

**Meeting of the Central Valley Flood Protection Board
October 24, 2014**

Staff Report

**Woodland-Davis Clean Water Agency
Davis Woodland Water Supply Project
Yolo County**

1.0 – ITEM

Consider approval of Draft Permit No. 18958
(Attachment B).

2.0 – APPLICANT

Woodland-Davis Clean Water Agency

3.0 – LOCATION

The project is located northeast of the City of Davis following County Road 103 to its southern extent at County Road 28 and approximately 3-miles east of Highway 113. The project is located outside of the Legal Delta.
(Willow Slough and Willow Slough Bypass, Yolo County, see Attachment A).

4.0 – PROJECT DESCRIPTION

The applicant proposes to install (trench) a new 30-inch diameter steel water distribution pipeline across Willow Slough and Willow Slough Bypass.

5.0 - AUTHORITY OF THE BOARD

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

California Code of Regulations, Title 23 (Title 23)

- § 6, Need for a Permit
- § 13, Evidentiary Hearings
- § 112, Streams Regulated and Nonpermissible Work Periods
- § 123, Pipelines, Conduits, and Utility Lines

6.0 – PROJECT ANALYSIS

The Woodland-Davis Clean Water Agency (WDCWA) is a joint powers authority agency between the Cities of Woodland and Davis that was established to implement and oversee the Davis Woodland Water Supply Project (DWWSP), in partnership with the University of California at Davis (UC Davis). The DWWSP includes the new RD-2035/WDCWA Sacramento River intake structure, transmission pipelines, and a new water treatment plant that will provide a new surface water supply to the Cities of Woodland and Davis, and UC Davis. The three primary objectives of the Project are to (1) provide a reliable water supply to meet existing and future needs, (2) improve water quality for drinking supply purposes, and (3) improve treated wastewater effluent quality discharged by the City of Davis, City of Woodland, and UC Davis through 2040, as required under existing or anticipated future water discharge regulations.

The portion of the DWWSP being considered under Permit No. 18958 involves the construction of the finished water transmission mains that will convey potable water from the new Regional Water Treatment Facility (RWTF) in Woodland to the cities of Davis, Woodland, and to the campus of UC Davis. Treated water will be conveyed from the RWTF to the City of Woodland and the City of Davis via two new pipelines. The proposed transmission main for the City of Davis will be a 30-inch ID steel pipeline that will be trenched a minimum of four (4) feet underground along existing paved roadways and through agricultural fields for approximately 8-miles. The pipeline will cross over Willow Slough (regulated stream) in the right-of-way of County Road 103 and under (6-feet) the Willow Slough Bypass (Project Works). The levee on the south side of the bypass is approximately 5-feet in height with a shallow toe drain. Based on field observations and maintenance history there is no evidence to suggest that Willow Slough Bypass between CR 102 and CR 105 would incise or be prone to bed scour during high flow events. The proposed pipeline will terminate on the north side of Davis and be connected to existing water conveyance infrastructure.

6.1 – Hydraulic Analysis

A hydraulic analysis was not required as the project will be entirely underground.

6.2 – Geotechnical Analysis

Jacobs Associates of Walnut Creek, California prepared a predesign geotechnical report for the pipelines (Jacobs Associates, 2012a). Numerous historical geotechnical explorations have been performed in the immediate vicinity of the pipeline alignments. Data from historical explorations, project-specific explorations by CH2M HILL, and published and available water level measurements were used to develop recommendations for the project. Lean clay, fat clay, silty clay, and silt constitute the majority of the near-surface soils (less than 21 feet in depth) along the pipe alignment and will be satisfactory for open-cut trenching.

7.0 – AGENCY COMMENTS AND ENDORSEMENTS

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

- Reclamation District No. 2035 has endorsed the project with no conditions.
- California Department of Water Resources Sacramento Maintenance Yard has endorsed the project with no conditions.
- The U.S. Army Corps of Engineers (USACE) Sacramento District comment letter has not been received for this application. Staff anticipates receipt of a letter indicating that the USACE District 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.

8.0 – CEQA ANALYSIS

Board staff has prepared the following CEQA findings:

The Board, acting as a responsible agency under CEQA, has independently reviewed the Draft Environmental Impact Report (DEIR, SCH No. 2006042175, April 2007), the Final Environmental Impact Report (FEIR, SCH No. 2006042175, October 2007), Addendum No. 4 (December 2012), and the Mitigation Monitoring and Reporting Plan (MMRP) on the David-Woodland Water Supply Project (incorporated herein by

reference and available at the Central Valley Flood Protection Board or City of Davis offices). 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/2014/10-24-2014.cfm> under a link for this agenda item. The documents are also available for review in hard copy at the Board and City of Davis offices.

The City of Davis, as the lead agency, determined that the project would have a significant effect on the environment on October 16, 2007 (including Statement of Facts, Findings, Impacts and Mitigation Measures, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program) and adopted Resolution No. 07-168. The Notice of Determination was filed with State Clearinghouse on October 19, 2007.

Since the certification of the EIR in 2007, the Cities of Woodland and Davis have formed the Woodland Davis Clean Water Agency (WDCWA), a joint powers authority (JPA), to implement the DWWSP. Additionally, changes in the regulatory setting, as well as minor refinements to the project have prompted the issuance of several addendums to the FEIR. In 2012, WDCWA identified the need to modify the alignment of the proposed raw water pipeline from the Sacramento River intake structure and avoid impacts to land under a conservation easement and reduce the length of pipeline required. As a result of this change, an Addendum No. 4 was prepared. The Addendum No. 4 analyzes the modified crossing of Willow Slough Bypass as it is detailed in this staff report.

Based on its independent review of the FEIR, the Board finds that although the proposed project could have a potentially significant effect on the environment, revisions have been made to the project and/or agreed to by the project proponent that reduce the environmental impacts to less than significant. 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. Moreover, such changes or alterations are within the responsibility and jurisdictions of another public agency, WDCWA, and such changes have been adopted by that agency. These mitigation measures are included in the project proponent's FEIR and address impacts to biological resources, cultural resources, noise, and transportation and circulation. The description of the mitigation measures are further described in the certified FEIR.

The documents and other materials which constitute the record of the Central Valley Flood Board's proceedings in this matter are in the custody of Leslie Gallagher, Acting Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Rm. 151, Sacramento, California 95821.

9.0 – WATER CODE 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 has considered all the evidence presented in this matter, including the original and updated applications and supporting documents, this Staff Report and attachments, all other evidence presented by any individual or group, and all letters and other correspondence received by the Board and in the Board's files related to this matter.

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 earth work proposed and water delivery channels under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on 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 project is completely underground; therefore there will be no adverse effect on facilities of the State Plan of Flood Control and the project is consistent with the 2012 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:

There will be no effects of reasonable projected future events as the project will be constructed underground.

10.0 – STAFF RECOMMENDATION

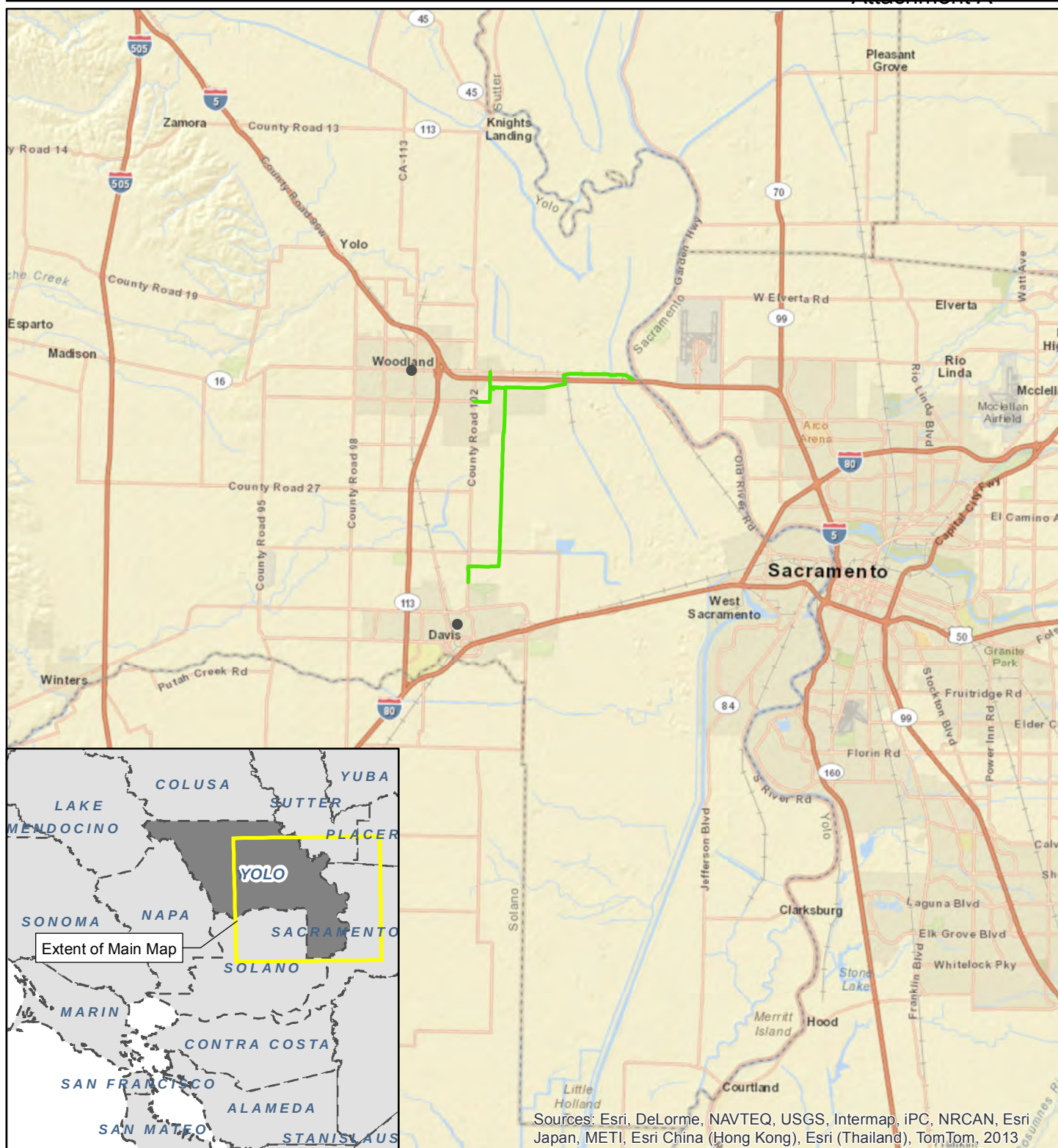
Staff recommends that the Board (in substantially the form provided):

- Adopt the CEQA findings,
- Approve Board Encroachment Permit No. 18958 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 Clearing House.

11.0 – LIST OF ATTACHMENTS

- A. Location Maps and Photos
- B. Draft Permit No. 18958
- C. Project Drawings

Design Review:	Gary W. Lemon P.E.
Environmental Review:	Andrea Buckley, Senior Environmental Scientist
Document Review:	Mitra Emami P.E., Permitting Section Chief, Len Marino P.E., Chief Engineer
Legal Review:	Leslie Gallagher, Chief Counsel



Legend

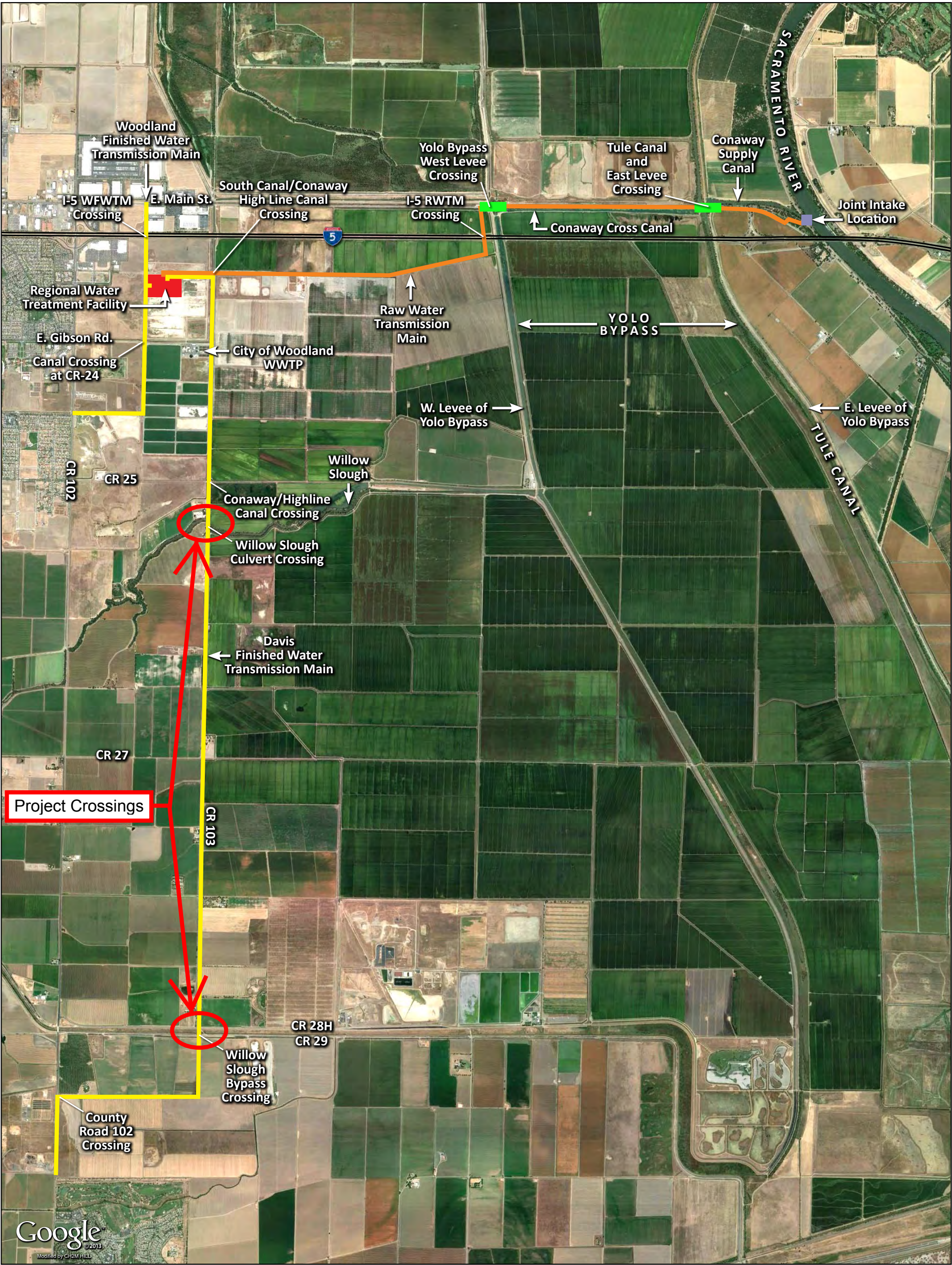
— Project Location



FIGURE 1 Regional Location

Davis Woodland Water Supply Project
Yolo County, CA

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LEGEND

- Raw Water Transmission Main
- Finished Water Transmission Mains
- Proposed Intake Site
- Regional Water Treatment Facility
- Horizontal Directional Drill

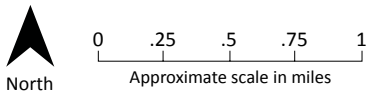
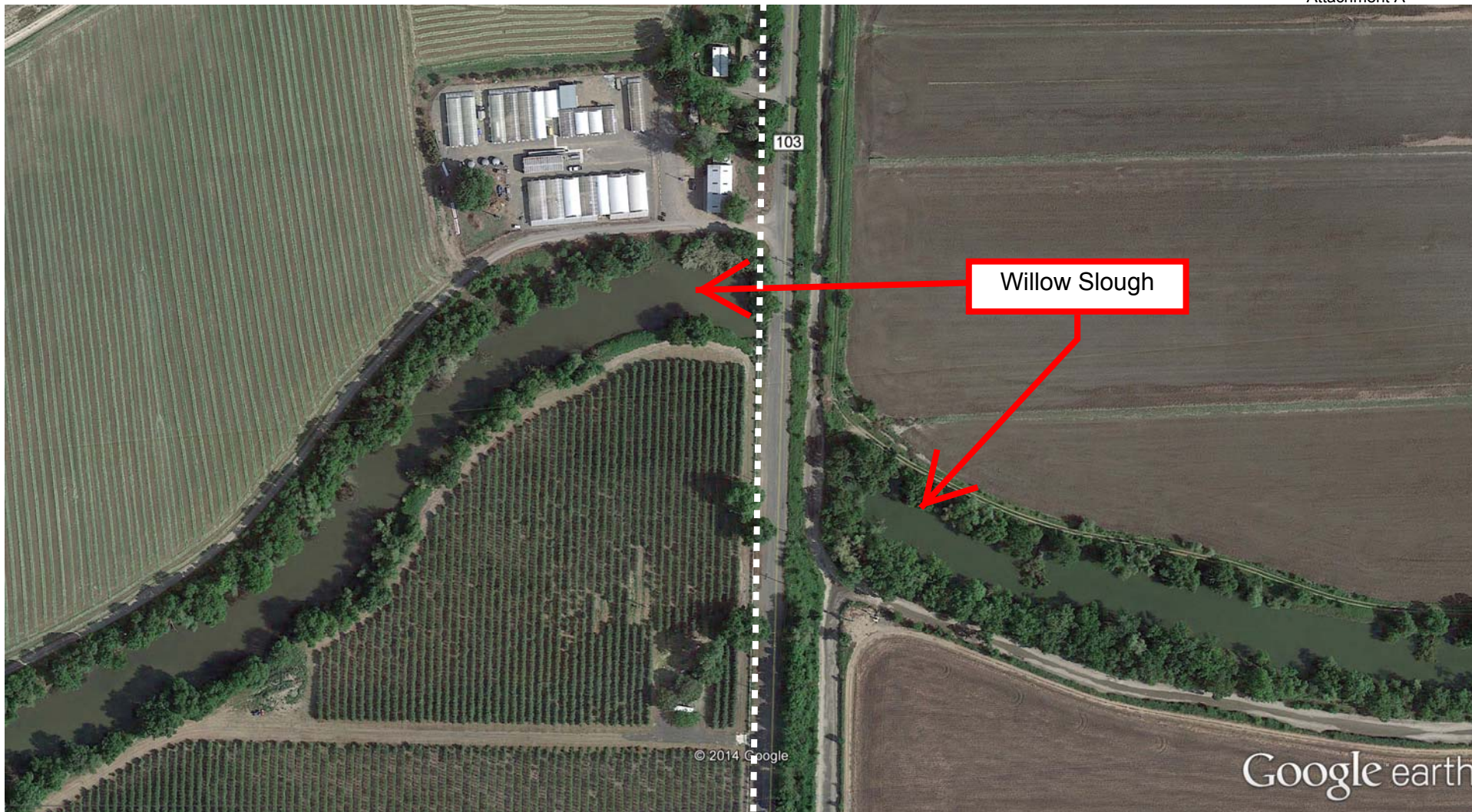


FIGURE 2
Overall Site Map
Woodland-Davis Clean Water Agency (WDCWA)
Davis Woodland Water Supply Project

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Google Earth Pro

feet
meters



Date & Time: Thu Jan 2 10:45:38 PST 2014

Position: 038°35'25.4"N / 121°42'42.8"W

Altitude: 39ft

Azimuth/Bearing: 179° S01E 3182mils (True)

Elevation Angle: -04.7°

Horizon Angle: +00.9°

Zoom: 1X

Attachment A



Looking south at the
Willow Slough Bypass

DRAFT

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

PERMIT NO. 18958 BD

This Permit is issued to:

Woodland-Davis Clean Water Agency
23 Russell Boulevard
Davis, California 95616

To install (trench) a new 30-inch diameter WSP water distribution pipeline across Willow Slough and Willow Slough Bypass. The project is located northeast of the City of Davis following County Road 103 to its southern extent at County Road 28 and approximately 3-miles east of Highway 113 (Vic Fazio Highway (Section 11, 35, T9N, R2E, MDB&M, Sacramento Maintenance Yard, Willow Slough Bypass, Yolo 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. 18958 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 Reclamation District No.2035 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

SEVENTEEN: 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.

EIGHTEEN: 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.

NINETEEN: A temporary bench mark, set to a known datum, shall be placed at the project site to monitor possible settlement during and after construction.

TWENTY: The permittee shall be responsible for the 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: Excavations below the levee and within the levee section or within 10 feet of the projected waterward and landward levee slopes shall have side slopes no steeper than 1 horizontal to 1 vertical. Flatter slopes may be required to ensure stability of the excavation.

TWENTY-TWO: The pipe shall be placed in the center of an open trench 2 feet wider than the diameter of the pipe or 2 times the diameter, whichever is greater.

TWENTY-THREE: The pipe shall be installed under the levee section at a right angle to the centerline of the levee.

TWENTY-FOUR: The pipe below the low-water channel of Willow Slough Bypass shall be buried with a minimum of 5 feet of cover.

TWENTY-FIVE: All pipe joints under the Project Works shall be butt welded.

TWENTY-SIX: Backfill material shall have 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 shall be free of stones or lumps exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material.

TWENTY-SEVEN: Backfill material shall be placed in 4- to 6-inch layers and compacted at or above optimum moisture content to not less than 90 percent relative compaction per ASTM Method D1557-91.

TWENTY-EIGHT: Each layer of backfill material shall be keyed into the levee section.

TWENTY-NINE: Density tests by a certified soils laboratory will be required to verify compaction of levee and trench backfill.

THIRTY: Pipe location markers shall be placed near both levee toes.

THIRTY-ONE: The project site shall be restored to at least the condition that existed prior to commencement of work.

THIRTY-TWO: 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-THREE: 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.

THIRTY-FOUR: 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.

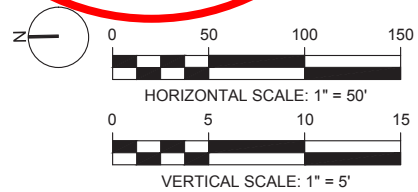
THIRTY-FIVE: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, 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.

THIRTY-SIX: 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.

THIRTY-SEVEN: 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-EIGHT: 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, 2014, which is attached to this permit as Exhibit A and is incorporated by reference.

THIRTY-NINE: 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.



CECWEST.COM



CH2MHILL.

OFF SITE FINISHED WATER PIPELINE TO DAVIS

PLAN AND PROFILE
STA 1107+50 TO STA 1119+50[illegible]

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0  1"	
DATE	MAY 16, 2014
PROJ	481331
DWG	95-C-2010
SHEET	51 of 99

