

**Meeting of the Central Valley Flood Protection Board
September 28, 2012**

Staff Report – Encroachment Permit

**Joe Sanchez Farms, Inc.
Self-Cleaning Fish Screen, Sutter County**

1.0 – ITEM

Consider approval of Permit No. 6870-1 (Attachment B)

2.0 – APPLICANT

Joe Sanchez Farms, Inc.

3.0 – LOCATION

The project is located at 13500 Grand Island Road on the left bank of Steamboat Slough. (Steamboat Slough, Sacramento County, see Attachment A)

4.0 – DESCRIPTION

The applicant proposes to install a self-cleaning, retractable, fish screen system on an existing agricultural diversion pump facility that is permitted under Permit No. 6870. Permit No. 6870-1 will cover the new fish screen with appurtenances and facilitates a name change of the permittee to Joe Sanchez Farms, Inc.

5.0 – PROJECT ANALYSIS

The proposed project involves the installation of a self-cleaning fish screen on an existing, unscreened water diversion facility used to irrigate agricultural land on Grand Island. The existing siphon consists of an unscreened 24-inch diameter pipe and an unscreened 18-inch diameter pipe that feeds water into a 24-inch diameter discharge and delivery pipeline. The existing intake pipes were inspected by video and were shown to be in good condition so they will not be replaced for this project. The pipes currently rest on the waterside levee bank slope and are not supported by piles. The

pipelines cross the levee and are then joined into a single 24-inch steel pipeline at the base of the land side of the levee slope and then flow into a deep P-trap before transitioning to a 24-inch concrete pipeline. A vacuum pump is used to keep the pipelines primed and operational.

The two pipelines divert up to a combined 24 cubic feet per second (cfs). The 18-inch diameter pipeline is only used when flow rates are very low due to extreme low tides when additional capacity is needed to keep the siphons working. Higher flow rates are limited by the very long discharge pipeline. The diversion operates between about mid-April through mid-October.

The project area is located on a straight river section that is heavily influenced by tides. The surrounding banks are stable, uniform and armor reinforced with rip rap. The fish screen will be designed with at least a three foot clearance below the lowest expected water surface elevation.

The proposed fish screen unit will be a double screen cylinder with each cylinder being 42 inches in diameter and 66 inches long with a total screen surface area of 121 square feet. The screen will be designed for retrieval during non-diversion periods. The fish screen will be mounted on a retrieval track to allow it to be moved up and down the track using a portable winch system. If raised, the screen can be removed off the top of the track and secured off site. The new fish screen, intake adapter/docking inlet, retrieval track, and the existing pipes will be supported from four (4) six-inch diameter steel pilings driven on the waterside bank slope.

5.1 – Authority of the Board

- California Code of Regulations, Title 23-Waters, Division 1, Article 3, §6 - Need for a Permit; Article 8, §112 – Streams Regulated; Article 9, §193 – Categorically Exempt Activities.

5.2 – Hydraulic Analysis

A modified version of the Sacramento and San Joaquin River Basins Comprehensive Study (Comp Study) Sacramento River UNET model, which was originally developed by the United States Army Corps of Engineers (USACE) [USACE 2002], was used for the hydraulic analysis. The pre-project and post-project maximum water surface elevations at and near the project site were determined to be insignificant and will have no impact on the Sacramento River Flood Control Project.

5.3 – Geotechnical Analysis

The scope of the project did 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:

- Reclamation District No. 3 (Grand Island) endorsed the project on December 15, 2011 with no-conditions.
- 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 determination:

The Board, acting as the CEQA lead agency, has determined the project is categorically exempt in accordance with CEQA under a Class 3 Categorical Exemption (CEQA Guidelines Section 15303) covering new construction of small structures.

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 facilities of the State Plan of Flood Control, and consistency of the proposed project with the Central Valley Flood Protection Plan as adopted by Board Resolution 2012-25 on June 29, 2012.

The proposed retractable fish screen and appurtenances will have an insignificant effect on facilities of the State Plan of Flood Control and the project is consistent with the Central Valley Flood Protection Plan.

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

Effects to the proposed project from reasonable projected future events will be negligible.

9.0 – STAFF RECOMMENDATION

Staff recommends that the Board find the project exempt from CEQA, 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 Exemption with the State Clearinghouse.

10.0 – LIST OF ATTACHMENTS

- A. Location Maps and Photos
- B. Draft Permit No. 6870-1
- C. Project Drawings

Design Review:

Gary W. Lemon P.E.

Environmental Review:

James Herota / Andrea Mauro

Document Review:

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

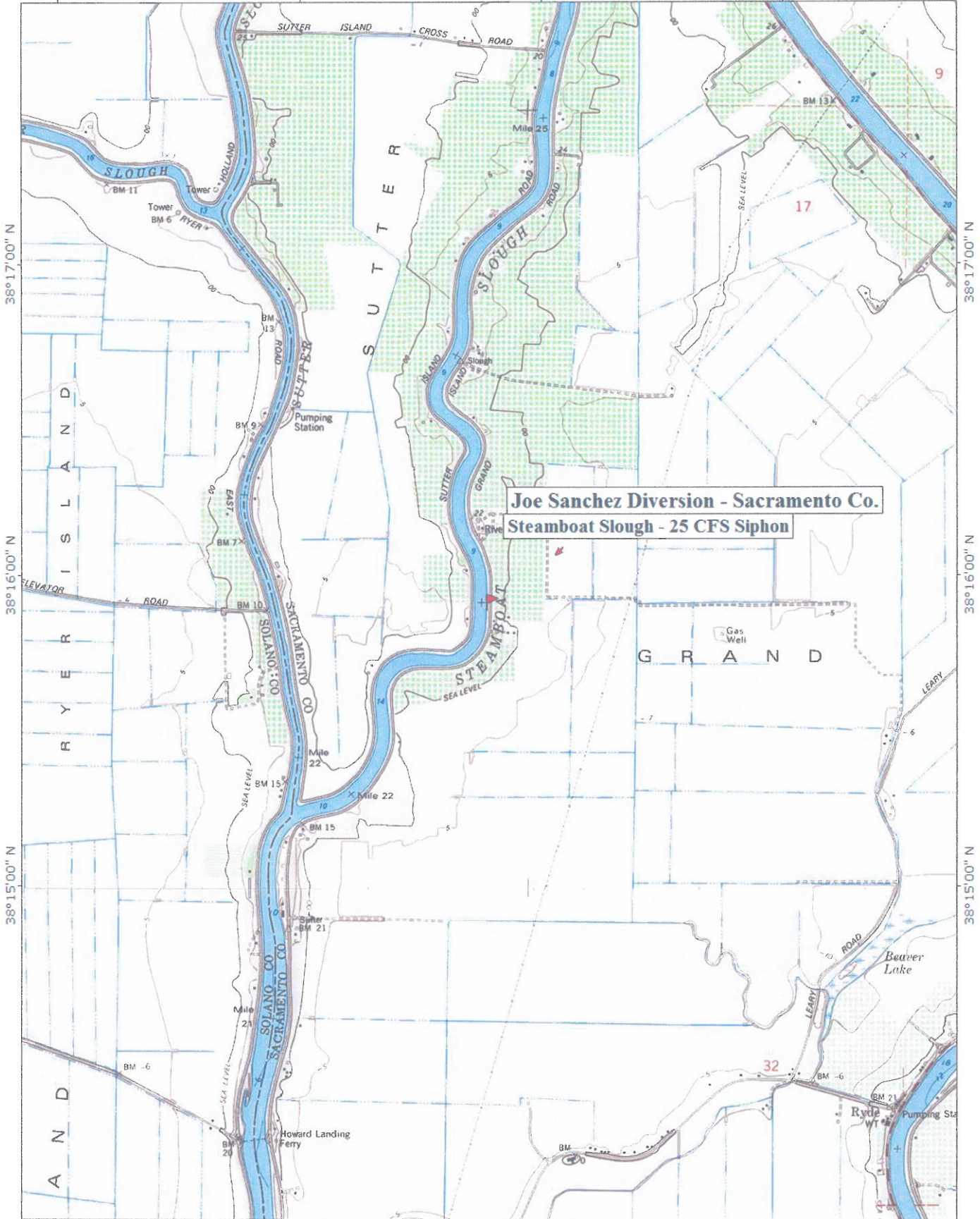
TOPO! map printed on 08/23/11 from "Sanchez Sycamore Slough.tpo" and "Untitled.tpg"

121°37'00" W

121°36'00" W

121°35'00" W

WGS84 121°34'00" W



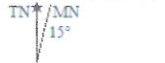
**Joe Sanchez Diversion - Sacramento Co.
Steamboat Slough - 25 CFS Siphon**

121°37'00" W

121°36'00" W

121°35'00" W

WGS84 121°34'00" W



JOE SANCHEZ FARMS
PROJECT NO. Y03-05
SACRAMENTO VALLEY FISH SCREEN PROGRAM



Sacramento River
Steamboat Slough

USGS RM 7.95 or
23.15 COE Comp Study

Single Conduit Siphon

38°15'55.80"N 121°35'1

38°15'55.80" N
121°35'14.43" W

Sacramento County
California

Section 25, T5N, R3E



Single Conduit Siphon

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

PERMIT NO. 6870-1 BD

This Permit is issued to:

Joe Sanchez Farms, Inc.
P.O. Box 69
Walnut Grove, California 95690

The installation of a self-cleaning, retractable, fish screen system on an existing agricultural diversion pump facility (a pump on a pile structure, a corrugated metal pump house, a pressure tank and two buried 55-gallon drums on the landward slope, one 18-inch and one 24-inch diameter steel pipe through the levee) permitted under Prmit No. 6870, to H.P. Grain Jr., ET Al. This permit covers the new fish screen and facilities also the name change of the permittee to Joe Sanchez Farms, Inc. The project is located at 13500 Grand Island Road on the left bank of Steamboat Slough in Sacramento County. (Section 25, T5N, R3E, MDB&M, Reclamation District 3, Steamboat Slough, Sacramento 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. 6870-1 BD

THIRTEEN: If the construction project extends onto land owned in fee and/or easement by the Sacramento and San Joaquin Drainage District acting by and through the Central Valley Flood Protection Board (Board), the permittee should secure an easement, license, or temporary entry permit from the Board prior to commencement of work. Contact Angelica Aguilar at (916) 653-5782.

FOURTEEN: 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.

FIFTEEN: 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, Reclamation District 3 or any other agency responsible for maintenance.

SIXTEEN: Upon receipt of a signed copy of the issued (not approved only) 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.

SEVENTEEN: The Central Valley Flood Protection Board, Department of Water Resources, and Reclamation District No. 3 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

EIGHTEEN: 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.

NINETEEN: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY: 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.

TWENTY-ONE: 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.

TWENTY-TWO: 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.

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

TWENTY-FOUR: No materials or equipment shall be stored on the levee section.

TWENTY-FIVE: Debris that may accumulate on the permitted encroachment(s) and related facilities shall be cleared off and disposed of outside the floodway after each period of high water.

TWENTY-SIX: In the event existing revetment on the levee section is disturbed or displaced, it shall be restored to its original condition upon completion of the proposed installation.

TWENTY-SEVEN: Any excavations made in the levee section or within 10 feet of the levee toes shall be backfilled in 4- to 6-inch layers with impervious material with 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50 and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material. Backfill material shall be compacted in 4- to 6-inch layers to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

TWENTY-EIGHT: At all times during construction, at least one lane of the levee crown roadway shall be kept clear for vehicular access.

TWENTY-NINE: The permittee shall replant or reseed the levee slopes to restore sod, grass, or other

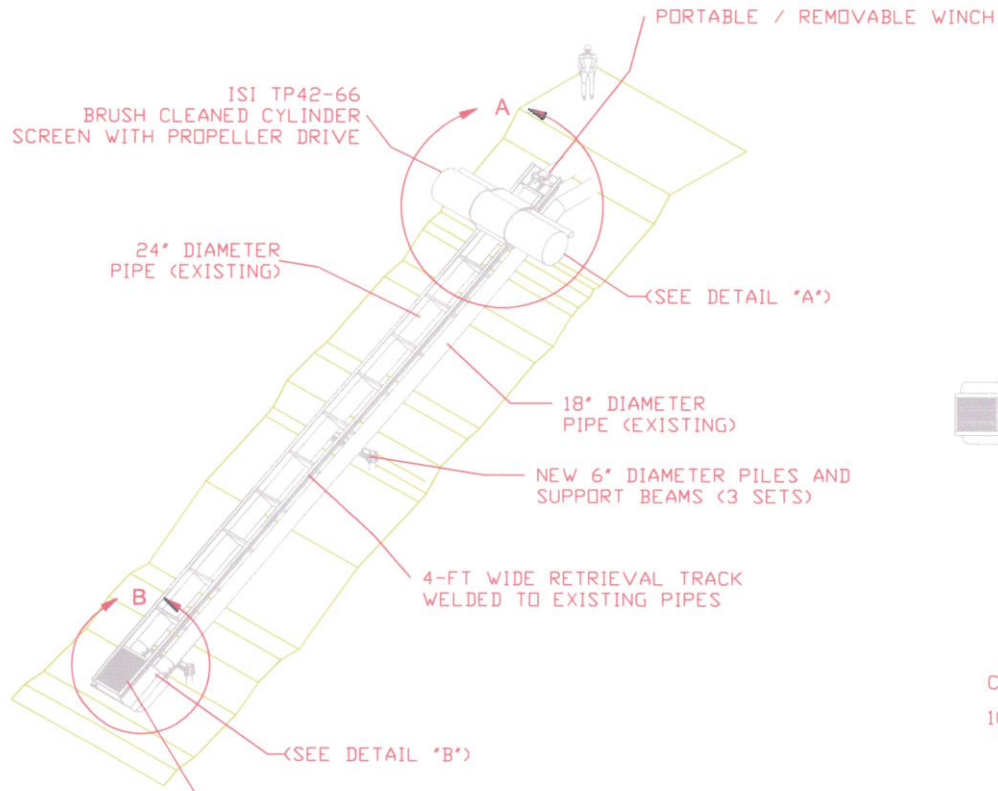
non-woody ground covers if damaged during project work.

THIRTY: All cleared trees and brush 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 1 to April 15.

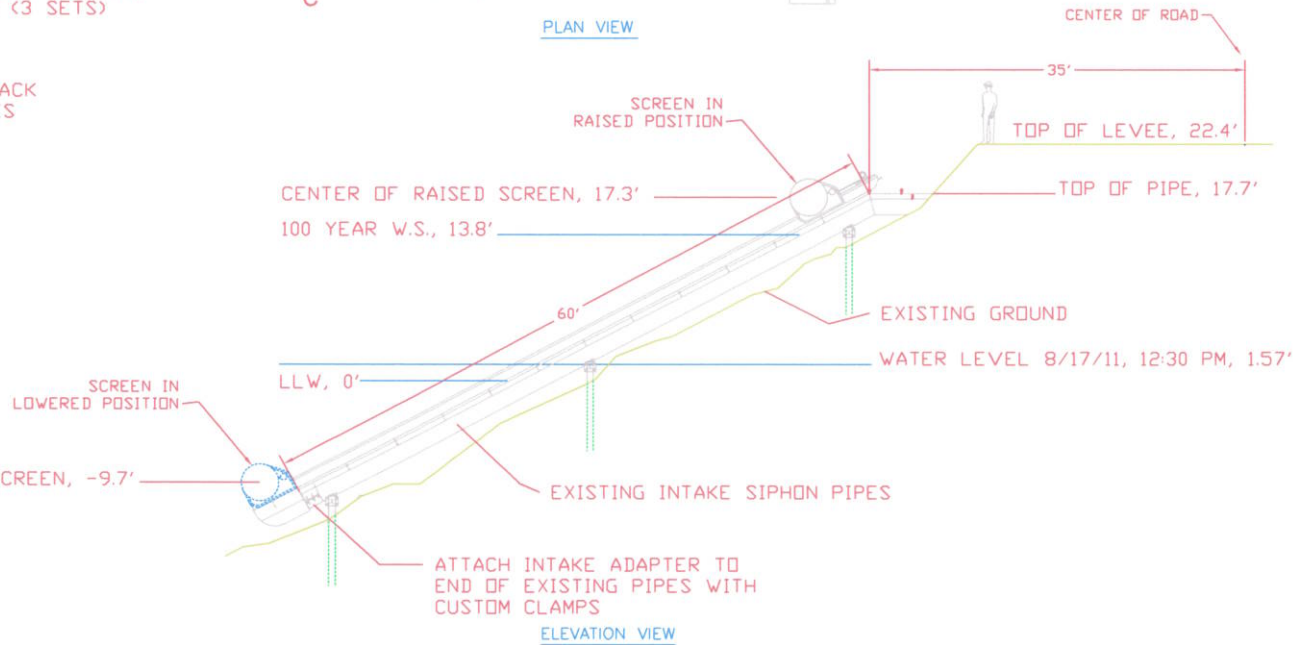
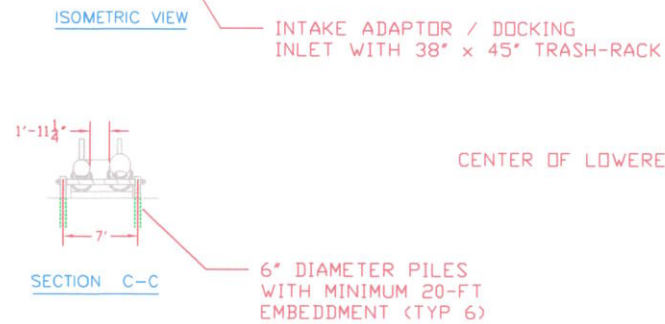
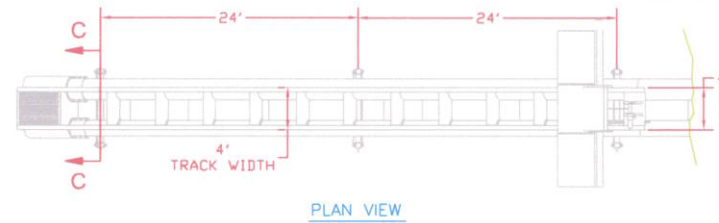
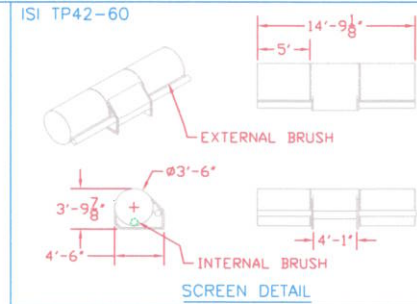
THIRTY-ONE: The work area shall be restored to the condition that existed prior to start of work.

THIRTY-TWO: 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.

THIRTY-THREE: 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 September xx, 2012, which is attached to this permit as Exhibit A and is incorporated by reference.



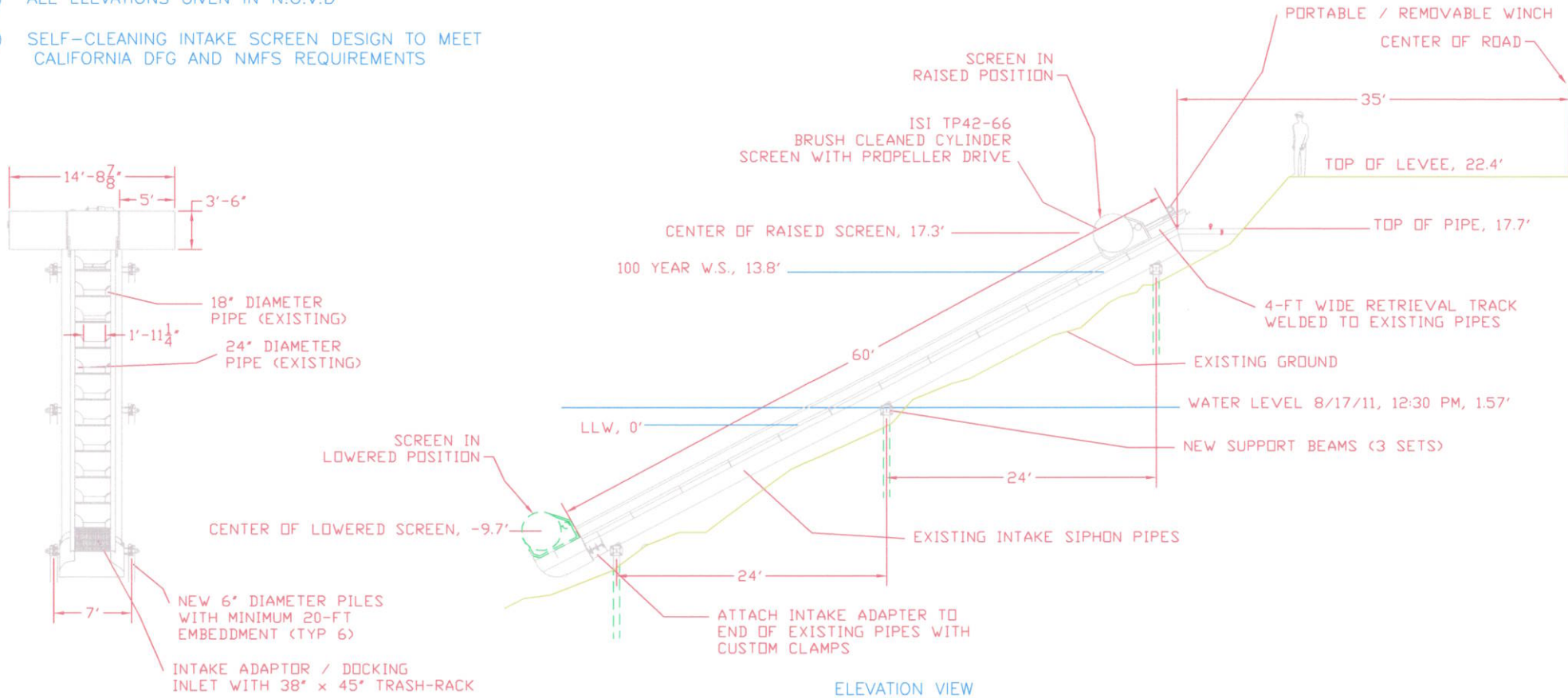
- 1) ALL DIMENSIONS IN INCHES, UNLESS NOTED
- 2) DIMENSIONS BASED ON 8-17-11 SURVEY BY ISI
- 3) SCREEN DESIGN BASED ON 24 CFS DIVERSION.
- 4) ALL ELEVATIONS GIVEN IN N.G.V.D
- 5) SELF-CLEANING INTAKE SCREEN DESIGN TO MEET CALIFORNIA DFG AND NMFS REQUIREMENTS



ALL DIMENSIONS IN INCHES UNLESS NOTED				 www.intakescreensinc.com CA C.L. 706107 8417 River Road - Sacramento, California 95832 (916) 665-2727 (916) 665-2729 FAX		DATE 8/25/11 APP'D BY DARRYL HAYES DRAWN BY JACOB CHAPIN "B" SHEET SCALE 1:120	PROJECT: SANCHEZ	DESCRIPTION: SANCHEZ FISH SCREEN LAYOUT	DRAWING NUMBER: ISI-SAN-LAYOUT	SHEET NUMBER: 1 OF 2
REV # DESCRIPTION DATE INITIAL	STANDARD TOLERANCES Fractional Dimensions ± 1/32 Decimal Dimensions ± .005			Designs are property of INTAKE SCREENS INC; and are subject to change without notice.						

PRELIMINARY LAYOUT DRAWING

- 1) ALL DIMENSIONS IN INCHES, UNLESS NOTED
- 2) DIMENSIONS BASED ON 8-17-11 SURVEY BY ISI
- 3) SCREEN DESIGN BASED ON 24 CFS DIVERSION.
- 4) ALL ELEVATIONS GIVEN IN N.G.V.D
- 5) SELF-CLEANING INTAKE SCREEN DESIGN TO MEET CALIFORNIA DFG AND NMFS REQUIREMENTS



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				 <small>8417 River Road - Sacramento, California 95832 (916) 665-2727 (916) 665-2729 FAX</small>		8/22/11	SANCHEZ	SANCHEZ FISH SCREEN PRELIMINARY LAYOUT	ISI-SAN-LAYOUT	
REV #	DESCRIPTION	DATE	INITIAL			APP'D BY DARRYL HAYES DRAWN BY JACOB CHAPIN "B" SHEET SCALE 1:90				
Designs are property of INTAKE SCREENS INC. and are subject to change without notice.				STANDARD TOLERANCES Fractional Dimensions ± 1/32 Decimal Dimensions ± .005						