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**San Francisco Bay Regional Water Quality Control Board**

*Sent via electronic mail: No hard copy to follow*

October 23, 2015

U.S. Army Corps of Engineers  
1455 Market Street  
San Francisco, CA 94103

Attention: Ms. Amanda Cruz  
*Amanda.b.cruz@usace.army.mil*

**Subject: Incomplete Application for Water Quality Certification for the Berryessa Creek Flood Risk Management Project, Santa Clara County**

Dear Ms. Cruz:

San Francisco Bay Regional Water Quality Control Board (Water Board) staff has reviewed the federal Clean Water Act (CWA) water quality certification application materials submitted by the U.S. Army Corps of Engineers (Corps) for the Berryessa Creek Flood Risk Management Project, which we received on September 25, 2015 (Application). This letter provides notice that the Application is incomplete. As a result, we are not yet able to act on it. As described further below, it lacks important required information, including, but not limited to:

- An alternatives analysis prepared pursuant to federal guidelines;
- An appropriately detailed description of project impacts to waters of the United States and the State, including wetlands;
- A proposal for compensatory mitigation to address project impacts to waters, including wetlands;
- A proposal for dewatering during project construction; and
- A proposal to address during construction potential impacts associated with the presence of solvent-contaminated groundwater at or adjacent to the project site.

The project purpose is to convey the one percent annual chance exceedance flood event in Berryessa Creek from U.S. Interstate 680 in the City of San Jose for 2.2 miles downstream to Calaveras Boulevard in the City of Milpitas (Project). At this time, we cannot certify that the Project will not violate State water quality standards pursuant to section 401 of the Clean Water Act, because the Application, as submitted, is incomplete. We provide the following comments for the Corps' consideration as it revises and completes the Application:

- 1) ***Permitted entities.*** Consistent with our practice on other projects, including the Napa River/Napa Creek Flood Protection Project, we intend to name both the Corps and the Santa Clara Valley Water District (District) on the approval(s) for the Project. The

District would be named in part because it is the non-federal sponsor of the Project, owns the land on which the Project is being built, is funding a significant portion of the Project, and will have the long-term maintenance responsibility for the Project.

- 2) ***Project impacts need to be fully described.*** The Application states that the Project will impact 4.18 acres of streambed along 11,400 linear feet of Berryessa Creek, but there is no discussion of the nature of those impacts. Please describe the area being impacted with respect to the creek's beneficial uses, including an evaluation of the aquatic life, vegetation, and wildlife the Project as proposed would impact, including spatial and temporal extent. In addition, the description should consider impacts associated with connectivity to other related projects, including the Lower Berryessa Flood Risk Management Project currently under construction and future work planned in the "Greenbelt Area" reach of Berryessa Creek upstream of I-680 (i.e., describe the potential for the Project's creek reach to serve as a barrier between upstream and downstream reaches of the same creek with much higher functions and values).
- 3) ***Project alternatives need to be appropriately considered and appropriate compensatory mitigation proposed.*** The Application does not yet include an alternatives analysis, prepared pursuant to federal guidelines, that describes why the proposed design is the least environmentally damaging practicable alternative and why the impacts cannot be reduced from the amount proposed. Please submit such an analysis. The analysis should include consideration of the alternative discussed in our meeting of August 11, 2015, during which Corps staff agreed to analyze a project alternative with floodplains and vegetated banks similar to "Alternative 3B" in the Project's Environmental Impact Statement (EIS).

Please describe how project impacts that remain following avoidance and minimization will be appropriately mitigated and include a proposal to complete compensatory mitigation for the remaining impacts. As we have previously discussed, incorporating the project features identified in comment 4, below, may result in the Project being self-mitigating (i.e., not requiring separate compensatory mitigation, or reducing the amount required).

- 4) ***Project design changes to reduce impacts and protect beneficial uses.*** The proposed project design does not reflect our pre-application input intended to help the design minimize impacts and protect beneficial uses. This input includes our letter to you of June 5, 2015, and our comments on the Project made as early as 2006, during project feasibility planning. There are no changes from the June 2015 60 percent design plans except replacing polymer geocell bank stabilization material with geotextile fiber matting, nor is there any discussion as to why such changes were not made. Examples of changes we discussed include: (1) planting willow stakes in the streambed edges; (2) installing the proposed pre-cast concrete culverts at grades that allow the formation of earthen bottoms; (3) using bioengineering methods in place of concrete for some or all floodwalls; and (4) identifying opportunities to maximize both flood conveyance capacity and opportunities for future adaptive management of the channel by increasing channel cross section. For

example, such increased channel cross section could be completed where the 60 percent design plans propose reaches with maintenance access roads on both sides of the channel, by removing or lowering the road on the non-multi-purpose path side. Please provide a rationale why such changes are infeasible.

- 5) **Excavation and fill needs to be fully described.** The 60 percent design plans show both significant excavation and placement of fill will occur, but a narrative description and summaries of that work have not yet been provided. Please state the volumes and linear feet of excavation and fill to adequately describe the Project. For areas of excavation, please describe how the material has been characterized with respect to potential water quality threat or propose a sediment characterization plan, and identify where it is proposed to be reused or disposed of. In addition, the Application states the fill types as rock, soil, filter fabric, and seeds (Application, Section 8). Please include the volumes and linear feet of these materials (or, for filter fabric and seeds, other appropriate description, such as area of application). In addition, the stated fill types appear to omit certain kinds of planned fills, including those associated with proposed culverts, floodwalls, and transition structures with existing bridges. Please provide the volumes and linear feet for other fills.
- 6) **Water body impact information is incomplete.** The Application does yet not appear to list all proposed water body impacts (Section 8). The Application states only that Berryessa Creek will be impacted, and includes two figures that seem to show impacts only on Berryessa Creek. However, we understand the Project would have significant work in Piedmont Creek to replace Union Pacific Railroad tracks and a culvert at that creek crossing, and would install a new culvert at the confluence of Piedmont and Berryessa creeks. A new culvert at the confluence with Los Coches Creek is also proposed. In addition, a wetland exists about 50 feet downstream of the proposed Project. Please specify all the waters the Project will potentially impact.
- 7) **Sediment transport analysis is incomplete.** The 60 percent design plans show the Project as proposed would significantly widen and deepen the existing channel with the goal of increasing its capacity to transport flood flows. However, we believe the existing channel cross-sections depict a channel that is in a state of equilibrium with sediment transport processes; the channel in the project reach, and reaches upstream and downstream, is consistently about 8 to 12 feet wide. Additionally, the sediment modeling assumptions described in various documents, including the Final EIS (March 2014), appear to indicate that the modeling assumed a 6% channel slope, an average channel width of 8 feet, and a Manning's roughness value of 0.04. This is not consistent with the proposed project design, which would result in slopes of under 1% and design channel widths of 20-40 feet. That is, the project design documents submitted with the Application appear to indicate a significantly wider and flatter channel inconsistent with the channel previously described.

Our concern is that, to the extent the Project as proposed is wider and flatter than what was modeled, there is a greater likelihood of significant sediment deposition back to a channel form that is similar to what we see now, pre-project. The existing conditions appear to be substantially filled in compared to the intended original

project elevations and dimensions, as observed during site inspections (Application, section 1) and discussed in Application, section 2.c. as an “incised, trapezoidal channel.” Without resolving existing sedimentation issues, the Project as proposed would violate basic stable channel project design that the Corps’ own engineering manuals prescribe, and which our agency routinely requires, in order to avoid chronic, long term maintenance disturbances and associated environmental impacts. The proposed design may result in a significant future maintenance need to remove sediment to maintain flood capacity, with concomitant ongoing impacts to vegetation, wildlife, and water quality. Rather than construct a design likely to result in such future impacts, it is preferable to construct a design that would avoid and minimize them.

The Final EIS states that the proposed project design resolves sediment transport processes in the project reach by assuming that another upstream project in the so-called “Greenbelt Area” involving a bypass channel, would result in reduced sediment loads and more efficient sediment transport in the Project. The Application does not include a description of this potential future upstream project, and we have no basis to determine whether such a project would affect the performance of the Project. Furthermore, the Greenbelt Area reach is described in the Final EIS as being subject to public opposition for flood control projects and does not meet the Corps’ cost-benefit standards for project approval procedures. Given that the Greenbelt Area project is neither designed nor permitted at the date of this letter, the apparent reliance on this potential future project for the performance of the Project is not justified. Thus, it appears that the Project as proposed violates the Corps’ best engineering practices for stable channel designs.

Please quantify the future maintenance activities necessary to remove sediment to maintain flood capacity, with concomitant ongoing impacts to vegetation, wildlife, and water quality. Please submit the sediment transport model, with an appropriately detailed analysis, including basis of design and narrative discussion of the model to explain how the Project would meet the stated goal of maintaining one percent flood event protection and a stable channel design. In addition, please submit the as-built plans for the current channel and a discussion of how those compare to current conditions (e.g., changes to cross sections and longitudinal slopes and elevations). That comparison would likely help inform an understanding of how sediment may move through the Project as proposed.

8) ***Operations and maintenance plan/mitigation and monitoring plan needed.***

Please identify and clarify the roles and responsibilities of the Corps and its non-federal project sponsor, the District. We understand that the District will be responsible for long-term project maintenance. The Application states the Corps will be responsible for maintaining trees and shrubs that will be planted in the Project reach for the first five years, and the District will maintain them after the first five years. However, the Application does not contain information about maintenance for sediment removal operations, bank stability, and related issues. To the extent the Application is also a proposal to complete maintenance for a specified period of time, please prepare and submit a Mitigation and Monitoring Plan (MMP) to address expected impacts for that time period. The MMP should be prepared consistent with

the District's current Stream Maintenance Program requirements.

- 9) ***Dewatering plan needed.*** The Application states the Corps will implement a dewatering plan (Application attachment, mitigation measure WAQ-B). Please submit a Dewatering Plan that provides the proposed locations of cofferdams, cofferdam construction and removal methods, and water quality monitoring plans, including monitoring of groundwater and steps to avoid violating water quality standards in the Basin Plan. To the extent it is not yet possible to submit a final plan, the submitted plan should be as detailed as possible.
- 10) ***Groundwater management plan needed.*** The Water Board requires preparation and implementation of a Groundwater Management Plan to address appropriate dewatering and monitoring methods pursuant to the Water Board's letter of August 14, 2015, to the Corps. The Groundwater Management Plan is specifically required due to potential residual contamination present near an historic toxic solvent spill at the JCI Jones facility, which presents a potentially significant threat to water quality. The Application notes that the Corps plans to implement a Groundwater Management Plan (Application attachment, mitigation measure WAQ-A), but does not include any specifics. Please include such a Groundwater Management Plan with appropriate details. To the extent it is not yet possible to submit a final plan, the submitted plan should be as detailed as possible.

The Application notes a "No Enforcement Letter (De-Watering)" from the Water Board dated July 16, 2015. We believe the relevant letter is the Water Board's August 14, 2015, letter notifying the Corps of the requirement for a Groundwater Management Plan. Please provide more details of the July 16, 2015, letter or contact us to discuss it further.

- 11) ***Construction-related pollution prevention plans needed.*** Please include details for how the Corps plans to prevent construction-related discharges from impacting the creek's water quality and beneficial uses. The Project will require coverage under the statewide NPDES General Permit for Discharges of Storm Water Associated with Construction Activity because it will disturb more than 1 acre of earth as a part of construction. However, the Application states only that the Corps plans to implement a Rainfall Event Action Plan. This is only a small part of substantive compliance with Permit requirements. Please confirm the Corps will comply with this federal Clean Water Act requirement and submit a draft Storm Water Pollution Prevention Plan and related documents as a part of the Application.
- 12) ***Application fee needed.*** The application fee for the Project, which would impact 11,400 linear feet (4.18 acres) of creek, is \$90,000. Please coordinate with the District to submit the fee.
- 13) ***CEQA certification needed.*** The District, acting as lead agency under the California Environmental Quality Act (CEQA), has prepared a draft Environmental Impact Report (DEIR) for the Project. The comment period for the DEIR will end on November 12, 2015, after which the District may revise the CEQA document and will

then consider certifying it. Please be aware that, pursuant to applicable sections of CEQA, the Water Board cannot act on the Application until the Project complies with CEQA (i.e., until after the relevant environmental documents have been certified). Please keep us advised of the status of CEQA document preparation and certification.

In summary, the Application is not yet complete and lacks the information needed for us to determine whether or not the Project meets State water quality standards. Please revise the application to provide the additional information requested herein. If you have any questions, please contact Susan Glendening of my staff at (510) 622-2462 or via email to [Susan.Glendening@waterboards.ca.gov](mailto:Susan.Glendening@waterboards.ca.gov).

Sincerely,

Bruce H. Wolfe  
Executive Officer

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