

**Meeting of the Central Valley Flood Protection Board  
April 27, 2012**

**Staff Report – Encroachment Permit**

**City of Yuba City  
Mitigation Plantings, Sutter County**

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**1.0 – ITEM**

Consider approval of Permit No. 18570-1 (Attachment B)

**2.0 – APPLICANT**

Yuba City

**3.0 – LOCATION**

The mitigation planting site is located east of Yuba City near the low water channel about 3,100 feet downstream from the new Yuba City Intake Facility.  
(Feather River, Sutter County, see Attachment A)

**4.0 – DESCRIPTION**

The applicant proposes to plant an additional 26-trees and 10-shrubs to mitigate for the impacts from a new intake facility for the City of Yuba City on the right (west) bank overflow area of the Feather River. Permit No.18570 was issued for the intake facility which included six cottonwood trees.

**5.0 – PROJECT ANALYSIS**

To compensate for valley riverine aquatic and riparian habitat losses resulting from the new Yuba City Water Intake Facility (Permit No.18570), a total of 0.264 acre of riparian habitat is required to be planted in close proximity to the new intake facility. The following plantings will satisfy this requirement: 14 box elders, 2 cottonwoods, 2 valley oaks, 8 black willows, plus 7 mulefat shrubs and 3 coffeeberry shrubs. These 36 new plantings are in addition to the 6 cottonwoods that were included in the approval of the

new Yuba City Water Intake Facility. The 36 additional plants will be planted approximately 0.5-miles downstream from the new intake facility. The 6 cottonwoods approved in Permit No. 18570 will be planted immediately adjacent to the new intake facility.

The City will monitor and maintain the new plantings during the three year establishment period that requires a minimum survival rate of 75%. Maintenance activities past the establishment period will be limited to tree preservation and weed control.

### **5.1 – Hydraulic Analysis**

The proposed mitigation site is located approximately 3,200-feet south of the new Yuba City Intake Facility. The Feather River floodway is approximately 1-mile wide at this location with a low water channel width of approximately 350-feet.

A hydraulic analysis was performed using the Corps HEC-RAS one-dimensional model to compare with and without project conditions. The analysis compares water surface elevations and velocities at the mitigation site for three different flood events: 1) Corps' design flow of 210,000-cfs, 2) 100-year event, 3) 200-year event. A sensitivity analysis was also performed by incorporating a +25% variation to the roughness values used in the model.

Results of the analysis show no increase in water surface elevations for all three events and a maximum velocity increase of 0.08 cubic feet per second for the 200-year event. The increase in flow velocity is localized and considered insignificant.

### **5.2 – Geotechnical Analysis**

The scope of the project does not require a geotechnical analysis.

## **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

The comments and endorsements associated with this project from all pertinent agencies are shown below:

- Levee District 1 – Sutter County endorsed the project on January 9, 2012.
- The U.S. Army Corps of Engineers 208.10 comment letter has not been received for this application. Staff anticipates receipt of a letter indicating that the USACE District Engineer has no objection to the project, subject to conditions. Upon

receipt of the letter, staff will review to ensure conformity with the permit language and incorporate it into the permit as Exhibit A.

## **7.0 – CEQA ANALYSIS**

Board staff has prepared the following CEQA Findings:

The Board, as a Responsible Agency under CEQA, has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND, SCH No. 2009112013, November 2009), and the Mitigation and Monitoring Plan for the Feather River Fish Screen Project, prepared by the lead agency, Yuba City. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2012/04-27-2012.cfm> under a link for this agenda item. The documents are also available for review in hard copy at the Board and Yuba City offices.

The City of Yuba has determined that the project would not have a significant effect on the environment and filed a Notice of Determination on January 12, 2010 with the State Clearinghouse. On February 7, 2012, the City of Yuba adopted resolution 12-009 approving an addendum to the Initial Study/Mitigated Negative Declaration including the mitigation of 0.264 acres of riparian habitat for the Feather River Fish Screen Project.

Board staff finds that although the proposed project could have a potentially 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. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's Mitigation and Monitoring Plan and address impacts to agriculture, air quality, biological resources, cultural resources, geologic hazards, hazardous materials, traffic and transportation, and water quality. The description of the mitigation measures are further described in the adopted Mitigation and Monitoring Plan.

## **8.0 – SECTION 8610.5 CONSIDERATIONS**

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

The mitigation plantings will have no effect on the entire State Plane of Flood Control.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

There will be no effect to the project from future events.

## **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt the CEQA findings and approve the permit, conditioned upon receipt of a U.S. Army Corps of Engineers comment letter indicating that the District Engineer has no objection to the project, subject to conditions, and direct staff to file a Notice of Determination with the State Clearinghouse.

## **10.0 – LIST OF ATTACHMENTS**

- A. Location Maps and Photos
- B. Draft Permit No. 18570-1
- C. Drawings

Design Review:

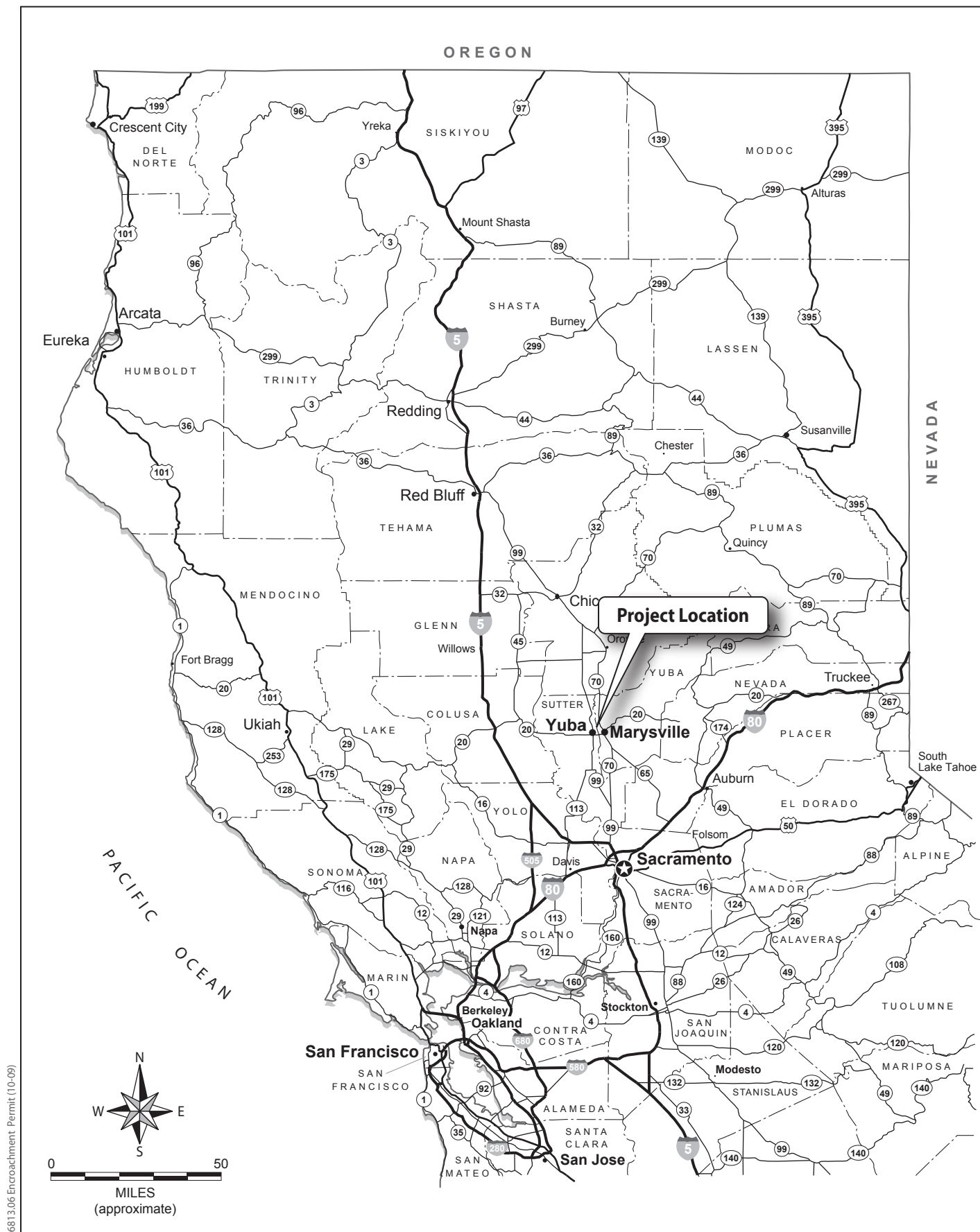
Environmental Review:

Document Review:

Gary W. Lemon P.E.

James Herota / Andrea Mauro

Mitra Emami P.E., Len Marino P.E.



**Figure 1**  
**Regional Location**



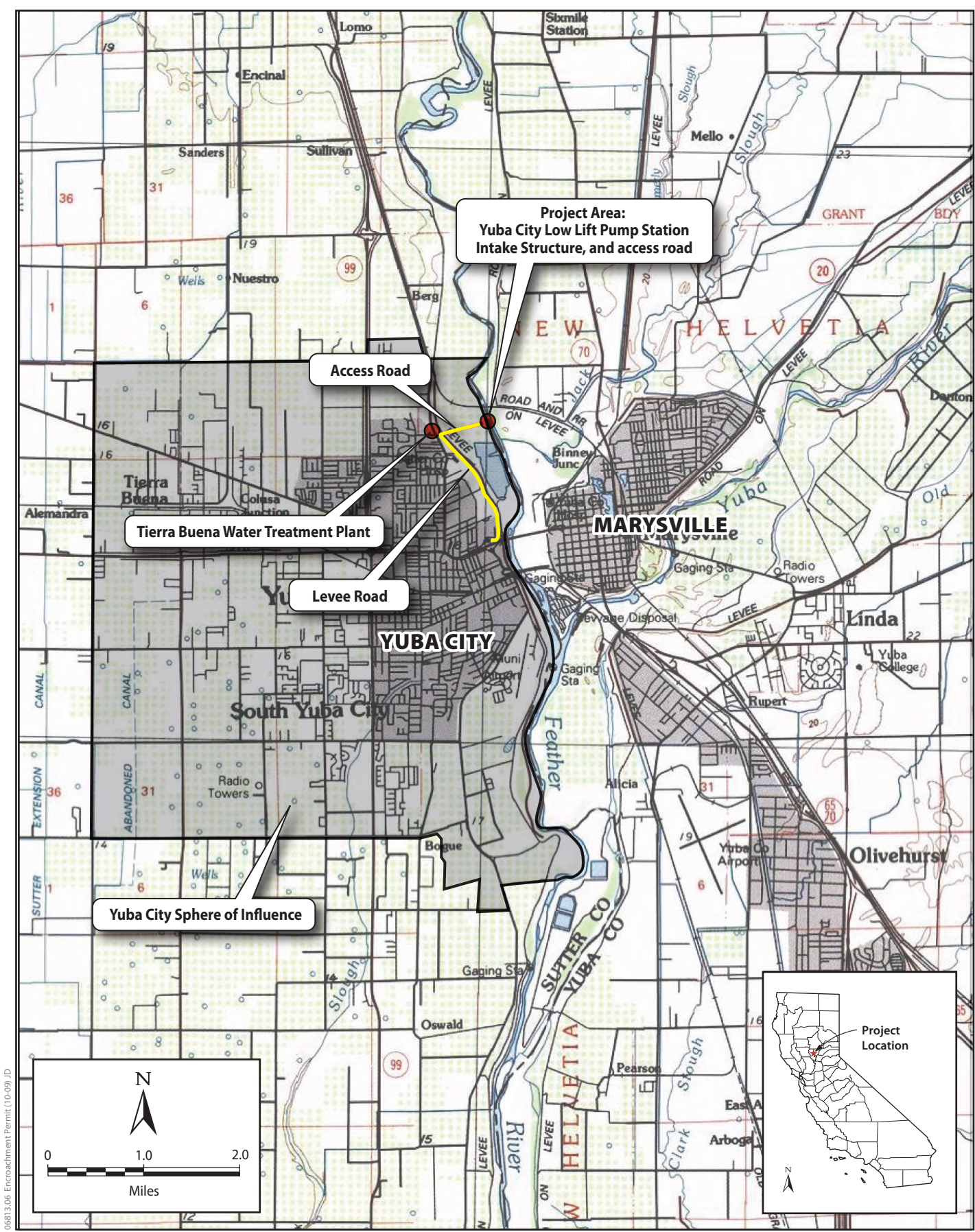


Figure 2  
Project Vicinity



Figure 3. Downstream Mitigation Site



Figure provided by Yuba City; Reference ICF International

The added vegetation at the downstream mitigation site consists of 36 new trees. Detailed information regarding the proposed vegetation is shown in Table 1. The proposed vegetation may affect the flow characteristics of the Feather River by increasing the hydraulic roughness coefficient. Since the project does not include any proposed grading, the physical geometry of the HEC-RAS cross section does not change.

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**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18570-1 BD**

**This Permit is issued to:**

City of Yuba City  
701 Northgate Drive  
Yuba City, California 95991

To plant an additional 26-trees and 10-shrubs to mitigate for the impacts from the new Yuba City Intake Facility on the right (west) bank overflow area of the Feather River. The mitigation planting site is located east of Yuba City near the low water channel about 3,100 feet downstream from the Yuba City Intake Facility (Section 11, T15N, R3E, MDB&M, Levee District 1 Sutter, Feather River, Sutter County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

**(SEAL)**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Executive Officer

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

#### **SPECIAL CONDITIONS FOR PERMIT NO. 18570-1 BD**

**THIRTEEN:** All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

**FOURTEEN:** The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**FIFTEEN:** The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**SIXTEEN:** The Central Valley Flood Protection Board, Department of Water Resources, and Levee District No. 1-Sutter County shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

**SEVENTEEN:** No construction work of any kind shall be done during the flood season from November 1st to April 15th without prior approval of the Central Valley Flood Protection Board.

EIGHTEEN: Upon receipt of a signed copy of the issued permit the permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

NINETEEN: Cleared trees and brush (or prunings therefrom) shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1st to April 15th.

TWENTY: After each period of high water, debris that accumulates at the site shall be completely removed from the floodway.

TWENTY-ONE: Tree rows shall be planted parallel to the direction of the overbank flow at a minimum spacing of 16-feet perpendicular to flow and the planted vegetation shall not cause the flows to be directed toward any levee.

TWENTY-TWO: The overflow area and project site shall be restored to at least the same condition that existed prior to commencement of work.

TWENTY-THREE: If the planted trees result in an adverse hydraulic impact, the permittee will provide appropriate mitigation.

TWENTY-FOUR: No further tree planting or work, other than that covered by this application, shall be performed in the area without prior approval of the Central Valley Flood Protection Board.

TWENTY-FIVE: The mitigation measures approved by the CEQA lead agency and the permittee are found in its Mitigation and Monitoring Reporting Program (MMRP) adopted by the CEQA lead agency. The permittee shall implement all such mitigation measures.

TWENTY-SIX: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.

TWENTY-SEVEN: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

TWENTY-EIGHT: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

TWENTY-NINE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

THIRTY: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated April xx, 2012, which is attached to this permit as Exhibit A and is incorporated by reference.

THIRTY-ONE: Upon completion of the project, the permittee shall submit as-constructed drawings to: Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite 256, Sacramento, California 95821.





**Figure 4**  
**Intake Facility Impact Area and**  
**Mitigation Site Locations Overview**