

**Meeting of the Central Valley Flood Protection Board
January 25, 2019**

Permit Staff Report

**City of Davis
Storm Drain Pipe Abandonment, Yolo County**

1.0 – ITEM

Consider revisions to Permit No. 12789-1 (Attachment A).

2.0 - APPLICANT

City of Davis (City).

3.0 – PROJECT LOCATION

The project is located at the left (north) bank levee of the Willow Slough Bypass directly south of City's Wastewater Treatment Plant.
(Willow Slough Bypass, Yolo County, Attachment B)

4.0 – PROJECT DESCRIPTION

The City proposes to abandon in-place the existing 36-inch diameter storm drain pipeline that passes through the Willow Slough Bypass Levee (Attachment C).

5.0 – AUTHORITY OF THE BOARD

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

California Code of Regulations, Title 23, Division 1 (Title 23):

- § 6, Need for a Permit

- § 13.3, Consent Calendar
- § 112, Streams Regulated and Nonpermissible Work Periods
- § 120, Levees
- § 124, Abandoned Pipelines and Conduits.

6.0 - PROJECT ANALYSIS

The City has proposed to abandon the existing 36-inch corrugated metal pipeline (storm drain line) that runs through the left (north) bank levee of the Willow Slough Bypass. The Willow Slough Bypass levees are project levees and the channel is a project channel with a design flow of 6000 cfs. The levees and channel are maintained by the Sacramento Maintenance Yard (Maintenance Area 4).

The pipeline was installed to discharge the stormwater runoff from the City's wastewater treatment plant into a ditch within the Willow Slough Bypass. Based on the internal inspection performed by the Department of Water resources in 2017, the pipe appears to be in a good condition.

The pipeline has not been used for past several years as the wastewater treatment plant now uses a detention pond within the facility. There is no permit associated with this pipeline; however, this pipeline is included in the Supplement to standard Operation and Maintenance Manual, Sacramento River Flood Control Project, Unit 120 (Relocated Willow Slough channel and levees and west levee Yolo Bypass from mouth of relocated Willow Slough to Yolo Causeway). The upstream end of the pipeline is plugged with soils and has been covered for many years. The proposed abandonment involves:

1. Removing the flap gate on the water side of the levee;
2. Excavating approximately 3 feet into the levee prism to expose the pipeline on the waterside and allow for cutting so the abandoned pipe will not extend beyond the existing waterside levee slope;
3. Plugging the cut end of the pipe with a welded steel plate;
4. Installing inspection pipe on waterside end of the existing pipe (there is an existing concrete plug and inspection pipe on the landside end of the pipe to be abandoned);
5. Filling the pipe with a 3-sack concrete mix (grout). The inspection pipes will be used to confirm that the abandoned pipe is completely filled with concrete;
6. Cutting hole in the landside of the pipe and install a connection to pump grout mixture;

7. Excavate on the landside to expose the pipe as necessary to install a concrete plug or steel plate (Attachment C); and
8. Backfilling the levee slope over the abandoned pipe and returning the waterside levee slope to original grade along with backfilling the landside exposure.

6.1 – Hydraulic Analysis

The abandoned storm drain line will only remain within the Willow Slough Bypass north levee. Any additional existing facilities associated with this storm drain line will be removed from the Willow Slough Bypass floodway. Since no structure associated with this storm drain line will remain in the floodway, no hydraulic analysis is required for this work.

6.2 – Geotechnical Analysis

The proposed work involves uncovering soil layers on the waterside of the levee which involves minor excavations into the waterside levee slope to expose the storm drain line on the waterside to allow for cutting so the abandoned storm drain line will not extend beyond the existing waterside levee slope. The waterside levee slope will be backfilled as per Title 23 standards and returned to the original grade. For this minor excavation and backfilling, a geotechnical analysis is usually not required, and no negative geotechnical impact is anticipated for the proposed work.

7.0 – AGENCY COMMENTS AND ENDORSEMENTS

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

- USACE 33 U.S.C. 408 permission letter has been received for this application. The USACE Sacramento District Engineer approves the request to alter the Federal flood risk reduction project, subject to conditions. The letter is incorporated into the permit as Exhibit A.
- The Sacramento Maintenance Yard (Maintenance Area 4) has endorsed this application on January 9, 2019 without conditions.

8.0 – CEQA ANALYSIS

Board staff has prepared the following California Environmental Quality Act (CEQA) determination:

The Board, as a responsible agency under CEQA, has reviewed the Initial Study, Mitigated Negative Declaration (IS/MND) (SCH No. 2013052032, June 2013) and the Mitigation Monitoring and Reporting Program (MMRP) for the City of Davis WWTP Secondary and Tertiary Improvements Project, prepared by the lead agency, City of Davis. These documents, including project design and MMRP, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://cvfpb.ca.gov/event/January-2019-regular-business-meeting/> under a link for this agenda item. The documents are also available for review in hard copy at the Board and City offices.

The City determined that the project would not have a significant effect on the environment, and on June 28, 2013 filed a Notice of Determination with the State Clearinghouse. The City made revisions to the project and/or incorporated mandatory mitigation measures into the project plans to avoid impacts or to mitigate such impacts to a point where no significant adverse impacts will occur. These mitigation measures are included in the City's IS/MND and address impacts to air quality, biological resources, cultural resources, and transportation/traffic. The mitigation measures are further described in the City's adopted IS/MND.

In accordance with CEQA Guidelines Section 15096(e), Board staff independently reviewed the City's IS/MND, and finds these environmental documents prepared by the lead agency adequately address hydrology impacts, including potential flood risk, within the Board's jurisdiction. The Board, as a responsible agency, is responsible for mitigating and avoiding only the direct and indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve (CEQA Guidelines § 15096(g); Public Resources Code § 21002.1(d)). In accordance with CEQA Guidelines Section 15096(f) and (g), staff recommends the Board make responsible agency findings that approval of Permit No. 12789-1 would not have a significant adverse impact and no additional mitigation measures within the Board's jurisdiction are required.

The documents and other materials which constitute the record of the Board's proceedings in this matter are in the custody of the Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Suite 170, Sacramento, California 95821.

9.0 – CA WATER CODE SECTION 8610.5 AND OTHER 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 relates to the scientific issues presented by the executive officer, legal counsel, the Department of Water Resources or other parties that raise credible scientific issues.

The accepted industry standards of hydrology and hydraulics 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 facilities of the State Plan of Flood Control (SPFC).

The proposed pipe abandonment is expected to result in no adverse effect on any SPFC facilities because the proposed abandonment increases flowage area by removing all features from the channel. The proposed pipe abandonment is consistent with the Central Valley Flood Protection Plan because it improves flood risk management by removing a levee penetration and increasing the flowage area with the Willow Slough Bypass. This will also allow for better levee maintenance by removing above ground encroachments.

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

The proposed pipe abandonment project increases flowage area within the Willow Slough Bypass and properly abandons a pipe that was no longer functional. Therefore, it is expected that there will be no detrimental effects from reasonable projected future events due to the proposed pipe abandonment.

10.0 – STAFF RECOMMENDATION

Staff recommends that the Board:

Adopt:

- CEQA finding: The Board, acting as a responsible agency under CEQA, has independently reviewed and considered the environmental documents prepared for the project. Approving the Permit 12789-1 would not result in any significant adverse impacts related to flood risk and no additional mitigation measures within the Board's jurisdiction are required.

Approve:

- Draft Encroachment Permit No. 12789-1 in substantially the form provided in Attachment A; and,

Direct:

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

11.0 – LIST OF ATTACHMENTS

- A. Draft Permit No. 12789-1
- B. Location Map
- C. Project Plans

Reviewers:

Design Review:	Deb Biswas, Engineer, Permitting Section
Environmental Review:	Itzia Rivera, Senior Environmental Scientist
Document Review:	Gary W. Lemon, P.E., Permitting Section Chief
	Kelly Soule, P.E., Operations Branch Chief
	Itzia Rivera, Environmental Services Section, Acting Chief
	Michael C. Wright, P.E., Acting Chief Engineer
Legal Review:	Jit Dua, Board Counsel

DRAFT

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

PERMIT NO. 12789-1 BD

This Permit is issued to:

City of Davis
23 Russell Boulevard
Davis, California 95616

To abandon the existing 36-inch pipeline through the Willow Slough Bypass Levee.

The project is located south of City of Davis Wastewater Treatment Plant, at 38.590630°N 121.665548°W, 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. 12789-1 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 Sacramento Maintenance Yard 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

SIXTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications dated December, 2014 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: 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.

EIGHTEEN: In the event that levee or bank erosion injurious to the adopted plan of flood control occurs at or adjacent to the permitted encroachment(s), the permittee shall repair the eroded area and propose measures, to be approved by the Board, to prevent further erosion.

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

TWENTY: 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 November 29, 2018, which is attached to this permit as Exhibit A and is incorporated by reference.

TWENTY-ONE: The permittee agrees to notify any new property/encroachment owner(s) that they are required to submit a permit Name Change request form to the Board upon completion of the sale. The new owner(s) will be required to comply with all permit conditions. Name Change forms are available at <http://cvfspb.ca.gov/>

TWENTY-TWO: The Board reserves the right to add additional, or modify existing, conditions when there is a change in ownership and/or maintenance responsibility of the work authorized under this permit.

PRE-CONSTRUCTION

TWENTY-THREE: 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-FOUR: 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. Failure to submit a Time Variance Request to the Board at least 10 working days prior to November 1 may result in a delay of the project.

TWENTY-FIVE: Prior to placement of fill against the levee slope and within 10 feet of the levee toe, all surface vegetation shall be removed to a depth of 6 inches. Organic soil and roots larger than 1-1/2 inches in diameter shall be removed to a depth of 3 feet.

TWENTY-SIX: Fill on the levee slope shall be keyed into the existing levee section with each lift.

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 the current ASTM D1557 standard.

TWENTY-EIGHT: 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.

TWENTY-NINE: Concrete backfill for abandoned pipeline shall be at least a 3-sack cement mix or equivalent with 6- to 8-inch slump and all aggregate smaller than the 3/8-inch sieve. Only the minimum pressure needed to fill the pipe with concrete shall be applied. If the cellular concrete material is used for pipe backfilling, it shall be maintained at a consistency to facilitate pumping. Pumping shall take place in the up-slope direction to ensure that the pipe will be completely filled leaving no voids.

POST-CONSTRUCTION

THIRTY: All debris generated by this project shall be properly disposed of outside the Willow Slough Bypass north (left) levee floodway and project right-of-way.

OPERATIONS AND MAINTENANCE

THIRTY-ONE: 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, Sacramento Maintenance Yard, 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.

THIRTY-TWO: The permitted encroachment(s) shall not interfere with the 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) within 30-days of being notified in writing by the Board. In the event of an emergency a shorter timeframe may be required. If the permittee does not comply, the Board, or a designated agency or company authorized by the Board, may modify or remove the encroachment(s) at the permittee's expense.

PROJECT ABANDONMENT / CHANGE IN PLAN OF FLOOD CONTROL

THIRTY-THREE: 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. The permittee shall remove the encroachment(s) within 30-days of being notified in

writing by the Board. In the event of an emergency a shorter timeframe may be required. If the permittee does not comply the Board will remove the encroachment(s) at the permittee's expense.

END OF CONDITIONS



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

408 Permission Section (12789-1)

NOV 29 2018

Ms. Leslie M. Gallagher
Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 170
Sacramento, CA 95821

Dear Ms. Gallagher:

We have reviewed permit application number 12789-1 submitted by the City of Davis to alter the Sacramento River Flood Control Project authorized by the Flood Control Act of 1917, as amended. These plans include abandoning an existing 36-inch pipeline through the Willow Slough Bypass Levee. The project is located south of the City of Davis Wastewater Treatment Plant, at 38.590630°N 121.665548°W NAD83, Yolo County, CA.

The Sacramento District (Corps) has reviewed this application and determined that the alteration will not be injurious to the public interest and will not impair the usefulness of the project works. Pursuant to Section 14 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 408 (Section 408), the District Engineering Division Chief approves the request to alter the Federal flood risk reduction project subject to the following conditions:

- a. That the proposed work shall not be performed during the flood season of November 1 to April 15, unless otherwise approved in writing by your Board.
- b. That in the event trees and brush are cleared, they shall be properly disposed of either by complete burning or complete removal outside the limits of the project right-of-way.
- c. Prior to the start of the proposed project, the remaining portion of the 36-inch pipeline within the levee embankment shall be video inspected or pressure tested to ensure the existing pipe condition is satisfactory and acceptable for permanent abandonment.
- d. The cellular concrete material shall be maintained at a consistency to facilitate pumping. Pumping shall take place in the up-slope direction to ensure that the pipe will be completely filled leaving no voids.
- e. All excavations shall meet Federal, State, Local, and OSHA criteria for soil type. Temporary excavations shall be no steeper than 2 (horizontal): 1 (vertical).
- f. All excavations shall be backfilled with excavation material placed in 4- to 6-inch-thick loose lifts and compacted to no less than 90% of the maximum density at moistures between -2 and +3 percent of optimum moisture content obtained from ASTM D1557 or 95% of the maximum density at moistures between -2 and +3 percent of optimum moisture content obtained from ASTM D698.

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g. That any debris generated by this project shall be disposed of outside the limits of the project right-of-way.

h. That appropriate property rights shall be acquired as needed for construction, operation, and maintenance of this alteration. An approval under Section 408 does not grant property rights or exclusive privileges.


i. To ensure your project complies with the Federal Endangered Species Act, you shall implement all of the avoidance and minimization measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (08ESMF00-2014-I-0517-2, dated October 15, 2014). If you are unable to implement any of the proposed measures, you must immediately notify the Corps, prior to initiating the work, so the Corps may reinstate consultation as appropriate, in accordance with the Federal Endangered Species Act.

j. That if you discover any previously unknown historic properties (36 CFR § 800.13) while accomplishing the activity authorized by this Section 408 permission, you shall immediately notify the Corps of what you have found. The Corps will initiate any necessary Federal and State coordination to ensure continued compliance with the National Historic Preservation Act.

Based upon the information provided, no Section 10 or Section 404 permit is needed.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief, Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite 200, Sacramento, CA 95821. For any questions regarding this permission, please contact Kimberlee Leonard at 916-557-7183.

Sincerely,


Rick L. Poeppelman, P.E.
Chief, Engineering Division
Levee Safety Officer

Enclosure



United States Department of the Interior



In Reply Refer to:
08FSAH-00
2014-1-0517-2

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

OCT 15 2014

Ms. Carina Gaytan
Environmental Scientist
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95812-0100

Subject: Informal Consultation on the City of Davis Wastewater Treatment Plant
Improvements Project, Yolo County, California (CWSRF Number C-06-8010-110)

Dear Ms. Gaytan:

This letter is in response to the California State Water Resources Control Board's (State Water Board) May 5, 2014, request for initiation of informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed City of Davis Wastewater Treatment Plant Improvements Project (proposed project) in Yolo County, California. The State Water Board is the designated non-federal representative of the U.S. Environmental Protection Agency, Region 9 (EPA) for purposes of conducting informal consultation. Your request, which included the May 2014 *City of Davis WWTP Secondary and Tertiary Improvements Project Biological Assessment* (biological assessment) prepared by ESA (consultant), was received by the Service on May 7, 2014. The Service requested additional information in order for consultation to be initiated in an August 13, 2014, letter. Your September 16, 2014, letter, including the additional information requested, was received in our office September 18, 2014. The biological assessment and additional information present an evaluation of the proposed project's effects on species federally-listed under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.) (Act).

The federal action we are consulting on is the issuance of funding under the Clean Water State Revolving Fund Program (CWSRF) to the city of Davis (applicant) for improvements to the wastewater treatment plant (WWTP) in order to meet new effluent standards. The CWSRF is partially funded by a capitalization grant from the EPA. This response is provided under the authority of the Act, and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

The findings presented in the biological assessment conclude that the proposed project may affect, but is not likely to adversely affect the federally-listed as threatened giant garter snake (*Thamnophis gigas*) (snake). The proposed project is not within designated or proposed critical habitat for any federally-listed species.

ENCLOSURE

Ms. Carina Gaytan

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In considering your request, we based our evaluation of the biological assessment's findings on the following: 1) the May 5, 2014, letter initiating informal consultation; 2) the May 2014 biological assessment received by the Service on May 7, 2014; 3) the September 16, 2014, letter and additional information received by the Service on September 18, 2014; and 4) additional information available to the Service.

The proposed project is located at the WWTP, east of the city of Davis along County Road 28H. Proposed project activities will occur entirely within the WWTP property and include:

- Installation of new activated sludge process, including biological reactor vessels and secondary clarifiers, new filtration facilities, additional disinfection facilities, and additional storage facilities;
- Modification and replacement of existing support facilities, such as electrical generators, water systems, and the maintenance, laboratory, and administrative support facilities;
- Construction of a flood protection wall surrounding the central treatment area; and
- Raising the existing levee on the south side of the WWTP along Willow Slough Bypass. Construction of these improvements will only occur on the land side of the levee.

Most of the new facilities will be constructed in an area that contains existing treatment processes. A new drying bed and detention facility will be placed in a portion of the WWTP currently utilized as spray fields. The proposed project is expected to either improve or have no effect on water quality downstream of the WWTP. Construction is anticipated to last approximately 36 months.

In addition to implementing best management practices to prevent soil, debris, and oil or grease from entering stormwater runoff, the applicant has proposed the following avoidance and minimization measures in order to prevent adverse effects to the snake:

- No less than 24-hours prior to the commencement of construction activities, a preconstruction survey shall be conducted to survey for snakes by a Service-approved biologist. The biologist will provide the Service with a written report that adequately documents the monitoring efforts. The project area shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred;
- A Worker Environmental Awareness Training Program for construction personnel shall be conducted by the Service-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The program shall provide workers with information on their responsibilities with regard to the snake, an overview of the life-history of this species, information on take prohibitions, and protections afforded this animal under the federal Endangered Species Act. Written documentation of the training must be submitted to the Sacramento Fish and Wildlife Service Office within 30 days of the completion of training. As needed, training shall be conducted in Spanish for Spanish language speakers;

Ms. Carina Gaytan

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- An on-call biologist shall be available for construction personnel to contact in the event that a snake is encountered in the construction footprint;
- Construction activity within potential snake habitat shall be conducted between May 1 and October 1. This is the active period for the snake and the potential for direct mortality is lessened as snakes are expected to actively move and avoid danger. If it appears that construction activity may go beyond October 1, the applicant's prime contractor shall contact the Service as soon as possible, but no later than September 15th of the year in question, to determine if additional measures are necessary. A Service-approved biologist shall inspect construction-related activities and shall be available for monitoring throughout all phases of construction;
- Between April 15 and October 1, any surface water that requires dewatering that is considered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling the dewatered habitat; and
- Movement of heavy equipment to and from the project site shall be restricted to establish roadways to minimize habitat disturbance.

After reviewing all the available information, we concur with your determination that the proposed project is not likely to adversely affect the snake. The proposed project reached the 'may affect' level, and the subsequent requirement for a biological assessment, due to the fact that the proposed project occurs within the known range of the snake, and snakes may be present in the action area. There are 26 known snake occurrences in the California Natural Diversity Database (CNDDDB) in the vicinity of the WWTP, including two in irrigation ditches immediately adjacent to the WWTP property (CNDDDB 2014), and snakes have been documented in the Willow Slough Bypass (Service 2012). Although formal surveys have not been conducted on-site, a biologist for the applicant has monitored the WWTP for 13 years and not encountered a snake.

Current habitat conditions and operational disturbances of the WWTP make it unlikely that snakes would be found on site. The spray fields are consistently irrigated, making the soil saturated and unsuitable as refugia for the snake. In addition, the spray fields are frequently accessed by operational staff and heavy equipment to mow vegetation, maintain spray heads and supply lines, scour cobble-lined collection swales and adjacent embankments, control weed growth, and periodically renovate entire zones by controlled burns and disking.

Due to the fact that all work will be conducted within the WWTP property, the habitat and disturbance conditions on the WWTP property, and the avoidance and minimization measures proposed by the applicant, the Service believes that any potential adverse effects from the proposed project are extremely unlikely to occur, and are therefore discountable for purposes of this consultation. The potential improvement of water quality downstream of the WWTP may even provide a beneficial effect for the snake.

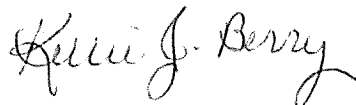
Therefore, unless new information reveals effects of the proposed project that may affect listed species in a manner or to an extent not considered, or a new species or critical habitat is designated that may be affected by the proposed project, no further action pursuant to the Act is necessary.

Ms. Carina Gaytan

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If you have any questions regarding the proposed City of Davis Wastewater Treatment Plant Improvements Project, please contact Lily Douglas, Fish and Wildlife Biologist, or myself at (916) 414-6645.

Sincerely,

A handwritten signature in cursive script that reads "Kellie J. Berry".

Kellie J. Berry
Chief, Sacramento Valley Division

cc:

Josh Amaris, U.S. Environmental Protection Agency, San Francisco, CA
Paul Hofmann, California Department of Fish and Wildlife, Rancho Cordova, CA

Ms. Carina Gaytan

5

LITERATURE CITED

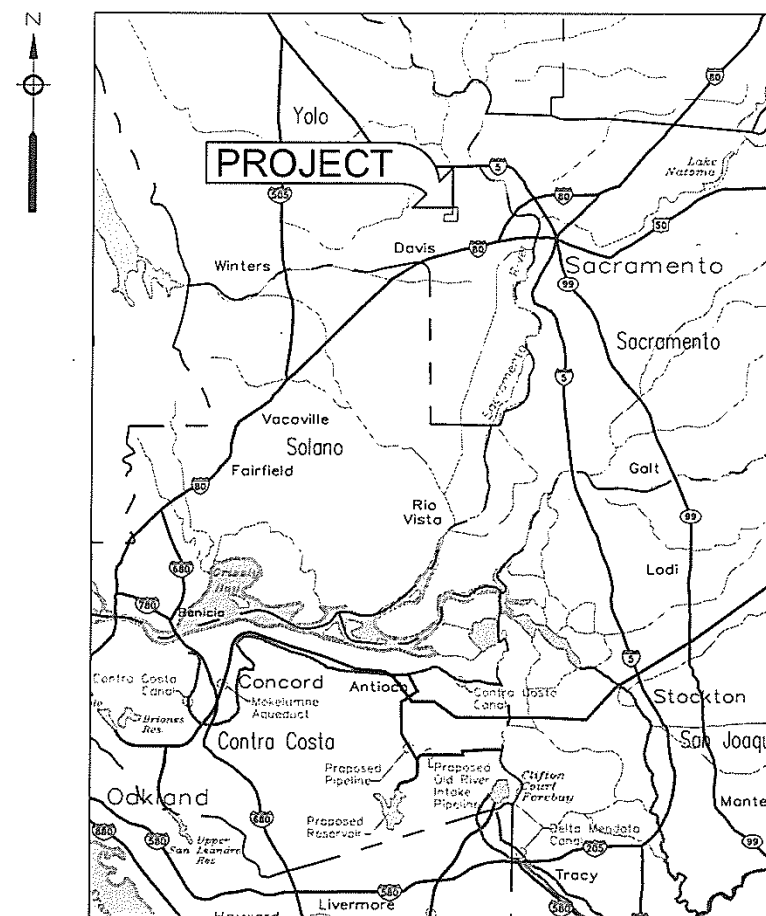
California Natural Diversity Database (CNDDDB). 2014. Biogeographic Data Branch, Department of Fish and Wildlife. Sacramento, California. Accessed 13 August 2014.

U.S. Fish and Wildlife Service (Service). 2012. Giant Garter Snake (*Thamnophis gigas*) 5-year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, California. June 2012. 62 pp.

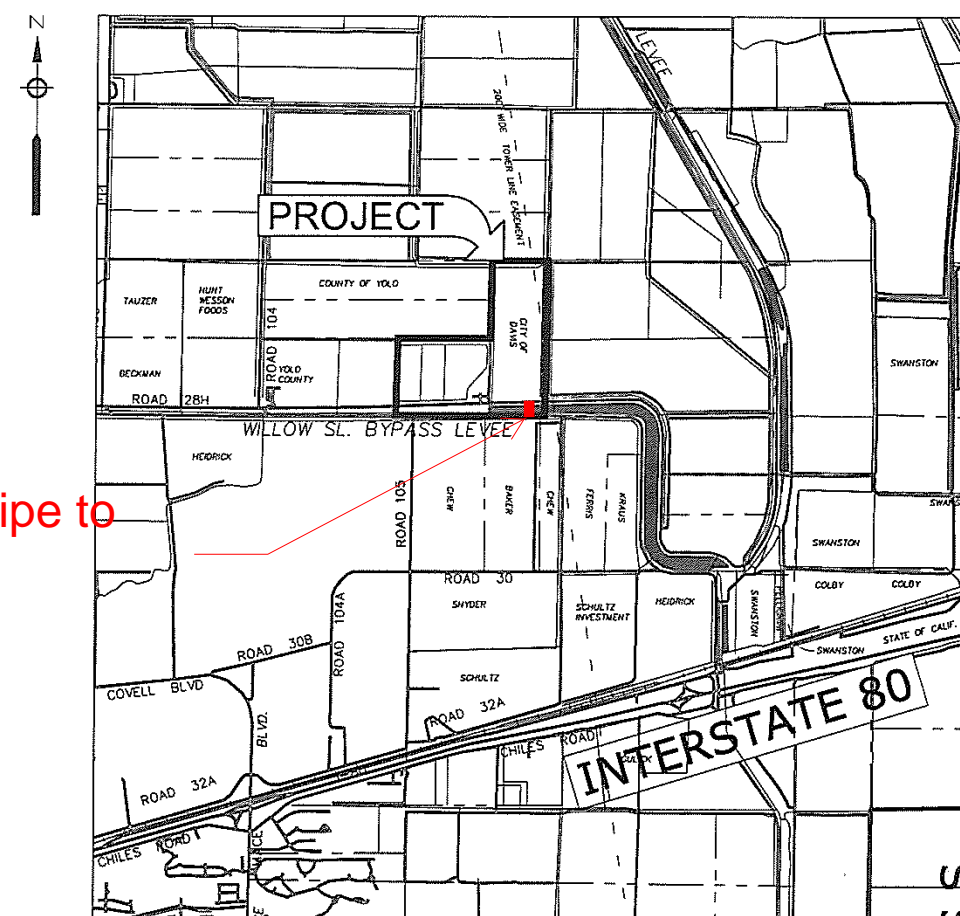


Approximate
Project Location

CITY OF DAVIS, CALIFORNIA
WASTEWATER TREATMENT PLANT
SECONDARY AND TERTIARY IMPROVEMENTS PROJECT
90% DESIGN SUBMITTAL



VICINITY MAP
NOT TO SCALE



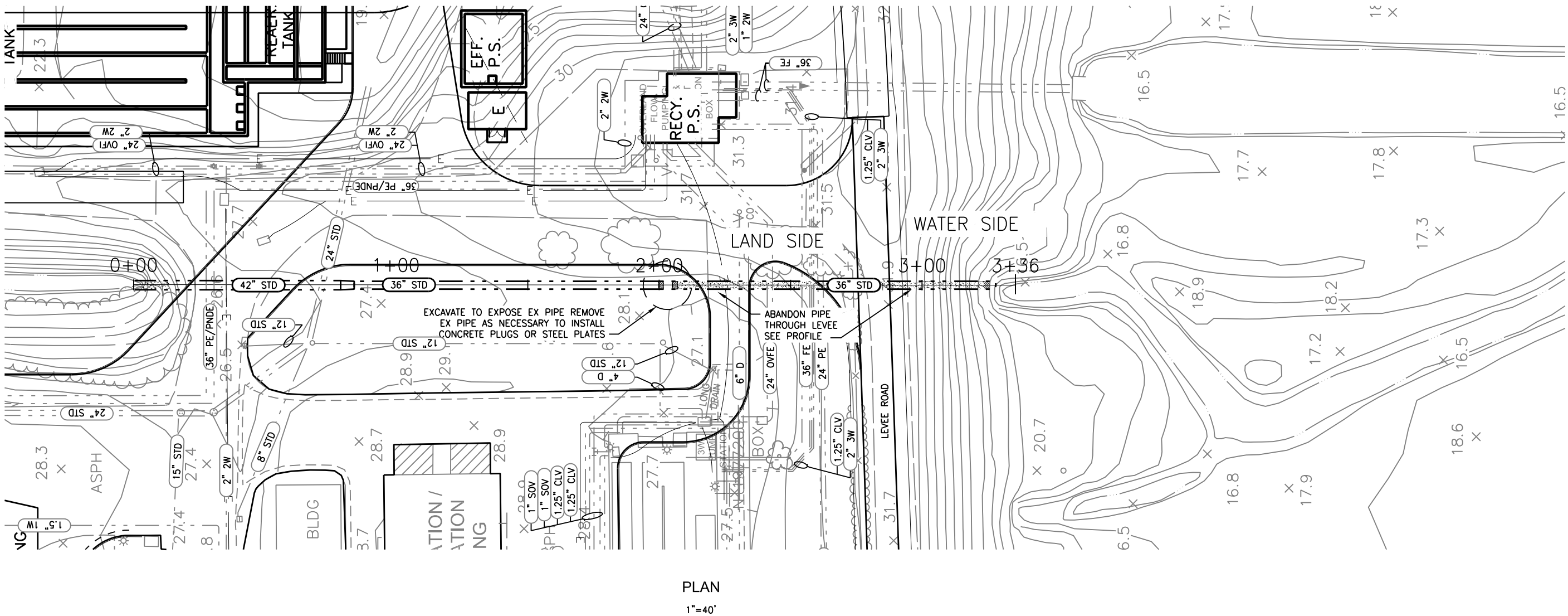
LOCATION MAP
NOT TO SCALE

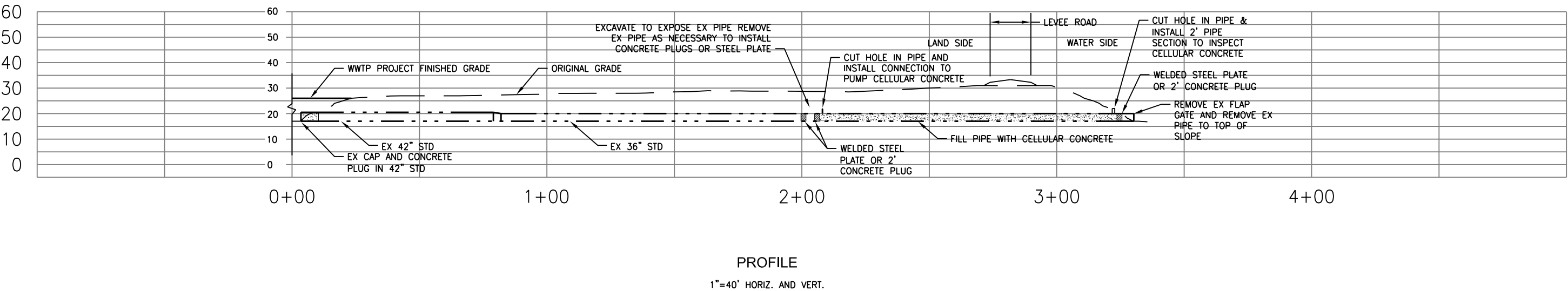
36" Pipe to
be

REGIONAL AND VICINITY

DECEMBER 2014

CITY OF DAVIS, CALIFORNIA WASTEWATER TREATMENT PLANT SECONDARY AND TERTIARY IMPROVEMENTS		COVER SHEET GENERAL		AECOM 2 Joint Venture		90% SUBMITTAL PRELIMINARY COPY <small>NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.</small>		REVISIONS	
PROJECT NO: 60323717									
CAD DWG FILE: 00 G-001									
DESIGNED BY: K. SMITH									
DRAWN BY: C. BENZIGER									
DEPT CHECK: C. BENZIGER									
PROJ CHECK: C. SCHMITT									
DATE: DECEMBER 2014									
SCALE: AS NOTED									
00 G-001									





VERTICAL AND HORIZONTAL DATUM
HORIZONTAL DATUM - NAD83 CASP2
VERTICAL DATUM - NAVD 88

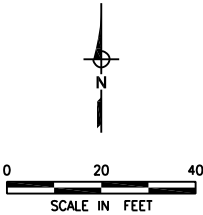


Figure 2
Profile View, Abandon 36-inch Storm Drain
in Willow Slough Bypass Levee
City of Davis
Wastewater Treatment Plant

WEST YOST
ASSOCIATES