

**Meeting of the Central Valley Flood Protection Board
January 28, 2011**

Staff Report – Encroachment Permit

**Wolfsen Land and Cattle Company
Eastside Bypass Crossing, Merced County**

1.0 – ITEM

Consider approval of Permit No. 18624 (Attachment B)

2.0 – APPLICANT

Wolfsen Land and Cattle Company

3.0 – LOCATION

The project is located southwest of Merced, near Sandy Mush Road and Dan McNamara Road. (Eastside Bypass, Merced County, see Attachment A)

4.0 – DESCRIPTION

The applicant proposes to install (trench) a 1,610 feet long, 36-inch-diameter rubber gasket, reinforced concrete water pipeline underneath the Eastside Bypass and to install (trench) a 220 feet long, 36-inch-diameter rubber gasket, reinforced concrete pipe under the west levee of the Eastside Bypass.

5.0 – PROJECT ANALYSIS

The proposed project involves the installation of a 1,610 feet long, 36-inch diameter rubber gasket, reinforced concrete pipe (RCP) under the entire Eastside Bypass (bypass) and a second 220 feet long, 36-inch diameter rubber gasket, RCP under the west (left) bank levee of the bypass. The purpose of the RCP under the entire bypass is to convey water from land on the east side of the bypass to land on the west side of the bypass. The purpose of the RCP under the west bank levee is to divert flood water from the bypass to lands on the west side of the bypass. The proposed project will

convey water to a proposed 250 acre habitat area for migratory waterfowl on the westerly side of the bypass.

All RCP will be installed by the trenching method through the existing levees and across the bypass. The proposed project will be constructed in two phases. The first phase will involve placing temporary earthen coffer dams across the low flow channel of the bypass and the placement of a temporary culvert that will allow placement of the RCP under the low flow channel. The remainder of the RCP will be installed across the bypass and under the levees during the second phase of the project. The RCP will have a minimum of 3-feet of cover across the bypass with the exception of the low flow channel where the RCP will have a minimum of 5-feet of cover. The RCP will be backfilled and compacted with native soil material excavated from the trench; excess material will be removed from the bypass. All RCP penetrations through the levees will have shutoff gates located near the waterside hinge point of the levees per Title 23 and U.S. Army Corps of Engineers standards.

Soil borings were made in the vicinity of the proposed crossings. The native material was classified as stiff clay to a depth of three feet and sandy clay from three to five feet. This information was used to evaluate the potential for scour at the project site. Based on the native soil properties and the maximum channel velocity expected in the bypass at the project site, scour potential was determined to be minimal.

5.1 – Hydraulic Analysis

The proposed project does not require a hydraulic analysis as the RCP will be underground.

5.2 – Geotechnical Analysis

The proposed project has no significant geotechnical impacts to the Eastside Bypass. All earthwork shall be completed in compliance with Title 23 Standards

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

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

- Lower San Joaquin Levee District endorsed the proposed project by resolution dated May 13, 2010 and it will be incorporated into the permit as Exhibit A.
- The U.S. Army Corps of Engineers 208.10 comment letter has not yet been received for this application. Upon receipt of a favorable letter and review by Board staff it will be incorporated into the permit as Exhibit B.

7.0 – CEQA ANALYSIS

Board staff has prepared the following CEQA determination:

Turner Island Water District, as lead agency under CEQA, approved the project (East Side Bypass Crossing Project, SCH No. 2010128074) on December 13, 2010 and determined that the project was categorically exempt under Class 3 (CEQA Guidelines Section 15303) covering new construction or conversion of small structures.

The Board, acting as a responsible agency under CEQA, has reviewed the Turner Island Water District determination and has independently determined that the project is exempt from CEQA under Class 3 (CEQA Guidelines Section 15303) covering new construction or conversion 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 entire State Plan of Flood Control:

The proposed project has minimal effects to the State Plan of Flood Control as the proposed project will be underground. Removal of flood waters from the Eastside Bypass can be considered a minor betterment to the State Plan 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 effects from projected future events as the proposed project will be underground.

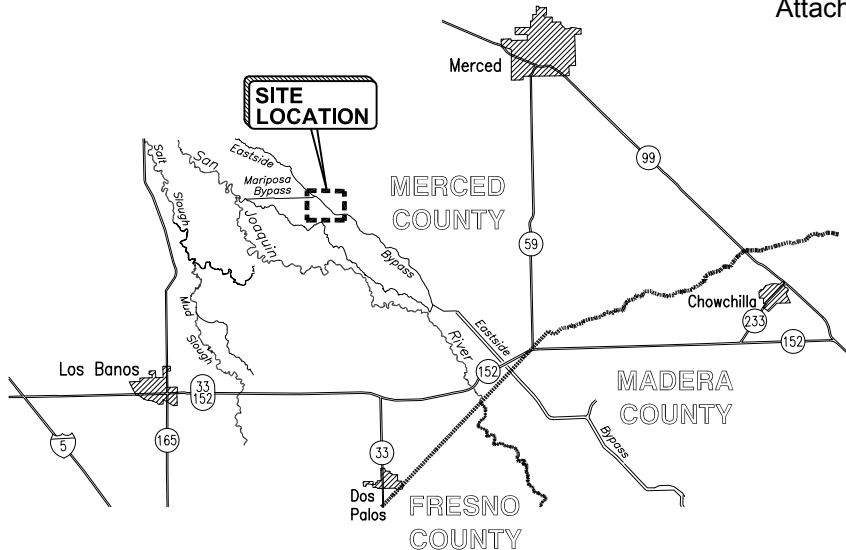
9.0 – STAFF RECOMMENDATION

Staff recommends that the Board determine the project to be exempt from CEQA and to approve the permit conditioned upon receipt of a favorable U.S. Army Corps of Engineers comment letter.

10.0 – LIST OF ATTACHMENTS

- A. Location Maps
- B. Draft Permit No. 18624
- C. Design Drawings

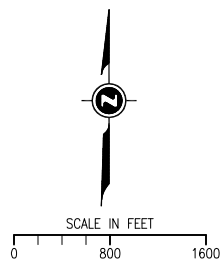
Design Review:	Gary W. Lemon P.E.
Environmental Review:	James Herota and Andrea Mauro
Document Review:	Mitra Emami P.E., Curt Taras P.E., Len Marino P.E.



NORTH



VICINITY MAP



SITE MAP

PRELIMINARY
 For Review Only
 Subject to Revision
 OCTOBER 13, 2010

WOLFSEN LAND & CATTLE CO.

PROPOSED EAST SIDE BYPASS
CROSSING

SUMMERS ENGINEERING INC.
Consulting Engineers
 HANFORD CALIFORNIA

MARCH 2010

DRAFT

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

PERMIT NO. 18624 BD

This Permit is issued to:

Wolfsen Land and Cattle Company
1269 West I Street
Los Banos, California 93635

To install (trench) a 1,610 linear foot, 36-inch-diameter rubber gasket reinforced concrete water pipe under and across the channel; install (trench) 220 linear foot, 36-inch-diameter rubber gasket reinforced concrete pipe under the west levee of the Eastside Bypass. The project is located southwest of Merced, near Sandy Mush Road and Dan McNamara Road (Section 32, T8S, R12E, MDB&M, Eastside Bypass, Merced 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. 18624 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 Lower San Joaquin Levee District shall not be held liable for damages to the permitted encroachment(s) resulting from releases of water from reservoirs, 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 July 15th without prior approval of the Central Valley Flood Protection Board.

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

NINETEEN: 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.

TWENTY: The permittee shall provide supervision and inspection services acceptable to the Central Valley Flood Protection Board. A professional engineer registered in the State of California shall certify that all work was inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

TWENTY-ONE: During construction of the project, any and all anticipated or unanticipated conditions encountered which may impact levee integrity or flood control shall be brought to the attention of the Flood Project Inspector immediately and prior to continuation of the project.

TWENTY-TWO: A temporary bench mark, set to a known datum, shall be placed at the project site during construction.

TWENTY-THREE: No material stockpiles, temporary buildings, or equipment shall remain in the Eastside Bypass during the flood season from November 1st to July 15th.

TWENTY-FOUR: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the Eastside Bypass during the flood season from November 1st to July 15th.

TWENTY-FIVE: Excavations below the design flood plane 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-SIX: Pipe installed below the levee section and within 10 feet of the levee toes shall be precast reinforced concrete pipe (RCP) that meets ASTM Specification C76-90, or equivalent.

TWENTY-SEVEN: The wall thickness of the RCP within the levee sections shall not be less than 6-inches.

TWENTY-EIGHT: The 36-inch diameter RCP shall be installed through the levee sections at a right angle to the centerline of the levee.

TWENTY-NINE: Each RCP 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.

THIRTY: The precast RCP through the levee sections and within 10-feet of the projected levee toes shall be encased below the springline in concrete cast against undisturbed earth.

THIRTY-ONE: Precast RCP joints through the levee sections and within 10-feet of the projected levee toes shall be secured with hoop steel and encased in reinforced concrete.

THIRTY-TWO: The RCP below the low-water channel of the Eastside Bypass shall be buried with a minimum of 5-feet of cover, for all other areas inside the Eastside Bypass the RCP shall be buried with a minimum of 3-feet of cover.

THIRTY-THREE: Backfill material for excavations within the levee section shall be free of stones or lumps that exceed 3 inches in greatest dimension, organic matter, or other unsatisfactory material and shall be compacted to at least 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY-FOUR: Backfill material for excavations within the levee section and within 10 feet of the levee toes shall be placed in 4- to 6-inch layers, moisture conditioned above optimum moisture content, and compacted to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY-FIVE: Backfill material for excavations inside the Eastside Bypass shall be placed in 4- to 6-inch layers and compacted to at least the density of the adjacent, firm, undisturbed material.

THIRTY-SIX: Excess spoil material shall be removed from the Eastside Bypass and disposed of outside of the project works.

THIRTY-SEVEN: Compaction tests by a certified soils laboratory will be required to verify compaction of backfill within the levee section or within 10 feet of the levee toe.

THIRTY-EIGHT: Positive-closure devices that are readily accessible during periods of high water shall be installed on the waterward side of the levees.

THIRTY-NINE: The pipelines shall be tested and confirmed free of leaks by X-ray, pressure tests, or other approved methods during construction or anytime after construction upon request by the Central Valley Flood Protection Board.

FORTY: The levee crowns shall be surfaced with a minimum of 4 inches of compacted, Class 2, aggregate base (Caltrans Specification 26-1.02A).

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

FORTY-TWO: 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.

FORTY-THREE: 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.

FORTY-FOUR: If the pipelines result in an adverse hydraulic impact to the Eastside Bypass and/or the levees, the permittee shall provide appropriate mitigation measures, to be approved by the Central Valley Flood Protection Board, prior to implementation of mitigation measures.

FORTY-FIVE: 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.

FORTY-SIX: 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.

FORTY-SEVEN: 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.

FORTY-EIGHT: 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.

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

FIFTY: The permittee shall comply with all conditions set forth in the letter from the Lower San Joaquin Levee District dated May 13, 2010, which is attached to this permit as Exhibit A and is incorporated by reference.

FIFTY-ONE: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated January XX, 2011, which is attached to this permit as Exhibit B and is incorporated by reference.

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Lower San Joaquin Levee District
11704 West Henry Miller Avenue, Dos Palos, CA 93620
Telephone: (209) 387-4545
FAX: (209) 387-4237

Directors

Lloyd Roduner, Chairman
Henry J. Favier, Vice Ch.
Roy Catania
Sean Howard
Paul Hunger, Jr.
Robert D. Kelley, Jr.
Donald C. Skinner

Secretary-Manager
Reggie N. Hill

Superintendent
James E. Batey

May 13, 2010

Central Valley Flood Protection Board
Encroachment Permit Section
3310 El Camino Avenue, Room LL40
Sacramento, CA 95821

RE: Wolfsen Land & Cattle Company - Eastside Bypass

Enclosed you will find **Resolution No. 604-10**, which was adopted by the Board of Directors of the Lower San Joaquin Levee District at their regular meeting held on April 13, 2010. This resolution states the District does not oppose the Wolfsen Land & Cattle Company's application to the Central Valley Flood Protection Board for a permit to install a pipeline beneath the Eastside Bypass channel and project levees, and a pipeline turnout in the left levee. The resolution does stipulate two conditions of not opposing the application: 1) applicant agrees to indemnify and hold the Levee District harmless of any liability relative to any foreseeable failure of the pipeline, by any means; 2) determination of the scour line depth of the bypass channel invert is the responsibility of the applicant and not the Levee District.

If there are any questions regarding this matter, please contact me at the District office.

Sincerely,



Reggie N. Hill, Secretary-Manager

Encls.

cc Wolfsen Land & Cattle Company

LOWER SAN JOAQUIN LEVEE DISTRICT

DOS PALOS, CALIFORNIA

RESOLUTION NO. 604-10

WHEREAS, The Board of Directors of the Lower San Joaquin Levee District read the Central Valley Flood Protection Board permit application by Wolfsen Land & Cattle Company, 1269 West I Street, Los Banos, CA, regarding the proposal of installing a water pipeline and turnout beneath the Eastside Bypass channel and project levees, Section 32, T.8 S, R. 12 E., M. D. B. & M., in Merced County, within the boundaries of the Levee District; and

WHEREAS, The 36-inch reinforced concrete pipeline installation location is to traverse beneath the entire Eastside Bypass right-of-way, from the left levee, Unit #6 - approximate Levee Mile 11.0, across the channel, to the right levee, Unit #5 - approximate Levee Mile 10.0; and will consist of the method of linear trenching through the levees and channel berm; maintain a 3-foot cover over all installations at any point; and

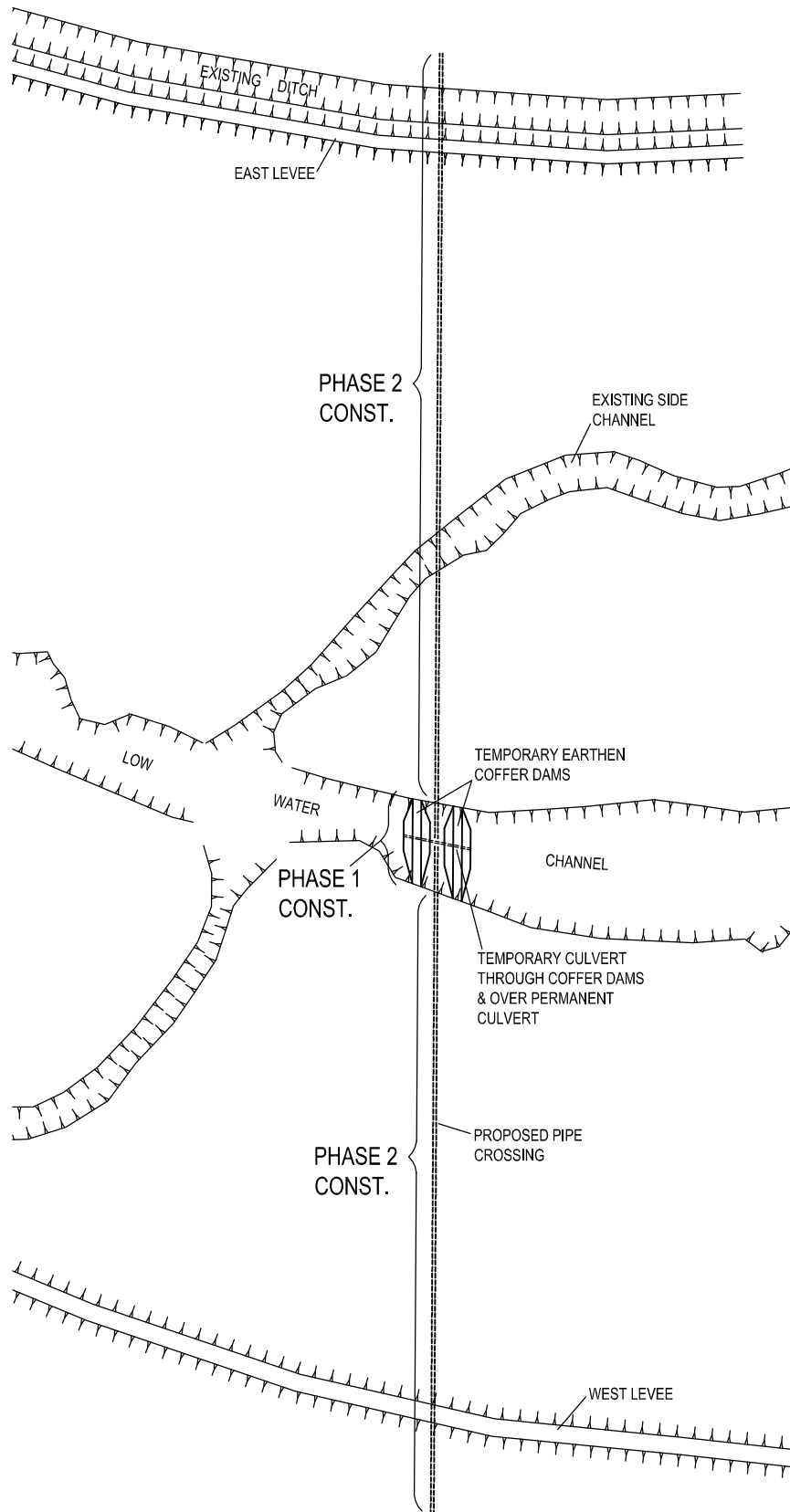
WHEREAS, The 36-inch reinforced concrete turnout installation location is to be beneath the Eastside Bypass left levee, Unit #6 - approximate Levee Mile 11.0; and will consist of the method of linear trenching through the levees and channel berm; maintain a 3-foot cover over all installations at any point; and

WHEREAS, the Levee District staff have reviewed the permit and stated no impacts to the operations and maintenance of the flood project, as presented, will be affected; and

WHEREAS, This Board has reviewed and studied the information presented; and

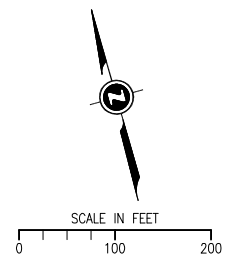
NOW, THEREFORE, BE IT RESOLVED, The Board of Directors of the Lower San Joaquin Levee District, by this Resolution, hereby does not object to the aforementioned application, but does require the following conditions: 1) applicant agrees to indemnify and hold the Levee District harmless of any liability relative to any foreseeable failure of the pipeline and turnout, by any means; 2) determination of the scour line depth of the bypass channel invert is the responsibility of the applicant and not the Levee District; and

BE IT FURTHER RESOLVED, Notification of this action will be transmitted to the Central Valley Flood Protection Board and applicant.



NOTES

1. SATURATED OR EXCESSIVELY WET MATERIAL REMOVED FROM THE PIPE TRENCH AND COFFER DAMS SHALL NOT BE USED TO BACKFILL PIPE TRENCH OR LEVEES.



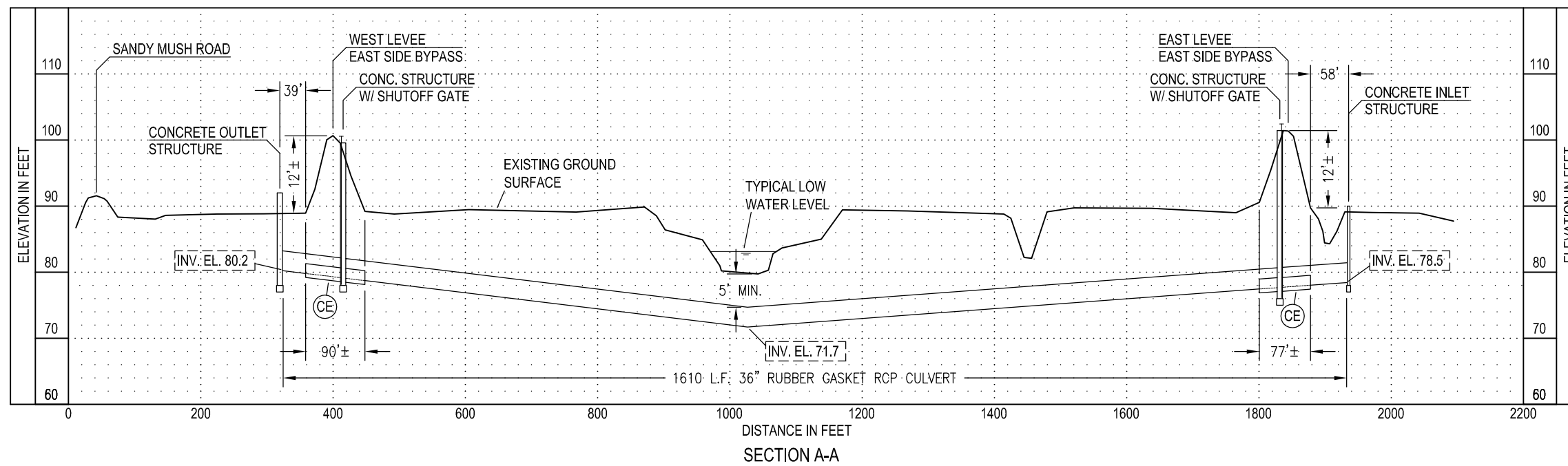
SITE PLAN

WOLFSEN LAND & CATTLE CO.

PROPOSED EAST SIDE BYPASS
CROSSING
CONSTRUCTION STAGING PLAN

SUMMERS ENGINEERING INC.
Consulting Engineers
HANFORD CALIFORNIA

OCTOBER 2010

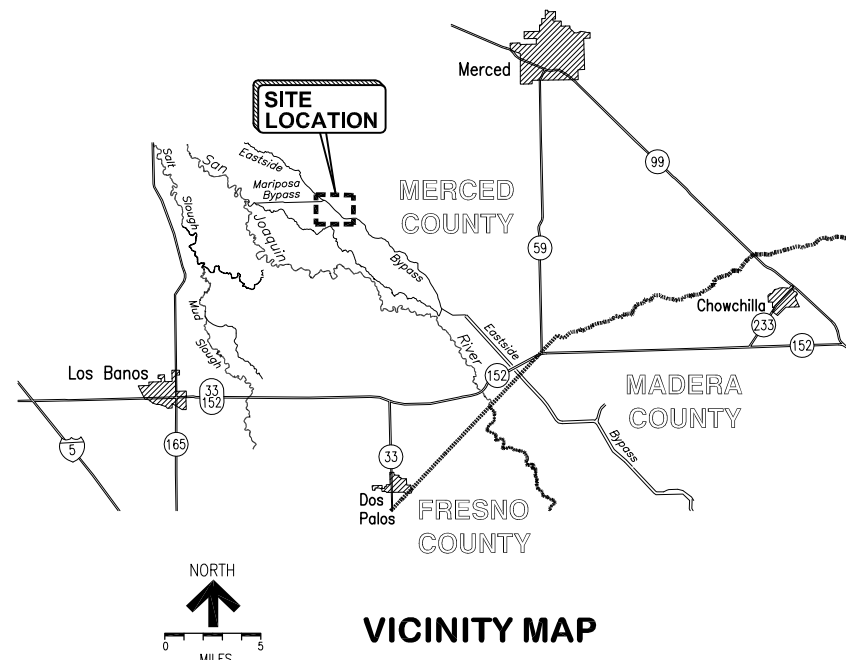
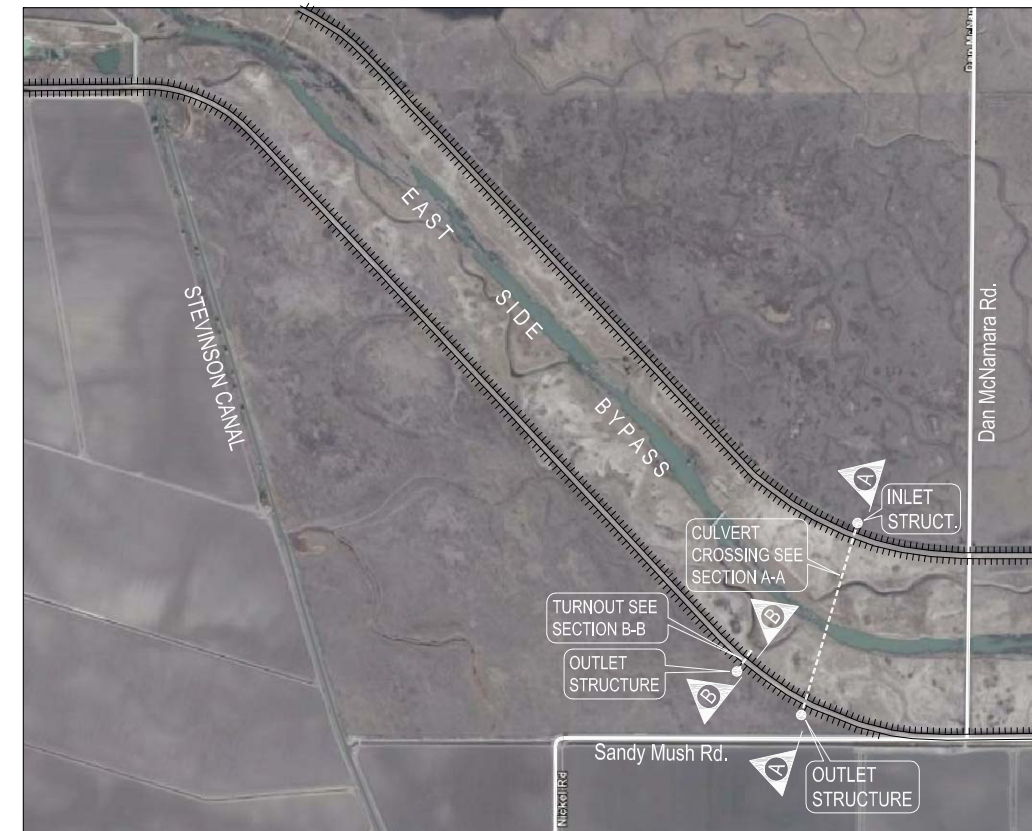
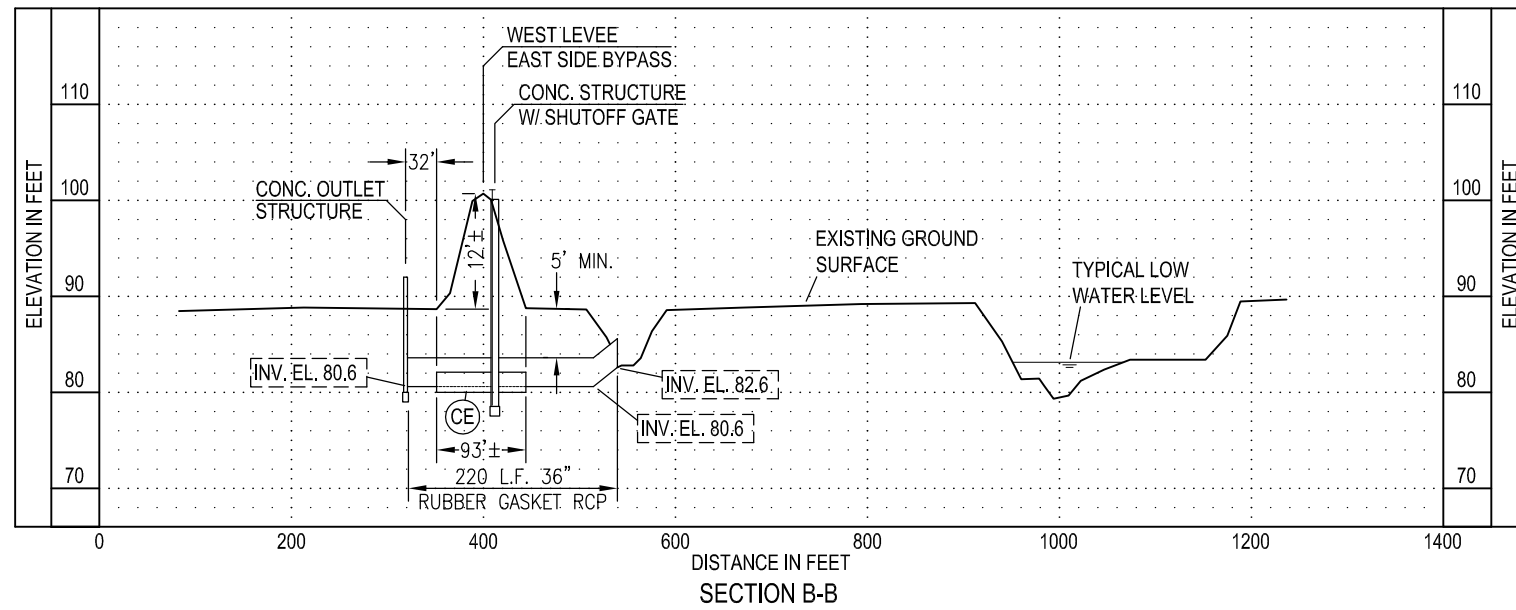


LEGEND

- CROSS SECTION LOCATION
- EXISTING BYPASS LEVEE
- CONCRETE ENCASUREMENT BELOW CENTERLINE OF PIPE UNDER LEVEES

GENERAL NOTES

1. PIPELINES SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) IN ACCORDANCE WITH ASTM C-76.
2. PIPE BACKFILL SHALL BE CONCRETE FROM TRENCH BOTTOM TO PIPE CENTERLINE AND COMPACTED NATIVE MATERIAL ABOVE PIPE CENTERLINE. NATIVE MATERIAL SHALL BE PLACED IN FOUR TO SIX INCH LAYERS COMPACTED TO 90% RELATIVE COMPACTION PER ASTM D1557-91 OR 97% RELATIVE COMPACTION PER ASTM D698-91. EXCESS MATERIAL NOT USED FOR PIPE TRENCH BACKFILL SHALL BE REMOVED FROM THE BYPASS CHANNEL.
3. SOIL BORINGS WERE MADE IN THE VICINITY OF THE PROPOSED CROSSINGS AND NATIVE MATERIAL WAS CLASSIFIED BY A REGISTERED GEOLOGIST AS FOLLOWS :
 0'-3' DEPTH CLAY, STIFF TO VERY STIFF
 3'-5' DEPTH SAND CLAY, STIFF WITH SLIGHTLY CEMENTED LAYERS
4. SHUTOFF GATES SHALL CONFORM TO ARMY CORP STANDARD EM1110-2-19-13.



SITE MAP

PRELIMINARY
 For Review Only
 Subject to Revision
 OCTOBER 13, 2010

WOLFSEN LAND & CATTLE CO.
 PROPOSED EAST SIDE BYPASS
 CROSSING
SUMMERS ENGINEERING INC.
 Consulting Engineers
 HAWFORD CALIFORNIA
MARCH 2010