

Temporary Water Diversion Plan

San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project

I. Introduction

- A. Water diversion shall be implemented by the Contractor to maintain the work site as water-free as possible for the duration of in-channel work, as permitted. The full width of the channel from tops of bank shall be dewatered. Water incursion is expected from Bay tides, natural and urban runoff flows from upstream, outfalls downstream from the East Bayshore Road bridge, and discharges from the O'Connor Pump Station in East Palo Alto and the Palo Alto Pump Station. Contractor is advised that the channel invert is expected to remain muddy after dewatering, and contractor should use appropriate equipment and stabilizing pads as necessary.
- B. Water diversion will include cofferdams upstream (to intercept stream flows) and downstream (to block tidal Bay waters) of the work site. Stream flows upstream of the site will be pumped and piped through piping that bypasses the work site. Discharges from the two municipal pump stations will be pumped from the clear wells into the diversion piping. In addition, the Contractor shall identify means to dewater the work site and retain, test, and treat that water so as to meet all water quality effluent limitations as specified in the Regional Water Quality Control Board, San Francisco Bay Region, Basin Plan (Basin Plan).
- C. The term "cofferdam" will be used to identify a structure preventing the intrusion of water into the work area. Construction phasing will determine the specific locations of the cofferdams during what activity
- D. Please note that what is presented below is the initial dewatering plan for the project. The design and implementation of the dewatering plan may be modified in the field as necessary upon agreement between the Contractor and the District.
- E. State Specifications referenced are those of Caltrans 2010.
- F. Contractor shall comply with best management practices in accordance with the Stormwater Pollution Prevention Program, Article 18.01, and the Discharge Activities Suite, District Best Management Practices, W751M01, attached.
- G. State General Guidelines for Dewatering Plans
1. All work performed within waters of the State shall be completed in a manner that meets the water quality objectives to ensure the protection of beneficial uses as specified in the Basin Plan.

Comment [staff1]: Please clarify if this is referring to the 401 certification and/or something different.

Comment [staff2]: The plan also addresses other sources as discussed later. These include groundwater encountered during construction activities, and surface water run-on. In addition this Plan discusses the presence of other storm drains from which flow may need to be collected and managed. These miscellaneous storm drains do not appear to be connected to the municipal stormwater collection systems.

Comment [staff3]: Will the municipal storm drain flows be combined with the creek flows? Please clearly outline the fate of each flow stream, including all the pumping, monitoring, and discharge steps and diversion piping routes.

Comment [staff4]: Please include a full reference (i.e., the publication name, etc.).

Comment [staff5]: Please describe the process for the JPA to comply with the applicable requirements, and steps the JPA will take to ensure the Contractor implements appropriate BMPs, methods, and procedures.

Comment [staff6]: Please clarify and be more specific about what these references are. In addition, while the JPA, through its contractor, plans to implement a Stormwater Pollution Prevention Plan (SWPPP), a SWPPP is part of the statewide NPDES General Permit for Discharges of Stormwater Associated with Construction Activity (Order No. DWQ-2009-0009, as amended by Order Nos. 2010-0014-DWQ and 2012-006-DWQ) (Construction General Permit). This is a good place to first introduce the Construction General Permit. It's mentioned subsequently under II.1.5-" Bay Levee Cofferdam and Silt Curtain" and later under section VII-"Inspection, Sampling, and Testing," but its general BMP requirements are applicable to this item.

Comment [staff7]: Please indicate the attachment number for each attachment.... And since there are multiple items in Attachment C, please label them C.1, C.2, C.3, etc.

2. All dewatering and diversion methods shall be installed such that natural flow is maintained upstream and downstream of the project area.
3. Any temporary dams or diversion shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the project area.

H. Any changes to the approved plan that may have the potential to impact waters of the State must be acceptable to the Regional Water Board's Executive Officer.

Comment [staff8]: Suggest to include this in the other section that discusses changes to the approved plan under I.D.

II. Cofferdams

A. See Attachment A for plan sheets of the diversion locations. See Attachment B for downstream (tidal) sheet pile profile and sheet pile cross-section sketches, and see Attachment C for dissipator design. See WQ-11, Attachment D for District procedures for cofferdam installation. Note that locations shown are illustrative and may be modified during installation dependent on construction methods.

Comment [staff9]: Please elaborate on the issues the JPA is considering that could impact coffer dam installation.

B. Contractor shall use gravel bags and plastic sheeting to prevent water leakage at cofferdams and elsewhere as necessary.

C. Preliminary Cofferdam Locations

Comment [staff10]: Please provide more details to describe the decisions informing the coffer dam location. For example, will the coffer dam location be different from one construction season to the next, and if so, what are the factors that will determine the location(s)? Also, please clarify the steps to avoid and minimize impacts to the creek when placing and removing a coffer dam, including site-specific conditions for different dam locations.

C-line locations	d/s C-line location/height	u/s location/height
2013-2014 Utility Crossings: Gas & Sanitary Sewer	21+00 / elevation of northerly levee (~12 ft)	35+00/ 8 ft
Downstream Levee Construction Season	13+00 / elevation of northerly levee (~12 ft)	58+00/ 8 ft
Upstream Floodwall Construction Season	49+00/ 10 ft	Within 50 ft upstream of West Bayshore Road Bridge/ 8 ft
Downstream Bay Levee Removal Cofferdam	4+50/ 10 ft	Concurrent upstream location

Comment [staff11]: Please update the schedule as applicable to the Plan.

- D. Contractor shall install 30-inch diameter bypass piping from above the upstream cofferdam to below the downstream cofferdam to allow anticipated summer stream flows and higher summer storm stream flow to avoid contacting the work area.
- E. Downstream cofferdam shall be installed first and during the lowest tide during normal construction hours. Upstream cofferdam shall be installed during the minimum flow expected during normal working hours. Diversion piping and pumps shall be in place and operational before cofferdams are installed.
- F. Cofferdams shall remain in place and functional throughout the in-stream construction periods. Cofferdams shall be removed at annual cessation of in-channel work, and channel and bank shall be restored to pre-construction condition.
- G. Utility crossings are proposed to be completed before levee/floodwall construction begins. Utility contractor will follow this Temporary Water Diversion Plan. Phasing of project and coordination with later utility work will be determined by contractors.
- H. Downstream Cofferdam
1. The downstream cofferdam will prevent Bay tidal waters from entering the work site and shall be installed below the most downstream construction element scheduled for installation during a specific construction season. The cofferdam shall be as high as the highest immediately adjacent point on the right-hand bank (looking upstream), approximately 12 ft above the channel invert. The Mean Higher High Water tide is 7.1 ft NAVD 88; in no case will the downstream cofferdam height be below this elevation plus one foot of freeboard, 8.1 ft, NAVD 88.
 2. The downstream cofferdam shall be braced from the appropriate height of the sheet piles to instream embedment, 8 to 10 feet apart. Contractor shall determine over what width of the cofferdam the additional braces are necessary.
- I. Bay Levee Cofferdam and Silt Curtain
1. During excavation of the Bay Levee, a downstream cofferdam will be located at approximately R-line station 3+00. The design will be the same as for the downstream cofferdam described above. The height of the cofferdam will equal the height of the adjacent Bay Levee.
 2. On the outboard side of the Bay Levee, a Type 3 D.O.T. floating silt curtain or approved equivalent shall be installed to prevent sediment from entering the adjacent marshland and San Francisco Bay.
 3. Elements of protection are not shown in figures.

Comment [staff12]: What is the basis for this size of pipe?

Comment [staff13]: The work window also includes the fall season. Please make sure that the dewatering plan is also appropriate for fall conditions, not just summer conditions.

Comment [staff14]: Please provide details for how you plan to remove the coffer dams, and also, details for how you plan to restore the pre-construction conditions of the creek channel.

Comment [staff15]:
Please describe what a Type 3 DOT floating silt curtain is and the basis for selecting this particular model. If possible, attach the specifications and relevant information to the Plan.
Also, please explain how you plan to manage potential tidal action or wind fetch impacts on the curtain.

4. If Contractor can degrade the Bay Levee without entering the channel, a floating silt curtain as described in 2, above, shall be installed on the channel side of the levee also.
5. Contractor shall maintain dewatering discharge in accordance with SWPPP and CGP requirements.

Comment [staff16]: This is confusing. Please include a diagram of the dewatering for the Bay Levee degradation tasks; and describe in more detail the process for degrading the Bay Levee and implications of this process for the dewatering plan.

J. The Upstream Cofferdam

1. The upstream cofferdam will prevent stream flows from entering the work site. If dewatering will be required adjacent to the East Bayshore Road bridge, the cofferdam will be installed above the Caltrans West Bayshore Road bridge, within 50 feet of the upstream face of that bridge as shown on the attached figures. If dewatering will begin downstream of the East Bayshore Road bridge, the cofferdam shall be installed no more than 100 feet above the most upstream construction element scheduled for construction during a specific construction season (see table below).
2. Summer water flows are anticipated based on the maximum 73-year mean daily flow at the USGS gage on SF Creek at the Stanford golf course between June 1 and October 15. This flow is 0.5 cubic feet per second (cfs) with a gage height of 0.3 ft. For a value at the project site, an additional 1 cfs is added for summer urban runoff, bringing the total anticipated flow to 1.5 cfs, with a gage height of 0.4 ft.
3. The contractor is advised that summer stream flows can vary significantly depending on off-season storm events, and high flows can last several hours. Recent historical summer storms have produced flows of 3.2 cfs (2012), 32 cfs (2011), and 4.1 cfs (2010). The temporary water diversion structure shall be able to pass the 2011 32 cfs flow as pumped from the area of water detention above the dam.

Comment [staff17]: Please clarify what will determine the location of the upstream cofferdam.

Comment [staff18]: The work window includes fall season too. Please adjust this plan to account for fall season variables, not just summer variables.

Comment [staff19]: The Plan must account for work that extends into the fall season based on the in-channel work window period.

- K. If there is a forecast storm event as determined in accordance with the requirements of the NPDES Construction permit for the project (see Article 18.01), Contractor shall prepare and implement the Rain Event Action Plan. If stream flow from a significant storm event overtops the upstream cofferdam, Contractor shall pump this overflow, and any direct flows, into Baker tanks to be tested before discharge as described below.

Comment [staff20]: What are the steps for preparing for the Rain Event Action Plan?

Comment [staff21]: What are the contingency plans to prevent overtopping?

L. Dewatering Project Site

1. The project area shall be dewatered by means of pumping the water from the stream or ponded locations into Baker tanks for testing and appropriate discharge or disposal.

Comment [staff22]: Where will the Baker tanks be located?
What are the tank capacities?
How many Baker tanks will you use?
Have you considered constructing temporary containment structures rather than using Baker tanks?

2. Contractor shall make available an appropriate number and size of water storage tanks (Baker tanks) and pumps in preparation for collecting any water from the work site. Water from the work site will be collected in the Baker tanks and tested prior to discharge downstream if water meets the requirements of the NPDES General Construction permit. Water detained behind the upstream cofferdam shall be pumped and piped past the work area and be discharged below the downstream coffer dam.

Comment [staff23]:and must also meet effluent limitations in the 401 certification.

Comment [staff24]: Please describe how the dewatering activities will not result in adverse impact to the creek flow. For example, what is the monitoring plan for any water detained behind the upstream of the coffer dam?

III. Materials

A. Cofferdams

1. Cofferdams shall be constructed of steel sheet pile embedded no less than 10 feet below the channel invert. Steel sheet piles for cofferdam must comply with Section 49-2.058 of the State Specifications.
2. Cofferdams shall not exhibit corrosion for the duration of their installation.

Comment [staff25]: How do you plan to embed the sheet pile?

Comment [staff26]: Explain the basis for this depth.

Comment [staff27]: This appears to be a typo. The correct number should be Section 49-2.05"B" (not 49-2.05"8".)

B. Gravel Bags

1. The gravel materials used in each gravel bag will have less than 15% fine content. The gravel bags will be placed on top of the plastic sheeting, which will be laid upon the channel invert or bank to prevent leakage. The gravel bags will be arranged so that each layer of gravel bag placed will be staggered in pyramid-like fashion. After the final height has been reached, the original plastic sheeting shall be placed on top of the sandbags. To hold the plastic sheeting in place, gravel bags will be placed above the top plastic sheeting. Gravel bags on top of the plastic sheeting will be spaced no more than 3 feet apart.

Comment [staff28]: Provide details for cofferdam inspections including a schedule, frequency, inspection criteria, and contingencies for cofferdam conditions.

Comment [staff29]: This percentage of fines is not acceptable. Please use washed gravel in order to minimize the amount of fines that could be mobilized into the water column. If you plan to follow an ASTM standard for this please indicate the standard number.

2. Gravel must:

- a. Be clean, hard, sound, durable, uniform in quality, and free of any detrimental quantity of soft, thin, elongated or laminated pieces, disintegrated material, organic matter, or other deleterious substances
- b. Be composed entirely of particles that have no more than one fractured face, and be from 3/8 to 3/4 inch in diameter. Have a cleanliness value of at least 85, as determined by the Cleanliness Value Test Method for California Test No. 227.

Comment [staff30]: This is a Caltrans test, correct? Please clarify.

3. Gravel-filled bags must:

- a. Be made of geosynthetic material.
- b. Have inside dimensions from 24 to 32 inches long and from 16 to 20 inches wide.
- c. Have a bound opening to retain gravel. The opening must be sewn with yarn, bound with wire, or secured with a closure device.
- d. Weigh from 30 to 50 pounds when filled with gravel.

Comment [staff31]: Please explain the basis for these criteria.

4. Plastic sheeting must be:

- a. Single ply, commercial quality, non-photodegradable polyethylene with a minimum thickness of 10 mils under ASTM D 5199.
- b. Free of holes, punctures, tears or other defects that compromise the impermeability of the material.
- c. Suitable for use as an impermeable membrane.

C. Pipe

- 1. Pipe shall be of 30-inch nominal diameter minimum HDPE to be fused together. Piping will be installed as shown on attached figures or alternate location as approved by District to allow upstream flows to pass the work site. Installation shall ensure that flows will not be released into the work site.
- 2. Pipe shall:
 - a. Be clean, uncoated, in good condition, paint oil dirt or other residues that could potentially contribute to water pollution;
 - b. Be adequately supported for planned loads as identified by the Contractor;
 - c. Use watertight joints;
 - d. Be made of HDPE material suitable for clean water and which does not contain banned, hazardous, or unlawful substances;
 - e. Be smooth walled.
- 3. The pipe outlet will be rocked with rock riprap in such fashion as to prevent erosion at the outlet in accordance with CASQA Construction BMP EC-10 (Attachment C).

Comment [staff32]: Explain the basis for this diameter.

Comment [staff33]: It should be free of ANY material.... Including those listed here.

D. Pumps

- 1. Pumps shall be on site to dewater the work site as necessary. Pumps shall be sized by the Contractor. Discharge from the dewatered area shall be contained and tested in accordance with the requirements of the NPDES General Construction permit. Pumps will be required (1) to reroute water from the stream, which accumulates above the upstream cofferdam; (2) to dewater the construction area above the downstream cofferdam or where ponded; and (3) at each of the two pump stations (see below).
- 2. Instream pump(s) shall have appropriate fish exclusion devices to prevent fish from being taken up by the pump(s). Contractor's plan shall be in accordance with criteria in Attachment E.
- 3. If groundwater seepage is encountered, pumps will be used to discharge the incidental flows to various intakes of the 30-inch pipe structure. When discharging into the intakes of the 30-inch pipe, the top opening of the intake will also be sealed to maintain air pressure within the pipe.

Comment [staff34]: Please explain the location and methods for pumping water from the work site.

Comment [staff35]: i.e., municipal pump stations

Comment [staff36]: What pumping method equipment will be used? What is the depth to groundwater and approximate flow rate(s) at various locations where excavations will take place?

- a. O'Connor Street Pump Station
- b. The City of East Palo Alto operates a storm water pump station past the southerly end of O'Connor Street. Construction work within the City will discharge dewatering flows expected to be up to 350 gallons per minute or 0.78 cfs through municipal storm drains to the pump station. Additional water from urban sources will also be routed to this pump station, which normally outflows to the work area. To prevent flows from the pump station entering the work area, Contractor shall pump water which accumulates in the pump station wet well directly to the channel downstream of the downstream cofferdam or join the pump station outflow pipe to the stream diversion pipe. In either case, discharge to the channel shall be through the flow dissipator. Pump and pipe shall be determined by Contractor based on information provided by the City of East Palo Alto.
- c. Palo Alto Pump Station
- d. The City of Palo Alto operates a storm water pump station which will normally outflow within the work area. Contractor shall pump water which accumulates in the pump station wet well directly to the channel downstream of the downstream cofferdam through the flow dissipator.

IV. Additional Storm Drain Outfalls in the Work Area

- A. Storm drain outfall on the south bank at approximate C-line station 76+00. The entire line including the inlet and outfall will be removed as part of construction.
- B. 96-inch diameter City of Palo Alto storm drain outfall on the south bank at approximate C-line station 77+40 for overflows that cannot be handled by the City's San Francisquito Creek Pump Station. This line will be reduced and rerouted into the new East Bayshore Road bridge abutment by Caltrans.
- C. Outfall channel from the San Francisquito Creek Pump Station on the south bank at approximate C-line station 74+00. Minimal flows are expected during construction season unless a storm occurs.
- D. Storm drain outfall on the north bank at approximate C-line station 56+70. Minimal flows are expected during construction season unless a storm occurs.
- E. Contractor is responsible for identifying and managing flows from other outfalls into the work area. It is expected that outfall flows will be minor during the construction season. Contractor may collect the outfall flows within the work site with other waters, such as groundwater, in which case the extracted water will be tested after routing to Baker tanks. Or Contractor may collect outflows without contacting the work site and routing downstream. This may require a pump and collector at each outfall.

Comment [staff37]: Please demarcate these features in the figures in Appendix A, and elaborate on how these features are part of the "Temporary Water Diversion Plan."

Comment [staff38]: What is the contingency plan in case of a large rain event?

Comment [staff39]: What is the contingency plan in case of a large rain event?

Comment [staff40]: As discussed in VI.A below, the JPA (or its contractor) must confirm the effluent meets applicable water quality objectives before discharging to the creek downstream of the lowest coffer dam.

Comment [staff41]: The miscellaneous stormdrain outfalls in the construction site are not connected to the municipal storm drain systems so the flows from these outfalls must be treated as construction dewatering flows subject to the Construction General Permit and the 401 certification discharge and receiving water limitations.

V. Dissipators

Diversion pipe flow velocity dissipators shall be installed downstream of the cofferdam on existing banks. Contractor shall note that pipe discharges will occur from low to high tide, and outlets shall be located above Mean Higher High Water. Dissipators may be under tide water and shall be designed to resist degradation by tidal movement. Dissipators shall be installed from pipe outlet to channel invert. Design shall be in accordance with CASQA Construction BMP EC-10 (see Attachment A).

Comment [staff42]: Please provide details for inspections to ensure the dissipater is secure.

VI. Inspection, Sampling, and Testing

- A. All activities associated with water diversion shall be governed in accordance with the State Water Resources Control Board Construction General Permit 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ (CGP), Risk Level 2, and as described in the project's Stormwater Pollution Prevention Plan (SWPPP). The Contractor shall be responsible for the SWPPP, prepared by a Qualified SWPPP Developer and implemented by a Qualified SWPPP Practitioner.
- B. Daily visual inspection will be made at discharge point BMPs to ensure BMPs are undamaged and in place. Results will be recorded as part of the SWPPP reports.
- C. Samples will be collected and analyzed as required by the CGP for Risk 2 projects, Appendix D, Table 3:
1. **pH:** Field test with calibrated portable instrument, detection limit 0.2 pH units, Numerical Action Limits (NAL): lower NAL pH=6.5 and upper NAL pH=8.5,
 2. **Turbidity:** Field test with calibrated portable instrument and/or EPA 0180.1, detection limit 1 Nephelometric Turbidity Unit (NTU), NAL=250 NTU.
- D. Water collected from the construction site (run-on, ponded water, collected groundwater) shall be visually inspected and sampled per Risk Level 2 requirements.
- E. Diverted water shall flow by gravity or by pumping from above the upstream dam to below the downstream dam, without being in contact with the construction site.
- F. Water from within the project site—run-on, collected groundwater, ponded water—exceeding NALs or potentially containing contaminants shall be pumped or otherwise routed to storage tanks for testing, treating and eventual discharge or disposal. Sediments will be removed by settling; pH will be adjusted by appropriate methods. Only compliant water will be discharged. Otherwise, contaminated water will be disposed of in accordance with all applicable regulations.
- G. Compliant water could either be routed into the existing diversion piping, or into separate piping, discharging into the flow dissipation BMP.

Comment [staff43]: Explain how Risk Level 2 was determined. We concur with this determination but the JPA must provide a worksheet to demonstrate how it determined this risk level.

Comment [staff44]: The language in VI.B is too general. The JPA must include the specifics of what is required in the Construction Stormwater General Permit's inspection and reporting process. Regarding daily inspections, the whole system must be inspected, not just the discharge points. The inspections must include the coffer dams, inlets, piping, pumps, etc., to make sure it's working appropriately. The outlets aren't the only potential point of failure. What is the review process for inspection results and what are the contingency plans in case results indicate improvements are necessary?

Comment [staff45]: Please prepare a monitoring plan that addresses the discharge and receiving water limitations in the Project 401 Certification, Condition No. 15, in addition to the Construction General Permit requirements.

Comment [staff46]: All water pumped from the construction site must be contained and tested to ensure it meets effluent limitations before discharging it. Also, the monitoring results will inform the JPA (or the Contractor) if the water needs to be treated to meet the effluent limitations before discharging it.

Comment [staff47]: Please include a contingency plan for implementing an active treatment system on site in case turbidity levels exceed the applicable objectives.

Comment [staff48]: In some cases, the water may be treated to bring it within the acceptable range to allow for discharging it (e.g., for pH, dissolved oxygen, and turbidity). Please provide details for water quality monitoring and treatment to ensure the discharges meet the applicable discharge requirements.

VII. Water Diversion System Removal

A. When all work within a construction area is complete and no access to the channel will be required except for plantings, irrigation, and plant maintenance, the temporary water diversion system and cofferdams shall be removed by October 15 of each construction season, or later as permitted by the California Regional Water Quality Control Board, San Francisco Bay Region, and the District.

B. In accordance with District Best Management Practices, W751M01 (Attachment D), WQ-16, Avoid Erosion when Restoring Flows:

The removal will proceed from the downstream cofferdam in an upstream direction. Flows will be restored in a manner that minimizes erosion.

1. When diversion structures are removed, to the extent practicable, the ponded flows will be directed into the low-flow channel within the work site to minimize downstream water quality impacts.
2. Flows will gradually be restored to the channel to avoid a surge of water that would cause erosion or scouring.
3. Bypassed flows may be slowly reintroduced into the dewatered area by leaving a silt barrier in place to allow water to slow and drop sediment to the extent possible.
4. Energy dissipation per Construction BMP Handbook shall be installed for all discharge points (one discharge point is currently proposed).

Comment [staff49]: If there are some BMPs that are specifically relevant to the "Temporary Water Diversion Plan" please list them. Another suggestion is for Attachment D to simply include only the BMPs that are relevant.

Comment [staff50]: Provide details for monitoring to confirm no erosion, scour, or sedimentation occurs.

Comment [staff51]: The information presented belongs under Section III where you discuss the materials and processes. It's fine to repeat it here, but this is the first time you have raised this point. Please provide more details for discharge energy dissipation in Section III.

VIII. Attachments

- A. Plan Sheets for Water Diversion
- B. Water Diversion Details
- C. Velocity Dissipation Devices EC-10
- D. District Best Management Practices, W751M01
- E. NMFS Fish Screening Criteria

DRAFT

Glendening, Susan@Waterboards

From: Glendening, Susan@Waterboards
Sent: Tuesday, August 18, 2015 8:37 AM
To: Bill Springer
Cc: Mohammad Hussaini
Subject: RE: RWQCB comments on Temp Water Diversion Plan for San Francisquito Creek

Good morning, This afternoon would work for me too. Is 2:30-3:30 ok for you?
Thanks, Susan

From: Bill Springer [BSpringer@valleywater.org]
Sent: Tuesday, August 18, 2015 7:53 AM
To: Glendening, Susan@Waterboards
Cc: Mohammad Hussaini
Subject: RE: RWQCB comments on Temp Water Diversion Plan for San Francisquito Creek

Hi, Susan. I think I'd better take you up on your offer to chat some of this over. There's a lot here.

I'd like to do a telecon. Mohammad has been making a bunch of revisions based on your comments, but I think we need to get clear on some things before we're ready to resubmit.

Let me know when there are some good times for you. This afternoon, Thursday morning, and all Friday work for us.

Thanks, Bill

From: Glendening, Susan@Waterboards [mailto:susan.glendening@waterboards.ca.gov]
Sent: Monday, July 13, 2015 11:19 AM
To: Bill Springer; Kevin Murray
Cc: Hurley, Bill@Waterboards; Lichten, Keith@Waterboards
Subject: RWQCB comments on Temp Water Diversion Plan for San Francisquito Creek

Hello Bill and Kevin,

Water Board staff has reviewed the "Temporary Water Diversion Plan," dated October 14, 2014 (Plan), submitted as part of the JPA's 401 certification application. The Plan is required pursuant to Conditions 14 and 15 of the water quality certification (Certification) issued by the Water Board Executive Officer for the San Francisquito Creek Flood Improvements Project on April 7, 2015. At this time, the Plan is incomplete as it does not yet provide sufficient ground and surface water dewatering operation details. Although the Plan provides a general overview of creek flow diversion, storm drain pump station diversion, and construction site dewatering activities, it lacks the detail necessary for us to evaluate the adequacy of the dewatering activities' water quality control and species protection measures. It is our understanding that much of the missing information is being developed, and that it will be submitted to the Water Board for our review and comment as it becomes available. In addition to the general comments outlined below, we have also inserted comment bubbles in the copy of the Plan attached to this correspondence.

The following information must be provided to satisfy the requirements of the conditional certification issued for this Project:

1. Surface Water and Groundwater Management Plans in accordance with the requirements specified under Certification Condition 14.
 - a. Surface Water Management Plan (Condition 14.a) -Please make clear whether the JPA will combine the municipal pump station flows with creek flows, and whether the other miscellaneous storm drain flows will be combined with the pump station flows. For example, Plan Section III.D.b states:

Contractor shall pump water which accumulates in the pump station wet well directly to the channel downstream of the downstream cofferdam or join the pump station outflow pipe to the stream diversion pipe. In either case, discharge to the channel shall be through the flow dissipater. Pump and pipe shall be determined by Contractor based on information provided by the City of East Palo Alto.

Please provide more details about combining the pump station flow with or keeping it separate from the creek flow. Also please elaborate on the nature of the information the JPA needs from the City of East Palo Alto or any other party to make decisions about diverting, monitoring, and discharging any flow source in the Project.

- b. Groundwater Management Plan (Condition 14 b.) - Please indicate the method for dewatering of groundwater; e.g., pumping via sump pump, wellpoints, eductors, horizontal wells, and/or other methods. Also provide the basis for groundwater management design decisions, including the anticipated depth to groundwater, flow rates, containment for water quality testing, and discharge methods.
2. Prepare a monitoring plan for the various dewatered flow sources and discharge points to ensure the discharges meet the applicable water quality and species protection requirements.
3. Include a brief description of the natural resources being protected and steps to avoid and minimize impacts to these resources. This natural resource description shall also incorporate an outline of any dewatering related requirements specified in the biological opinion documents to be issued for the Project by the National Marine Fisheries Service and U.S. Fish and Wildlife Service, and the Streambed Alteration Agreement to be issued by the California Department of Fish and Game. Such details might include pipe sizes, pumping rates or sizes, water quality requirements (e.g., temperature and pH), to the extent they are stricter than those imposed by the Water Board, or other factors to protect certain fish or wildlife species.
4. In Plan Section II.C, the JPA has indicated that the coffer dam location will vary depending on the construction phase being implemented based on utility crossings, downstream levee construction season, upstream floodwall construction season, etc. Please clarify why the construction phase would determine the coffer dam location, and describe how the JPA will select and implement a coffer dam location based on the least impact to the creek. If a coffer dam has already been installed during one seasonal construction window, it seems likely that it would be less-impacting to have it remain in place, than move it to another location during the same construction window. The Plan's proposed coffer dam work should take that into account. In such a situation, it's likely that we would require the JPA to leave the coffer dam in place rather than moving it to another location within the same work window.
5. The JPA must incorporate findings and requirements still pending from the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW). Such details might include pipe sizes, pumping rates or sizes, or other factors to protect certain fish or wildlife species.
6. The Plan addresses various flow sources, but more details are necessary for us to understand if the JPA intends to manage each source differently. Please consider reorganizing the document to systematically address management of each flow source mentioned in the Plan, as listed below, to explain the routing, containment, monitoring, and discharge steps for them:
 - a. Creek flow to be routed around the construction site;
 - b. Discharges from municipal pump stations that discharge street runoff and other storm drain flows;
 - c. Construction site water, including:
 - (i) Surface water runoff from rainfall and dry weather flows;
 - (ii) Surface water run-on;
 - (iii) Flow from any storm drains within the construction site; and
 - (iv) Groundwater encountered during construction activities.

I would be happy to go over these comments with you. Please contact me if you have any questions on this matter.

Regards,
Susan

Susan Glendening

Environmental Specialist
San Francisco Estuary Partnership/
San Francisco Regional Water Board
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