

**Meeting of the Central Valley Flood Protection Board**  
**June 24, 2016**  
**Staff Report – Encroachment Permit**  
**Recology Yuba Sutter**  
**Feather River Organics Composting Facility, Yuba County**

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**1.0 – ITEM**

Consider approval of Permit No. 19073 BD (Attachment B)

**2.0 – APPLICANT**

Recology Yuba Sutter

**3.0 – LOCATION**

The project is located east of Highway 20 approximately 2.8 miles northeast of the City of Marysville, within the Yuba River Designated Floodway. (Attachment A)

**4.0 – PROJECT DESCRIPTION**

The applicant proposes to install two temporary steel compost runoff collection tanks, one with a 123-foot diameter and the other with a 75-foot diameter, for a combined total volume of 1.5 million gallons, and to install two associated above ground conveyance pipes and a pumping station. To authorize an existing above ground gravity pipe parallel to the levee. The project components will remain in place for 2-5 years, at which time the entire composting facility will be removed from the floodway.

**5.0 – AUTHORITY OF THE BOARD**

California Water Code § 8534, 8590 – 8610.5, and 8700 – 8710

California Code of Regulations (CCR), Title 23 (Title 23):

- § 6, Need for a Permit
- § 13, Evidentiary Hearings

- § 107, Permitted Uses in Designated Floodways
- § 112, Streams Regulated and Nonpermissible Work Periods
- § 123, Pipelines, Conduits, and Utility Lines

## **6.0 – PROJECT ANALYSIS**

The proposed project is to install a new temporary containment system consisting of two new above ground storage tanks with ancillary pumping and transmission facilities that will capture storm water runoff from the Feather River Organics composting operation. The operation is part of the larger Recology Yuba Sutter solid waste facility.

The composting facility was initially permitted by this office in 1961 under permit number 3767 and was constructed in 1962. The facility was later expanded under permit number 5883. The proposed project is required in order for the applicant to comply with water quality standards set by the Central Valley Regional Water Quality Control Board (CVRWQCB) for the composting facility's storm water discharges.

The proposed project would replace 39 existing 21,000 gallon capacity tanks with the two new leak detection storage tanks for a total combined capacity of 1.5 million gallons, nearly twice the capacity of the existing system. The proposed tanks will ensure the proper storage and disposal of compost runoff in accordance with the CVRWQCB.

The storage tanks are used to contain leachate generated by storm water runoff that comes into contact with compost materials. The leachate collected in the proposed tanks would be used onsite as part of the composting process or pumped to the City of Marysville sanitary sewer system through existing transmission facilities. Currently, a v-ditch is used to transfer the fluids. The CVRWQCB has ordered the applicant to install an enclosed pipeline system to transfer the fluids.

During precipitation events, compost leachate from the northern end of the composting facility would flow via the proposed 36-inch gravity pipe into the new proposed tank containment system. Flow from the south end of the facility would be pumped to the new tanks through the proposed aboveground 6-inch pressurized pipe. Both pipes would be located on the waterside slope of the levee to accommodate the current configuration of the facility.

## **6.1 – Hydraulic Analysis**

A one-dimensional (1D) hydraulic model of the Yuba River was developed using the USACE Hydrologic Engineering Center's River Analysis System (HEC-RAS). Existing and proposed conditions were evaluated for the 100 year flood event which has a flow of 154,000 cfs. The 200 year flood event was also evaluated with a flow of 206,000 cfs. These results show that the proposed project will have no impact on the water surface elevation within the Yuba River Designated Floodway. There is a private interior levee located on the east side of the composting facility, approved under permit number 7611, that will protect the facility from becoming inundated during the 100 year flood event (Attachment C). Based on Board staff's review, the proposed project is expected to result in no significant adverse hydraulic impacts to the Yuba River.

## **6.2 – Geotechnical Analysis**

There will be no penetrations to the levee prism. A geotechnical analysis is therefore not required.

## **7.0 – AGENCY COMMENTS AND ENDORSEMENTS**

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

- Marysville Levee Commission endorsed the project on September 28, 2015 with no conditions.
- The USACE 33 USC 408 decision letter has not yet been received for this application. Staff anticipates receipt of a letter indicating that the USACE District Engineer approves the request to alter the Federal flood risk reduction project, subject to conditions. Upon receipt of the letter, board staff will review to ensure its conformity with the permit language and incorporate it into the permit as Exhibit A.

## **8.0 – CEQA ANALYSIS**

The Board determined that the project is categorically exempt from CEQA under a Class 3 Categorical Exemption (CEQA Guidelines Section 15303) covering new construction of small structures.

**9.0 – 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. On the issue of hydraulic impacts Recology used HEC-RAS one-dimensional flow models. These models are considered by experts as the best available scientific tools for the purpose of modeling river hydraulics in this region.

3. Effects of the decision on facilities of the State Plan of Flood Control (SPFC), and consistency of the proposed project with the Central Valley Flood Protection Plan (CVFPP) as adopted by Board Resolution 2012-25 on June 29, 2012:

This proposed project is expected to result in no adverse hydraulic impacts on the facilities of the SPFC and is consistent with the CVFPP since the entire facility will be removed from the floodway within 5 years.

Board staff, in consultation with legal counsel, has recommended, and the Executive Officer (EO) has agreed, that there is no legitimate reason for the application of Section 123 (b)(1), which provides in part, that pipelines may not be installed within the levee section or within ten (10) feet of levee toes. In this instance, the standard set forth in Section 123 (b)(1) is not required because the pipelines will not be buried in the levee section and they will be removed within five years. In addition, the proposed pipe configuration is required to connect with the layout of the existing composting facility, which will not be possible if Section 123 (b)(1) is applied. The EO has therefore waived this standard in this particular instance pursuant to the delegated authority in Section 11(d).

- 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 effects to the proposed project from reasonable projected future events since there are no significant hydraulic impacts from a 200-year flood event and the composite facility will be removed entirely from the floodway within two to five years.

**10.0 – STAFF RECOMMENDATION**

Staff recommends that the Board:

**Adopt:**

- The CEQA findings;

**Approve:**

- Draft Encroachment Permit No. 19073 in substantially the form provided; and

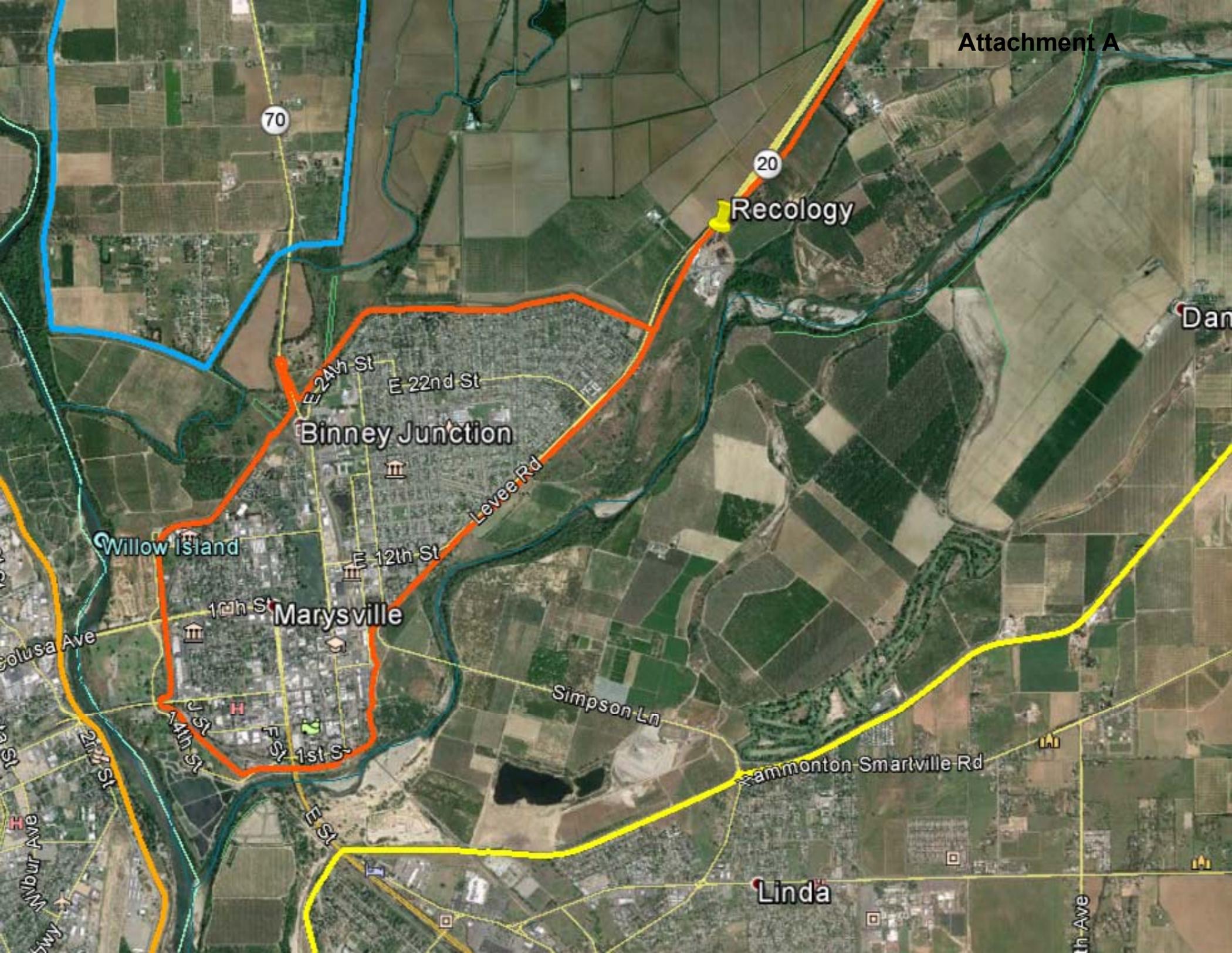
**Direct:**

- The Executive Officer to take the necessary actions to execute the permit and file a Notice of Exemption pursuant to CEQA with the State Clearinghouse.

**11.0 – LIST OF ATTACHMENTS**

- A. Location Maps and Photos
- B. Draft Permit No. 19073 BD
- C. Hydraulic Summary

Design Review:	Remy Gill
Environmental Review:	Andrea Buckley, Acting Environmental Branch Chief
Document Review:	Gary Lemon, PE, Permitting Section Chief
	Mitra Emami, PE, Operations Branch Chief
Legal Review:	Kanwarjit Dua, Board Counsel



70

20

Recology

Binney Junction

Marysville

Linda

E 24th St

E 22nd St

Levee Rd

E 12th St

1st St

Simpson Ln

Ammonton Smartville Rd

Willow Island

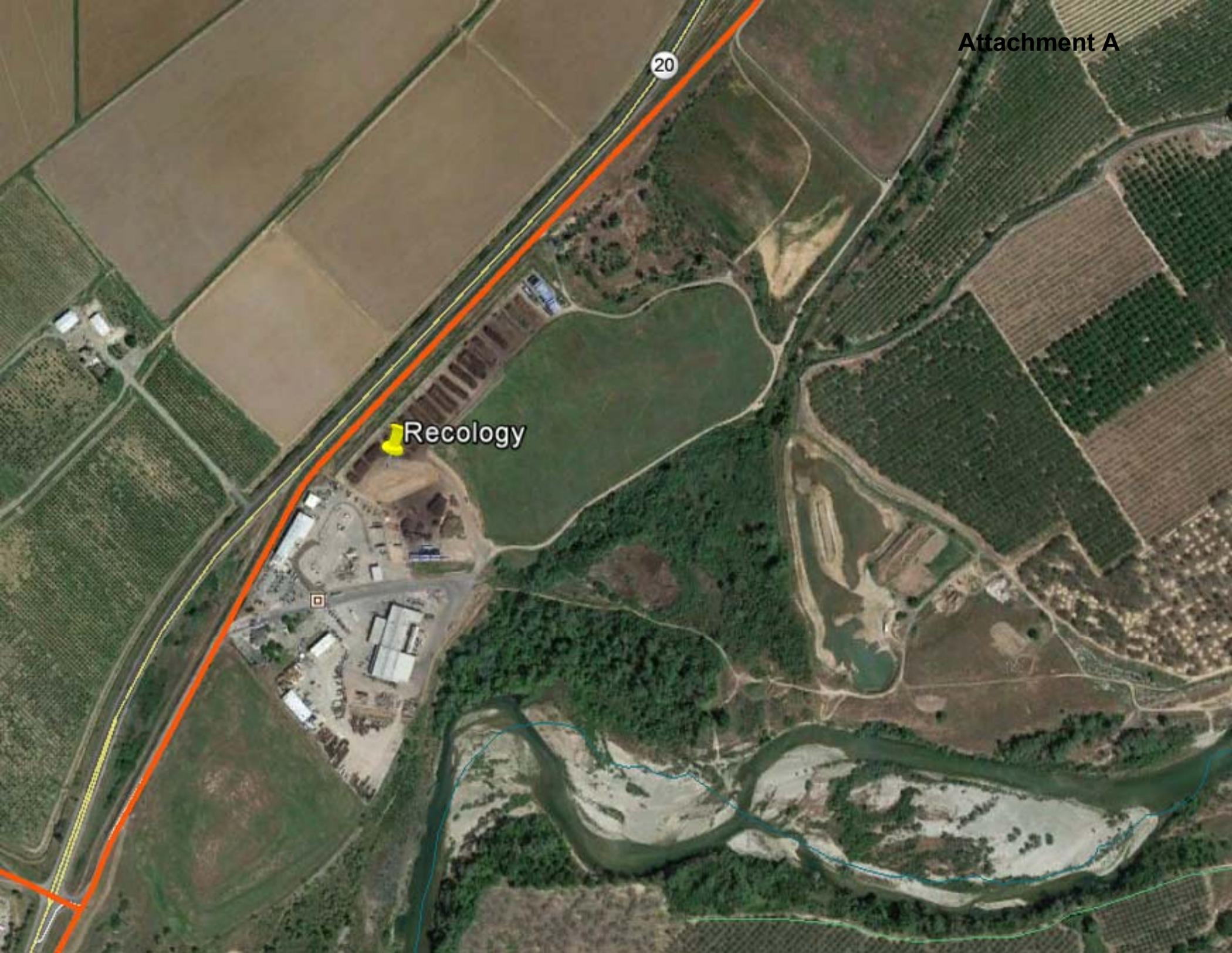
Colusa Ave

J St  
N 4th St

F St  
1st S

W Mbur Ave  
Hwy

In Ave



20

Recology



Recology Yuba Sutter  
Feather River Organics  
March 27, 2015 Site Photos



Hog Farm Property – Looking NW from SW corner of Hog Farm property



Private Levee at Hog Farm looking West from SW corner of Hog Farm property



Eastern Boundary looking north from SW corner of Hog Farm property



Current FRO leachate containment system with Project levee in background.  
Photo taken from NW corner of Hog Farm property looking East.

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

**PERMIT NO. 19073 BD**

**This Permit is issued to:**

Recology Yuba Sutter  
3001 North Levee Road  
Marysville, California 95901-3600

To install two temporary steel compost runoff collection tanks, one with a 123-foot diameter and the other with a 75-foot diameter, for a combined total volume of 1.5 million gallons, with two associated above ground conveyance pipes and a pumping station. To authorize an existing above ground gravity pipe parallel to the levee. The project components will remain in place for 2-5 years, at which time the entire facility will be removed from the floodway.

The project is located east of Highway 20 approximately 2.8 mile northwest of the City of Marysville, within the Yuba River Designated Floodway (Section 8, T15N, R4E, MDB&M, Marysville Levee Commission, Yuba River, Yuba 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.

# Attachment B

**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. 19073 BD**

### **LIABILITY AND INDEMNIFICATION**

**THIRTEEN:** The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board (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 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.

**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 Board and 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 Board, Department of Water Resources, and Marysville Levee Commission shall not be held liable for any damages to the permitted encroachment(s) resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

### **AGENCY CONDITIONS**

## **Attachment B**

SIXTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications dated September 1, 2015 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 Board.

SEVENTEEN: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Board.

EIGHTEEN: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed project.

NINETEEN: The permittee shall comply with all conditions set forth in the letter from the Department of the Army (U.S. Army Corps of Engineers, Sacramento District) dated XXXXX, which is attached to this permit as Exhibit A and is incorporated by reference.

TWENTY: Permittee shall pay to the Board, an inspection fee(s) to cover inspection cost(s), including staff and/or consultant time and expenses, for any inspections before, during, post-construction, and regularly thereafter as deemed necessary by the Board.

TWENTY-ONE: The project features proposed as part of this permit shall remain in place no more than 5 years from the approval of the permit and shall be removed from the floodway in their entirety.

### **PRE-CONSTRUCTION**

TWENTY-TWO: Upon receipt of a signed copy of the issued permit the permittee shall contact the Board by telephone at (916) 574-0609, and submit the enclosed postcard, to schedule a preconstruction conference with the inspector that is assigned to your project. Failure to do so at least 10 working days prior to start of work may result in a delay of the project.

### **CONSTRUCTION**

TWENTY-THREE: The pipes shall not be installed below ground and shall be consistently monitored for any leaks, distress, or wear.

### **POST-CONSTRUCTION**

TWENTY-FOUR: All debris generated by this project shall be disposed of outside the floodway.

TWENTY-FIVE: The pipelines shall be tested and confirmed free of leaks by X-ray, pressure tests, or other approved methods during construction or any time after construction upon request by the Board.

# Attachment B

## **OPERATIONS AND MAINTENANCE**

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

TWENTY-SEVEN: 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 Board, Department of Water Resources, Marysville Levee Commission, or any other agency responsible for maintenance and shall, at all times, allow officials from these agencies to access the levee, levee slope, and any adjacent areas as necessary for flood control.

TWENTY-EIGHT: 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 Board or Department of Water Resources. If the permittee does not comply, the Board may modify or remove the encroachment(s) at the permittee's expense.

## **PROJECT ABANDONMENT / CHANGE IN PLAN OF FLOOD CONTROL**

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 Board at the permittee's or successor's cost and expense.

THIRTY: 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 in the discretion of the Board the 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 the Project is not maintained or is damaged by any cause. If the permittee does not comply, or in the event of an emergency, the Board may remove the encroachment(s) at the permittee's expense.

## **END OF CONDITIONS**

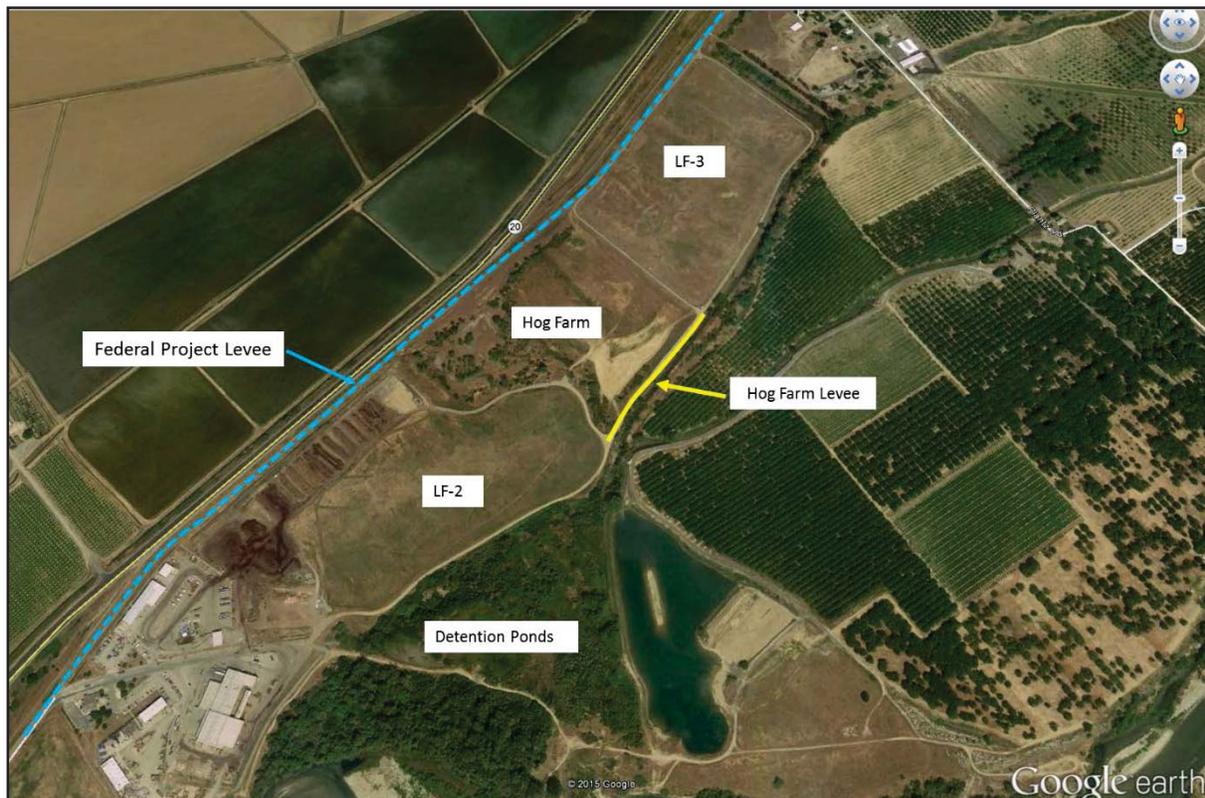


Water Resources • Flood Control • Water Rights

## MEMORANDUM

**DATE:** September 14, 2015  
**TO:** Recology c/o Ms. Christine Bradley  
**FROM:** Don Trieu, P.E.  
**SUBJECT:** Hog Farm – Preliminary Hydraulic Analysis

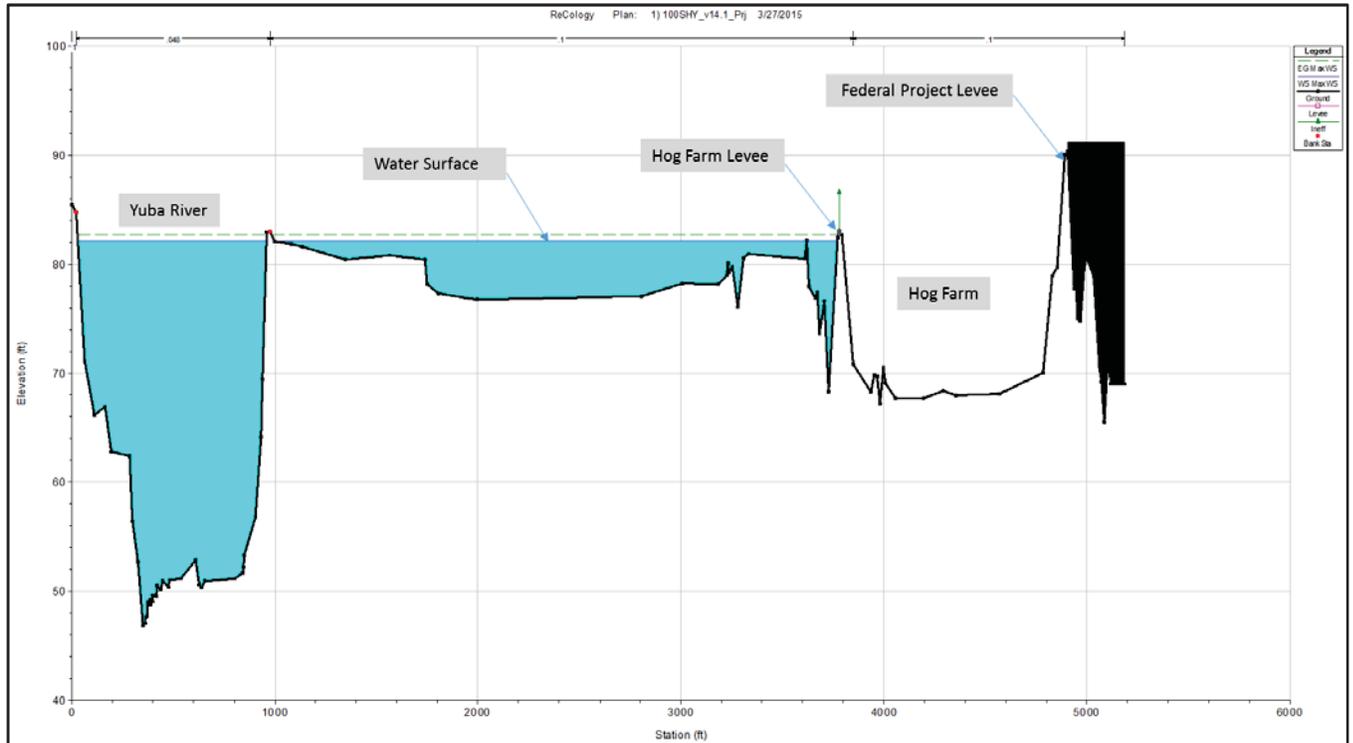
MBK Engineers completed a preliminary hydraulic analysis of the “Hog Farm” property, located at the Recology Yuba Sutter (RYS) facility north east of the City of Marysville at 3001 North Levee Road, in Yuba County California (Figure 1). The purpose of this analysis was to determine potential changes to water surface elevation as a result of raising the Hog Farm levee or preventing water from entering the area (Project Condition).



*Figure 1*

Existing condition and project condition were simulated for the 100 and 200 year flood using a HEC-RAS model of the Yuba River. Under existing conditions, the Hog Farm is protected from

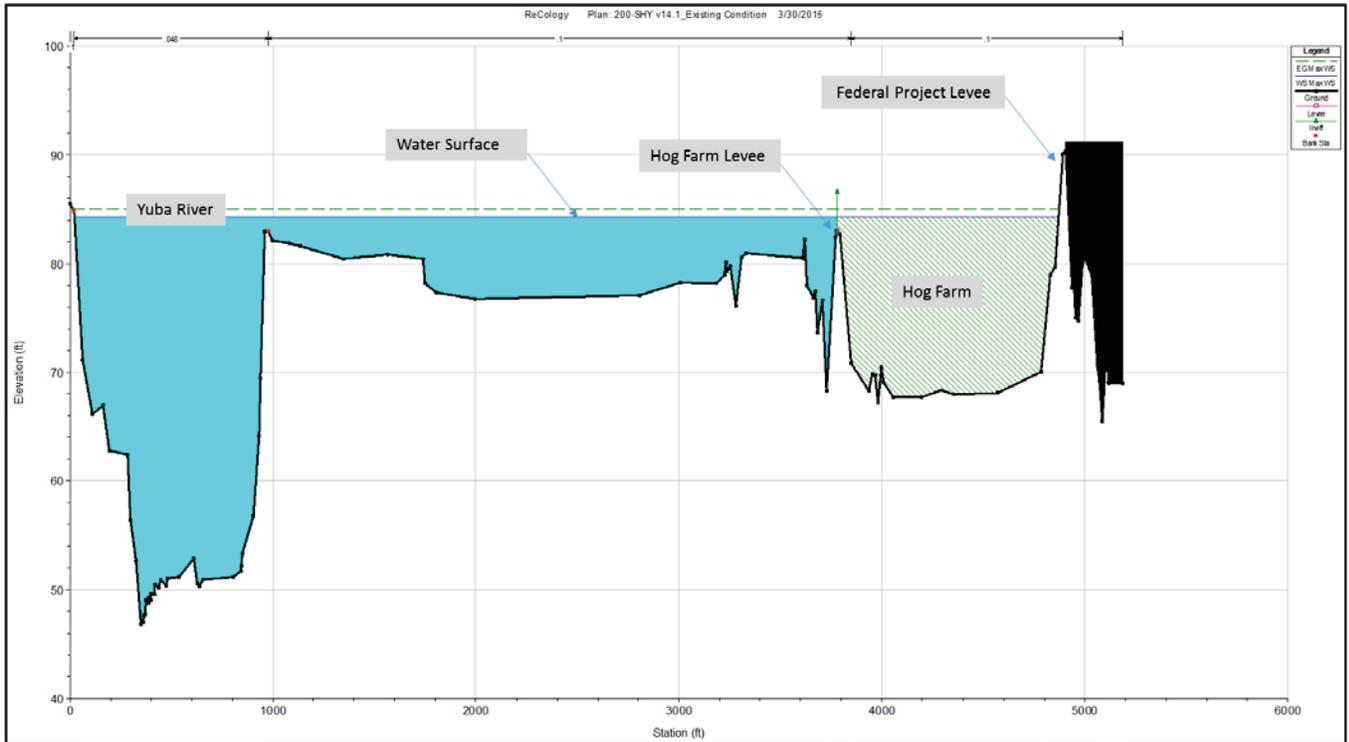
flood waters by the Hog Farm levee which has a top of levee elevation of approximately 83 feet NGVD-29. For the 100 year flood (Flow=154,000 cfs), the maximum water surface elevation at the Hog Farm is approximately 82 feet NGVD-29 and would not overtop the Hog Farm levee (Figure 2)



**Figure 2**

Under project condition, for the 100 year flood, the maximum water surface elevation is the same as existing condition as there would be no overtopping of the Hog Farm levee. However, this assumes that the Hog Farm levee would not fail. Per conversations with the facility General Manager, Phil Graham, and review of aerial photos during the January 1997 flood, the area behind the Hog Farm levee flooded. The January 1997 flood had a peak flow of approximately 161,000 cfs.

For the 200 year flood (Flow= 206,000 cfs), the Hog Farm levee would overtop with approximately 2 feet of water flowing over the levee under existing conditions (Figure 3). The maximum water surface elevation at the Hog Farm is approximately 84.3 feet NGVD-29. To prevent the Hog Farm area from flooding under the 200 year flood, the Hog Farm levee would have to be raised and rehabilitated to prevent overtopping and failure. Assuming a project condition where flood waters would be prevented from entering the Hog Farm area; the 200 year flood simulation shows that the resultant maximum water surface elevation is 84.3 feet NGVD-29. There's no change in water surface elevation under project condition for the 200 year flood because the Hog Farm area acts as a ponded area as a result of the landfill upstream and downstream and the Hog Farm levee. The Hog Farm area does not act as an active water conveyance area under existing conditions.



*Figure 3*

In summary, for the 100 year flood event, there would be no impact to water surface elevations under project conditions as the Hog Farm levee does not overtop. For the 200 year flood event, there would be no impact to water surface elevations even if the Hog Farm levee were to be raised and rehabilitated as the Hog Farm area is not an active flow conveyance area during the 200 year flood event. The hydraulic analysis was performed assuming project condition features and levee performance.

Don Trieu, P.E.