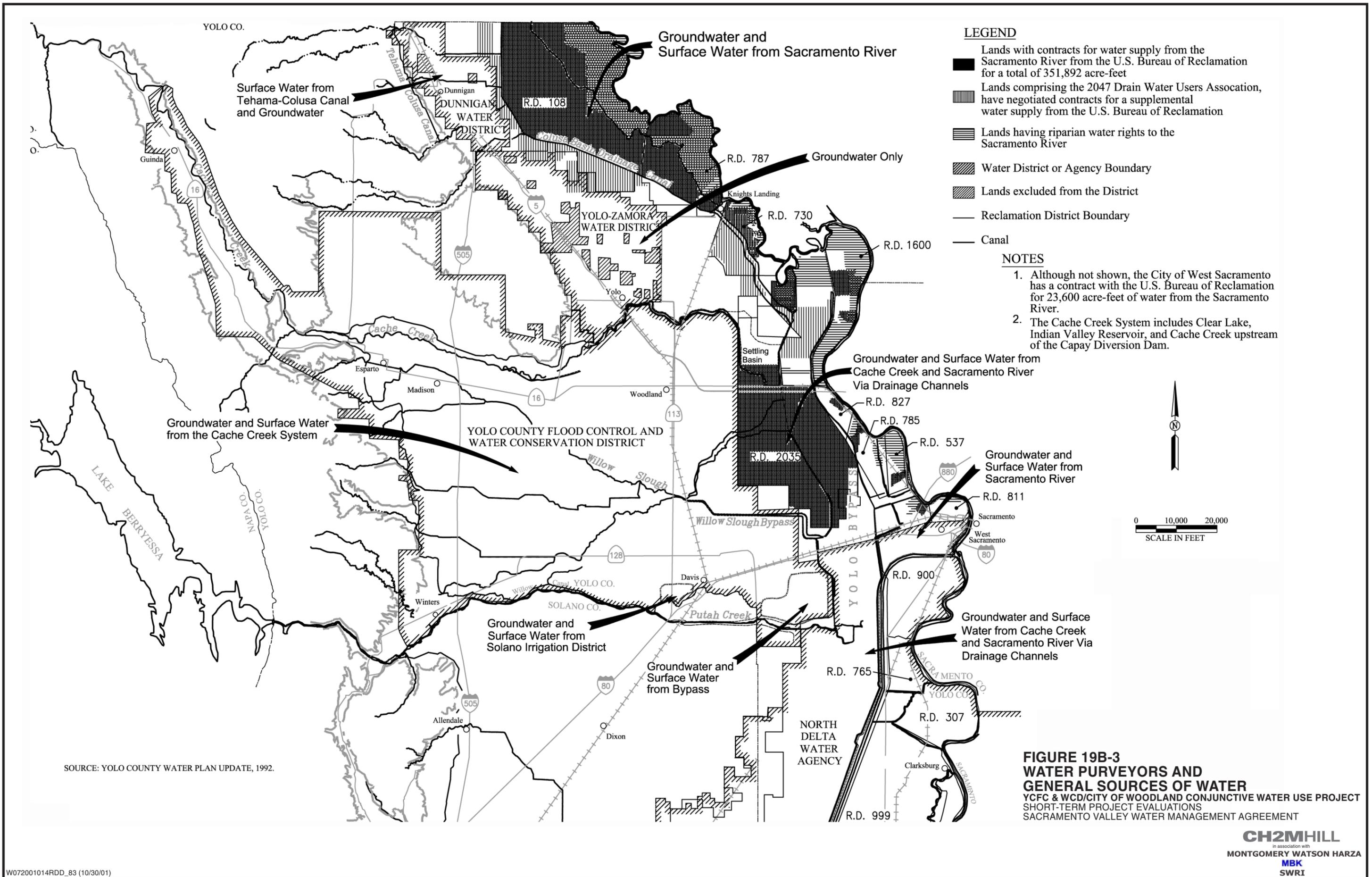


State of California  
 The Resources Agency  
 Department of Water Resources  
 Central District

**FIGURE 19B-2  
 LOWER COLUSA BASIN  
 GROUNDWATER MODEL GRID**

YCFC & WCD/CITY OF WOODLAND CONJUNCTIVE WATER USE PROJECT  
 SHORT-TERM PROJECT EVALUATIONS  
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

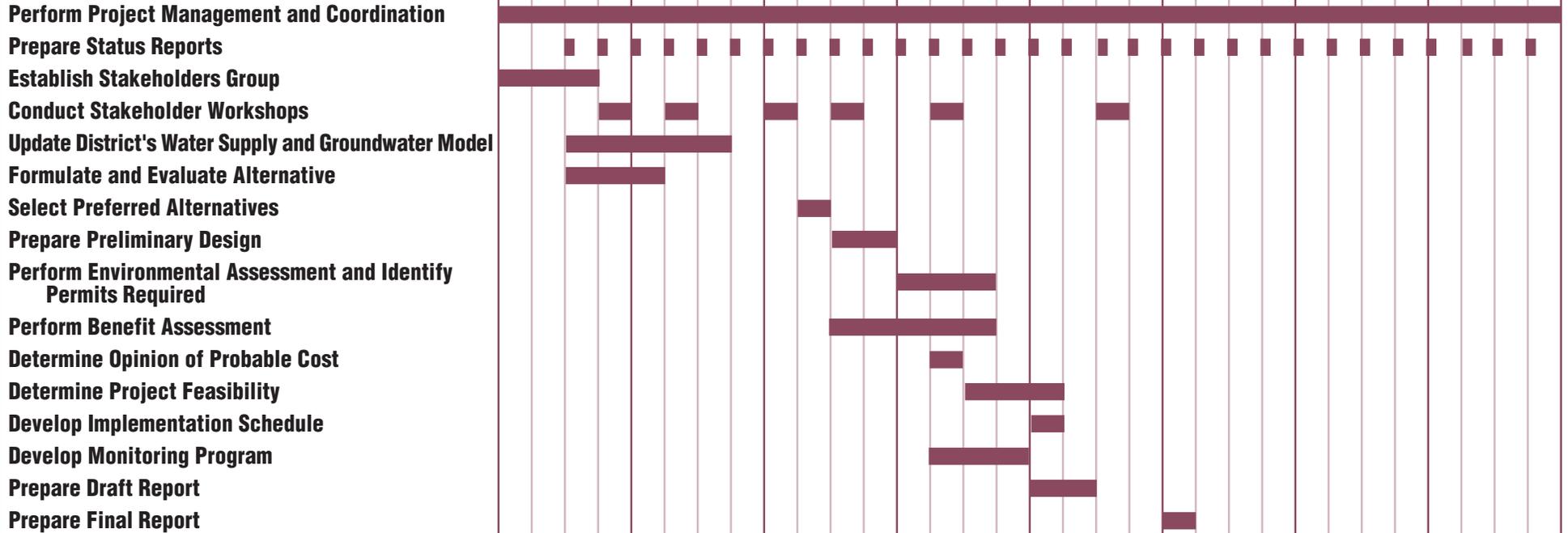
**CH2MHILL**  
in association with  
**MONTGOMERY WATSON HARZA**  
**MBK**  
**SWRI**



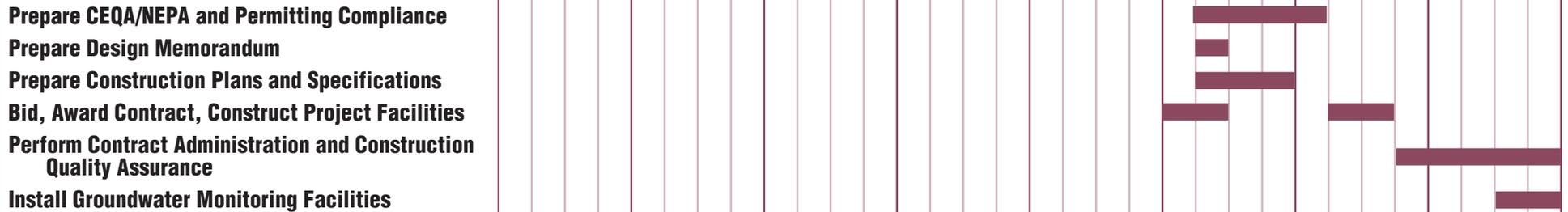
SOURCE: YOLO COUNTY WATER PLAN UPDATE, 1992.

**TASKS**

**PHASE 1 - PROJECT FORMULATION AND FEASIBILITY ANALYSIS IMPLEMENTATION**



**PHASE 2 - DESIGN AND CONSTRUCTION**



**FIGURE 19B-4**  
**PRELIMINARY IMPLEMENTATION SCHEDULE**  
 YCFC & WCD/CITY OF WOODLAND CONJUNCTIVE WATER USE PROJECT  
 SHORT-TERM PROJECT EVALUATIONS  
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

**Project 19B – Draft CEQA  
Environmental Checklist**

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# Project 19B—Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality            |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology/Soils          |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality            | <input type="checkbox"/> Land Use/Planning      |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population/Housing     |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems     | <input type="checkbox"/> Mandatory Findings of Significance |   |

## Determination:

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
<u>I. AESTHETICS</u> —Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Short-term impacts from increased noise and dust emissions could occur as a result of construction. Mitigation measures implemented for noise and air quality would reduce any impacts to a less than significant level.</i>				
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>II. AGRICULTURE RESOURCES</u> —Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>III. AIR QUALITY</u> —Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Increased air emissions could result from construction of the project. Implementation of best management practices (BMP) during construction would reduce the amount of emissions, and reduce the impact to a less than significant level.</i>				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>IV. BIOLOGICAL RESOURCES</u> —Would the project:				

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
<p>a) Have a substantial adverse effect, 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?</p> <p><i>Known Endangered Species Act (ESA)-listed species such as the valley elderberry longhorn beetle and the giant garter snake are within the area. Additionally, sensitive riparian habitat exists in and around the project site. Project construction scheduling would have to reflect environmental regulatory requirements including any limitation on windows of construction.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?</p> <p><i>See response to IV (a) above.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act, (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</p> <p><i>See response to IV (a) above.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or, impede the use of native wildlife nursery sites?</p> <p><i>See response to IV (a) above.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</p> <p><i>The removal of some vegetation may be required for construction of the project. Mitigation measures would be implemented to replace vegetation removed during construction, which would reduce the impact to a less than significant level.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</p> <p><i>See response to IV (a) above.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>V. CULTURAL RESOURCES</b> —Would the project:				
<p>a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</p> <p><i>A significant impact would occur if a cultural resource were to be disturbed by activities associated with project development. In the event that an archaeological resource was discovered, appropriate measures would be undertaken to minimize any impacts.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? <i>See response to V (a) above.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? <i>See response to V (a) above.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries? <i>See response to V (a) above.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>VI. GEOLOGY AND SOILS—Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>VII. HAZARDS AND HAZARDOUS MATERIALS—Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  <i>Construction equipment would require the use of potentially hazardous materials. The potential for a significant hazardous material spill would be unlikely because of the limited amount of such materials that would be used onsite. If a spill or release of such materials were to occur, it could potentially be significant unless BMPs were implemented.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><u>VIII. HYDROLOGY AND WATER QUALITY—</u></b>				
Would the project:				
a) Violate any water quality standards or waste discharge requirements? <i>Increases in turbidity would be likely to occur during any in-stream construction work. Additionally, there is a potential for an increase of erosion and sedimentation from construction activity. This could be a significant impact and would require an erosion control plan and the implementation of BMPs to reduce any impacts to waterways in and around the project area.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><u>IX. LAND USE AND PLANNING</u>—Would the project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Short-term impacts from increased noise and dust emissions could occur as a result of construction. Mitigation measures implemented for noise and air quality would reduce any impacts to a less than significant level.</i>				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>X. MINERAL RESOURCES</u>—Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><u>XI. NOISE</u>—Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Short-term noise levels are expected to increase for the duration of construction. These noise increases would be temporary, and mitigation measures would be implemented to reduce any impact to a less than significant level.</i>				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XII. POPULATION AND HOUSING—Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XIII. PUBLIC SERVICES—Would the project:</b>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>XIV. RECREATION—Would the project:</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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<u>XV. TRANSPORTATION/TRAFFIC</u> —Would the project:				
a) Cause an increase in traffic, which is substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>XVI. UTILITIES AND SERVICE SYSTEMS</u> —				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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<u>XVII. MANDATORY FINDINGS OF SIGNIFICANCE</u>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>