ID#	Source	Comment	Response
C-01	Corps	The United States Army Corps of Engineers (Corps), San Francisco District, appreciates the opportunity to officially comment on the final tentative order for waste discharge requirements (WDR) for the Upper Berryessa Creek Flood Risk Management Project.	Comment noted.
C-02	Corps	The Corps strongly disagrees with the waste discharge requirements because the Corps has already awarded a construction contract based on the Clean Water Act, section 401 water quality certification issued to the Corps on March 14, 2016. In addition, the Corps disagrees that the Water Board is authorized to name the Corps as a discharger, noting that Congress has not waived sovereign immunity for federal agencies to comply with the Porter-Cologne Act.	We disagree. The Water Board recognizes the important flood management and public safety role the Project is intended to play. In part for that reason, as noted by the commenter, the Board issued Clean Water Act (CWA) section 401 water quality certification (Certification) for the Project on March 14, 2016. Issuing the Certification was part one of the two-stage permitting approach described in detail in response to Comment C-03. Further, we are authorized under CWA section 401(d) in conjunction with Water Code section 13263(a) to name both co-sponsors in the Certification/WDRs. Naming the Corps and the local sponsor in combined Certification/WDRs is a standard Board practice. For example, the following list is a sample of projects for which the Corps and a local, non-federal sponsor are co-permittees in Board orders for water resources projects (the first two of which are co-sponsored by the Corps and the District and are currently under construction): • Guadalupe River Project/Guadalupe Creek Restoration Project (Water Board Order No. 01-036) • Upper Guadalupe Flood Reduction Project (Water Board Order No. R2-2002-0089) • Napa River Flood Control Project (Water Board Order No. 99-074, co-sponsor is the Napa County Flood Control District) • San Timoteo Creek Reach 3B Flood Control Project (Santa Ana Regional Water Board Order No. 01-75; co-sponsor is the San Bernardino County Flood Control District) • Vegetation Clearing in the San Luis Rey River Flood Control Project (Project No. R9-2015-0161, San Diego Regional Water Board, water quality certification; co-sponsor is the City of Oceanside) To address the Corps' concern regarding sovereign immunity, we have revised the tentative order to (1) incorporate the Certification, so that the revised tentative order combines Certification and WDRs in one order, and (2) clarify the Board's understanding of which discharger(s) is (are) responsible for completing the tasks in the revised tentative order. Regarding (1), we revised the order by adding a new finding as Finding 5, stating the order rescinds the previous Certification. Finding 5 reads: "…This Order rescinds and supersedes the previously-issued water quality certification with waste discharge requirements and a reissued water quality certification."

			Regarding (2), we modified Finding 3 in the revised tentative order to clarify the Board's understanding, as explained by the District and Corps, of which discharger is responsible for the various tasks in the order, including our understanding that the District will fund required compensatory mitigation (see response to Comment C-32 for details of changes to Finding 3). We deleted Finding 10, then moved the requirements for the Adaptive Management Plan, Mitigation and Monitoring Plan, and Post-Construction Stormwater Management Plan to Finding 3. The other requirements previously under Finding 10 are either deleted (narrative of differences between the 90 percent and 100 percent design plans; and Utilities Plan), or, as explained in the response to Comment C-32, are addressed in separate findings (i.e., Dewatering Plan and Groundwater Management Plan). We also noted that our understanding is that the Corps is responsible for Staging, Stockpiling, and Hauling (Finding 8; formerly Finding 7), Reuse or Dispose of Exported Material (Finding 9; formerly Finding 8), and Construction General Permit coverage and compliance (Finding 10; formerly Finding 9). Those revisions are intended to help clarify that the order is not an additional, duplicative, layer of permitting, but rather a more-detailed approval that is well-coordinated with the initial Certification. Regarding the Corps' sovereign immunity, the CWA's plain language states that the Corps is governed and must abide by the CWA. When the Corps is "engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants, [it] shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity." (33 U.S.C. § 1323(a).) The Senate Report regarding the adoption of CWA amendments in 1977 reflects Congress's disapprobation of the Corps' prior attempts to avoid adherence to the CWA as in *EPA v. California ex rei. State Water Resources Control Board*, 426 U.S. 200 (1976): "The Corps, like other federal agencies, should be bound by the same requirements as any other discharger into public waters." (S. Rep. No. 95-370, 95th Cong., 1st Sess. 68 (1977).) The Corps and other federal agencies are routinely named in WDRs where there are impacts to waters of the State, such as the examples listed above in this response. To address the Corps' concerns about "double regulation," sovereign immunity, or the potential for inconsistent regulation under two separate orders, we have revised the tentative order to be a combined Certification/WDR order issued jointly to both the Corps and the District.
C-03	Corps	The Corps noted that it has closely coordinated with the Water Board for this project since 2012, culminating in the Water Board's issuance of the Certification on March 14, 2016. The Corps questioned the purpose of a WDR because the Certification states that the project would meet State water quality standards and would "…comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of [the CWA]. "	Comment noted. Issuance of the Certification was dependent upon development of subsequent WDRs (the revised tentative order) as a basis for finding that the Project complied with CWA requirements. (See Certification, p. 2.) Board staff have been coordinating with Corps and District staff on this Project since the early 2000s and remain committed to a collaborative effort to resolve concerns. The findings in the Certification that the Project complies with the CWA explicitly contemplate the adoption of WDRs to supplement the Certification and address certain issues, such as post-construction stormwater control and mitigation. Adoption of the revised tentative order would be the second phase of the two-phase permitting approach we developed with the Corps and the District during our collaboration on this project in late 2015 and early 2016 and which we finalized in our meeting of January 4, 2016. (The meeting of January 4, 2016, was an outcome of an interagency meeting on December 14, 2015, when Corps, District, and Board management made the agreement to meet "… in early January to develop a mitigation plan for the project" (meeting summary sent by email of December 16, 2015, from Susan Glendening to Amanda Cruz, John Morrow, Traci Clever, Shareen Barry, Neil Hedgecock, Melanie Richardson, Christopher Hakes, Judy Nam, James Manitakos, Bruce Wolfe, Keith Lichten, A.L. Riley, and Bill

			Hurley, and copied to Tamarin Austin, Jay Kinberger, and Dyan Whyte). The first phase of the agreed-upon permitting approach was for the Board to expeditiously issue Certification to the Corps, which allowed the Corps to timely initiate its contracting procedures to meet the Project's construction deadlines, which are related to planned 2017 completion of the BART extension and station. Subsequent to issuance of the Certification on March 14, 2016, the Corps completed necessary contracting and has begun project construction. Adoption of the revised tentative order would complete the second phase of the two-phase permitting approach, as noted in the Certification. Adoption of the revised tentative order is necessary to ensure project impacts to jurisdictional waters are fully and appropriately addressed. Once the two-phase permitting approach was finalized during the meeting of January 4, 2016, Water Board Division Chief Keith Lichten followed up with District Operating Officer Melanie Richardson by email dated January 21, 2016: > Subsequent to that and likely later this spring, we expect to bring Waste Discharge Requirements for the project before our Board for its consideration. Similar to our approach on past projects, such as the Bay Bridge, where we issued a fairly quick cert to facilitate contracting and then issued a separate WDR, the WDRs are likely to address aspects of the project in greater detail, including post-construction monitoring, alternate mitigation to address the project design issues, and potentially operation and maintenance, to the extent O&M isn't covered under the District's Stream Maintenance Program WDRs. At this point, our intention is to name both the District and the Corps… After the January 4, 2016, meeting, Board staff worked expeditiously to develop the Certification to facilitate the Corps' timely contracting procedure. Through meetings on February 29 and March 8, 2016, and numerous email and telephone calls between January 4 and March 14, 2016 (issuance date of the Certification), Board staff tailored the Certification (a process entailing two complete administrative drafts distributed to both the Corps and the District, the first on February 11, 2016, and the second on March 2, 2016), to meet the Corps' needs with the understanding that WDRs would be adopted soon thereafter, according to the two-phase permitting approach. The Certification, at page 2 (second full paragraph), also reflects that the subsequent adoption of WDRs addressing mitigation would be necessary to comply with the CWA: > This Certification is being issued to facilitate the Applicant's contracting and construction schedule for the Project, which is intended to result in the completion of Project construction prior to the planned opening of the Milpitas Bay Area Rapid Transit (BART) station in late 2017. Subsequent to issuance of this Certification, the Water Board will consider adoption of Waste Discharge Requirements (WDRs) with the District named as the permittee for the Project. The following is a partial list of items the WDR will address:

			• Future operation and maintenance; • Requirements for monitoring of vegetation reestablishment and channel cross and longitudinal sections to inform future maintenance guidelines under the District's Stream Maintenance Program; • A plan to compensate for the capital project's impacts; • Requirements for post-construction stormwater treatment from newly-constructed or replaced impervious surface; and • Plans for future site uses. Both the Corps and the District are dischargers, because, as authorized by Congress, the Project could not occur without the participation of either co-sponsor. Both are responsible for key components of the project that will result in discharges to waters of the State and United States. Section 221 of the Flood Control Act of 1970, Public Law 91-611, as amended (42 U.S.C. 1962d-5b), and Section 103(j) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2213(j)), provide that "the Secretary of the Army shall not commence construction of any water resources project, or separable element thereof, until each non-Federal interest has entered into a written agreement to furnish its required cooperation for the project or separable element." The "agreement" referred to is the Project Partnership Agreement, which the Corps and District signed on May 17, 2016 (Agreement). The Agreement further stipulates division of costs and responsibilities to construct the Project: the Corps is responsible for the construction contractor, while the District is responsible for the lands, easements, rights-of-way, relocations, and any improvements required on lands, easements, and rights-of-way to enable the disposal of dredged or excavated material. After construction, the District is required, under Article VII.A of the Agreement Project Partnership Agreement, to operate and maintain the Project, which involves additional discharges from dredge/fill activities into waters of the U.S. The Corps and District are also inextricably involved in post-construction activities. The Agreement, Article II.A stipulates that the non-federal sponsor must follow the O&M manual that the Corps will prepare, and Article VII.B stipulates that the Corps participates in the long-term for inspection and, if necessary, other O&M and replacement of the project. According to Corps staffer Craig Conner (Conner, C. May 19, 2016. Email to Susan Glendening and Thomas Kendall): "The Corps flood risk management projects are authorized in perpetuity by Congress until they are de-authorized. It is a partnership between the Corps and the local Non-Federal Sponsor, but it remains a Federal project throughout its life. If the local Non-Federal Sponsor does not fulfill their O&M obligations, the Corps has as one of its options to take over the O & M, and possibly try to recoup costs from the local Non-Federal Sponsor." We note that, in working with the Corps staff prior to issuance of the Certification, Board staff removed, at the Corps' request, several items from the administrative draft Certification, with the mutual understanding that those same items would be included in subsequent WDRs as part of the second phase of the two-phase permitting approach. The revised tentative order recognizes that the Corps and District have an agreement concerning who is responsible for the various portions of the Project, and adoption of the

			order would do nothing to alter that agreement. The two administrative draft Certifications issued on February 11, and March 2, 2016, were significantly tailored before the final Certification was issued on March 14, 2016, based on the Corps' requests and our mutual understanding that adoption of WDRs would be necessary to complete the two-phase permitting approach all parties agreed to at the January 4, 2016, meeting. We noted that the Corps had considered self-certifying the Project pursuant to Clean Water Act section 404(r), as announced on October 9, 2015, in the Federal Register (Federal Register, Vol. 80, No. 196; 80 FR 61187), but later notified Board management in early December 2015 that it would not invoke the CWA section 404(r) waiver. Corps, District, and Board management met on December 14, 2015, to agree to develop a strategy (including a mitigation plan) for the Board to certify the Project. Recognizing the Project's important public safety goals, Board staff worked with Corps and District staffs to identify a path forward that would allow issuance of the Certification while ensuring the Project, as authorized by both the Certification and the WDRs, ultimately complies with State water quality standards, as explained above. While our preference would have been to regulate the Project with a single permitting action at the outset, the revised tentative order is consistent with the approach the Board took for construction of the new Eastern Span of the San Francisco-Oakland Bay Bridge, under which the Board first issued Certification to Caltrans for that project to allow contracting to go forward and later issued WDRs to Caltrans with more-detailed requirements to ensure the Bay Bridge project fully complied with State water quality standards. See also response to Comment C-02.
C-04-a	Corps	The Corps is concerned that implementation of the WDRs would delay the project and jeopardize timely flood protection for the new Milpitas Bay Area Rapid Transit (BART) station and rail line, part of a $2.3-billion BART expansion project with $900-million of federal funding.	We disagree. See response to Comment C-03 pertaining to the two-stage permitting approach the Water Board, Corps, and District developed specifically to avoid a Project delay. As the Corps and District have explained the division of responsibilities for various aspects of the Project, nothing in the revised tentative order would affect the ongoing construction or change that division of responsibilities. In addition, we recognize the issue of mitigation was the subject of significant discussion with the Corps and District prior to issuance of the Certification. For example, we discussed the opportunity for the District to internally disassociate the Project from the compensatory mitigation obligation by funding mitigation through a source separate from the Project funding source. This was a significant part of the overarching two-phase permitting approach that the Corps, District, and Board agreed to at our January 4, 2016, meeting as a path forward to allow the Board to timely certify that the Project would meet State water quality standards.
C-04-b	Corps	The Corps stated that the mitigation requirements are unwarranted, and, the cost of mitigation would adversely impact the benefit cost ratio, thereby leading the Corps	We disagree that the mitigation requirements are unwarranted. See responses to Comment C-13-a for description of impacts on beneficial uses and significance determinations under CEQA that the revised tentative order would mitigate, as well as Comments RCD-10, S-04, S-07, S-24, and S-44 pertaining to development of appropriate mitigation measures. See responses to Comments C-02 and C-03 regarding the two-phase permitting approach that we developed together with the Corps

		to cancel the project.	and the District to resolve the impasse that was in effect until December 2015, including the agreement to develop a mitigation plan. Additionally, it is unclear what practical effect issuance of an amended Certification and WDRs would have on the Corps' participation in the project, which the Corps has already budgeted for and is now constructing in partnership with the District, with construction is expected to be completed within the next year.
C-04-c	Corps	The Corps is concerned that the Water Board Executive Officer's review to accept the plans and specifications, as required in the WDR, would potentially compel the Corps to either stop work or terminate the project if the Executive Officer were to require significant changes.	We disagree. The proposed requirements to submit additional information acceptable to the Executive Officer are an efficient mechanism for allowing the Project to progress while recognizing that it was not timely to prepare or finalize that information prior to the Certification's initial issuance. The requirements in the revised tentative order are not wholesale review of, and would not result in significant changes to, the Project design. We consistently require the Executive Officer's review of project plans for projects of this size to ensure the project will meet applicable water quality objectives. Additionally, based on conversations with Corps staff in October 2016, the Corps' contract includes a 20 percent contingency for unforeseen costs, and the District has the ability to budget for such costs as well. As a result, it is unlikely that modest potential additional costs necessary to ensure the Project complies with State water quality standards would result in a stop work order or termination of Project construction. See response to Comments C-32 regarding our requirements for certain plans and the scope of our review for them. This approach has been offered as a streamlined approach where plans necessary for the Board to find that the project complies with State water quality standards have not yet been finalized. In the alternative, the plans could be brought before the Board for its review and approval in a public hearing, but, as the expectations for the plans are clearly set forth in the revised tentative order, that approach could result in unnecessary Project delays (based on the typical lead time of about three months necessary for the public hearing process). Additionally, the requirement to submit plans does not limit the Corps' contracting ability. Rather, it is an efficient means of ensuring that the Project's final designs are consistent with earlier designs provided to the Board. A similar requirement in a previous Certification/WDRs issued by the Water Board to the Corps and its local sponsor played an important role for that project: the Corps' Napa River Flood Control Project. There, we were able to accommodate unanticipated post-permit design changes for a new kayak launch.
C-05	Corps	The Corps had the understanding that the WDR would be issued to only the District, and that any regulatory compliance required of the Corps is covered in the Certification.	We disagree. Throughout the Project review and permitting process, we have worked to maintain open communication via our many meetings, telephone calls, emails, and other communications. Please see response to Comments C-02 and C-03. In the weeks leading up to the issuance of the Certification, we removed, upon request by Corps staff, several items from an administrative draft Certification, with the mutual understanding that those same items would be placed in the planned WDRs. At that time, a decision regarding whether to issue the WDRs to the District alone, or to the Corps and the District, had not yet been made. As noted elsewhere in this Response to Comments, and partly in response to comments from the Corps, we have revised the tentative order to be a combined Certification/WDR order issued jointly to both the Corps and the District. This is consistent with the Board's permitting approach to other federal Water Resources Development Act (WRDA)-funded flood control projects in the region, such as the Napa River Flood Control Project and the District's flood control projects on the Guadalupe River.

C-06	Corps	The Corps stated that the Water Board is not authorized to regulate the Corps through State regulatory requirements when the project is already covered under a Certification, even though a limited waiver of sovereign immunity is provided under the Clean Water Act, section 401.	We disagree. See responses to Comments C-02 and C-03.
C-07	Corps	The Corps stated that the WDR conflicts with the Certification, and challenged the Water Board's authority to issue a WDR for the project when it is already covered by a Certification, citing case law holding that federal projects are "subject to state regulation only when and to the extent that congressional authorization is clear and unambiguous." (*EPA v. California ex rel. State Water Resources Control Board*, 426 U.S. 200 (1976).) Further, the Corps is concerned that the WDR will result in double-regulation and needless expenditure of public resources.	We disagree that there are conflicts between the Certification and the WDRs or that the project is being "double regulated." However, to ensure we have addressed this concern, the tentative order has been revised to combine the Certification with the WDRs for the Project. See response to Comment C-02 for the details of these revisions.
C-08	Corps	The Corps stated that the Water Board missed the opportunity to comment on the project during the draft Environmental Impact Statement (EIS) public comment period in 2014. The Corps pointed out that the EIS identified the following aspects deemed as positive benefits of the project : (1) reducing flood risk and the potential for contamination impacts associated with said flooding; (2) providing bank stabilization to prevent sedimentation and improve water quality; and (3) removing invasive vegetation and replacing it with native species.	Comment noted. Regarding the EIS, our records indicate a draft EIS was never received by the Water Board, which explains why Board staff did not submit comments on the draft EIS. In addition, after discovering the "Final EIS" dated December 2013, was revised in March 2014 ("Revised Final EIS"), it took 5 months of requests by Board staff to receive a hard copy of the Revised Final EIS, and we initially only received Volume 1 of three volumes. We ultimately received the complete electronic files in May 2015, although the Final Revised EIS is still not fully available on the Corps' website, despite several inquiries to post it online for public access (http://www.spk.Corps.army.mil/Portals/12/documents/Corps_project_public_notices/Berryessa_Creek_FinalGRR-EIS_Dec2013.pdf. Accessed October 3, 2016. (We note that only Volume 1 is posted.)). Regarding point number 1, we agree that the Project will reduce flood risk and associated contamination impacts. We disagree with point number 2 that the Project will prevent sedimentation and improve water quality by stabilizing the creek banks. We are surprised to see this issue raised again by the Corps after Board staff and the District's consultant, Tetra Tech, have reiterated during interagency meetings with the Corps (December 28, 2015; January 4, 2016) that the HEC-RAS sediment transport

			model does not quantify bank erosion but estimates streambed scour (see also Board staff memoranda: S. Bozkurt-Frucht, October 21, 2016; and A. Riley and S. Bozkurt-Frucht, April 12, 2016). As noted in the March 2014 Revised Final EIS, the Project's design does not appropriately address the design goal of efficient sediment transport. The Revised Final EIS addressed this issue by stating that the Corps will conduct monitoring after the Project is constructed. While this issue did not appear in the December 2013 Final EIS, the Revised Final EIS responded to the Peer Review Report (Batelle Memorial Institute, 2013. *"Final Independent External Peer Review Report Berryessa Creek, Santa Clara County, California, General Reevaluation Study (GRS) Draft General Reevaluation Report and Environmental Impact Statement/Environmental Impact Report." Prepared for Department of the Army, U.S. Army Corps of Engineers Flood Risk Management Planning, Center of Expertise for the Baltimore District. Contract No. W912HQ-10-D-0002, Task Order: 0030)* that identified serious flaws in the Project's design due to anticipated sediment transport processes. See also our response to Comment C-13-a regarding the impacts of the Project and the need for mitigation and comment S-26 pertaining to sediment transport in the Project. Regarding point number 3, we agree with the concept that replacing non-native vegetation with native species would provide a benefit. However, given the Project design, we question whether this goal is attainable with only 4 inches of soil being placed over rock riprap. The Project will not fully support the intended diversity and cover by native wetland and upland species being hydroseeded due to the Project design of rock riprap, underlain with geotextile fabric, and covered with only 4 inches of soil. Native grasses and forbs, in general, have deep roots that enables them to survive a long dry season and withstand stronger flow forces. Five of the six native species in the wetland and hydroseed mixes have a minimum soil depth ranging from 5.1 to 20.5 inches (Source: *Cal Flora Database*, accessed September 26, 2016, and available online at: http://www.calflora.org.). We agree that the upland species may establish at the higher elevation areas that will not have riprap. However, the success of native vegetation lower down the banks and in the channel armored with rock riprap, is questionable, which opens up those areas for competition by non-native species. The likelihood of establishing natives will be further reduced because the Project plans to reuse soil onsite, which may spread and further help invasives to reestablish. The unintended proliferation of non-natives will create the continuous need for vegetation maintenance to maintain any natives that manage to thrive in the areas without riprap. We therefore do not agree with the assertion that the Project will provide benefits with respect to replacing non-native vegetation with native vegetation due to the questionable likelihood of success of the natives.

C-09	Corps	The Corps submitted detailed comments to address the following overarching themes: (1) the Corps believes there is no scientific basis for the need for mitigation; (2) the Corps believes it should not be named as a discharger in the WDR because the Congress has only waived limited sovereign immunity under the Clean Water Act, section 401; (3) the Corps believes various required plans are arbitrary and infeasible; and (4) the Corps has pointed out some technical errors in the WDR.	Comment noted. We disagree and provide complete responses in the following: 1) For mitigation requirements and the science behind the requirements, see responses to Comments C-13-a, C-14, S-39,and S-44; 2) For the Water Board's authority to name the Corps as a discharger, see responses to Comments C-02 and C-03; 3) Regarding the Corps' assertion that certain requirements are arbitrary and infeasible, see responses to Comment C-13-a, C-18, and C-32; and 4) For corrections of certain technical errors, or revisions based on new data the Corps or District has submitted since issuance of the tentative order (released on August 19, 2016), see responses to Comments C-32, C-41, C-44, C-45, and C-47.
C-10	Corps	The Corps incorporated by reference its comments on the Administrative Draft Order of May 6, 2016 (letter from Corps to Water Board, May 13, 2016).	Comment noted. We reviewed the Corps' letter of May 13, 2016, and verified that the Corps' comments on the tentative order included those comments made in the May 13 letter. As such, the May 13, 2016, letter is not responded to separately herein.
C-11	Corps	The Corps is concerned that it has already finalized the project plans, specifications, and a construction contract based on the existing 401 Certification, but the WDR would impose new requirements, such as mitigation, which, the Corps asserts, are not applicable to the Corps and for which the Water Board is not authorized to require.	We disagree. See responses to Comments C-02 and C-03 regarding the two-phase permitting approach developed collaboratively with Corps and District management to facilitate the Corps' timely commencement of construction contracting procedures and construction implementation; and Comments C-13-a, C-14, C-23, C-24, and S-44 pertaining to the need and regulatory authority for mitigation, including the Water Board's obligation under CEQA.
C-12-a	Corps	The Corps stated that the project will not impact Berryessa Creek's beneficial uses.	We disagree that the Project will not impact the existing or potential beneficial uses of Berryessa Creek. See responses to Comments C-13-a and S-44 pertaining to the impacts on beneficial uses from the Project. See response to Comment C-03, regarding the two-stage permitting approach that we developed together with the Corps and the District to resolve the permitting impasse that was in effect until December 2015 and the agreement to develop a mitigation plan for the Project to meet State water quality standards.
C-12-b		The Corps stated its hopes to coordinate early for future projects to avoid this situation of the current project.	We look forward to continuing to work with the Corps on future projects, including identifying funding and project design approaches that can avoid or limit the kinds of project impacts in the current Project and, instead, result in projects that provide necessary flood protection while also achieving significant net improvements to beneficial uses, including supporting urban creek restoration and stewardship.

C-13-a	Corps	The Corps believes the WDR's mitigation requirements are arbitrary and capricious, and not based on science.	We disagree. The revised tentative order's requirements reflect those needed to ensure the Project complies with State water quality standards. They were developed based on a thorough and detailed analysis of the Project's potential impacts, are consistent with applicable law and policy, including the Water Code and San Francisco Bay Basin Water Quality Control Plan (Basin Plan), and are consistent with current Water Board requirements for projects with similar impacts, including those relating to compensatory mitigation. They are also consistent with the Corps' internal guidelines that require the Corps to minimize adverse effects on the Aquatic Ecosystem and mitigate for impacts (404(b)(1) Guidelines): > [T]he district engineer will issue an individual section 404 permit only upon a determination that the proposed discharge complies with applicable provisions of 40 CFR part 230, including those which require the permit applicant to take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the U.S. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines." (40 C.F.R. § 230.91.) In addition, CWA section 401(d) requires that: > Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section. Water Code section 13263(a) requires the Water Board to "implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241." Similarly, CEQA Guideline 15096(g) provides that a responsible agency "shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." While the regulations provide the legal basis for requiring mitigation, we rely upon science to evaluate lost water quality functions and values and appropriate compensation. The WDRs recognize Berryessa Creek's beneficial uses in context of its hydrologic and geomorphic setting. While the Project will result in a relatively modest amount of permanent fill of waters (e.g., for footings), it is likely to have significant adverse impacts to beneficial uses due to the rip-rapping of the creek bed and banks and modification of the creek's cross section. Such features will restrict and reduce the complexity of the aquatic ecosystem by altering the hydrology,

			sediment transport, food web, and trophic interactions (i.e., energy transfer between different classes of organisms). The beneficial uses of Berryessa Creek and its tributaries within the Project site (Piedmont Creek and Los Coches Creek) are WARM, WILD, REC-1, and REC-2, and Los Coches Creek also has the RARE beneficial use. The United States Fish and Wildlife Service (USFWS) Coordination Act Report (CAR) documents that the creek's habitat supports California roach, mosquito fish, and egret. During a field inspection on September 4, 2015, at the peak of a severe drought, Board staff observed egrets and ducks in the creek at multiple locations. A typical creek ecosystem capable of supporting these consumers (i.e., California roach, egret, and ducks) has a variety of biota including algae (e.g., phytoplankton and filamentous algae), benthic macro-invertebrates, zooplankton, insect and fish larvae, and many other micro- and macro-biotic elements as important components involved in ecological processes for organic matter and energy transfer and cycling from bacteria to upper trophic consumers in the food web (e.g., fish and birds). The Project will alter the creek's hydrology, despite the USFWS CAR statement that the creek's hydrology will not be altered. We assume the USFWS was referring to the more general hydrologic regime characteristic of creeks in areas with a Mediterranean climate including the Bay Area, with flashy peak flows during the wet season and very low flow, or in the case of the upper one-half to two-third of the Project site, no flow, during the dry season. The expanded channel cross-section included in the Project's design, which will be increased from (varying by station) 5 to 20 feet wide to 12 to 40 feet wide, will cause the existing dry season flow (estimated at less than 1 cubic foot per second) to spread out and ultimately infiltrate into the substrate. The diminished dry season flow will alter the creek's existing food web, including the potential for local extirpation of California roach and mosquito fish. The post-project diminished flow may also reduce diversity and abundance in lower trophic species, including benthic invertebrate, micro- and macro crustaceans, diatoms, phytoplankton, and filamentous algae. Such lower trophic species were not characterized in the Project's supporting documents, including the Environmental Impact Report (EIR) (except noting the absence of special status species such as the Conservancy fairy shrimp). With these effects on the lower trophic organisms, the food source for fish larvae, fish, and birds will be diminished or eliminated. Thus, both the WARM and WILD beneficial uses will be adversely affected by the Project. As a result of the adverse impacts on the WARM and WILD beneficial uses, the existing and potential REC-2 beneficial use will also be degraded due to a reduction in species diversity and complexity. Further, a study of bioengineering techniques for stabilizing banks in urban creeks has found that increases in species biomass and species including "shredders", which are important biota for decomposition of organic material, are directly correlated with the quantity of root and wood habitat created on channel banks (Sudduth and Meyer, 2006. Effects of Bioengineering on Streambank Macroinvertebrates. Environmental Management Vol. 38, No. 2, pp. 218–226). As mentioned in response to Comment C-08, the Project's design, i.e., the riprap/soil/hydroseed treatment, will restrict native plant growth in the creek's channel bed and banks. In addition, the Corps' stated intention to develop an Operation and Maintenance Plan that will prohibit development of significant woody riparian vegetation along the Project's length will further degrade the ecosystem for the long term.

			The Project's rock riprap, which will result in reduced root structure complexity, will also affect the potential for nutrient cycling, such as nitrogen sequestration and carbon (organic matter) cycling in the creek habitat. With lower potential for nutrient cycling, water quality in the Project site will be degraded (e.g., see Mayar et al., 2005. "Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations." U.S. EPA Office of Research and Development, National Risk Management Research Laboratory. EPA/600/R-05/118. Ada, Oklahoma. October 2005). The planned restrictions on woody riparian vegetation or even larger herbaceous vegetation, which could provide shade, are likely to result in warmer water temperatures than could otherwise be achieved, limiting habitat and reducing the Project's potential to serve as a corridor between the high-quality reaches of Berryessa Creek upstream and downstream of the Project. The Project, thus, is likely to have reduced support for the existing WARM beneficial use and to permanently reduce the potential WARM beneficial use, as well as to result in reductions in the related existing and potential beneficial uses in the higher-quality creek reaches upstream and downstream of the Project reach. Because placement of fill for the Project will adversely impact the existing and potential WARM, WILD, and REC-2 beneficial uses, both in and near the Project site, there is the need for compensatory mitigation under the No Net Loss Policy and California Wetlands Conservation Policy, as well as the State's Anti-Degradation Policy, which have been incorporated into the Basin Plan. As such, the Certification documented the need for mitigation. (Certification, p. 2.) During our work with the Corps and District on the Project, we identified changes in the Project's design that could avoid and minimize these expected impacts to beneficial uses, including: development of a low-flow channel that could more efficiently transport sediment; planting of woody vegetation to increase shade, thereby reducing temperatures and the need to remove vegetation such as cattails that can trap sediment; and changes to the channel cross section by removing unnecessary Project elements, such as one maintenance road for those reaches where maintenance roads have been placed on each side of the channel. This last option would have allowed significantly greater flexibility in channel design and post-project vegetation, by allowing design elements like floodplain benches within the Project's existing planned right-of-way. The Corps and District did not incorporate any of these changes into the Project. Having worked with the Corps and District to avoid and minimize project impacts to the maximum extent practicable, consistent with federal guidelines, as incorporated into the Basin Plan, we appropriately identified the need for compensatory mitigation to address the Project's remaining impacts. While we requested that the Corps or District propose a compensatory mitigation project or projects to be incorporated into the Certification and WDRs, none was proposed. As a result, we have included in the revised tentative order criteria for what would constitute acceptable mitigation. Those criteria are consistent with mitigation requirements imposed by the Board for projects with similar impacts, and follow applicable policy. The following projects include the types of features we suggested for this Project to reduce impacts and include compensatory

			mitigation for unavoidable impacts: (1) Guadalupe River Project/Guadalupe Creek Restoration Project Water Board Order No. 01-036 Co-sponsors: Corps and District; Permittees named in Order: Corps and District The need for additional mitigation was identified after this project's construction started. An offsite restoration project in Guadalupe Creek to improve salmonid habitat was implemented for mitigation of the project. (2) Upper Guadalupe River Flood Control Project Water Board Order No. R2-2003-0115 Co-sponsors: Corps and District; Permittees named in Order: Corps and District The mitigation plan for this project has a strong focus on preserving existing, and creating new, shady riverine aquatic habitat and riparian vegetation. In addition, the Order requires maximizing the use of vegetated floodplain in the project design, subject to approval by the Board's Executive Officer; i.e., the approach to incorporate vegetated floodplains is required for the design, not a mitigation requirement. (3) Lower Silver Creek Water Board Order No. R2-2002-0012 Sponsor: District; Permittee named in Order: District This project has vegetated floodplains and a low flow channel. Specifically, Order No. R2-2002-0012 states: "Where right-of-way is sufficient, the constructed channel cross-section will include a sediment transport channel that is designed to transport discharge and sediment of channel forming flows that are expected to occur at approximately 1.5-year intervals. The sediment transport channel design emulates natural active channel cross-sectional geometry and is expected to reduce erosion and sedimentation, and resulting maintenance activities of the existing channel. Cross-sectional dimension and sinuosity of the low-flow channel will be allowed to form naturally within the sediment transport channel. A single maintenance road of pervious material will be located in the channel floodplain, above the sediment transport channel." (4) Lower Berryessa Creek-Lower Calera Creek Flood Protection Improvements Project CWA section 401 Water Quality Certification issued on July 26, 2011 Sponsor: District This project includes constructing instream riparian vegetated floodplains, a lowered maintenance road at approximately the two-year flood flow elevation, and reducing the maintenance roads from four to two along 8,000 linear feet of the creek. Further, the Water Board, as a responsible agency under CEQA, has the responsibility to require additional mitigation if it finds, after reviewing a project's plans and details after an EIR is adopted, that the proposed mitigation does not adequately meet the requirements that are under its jurisdiction. This Project's EIR indicates that there are potential impacts to waters based on criteria WAQ-1 "Violate any water quality standard or waste-discharge requirement," and WAQ-6 "Otherwise substantially degrade water

			quality." For operations, that is, post-construction conditions, the EIR states that the impact is: "... non-consumptive in terms of water needs, other than needs to irrigate vegetation during a 2-year establishment period. Ongoing maintenance and operations actions would continue after construction, but actions associated with sediment removal and erosion control would be reduced due to a more efficient channel design. Newly required maintenance actions, including inspection of the floodwall, culverts, and access roads, would not require excavation or dewatering, so operational impacts associated with dewatering or groundwater extraction would not occur." The EIR identifies further potential impacts under criteria WAQ-1 and WAQ-6: "Significant water quality impacts from spills of hazardous materials, contaminated groundwater, and creek dewatering," and the impacts are partially due to "[w]idening of channel bed and top of banks via excavation and grading of earthen material," and "[e]xcavation of channel bed and side slopes for placement of rock revetment" (EIR, page 3-198). As discussed in the response to Comment C-08, the EIR identifies impacts from erosion and siltation associated with alterations in drainage patterns by the Project (significance criterion WAQ-3), impacts to riparian habitat or other sensitive natural community (significance criterion BIO-2), impacts to jurisdictional waters (significance criterion BIO-3), and impacts to a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors (BIO-4). Specifically, in Reaches 1-3, the EIR identified permanent impacts to 5 acres of annual grassland habitat, trees and shrubs at the top of bank, and a 0.28 acre increase in hardscape within waters of the U.S. In addition, the entire 3.06 acres of Waters of the U.S./State within Reaches 1-3, including nearly 0.5 acres of fringing wetland vegetation, would be temporarily impacted by the Project during construction. In Reach 4, the EIR identified permanent impacts to 0.58 acre of waters of the State from increased hardscape, potential impacts to 0.18 acre of riparian from ground excavation in the root zone, and impacts from removal of four coast live oaks, three Fremont cottonwoods, and one arroyo willow thereby requiring the replacement of removed native trees and shrubs of 2-inch diameter at breast height or greater (Mitigation Measure Bio-B) and requiring a buffer around riparian trees (Mitigation Measure Bio-D). The EIR also identified impacts to a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors (BIO-4). Specifically, the California Roach and Monarch butterfly would potentially be impacted, and migratory birds would be impacted by destruction of nests thereby requiring pre-construction nesting bird surveys and establishment of appropriate buffers (Mitigation Measure Bio-A). CWA section 401(d) requires that: > [a]ny certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

			Water Code section 13263(a) requires the Water Board to: (i)mplement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241." Similarly, CEQA guideline 15096(g) provides that a responsible agency "shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." The preceding paragraphs present the significance determinations that the Board's revised tentative order would mitigate. The revised tentative order's compensatory mitigation requirements are consistent with Basin Plan requirements that the mitigation preferentially be located onsite, or as close to the impact site as possible, and that it be in-kind, and completed in a time frame similar to that of impacts. The revised tentative order sets reasonable deadlines for the identification and completion of compensatory mitigation, while allowing appropriate flexibility and imposing a requirement to complete additional mitigation (10% per year) if there is a significant delay. As such, the requirements were developed in a thoughtful manner consistent with applicable policy and past practice and appropriately taking into account the particulars of this Project. They are also consistent with the CWA section 401(b)(1) guidelines (see above), because the Project will have adverse effects, will degrade the existing aquatic ecosystem including fish, and the Corps rejected Board staff's suggestions to incorporate measures to minimize potential harm (40 C.F.R. § 230.12 (a).) See responses to Comments RCD-10, S-04, S-07, S-24, and S-44 pertaining to development of appropriate mitigation measures; Comments C-13-a, C-14, and S-44 for the Project's impacts and why mitigation is required; and Comments C-23 and C-24 for the regulatory authorities requiring mitigation.

C-13-b	Corps	The Corps is concerned that the WDR includes maintenance measures that were not part of the Certification. In addition, the Corps stated that the maintenance requirements are unfounded because the project area contains no jurisdictional wetlands and only low-quality habitat consisting of a manmade channel aligned two miles north of its historic alignment. The Corps further points out that the U.S. Fish and Wildlife Service's (USFWS) Coordination Report (April 26, 2013) conceded that "[t]he highly impacted nature of the creek provides little habitat or diversity for fish and wildlife species in its current state." Further, the Corps stated that the EIS identified the following environmental constraints inhibiting the development of environmental benefits to the creek: (1) Adjacent urban development and potential soil contamination; (2) Poor water quality; (3) Limited flows in long reaches of the channel; (4) Lack of riparian zone; (5) Limited establishment of aquatic vegetation/habitat due to lack of water availability and sediment movement in the system; (6) Almost complete disconnection from the floodplain; (7) Uniform aquatic habitat in trapezoidal or rectangular channels; (8) Fish passage barriers; (9) Poor aesthetic and recreational conditions for human use.	We disagree. First, the Certification clearly contemplated the need for maintenance measures in the future WDRs, such as the following sections: • Certification page 2, second paragraph: Subsequent to issuance of this certification, the Water Board will consider adoption of Waste Discharge Requirements (WDRs) with the District named as the permittee for the project. The following is a partial list of items the WDR will address: Future operation and maintenance; Requirements for monitoring of vegetation reestablishment and channel cross and longitudinal sections to inform future maintenance guidelines under the District's Stream Maintenance Program; A plan to compensate for the capital project's impacts; Requirements for post-construction stormwater treatment from newly-constructed or replaced impervious surface; and Plans for future site uses. • Certification Finding H (where "Applicant" refers to the Corps): Operations and Maintenance. The Application states that the District, as the project's local sponsor, will be responsible for post-project operations and maintenance (O&M) of the channel. As such, the Applicant is not proposing to complete O&M activities under this Certification, and O&M activities are not covered by it. Rather, such activities will be considered for permitting as a part of the WDRs for the project to be brought before the Water Board later this year. The project's EIR states that sediment removal maintenance activities have been pre-mitigated under the District's existing Stream Maintenance Program. However, capital projects such as the project are not covered by the Stream Maintenance Program, in accordance with the Stream Maintenance Program Manual, which the Water Board adopted with Water Quality Certification and Waste Discharge Requirements for Santa Clara Valley Water District Stream Maintenance Program (Water Board Order No. R2-2014-0015). Mitigation necessary for future O&M activities is intended to be considered as a part of the WDRs for the project to be brought before the Water Board later this year. In addition, the WDRs are intended to address the process to transition the project into the Stream Maintenance Program. This will be facilitated by the District's collection of information on project performance during the first five years after project completion. (Note that the "five year report" is no longer included in the revised tentative order; rather, we require a report after certain stage-discharge events have occurred.) • Finding I, end of fifth paragraph: The O&M Manual this Certification requires will need to include O&M of the maintenance roads and any associated BMPs to ensure compliance with the MRP for the life of the project.

- Condition 22:

  The Applicant shall submit the final project Operations and Maintenance Manual ... to the Water Board upon transfer of the project to the local sponsor.

Second, the revised tentative order would require maintenance measures commensurate with the existing and potential beneficial uses at the Project site. The order includes targeted and reasonable requirements, limited in scope and intended to ensure beneficial uses at the Project site are protected, in part by minimizing the need for and frequency of future maintenance within the constraints of the Project's design. In addition, the Adaptive Management Plan is necessary to address uncertainties about post-project performance, which are documented in the Peer Review Report (Batelle Memorial Institute, 2013) and in Board staff memoranda (S. Bozkurt-Frucht, October 21, 2016; and A. Riley and S. Bozkurt-Frucht, April 12, 2016). Further, the maintenance measures requirement is comparable to the District's existing Stream Maintenance Program, as noted in the order, which demonstrates that the order's maintenance requirements are not extraordinary or atypical.

In addition, we note that the Project's design does not meet best engineering practices of either the District's design manual (Santa Clara Valley Water District, Hydraulic Engineering Unit , June 2009. *Design Manual-Open Channel Hydraulics and Sediment Transport*) or the Corps' own design manuals (e.g., *Channel Stability Assessment for Flood Control projects. Engineer Manual (EM) 1110-2-1418*. October 31, 1994; and *Hydraulic and Design of Flood Control Channels. EM 1110-2-1601*. 1 July 1991/30 June 1994) and is expected to result in unnecessarily inefficient sediment transport. The future sediment maintenance needs are, thus, likely to result in unnecessarily frequent impacts to the creek due to the need to remove sediment.

According to the Peer Review Report (Batelle Memorial Institute, 2013), the Project's long term O&M costs were not fully considered in the Corps' cost-benefit analysis. The order's requirements to review Project performance and for an adaptive management plan are appropriate given the Project's design, uncertainty about future Project performance, and opportunities to reduce both the frequency of future maintenance and the cost to the public associated with that maintenance.

We agree that Upper Berryessa Creek has been modified from its historic characteristics and is in some regards constrained in a manner similar to many urban creeks, but it is also located between and serves as a corridor between two high quality reaches of Berryessa Creek. In issuing a Certification/WDRs, CWA section 401 requires the Board to include:

> (a)ny effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the

			provisions of this section. Water Code section 13263(a) similarly requires that the Water Board adopt requirements in WDRs that: (i)mplement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241." Under both authorities, the Board must take into account and protect existing and potential beneficial uses. The revised tentative order appropriately applies applicable law and policy consistent with the Board's past actions on similarly-impacting projects. Regarding the beneficial uses of the creeks in the Project and the need for compensatory mitigation, see responses to Comments C-13-a, C-14, S-30, and S-44.
C-14	Corps	The Corps pointed out that the only fish species likely to be found in the project area are the mosquitofish and California roach, neither of which are special status species. The Corps described the creek hydrology as being intermittent, with perennial flow at only areas upstream to Piedmont Creek, and summer flows with poor water quality due to low dissolved oxygen levels and high temperature that would not support salmonids. Further, the Corps stated that vegetation is patchy, in part due to the District's required maintenance activities of herbicide spraying and mowing to maintain hydraulic capacity and fire safety.	Comment noted. The Board's mandate to protect and enhance waters of the State is not limited solely to the highest quality waters. Through historical impacts like urbanization and channelization, and ongoing impacts like herbicide spraying and mowing of vegetation, many waters in our Region have been degraded. Additionally, the Region's Mediterranean climate and corresponding summer drought are natural characteristics to which many native species have adapted. Creek flows are necessarily viewed in the context of local climate; the lack of perennial flow, by itself, is not indicative of a degraded water. The California roach and mosquito fish are integral parts of the creek's ecosystem even though they are not federal- or State-listed species. As described in response to Comment C-13-a, waters at the Project site support a range of beneficial uses, and the Project will result in permanent impacts to both existing and potential beneficial uses. While the Project's EIR focuses on special status species, the revised tentative order, including its requirement for compensatory mitigation, appropriately addresses Project impacts and is consistent with the Corps' own regulations, which require that the proposed discharge "take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the U.S." To the extent a project proponent seeks to implement a project with greater impacts to beneficial uses, more mitigation is necessary to counter those impacts. Examples of such approaches are listed our response to Comment C-13-a (see end of response).
C-15	Corps	The Corps stated that endangered species are not known to be present in the creek, and that the use of the creek by steelhead is not possible due the lack of continuous flows of suitable depth (at least seven inches) for adult steelhead passage, which only occurred in two to five days during the two-year flow	We disagree. Los Coches Creek (called Arroyo de los Coches in the Basin Plan) has the RARE beneficial use due to the presence of California red-legged frog (CRLF) in upper reaches of the creek. In addition, breeding colonies of CRLF in ponds near Berryessa Creek upstream of I-680 were a factor contributing to the decision not to complete a flood control project design presented in the early 2000s that could have had potential impacts to those CRLF (though we note Berryessa Creek is not formally designated as supporting the RARE beneficial use designation). CRLF could be flushed into or travel across the Project area from upper reaches of Los Coches and Berryessa creeks. As such, the creeks provide potential habitat for special status species. We note they would face a

		monitoring study.	challenging environment since the Project's design will result in impacts to habitat diversity and quality. The USFWS CAR states: The highly impacted nature of the creek provides little habitat or diversity of fish and wildlife species in its current state. Designs focused on alternatives which provide benefits to fish and wildlife through the creation of a more natural stream profile should be completed. The creation of vegetated floodplain benches is a step in this direction and could significantly improve the utility of the creek for fish and wildlife as well as provide an appropriate level of flood protection. As we presented in response to Comment C-13-a, the Project's EIR found impacts on State water quality standards, which include beneficial uses, based on the WAQ-1, WAQ-6, and BIO-4 significance criteria, but the proposed mitigation is only for the short-term construction activities. We agree that the Project site is not currently suitable as steelhead habitat.
C-16	Corps	The Corps stated that the Water Board's contention that the project will significantly restrict the beneficial uses of Upper Berryessa Creek is unfounded, noting that (1) the USFWS CAR stated cattails will return in one to three years after construction and (2) the riprap will be buried and hydroseeded with native vegetation which will improve the aquatic habitat, as mentioned in the WDR, Finding 29. Further, the Corps stated that the EIS found that no permanent impacts would occur, so it contends that mitigation is not necessary.	We disagree. See response to Comments C-13-a and S-44 regarding the Project's impacts on beneficial uses, the impacts identified in the EIR, and the need for mitigation. As noted in the comment, the order appropriately recognizes aspects of the Project's design that are intended to reduce expected impacts to existing and potential beneficial uses, and those were considered as part of developing the order's compensatory mitigation requirements.
C-17	Corps	The Corps stated there is no legal requirement for the Corps to account and mitigate for impacts in waters of the State that are not waters of the U.S.	We disagree. See response to Comments C-03 and C-13-a.

C-18	Corps	The Corps stated that 20.2 acres of mitigation land within the Berryessa watershed does not exist, making the mitigation requirement infeasible.	We disagree that the compensatory mitigation requirement is infeasible. While, under the Basin Plan's policy, the ideal mitigation project would be onsite, or as close to onsite as possible, the order appropriately addresses potential logistical constraints, consistent with the Basin Plan, by allowing a compensatory mitigation project that is outside the local watershed. The District is currently considering a range of such projects, including creek enhancement, fish barrier removal, and related projects that could be part of an acceptable compensatory mitigation proposal. See response to Comment S-11.
C-19	Corps	The Corps requested that the Water Board remove the mitigation requirements from the tentative order, other than those specified in the Certification.	We disagree. See response to Comment C-13-a.
C-20	Corps	The Corps requested the Water Board to edit Finding 20 to credit the terms of the Certification (including various BMPs) as fully controlling and mitigating for the project's water quality impacts.	We disagree. See responses to Comments C-13-a, which addresses the need for compensatory mitigation, and C-16, addressing our consideration of Project features intended to mitigate for the impacts.
C-21	Corps	The Corps requested the Water Board delete references to "jurisdictional wetlands" because the Corps contends the project site does not include wetlands.	We disagree and did not make the suggested change. See responses to Comments C-23, C-24, and S-44.
C-22	Corps	The Corps is concerned that the Water Board does not recognize that the Corps has not waived sovereign immunity for State regulations, although the Clean Water Act, section 401 authorizes a limited waiver of sovereign immunity, and that the Water Board seeks to regulate the Corps through the WDR, even though project (and the Corps) is already regulated under the Certification. (The Corps cited case law: *Hancock v. Train, 426 U.S. 167,* 178-179 (1976).)	Comment noted. See responses to Comments C-02 and C-03 pertaining to the Board's authority to issue WDRs to the Corps. In addition, see response to Comment C-13-a where we present the Corps' own regulation requiring the Corps to mitigate for impacts.
C-23	Corps	The Corps challenged the relevancy of the Governor's Executive Order W-59-93 (August 23, 1993), incorporated in the Basin	We disagree. The referenced policy, Executive Order W-59-93, is commonly known as the "no net loss" policy. We disagree that the Board lacks the authority to impose a requirement for compensatory mitigation for the Project's identified impacts to beneficial uses from the placement of fill. See responses to Comments C-02 and C-03 regarding the Board's authority to regulate the Corps.

		Plan, section 4.23, and disagrees this policy justifies the WDR mitigation requirements. Further, the Corps stated that the policy goals should "be achieved through the voluntary participation of landowners ... [and are] not meant to be achieved on a permit-by-permit basis."	Moreover, we note that the Corps' own regulations require the Corps to mitigate for impacts, including the requirement that "[N]o discharge shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." (40 C.F.R. § 230.10 (d).). Further, the requirement is consistent with the "no net loss" policy, which has been mischaracterized by the commenter. It states: "The goal of the California Wetlands Conservation Policy is to establish a policy framework and strategy that will: Ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California... . Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetlands conservation and restoration." The particular sentence cited by the commenter appears under the heading "Identify regional and Statewide restoration and enhancement goals." The full section states: STATEWIDE INITIATIVES - 1. Wetlands Inventory and Goals (...) - B. Identify regional and Statewide restoration and enhancement goals. - Using information derived from the inventory, the State will identify regional and Statewide goals for conserving, restoring, and enhancing wetlands. Achievement of these goals will emphasize maintaining economic uses (e.g., agriculture) of restored and enhanced lands and be achieved through the voluntary participation of landowners. These goals are not meant to be achieved on a permit-by-permit basis." Thus, this section is regarding a process to establish statewide and regional restoration and enhancement goals. It recognizes implicitly that additional resources may be needed to achieve these goals, such as landowner incentives and enhanced coordination of State, federal, and private voluntary acquisition, restoration, management, and enhancement programs. However, the Policy neither limits the Board's ability to require appropriate compensatory mitigation, nor precludes the Board from requiring appropriate project-specific compensatory mitigation. See responses to Comments C-13-a and C-24 for additional details for the Water Board's authority to require mitigation.
C-24	Corps	The Corps continued to question the applicability of the No Net Loss Policy to the project, because the Corps contends the project does not include wetlands.	We disagree. While the wetland delineation results did not find the Project contains wetlands as defined by the Corps 1987 manual criteria (Wetland Training Institute, Inc., 1995. *Field Guide for Wetland Delineation; 1987 Corps of Engineers Manual.* Glenwood, NM. WTI 02-1)), the Project does contain wetlands as defined in the Water Board's Basin Plan, and the order recognizes the Project's impacts will include degradation of existing and potential beneficial uses of waters of the State and U.S. through the placement of fill into about 10 acres of State waters. Rather than "bring the environment to its original state," as the Corps states, the Project will permanently place rock riprap in a reshaped trapezoidal channel and that design will reduce and limit existing and potential beneficial uses at the site and areas adjacent to it. Further, Section 2.2.3 of the Basin Plan indicates that the Board will rely on the naming conventions of the National Wetlands Inventory for mapping wetlands (Federal Geographic Data Committee. 2013. Classification of wetlands and deep water habitats of the U.S. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC). Under this naming convention, significant portions of Berryessa Creek are riverine wetlands. Table 2-3 of the Basin Plan lists examples of existing and potential beneficial uses for riverine wetlands. Section 2.2.3 of the Basin

			Plan provides a list of aquatic features that the Board recognizes as wetlands, some of which would not be recognized as wetlands by the Corps. Some of the listed waterbody types that occur at the Project site including unvegetated seasonal ponded areas, the inset flood plain within the current channel, and riparian habitat, are considered riparian wetlands. The Wetlands Fill Policy and the California Wetlands Conservation Policy apply to waters of the State, including wetland and other waters including creeks such as Berryessa Creek. As stated in the Basin Plan (italic and bold font added for emphasis): "The Water Board has independent authority under the Water Code to regulate discharges of waste to wetlands ***(waters of the State)*** that would adversely affect the beneficial uses of those wetlands through waste discharge requirements or other orders." Moreover, the Project's EIR indicated that there is existing in-channel wetland vegetation and riparian habitat and acknowledged that the riparian habitat was waters of the State although it was not waters of the U.S. The Corps disclaimed the fringing wetland vegetation as wetlands because it did not have wetland soils. However, the State's authority to protect waters is focused on the protection of beneficial uses and is broader than the Corps' authority. See also response to Comment C-13-a pertaining to the Project's impacts on beneficial uses and EIR impacts findings.
C-25	Corps	The Corps speculated that the project complies with the No Net Policy if the policy were indeed applicable.	We disagree. See responses to Comments C-13-a, C-23, and C-24, and S-49 for additional details on the Project's impacts, the need for mitigation under CEQA, and the regulatory authorities for the Board to require mitigation.
C-26	Corps	The Corps requested the following changes:	Each item is addressed in individual responses.
C-27	Corps	The Corps reiterated the request to not be named as a discharger in the WDR.	See responses to Comments C-02 and C-03.
C-28	Corps	The Corps requested to remove the mitigation requirements for waters of the State.	See responses to Comments C-13-a, C-23, C-24, and S-43 pertaining to the Project's impacts, the need for mitigation, and the regulatory authority for the Board to require mitigation.
C-29	Corps	The Corp requested to remove the requirement to follow CEQA.	It is unclear which requirement the commenter is requesting be removed. However, we do not agree to remove or revise the order's language regarding CEQA, because it reflects applicable provisions of the CEQA guidelines, which require that agencies making a discretionary decision to approve a project ensure the project complies with CEQA. The Project is a project under CEQA, as recognized by the District through its completion of an EIR for the Project, and the Board, in considering the revised tentative order, will be making a discretionary decision regarding the Project. See response to Comment S-25.
C-30	Corps	The Corps requested the Water Board delete references that the project causes a net loss in wetlands.	See responses to Comments, C-23, C-24, and S-43.

C-31	Corps	The Corps requested the Water Board delete the fee provision. In addition, the Corps noted that Congress has not waived sovereign immunity with regard to fines under the CWA, and cited *Energy v. Ohio*, 503 U.S. 607 (1992). The Corps also stated it lacks authority to pay them and will not pay them.	To address this comment, we revised Finding 34 in the tentative order stating the Board's understanding of how the Corps and District are likely to divide responsibility for the order's various tasks. From a practical perspective, if fees are due under the order and the Corps does not pay them, then that responsibility would fall to the District. We have revised Finding 34 with the following edit regarding our understanding that the District would pay the fee (in the revised tentative order provided for public review we made this edit to Provision 41, though we meant to include it in Finding 34). We have deleted the following text (see underline font) from Provision 41 and added it to Finding 34. **Fees for Dredge and Fill projects.** The fee amount for the WDRs shall be in accordance with the current fee schedule, per California Code of Regulations (CCR), Title 23, Division 3, Chapter 9, Article 1, section 2200(a)(3). <u>The Water Board understands, based on information from the Corps and the District, that the District is responsible for the fee.</u>
C-32	Corps	The Corps stated that the requirements in the following findings are not necessary, and are arbitrary and infeasible: Findings 10, 11, 12, 14, 22, 26, and Provisions 7, 9, 12, 14, 22, and 28).	We disagree that the requirements cited in this comment are arbitrary or infeasible. Specifically, we are authorized to require them under the following federal and State regulations: Clean Water Act section 401(d): Limitations and monitoring requirements of certification - Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section. Water Code section 13263(a): The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241. However, it is no longer necessary to require some of the items listed in the findings, and we transferred the remaining plans and reports that were formerly listed under Finding 10 to Finding 3. In addition, we have deleted Finding 10. Finding 3 now reads: **Local-Federal Partnership.** The District is partnering with the U.S. Army Corps of Engineers (Corps) for the Upper Berryessa Creek Flood Risk Management project (Project) to increase flood protection in the surrounding community. Construction of the Project was authorized by Congress in the Water Resources Development Act (WRDA) of 1990, Public Law 101-640, section 101(a)(5). The District and Corps are each funding Project costs, and, between the two sponsors, are dividing and/or sharing the various roles and responsibilities, such as design,

			construction, and post-construction operations, in accordance the Project Partnership Agreement signed by the Corps and District on May 17, 2016. Regarding cost-sharing, the Project Partnership Agreement stipulates that the District will contribute 25 to 50 percent of the total Project cost, in accordance with the WRDA of 1986, Public Law 99-662, as amended (United States Code, Title 33, section 2213). The cost-sharing schedule specifically requires the Corps to conduct (and/or oversee) construction contracting and activities, and the District to provide all lands, easements, rights-of-way, relocations, and disposal areas (LERRD). The WRDA also requires the Corps to prepare an operations and maintenance manual for the Project (see Finding 16-Maintenance). While the WRDA and Project Partnership Agreement stipulate cost-sharing criteria between the Corps and District, construction management and implementation to the Corps, and LERRD to the District, this Order specifically requires the development and implementation of additional plans, which are described in more detail in this Order: a. Adaptive Management Plan (Finding 17; Provision 18); b. Mitigation and Monitoring Plan for compensatory mitigation (Finding 21; Provision 19); c. Post-construction Stormwater Management Plan (Finding 20 (Impacts); Provision 16). The Water Board's understanding is that the District will be responsible for these three plans because the District owns the Project and is responsible for post-construction operations and maintenance. In addition, the Water Board understands that certain aspects of the construction activities are the responsibility of the Corps (see Findings 8, 9, and 10). Note that the Finding and Provision numbers listed above are those in the revised tentative order published in January 2017. We assert that the revised tentative order's requirements are reasonable and are based on the application materials and a large number of meetings held with and communications between Board staff and Corps and District staffs. See responses to Comments S-47 for reporting requirements, and S-25 for the Certification rescission. The following sections address each of the other items listed in the comment: Finding 11 - Final 100 percent Design Plans: We deleted the last sentence because we no longer require the Corps to revise the Planting Plan with an additional five years of monitoring the growth of tree plantings in the Project site. We now require monitoring requirements to be addressed in the Mitigation and Monitoring Plan. In addition, we revised this finding to reflect receipt of the Plans dated August 4, 2016.

			Finding 12 - Utilities Plan: Given that we are now more familiar with the details of the Project, we will no longer require a Utilities Plan. Thus, we deleted the last two sentences in Finding 12. We also clarified which utilities would be realigned or replaced by removing the ambiguous language implying all utilities in the right-of-way would be realigned or replaced. In addition, we have deleted Provision 8 that required a Utilities Plan. Finding 12 now reads: **Replace and Realign Selected Utilities Infrastructure.** Multiple utility lines are in the Project right-of-way, including sanitary sewer, stormwater, irrigation, cable, electrical, telephone, fiber optic, and gas lines. The locations of some utilities are estimated and will be confirmed during Project construction activities. Consistent with the 100 percent design plans, the utility infrastructure planned for replacement and/or realignment are sanitary sewer, stormwater lines and outlets, a water irrigation line, an electric line, and two electric utility vaults. In addition, the Application states that all utility work will be implemented by cut and fill procedures with no directional drilling. Finding 14 (and Provision 12) - Dewatering Plan: We revised this finding based on the current status of the Corps' Dewatering Plan. Finding 14 now reads, with underlined text being new since the posting of the November 2, 2016, revised tentative order: Dewatering of surface water or groundwater that accumulates at excavated areas will likely be necessary. The Project EIR includes a mitigation measure for creek dewatering (WAQ-B, "Prepare and Implement a Dewatering Plan"). The Corps' consultant, Aquifer Sciences, Inc., submitted a Dewatering Plan to the Water Board on October 21, 2016. The existing plan addresses groundwater at the Project site from station 87 through 156, where groundwater will likely be encountered during construction. In areas upstream of station 156, where the Corps does not anticipate encountering groundwater, the Corps plans to track groundwater elevations using temporary piezometers. The plan does not yet address surface water flows. Water Board staff notified the Corps and its consultant on October 26, 2016, that in order for the plan to be acceptable to the Executive Officer, the following revisions are necessary: a. Include appropriate measures to address surface water flows throughout the Project site, should they be present; b. Explain how coffer dams, dissipation devices, and other dewatering equipment and infrastructure will be inspected and maintained while in use to appropriately protect water quality; c. Include appropriate measures, including sedimentation and erosion control measures, to protect water quality when placing and removing coffer dams, dissipation devices, and other dewatering equipment and infrastructure; d. Recognize that the Discharger will complete measures already proposed in the October 21, 2016, plan for areas of Project dewatering needed outside stations 87 through 156, should there be a need for dewatering in those other areas. <u>The consultant has submitted two revisions since December 8, 2016, and is working closely with Water Board staff to complete</u>

			a final plan that meets the Water Board's requirements. Finding 22 - Monitoring and Technical Reports: Finding 22 is not arbitrary, it is based on CWA section 401, which requires the inclusion of "monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations," and Water Code section 13267, which authorizes the Board to require monitoring and reporting of monitoring for dredge and fill projects. As explained in Finding 22, "the monitoring and technical reports will demonstrate protection of beneficial uses during construction and maintenance projects as well as verify the success of efforts to mitigate impacts … and will inform the Adaptive Management Plan and its implementation." Finding 26 (now 25) - CEQA Responsible Party: Finding 25 is not arbitrary, as it points out the Board's authority to require mitigation through a combination of mitigation measures identified in the EIR and the requirements of the order. See responses to Comments C-13-a, S-18, S-19, S-20, and S-21 regarding CEQA findings and the need for additional mitigation. Provision 12 (now 15) - Post-Construction Stormwater Management Plan: We require this plan for the discharger to demonstrate that the design of the Project with impervious surfaces will not adversely impact the creek, and that the discharger will incorporate, or is collaborating with the local municipal stormwater agencies to ensure that, trash reduction measures will be established at the site. See response to Comment S-56. Provision 14 (now 17) - Maintenance: The provision references Finding 16, which describes how maintenance activities will be consistent with the District's existing Stream Maintenance Program. In Provision 17, we have removed the Lessons Learned report because this will already be covered under the Adaptive Management Plan. The following text has been deleted from Provision 17: "The discharger shall prepare a lessons learned report, consistent with the next provision, as described in Finding 16." Provision 22 - Geomorphology Report: This provision was redundant with the reporting requirement under the Adaptive Management Plan (Provision 18(f)). Provision 22 has been deleted. See response to comment C-40 for the explanation for the Geomorphology Report requirement under Provision 18(f). Provision 28 (now 30) - As-built Plans: Provision 30 requires the discharger to submit electronic as-built plans to the Water Board. This is a standard requirement for all flood control projects to document the final constructed project and that project's impacts in jurisdictional waters from fill and excavation at a site. However, we have revised the due date for this report to 180 days (6 months) versus 8 weeks from the date the construction of the Project is completed.

C-33	Corps	The Corps requested the Water Board remove the requirements for the Executive Officer to review project plans and reports because it believes the Water Board is not authorized to negotiate with the Corps and influence the Corps' work or its contracting specifications.	We do not agree and have not made the requested change. See response to Comment C-04-c pertaining to the Executive Officer's review and acceptance of plans and reports.
C-34	Corps	The Corps requested the Water Board remove the requirement for a Utilities Plan; the Utilities Plan is superfluous and a waste of public resources.	We have removed the requirement for a Utilities Plan in the revised tentative order, previously part of the tentative order in Finding 12 and Provision 8. See response to Comment C-32.
C-35	Corps	The Corps pointed out that the tentative order does not recognize the Corps' Groundwater Management Plan submitted on January 26, 2016, and that that Water Board has not responded to the submittal yet.	Comment noted. We revised Finding 15 to acknowledge the submittal of the January 26, 2016, Groundwater Management Plan and the Executive Officer's acceptance of the plan (email dated March 8, 2016, from Susan Glendening (Board staff) to Amanda Cruz (Corps staff)). There are two plans intended to address potential water quality impacts from dewatering at the Project. The first is the submitted Groundwater Management Plan, which addresses potential impacts from a limited area related to the Jones Chemical Plant contamination plume. The second requirement is a project-wide Dewatering Plan to address potential discharges of sediment and turbidity that may occur from dewatering in other Project areas and is consistent with Board requirements for projects with similar potential activities and impacts. We revised Finding 14 to address the need for a project-wide dewatering plan that may include project-wide groundwater dewatering other than the area within the potential influence of the identified contamination plume, which is addressed in Finding 15. For revised language in Finding 14 for a project-wide Dewatering Plan requirement, see response to Comment C-32.
C-36	Corps	The Corps requested the Water Board remove the due dates for the following plans, which are currently set at "before construction begins": Mitigation and Monitoring Plan, the Post-Construction Stormwater Management Plan, and the Operations and Maintenance Manual. The Corps pointed out that construction started on October 3, 2016, so the deadline has already passed. In addition, the O&M Manual cannot be completed until after construction is	Comment noted. We have relied upon the Corps' and District's representations in revising the tentative order to state the Board's understanding of which of the order's various required tasks are likely to be completed by which discharger(s) and to revise due dates to allow sufficient time for Plan preparation. The Board agreed during the interagency meeting of January 4, 2016, that the O&M Manual due date would be the date the Corps signs the Project over to the District. Board staff has participated on an interdisciplinary team with the Corps and other agencies to develop the Napa River flood control project O&M manuals, and it is our intent to participate in a similar interagency working group for this Project. We recognize that the O&M Manual may change if the Project's design changes. That is appropriate, as the O&M Manual should appropriately reflect the as-built Project design. The O&M Manual is addressed in Finding 16 (now Finding 17) (and Provision 18 - Adaptive Management Plan). Since the Corps will develop the O&M Manual in accordance with the Water Resources Development Act of 1990, the order does not require the development of the O&M Manual. Instead, the order requires the O&M Manual to be developed in a public process including the Board and other interested parties and public resource agencies. In addition, the order requires the

		completed so that it may include any changes that occur during construction.	O&M Manual to incorporate the Adaptive Management Plan standards and criteria. Regarding the Mitigation and Monitoring Plan, we revised the due date to align with planned District deadlines for adoption of capital implementation project budgeting for creek restoration and enhancement projects (see response to Comment S-21). The Post-Construction Stormwater Management Plan is consistent with municipal stormwater NPDES permit requirements to address the impacts of runoff from new and redeveloped impervious surfaces, including discharges of trash, under post-construction conditions (i.e., for the life of the Project). We revised the due date for this plan to be no later than 90 days after adoption of this Order.
C-37	Corps	The Corps requested the Water Board to remove the requirement for the Adaptive Management Plan because the Corps does not have congressional authorization to create an Adaptive Management Plan.	Comment noted. See responses to Comments C-13-b pertaining to the Adaptive Management Plan requirements and C-32 regarding the revised due date and new language in Finding 3 stating that it is our understanding that the District is responsible for development and implementation of the Adaptive Management Plan.
C-38	Corps	The Corps pointed out that the purpose of the Operations and Maintenance Manual is “for the safety and reliability of the functional performance of the flood risk management of the project as approved by Congress.” The Corps further stated that it will not change the manual unless there is a change that requires formal initiation of the process by the District, subject to approval by the Corps, and that the Water Board has no authority to change this process.	Comment noted. We support the manual's intended use to ensure the safety and reliability of the as-built Project and also recognize that, similar to our work with the Corps and the Napa County Flood Control District on the O&M Manual for the Napa River Flood Control Project and other projects listed in our response to Comment C-13-a, there are opportunities to reduce future operation and maintenance impacts, reduce public expenditures for operation and maintenance, and improve Project support of beneficial uses, through coordinating on the manual's preparation, including avoiding potential "cookie cutter" implementation of standard Corps requirements. See responses to Comment C-36 concerning development of the O&M Manual.
C-39	Corps	The Corps requested the Water Board remove the requirement for a narrative description of changes for plans because this was not required in the 401 certification, and the 100 % plans have already been submitted.	We disagree with the request to remove the requirement, which would only apply to future submittals. The narrative of description of changes is for the benefit of the discharger to expedite Board staff's review of new submittals. Otherwise, Board staff would need to comb through every page to find differences between the previous draft and current submittal, which has the potential to result in unnecessary Project delays. See response to Comment C-33.

C-40	Corps	The Corps requested the Water Board remove the requirement for a lessons learned report because the Corps prefers any such analysis to be under its own internal process, if it were to be done at all.	We concur that the Lessons Learned report is not necessary, and we have revised the tentative order to remove this requirement. This is because it would have been duplicative of the Geomorphology Report we require under the Adaptive Management Plan. We note that the Corps is already planning to conduct geomorphology monitoring, as indicated in the Revised Final EIS dated March 2014, which states that the Corps will: ".... investigate [P]ost-sedimentation after the project is constructed as part of project monitoring, and cross-sections will be obtained...." (see response to Comment #1 in U.S. Army Corps of Engineers Response to Independent External Peer Review, March 2014. (Available as hard copy upon request from Board staff)). The order requires development and implementation of an Adaptive Management Plan to not only calibrate and ground-truth the Project's design assumptions and outcomes, which are computer-generated, but to also inform the maintenance guidelines aspects of stream maintenance, which the District is already doing under its Stream Maintenance Program procedures for other creeks. The purpose of developing maintenance guidelines is to identify the maximum tolerances for sediment and vegetation maintenance at the Project site. This is necessary because, as described in the Board staff memo (October 2016), the Project channel is a depositional system, and, given the Project's design, sediment will likely not be transported efficiently through the system. The District is required to prepare an Adaptive Management Plan to capture the details of geomorphology monitoring the Corps plans to conduct, in addition to the monitoring necessary to meet the Board's requirements pursuant to Provision 18. The District will also prepare the Geomorphology Report so that it can be incorporated in the District's maintenance guidelines for the Project site, consistent with the District's Stream Maintenance Program procedures.
C-41		The Corps stated that the following sections are either unclear or incorrect: Table 1; Table 2: Findings 3, 5, 6, 15, 16, 18, 20, 25, 28, and 31; Discharge Prohibitions 9 and 10; Provision 13, 15, 16, 19, 20, 24, 27, and 30; Attachment A, Figure 3; Attachment C, Item b; and Attachment C, Table 1.	Comment noted. The information in the tentative order is based on the materials submitted by the Corps and District and our additional communications with them. In significant part, it was previously reviewed by Corps and District staff as part of their review of an administrative draft of the Certification and modified in response to comments received. Based on this comment, it is unclear what the commenter believes is unclear or inaccurate in the cited items. We have listed each item here for reference and have noted cases where we have prepared a response to a different comment with the same topic: Table 1 - Fill and Excavation Quantities: We revised the area of access ramps from 0.01 to 0.10 acres. Table 2 - Impacts: See responses to Comments C-13-a, S-36, and S-44. Finding 3 – Local-Federal Partnership: See response to Comment C-37. Finding 5 (now 7) - Project Elements: Revised the quantity of ramps from three to two; see responses to Comments C-41 and C-45. Finding 6 (now 8) - Staging, Stockpiling, and Hauling: See response to Comment C-02. Finding 15 (now 16) - Maintenance: We have revised this finding based on the District's revised sediment transport analyses and the incorrect representation of the District's plans submitted as as-built plans.

			Finding 16 - Maintenance: See response to Comment C-36. Finding 18 (now 19) - Rare and Endangered Species: See response to Comment S-36. Finding 20 (now 21) - Mitigation: See response to Comment C-18. Finding 25 - CEQA: See responses to Comments S-18, S-19, S-20, and S-21. Finding 28 (now 27) - Basin Plan Wetland Fill Policy: See responses to Comments C-24, and S-43. Finding 31 (now 29) - California EcoAtlas: See response to Comment C-53. Discharge Prohibition 9 - This provision prohibits the use of bank stabilization methods and materials other than what is specified in the 100 % design plans. We disagree this is poorly defined or technically inaccurate. Discharge Prohibition 10 - Dewatering Plan: We revised this prohibition by replacing the Executive Officer's "approval" with "acceptance" to read as follows: "This Order prohibits any creek dewatering, diversion, or discharge before the Executive Officer accepts, in writing (e.g., electronic mail), a Dewatering Plan that meets the requirements of Provision 12." The prohibition originally required the Executive Officer to "approve" the plan. See responses to Comments C-32 and C-35. Provision 13 (now 16) - Fill Quality Report: See responses to Comments C-55 and S-57. Provision 15 (now 18) - Adaptive Management Plan: See responses to Comments C-32 and C-37. Provision 16 (now 19) - Mitigation and Monitoring Plan: See response to Comment S-53. Provision 16 (now 19) - Mitigation Reporting Requirements: See response to Comment S-47. Provision 19 (now 21) - Log of Impacts: This is for tracking the occurrences of impacts to jurisdictional waters. The mitigation proposal must address temporal impacts, which increase each year the mitigation project has not been completed. Provision 19 (now 21) states: "An additional 10 percent mitigation per year, on an areal basis, will be required for the portion of mitigation not completed within the required 12-month period." Provision 20 (now 23): Requires reporting of a non-compliance event, such as an unauthorized discharge into waters of the U.S. or of the State. Provision 24 (now 26): Requires submittal of annual reports after 10 years of monitoring, if necessary. This is based on the need to report on mitigation monitoring if, during the first 10 years, problems arise resulting in the need for corrective actions, or if the first 10 years of monitoring do not clearly indicate mitigation performance criteria have been met. Provision 27 (now 30) - As-built Plans: See responses to Comments C-32 and S-67. Provision 30 (now 34) - This Provision requires the discharger to follow the plans submitted to the Water Board, including the

			requirements in Provisions 7, 8, 9, 10, 14, 15, 27, and 28 (now Provisions 12, 13, 15, 16, 18, and 19), which are, respectively: 7 - Final Design Plans: see response to Comment C-04-c (regarding Executive Officer's review of plans). 8 - Utilities Plan: see responses to Comments C-32 and S-53. 9 - Dewatering Plan: see response to Comment C-33. 10 - Groundwater Management Plan: see response to Comment C-33. 14 - Maintenance: see response to Comment C-08. 15 - Adaptive Management Plan: see responses to Comments C-32 and C-37. 27 - Notice of Mitigation Completion: see above regarding Provisions 15 and 16. 28 - As-built Plans: see above regarding Provision 27. Figure 3: See response to Comment S-64. Attachment C (now B), item b: See response to Comment S-69. Attachment C (now B), Table 1: See response to Comment S-73.
C-42	Corps	The Corps noted the tentative order's references to the 100percent design plans and planting plans are for plans that are now outdated.	Comment noted. We have updated the tentative order to reflect the current status of submittals received to date.
C-43	Corps	The Corps stated the tentative order, Finding 3, should be corrected with the cost-sharing schedule in the Project Partnership Agreement with the District responsible for 25 to 50 percent. Further, the cost-sharing schedule applies to the total project construction costs, not "structural control features."	We revised the tentative order, Finding 3, to stipulate the cost-sharing figures in the Project Partnership Agreement between the two co-sponsors. See response to Comment C-32 for the full text of Finding 3. The reference to the "structural flood control features" applies to an administrative draft and did not appear in the tentative order.
C-44	Corps	The Corps pointed out the correct construction schedule is construction starting in early October and will be completed by December 31, 2017.	Comment noted. We revised the schedule in Finding 6 (formerly 5) to read: "…project construction began in early October 2016 and is scheduled to be completed in December 2017, with the intent to be complete before the planned opening of the new Milpitas BART station in late 2017."

C-45	Corps	The Corps provided the following new information or corrections for Finding 6: the box culverts may be pre-cast, or cast in place; the right bank will have two, not three, concrete access ramps; and the Corps will only replace or realign utilities where necessary (not all utilities in the right-of-way).	Comment noted. We revised Finding 6 (now 7) as follows to clarify elements to be constructed cited in the comment: • Build three new pre-cast (or cast in place) concrete box culverts • Construct two concrete access ramps on the right bank (looking downstream), one located about 1,000 feet upstream of Montague Expressway, and the other just downstream of I-680; and a concrete access road to the new UPRR culvert • Replace and realign selected utilities within the project right-of-way according to the 100 percent design plans dated August 4, 2016
C-46	Corps	The Corps noted that its 401 Certification application states the Corps would be responsible for monitoring the tree and shrub plantings for only five years (not 10 years), and requested the Water Board revise Finding 11 and Attachment C to reflect this.	Comment noted. See responses to Comments C-32 and S-45.
C-47	Corps	The Corps pointed out errors in the amount of acreage for impacts in State waters that are not waters of the U.S. (5.92 acres), and the associated total (10.1 acres) acreage of impacts in jurisdictional waters.	We will correct the inconsistencies. The correct total area of impact is 9.81 acres, as described in the tentative order, Finding 20, and in Table 2, of which 4.18 acres is waters of the U.S. and the State, and 5.63 acres is waters of the State.
C-48	Corps	The Corps disagrees that the riprapping the creek will permanently impact the creek's beneficial uses.	We disagree. See response to Comment C-13-a.
C-49	Corps	The Corps stated that the subject of Finding 28 does not appear to be related to the WDR and requested the Water Board to remove this finding.	We disagree. Finding 28 describes the Basin Plan Wetland Fill Policy, which does apply to the WDRs. See response to C-24
C-50	Corps	The Corps requested for the tentative order to report the different amounts of new and redeveloped maintenance roads, rather than only reporting the total amount.	Comment noted. We have revised Finding 6 (now 7) to read: "Build 4.33 acres and 10,865 linear feet of new maintenance roads and redevelop 2.47 acres and 5,978 linear feet of existing maintenance roads… ." The revised tentative order appropriately includes requirements to address discharges of pollutants from both the new and redeveloped areas of impervious surface.

C-51	Corps	The Corps requested the Water Board to edit Finding 20 to state that stormwater areas will be hydroseeded with native grasses to reduce run off and that road runoff will be directed to vegetated channel banks.	We revised Finding 21, where the referenced mitigation requirements are presented in the revised tentative order, to note the existing plan to hydroseed in the construction disturbance areas. The revised text (paragraph 1) reads: "The Discharger will seed the creek channel beds with wetland species to serve as a seed bank to restore the 0.45 acres of wetland vegetation to be removed by the Project. The Discharger will also seed the banks with native grass species. The wetland and grass species palettes are listed in the 100 percent Planting Plan specifications (section 32 92 19)." Please note that Finding 25, where EIR mitigation measures are presented, addresses hydroseeding in disturbed areas (see 3rd bullet in Finding 25). We did not revise the order with the suggested edit as this issue is the subject of the Post-Construction Stormwater Management Plan (Provision 15). See also our response to Comment C-08 and C-13-a pertaining to the questionable likelihood of success for the native vegetation.
C-52	Corps	The Corps requested the Water Board to distinguish between above grade and buried floodwalls since they have different impacts to the environment.	Comment noted. The tentative order includes text explaining this in Table 2, footnote 4.
C-53	Corps	The Corps stated that the EcoAtlas database is not applicable to the project because the Corps contends the project does not include jurisdictional wetlands.	We disagree. EcoAtlas is applicable to the Project because we disagree with the contention that the Project does not include jurisdictional wetlands. Further, the Board requires compensatory mitigation for the Project, which will include monitoring. The impacts tracked in EcoAtlas are not just impacts to jurisdictional wetlands, as defined by the criteria of the 1987 Corps manual. EcoAtlas uses the California Aquatic Resources Inventory (CARI) consisting of, among other wetland types, fluvial channel. See responses to Comments C-49 and S-43 with additional details about scope of the State's wetland protection policies applicable to other waters outside of a wetland that conforms to the Corps' manual.
C-54	Corps	The Corps stated that the Water Board Executive Officer's approval of the Dewatering Plan is not necessary since the Corps will be abiding by the general permit.	We disagree. See the responses to Comments C-04-c and C-35. Further, creek and groundwater dewatering activities within waters of the U.S. and State are specifically prohibited by the statewide Construction General Permit because the Construction General Permit does not regulate activities within jurisdictional waters. The revised tentative order includes a mechanism to allow the activities, with appropriate protections.
C-55	Corps	The Corps requested the Water Board specify that Provision 13 applies to imported fill only, not all fill.	Comment noted. No edit is necessary as Provision 13 (now 16) states in the first line: "….any imported soil fill material…"

CAB-01	CCCR, Audubon, and Baykeeper	The Citizens Committee to Complete the Refuge, Santa Clara Valley Audubon Society, and San Francisco Baykeeper (CAB) appreciate this opportunity to comment on the tentative order (Order) for Waste Discharge Requirements (WDR) for the Upper Berryessa Creek Flood Risk project (project) of the Santa Clara Valley Water District (SCVWD) and the U.S. Army Corps of Engineers (Corps).	Comment noted.
CAB-02	CCCR, Audubon, and Baykeeper	CAB noted that it regrets the project design relies on the trapezoidal channel model, which is out-of-date with current, preferred standards for creek redesign, and has submitted comments to help ensure that other current standards are applied.	Comment noted. See response to Comment C-13-a.
CAB-03	CCCR, Audubon, and Baykeeper	CAB requested the Water Board revise the order to clarify the Water Board's intention for MMP completion and availability, rather than adopting the order before these issues are resolved. CAB is also concerned about the order's due date for the MMP being 30 days before construction.	Comment noted. Water Board staff worked with Corps and District staff for approximately a year to obtain an appropriate compensatory mitigation proposal, but none was submitted. In the absence of an acceptable proposal, the revised tentative order allows a reasonable amount of time for an acceptable plan to be prepared, submitted, and implemented. It also includes appropriate conditions to ensure the plan will mitigate for the Project's impacts. Once a plan has been submitted, we will provide an opportunity for the public to review and comment on it. See also response to Comment RCD-05 pertaining to the MMP submittal due by June 30, 2017.
CAB-04	CCCR, Audubon, and Baykeeper	CAB requested that the order include a requirement for a contingency fund, given that the MMP has not yet been identified or approved.	We are not proposing to revise the order to require such a fund, as both the Corps and District are public entities that will persist into the future, unlike private entities, such as development LLCs, and which have the ability to budget additional money, as needed, to meet order requirements. Further, based on conversations with Corps staff in October 2016, the Corps has a 20 % contingency fund available to address changed/unexpected circumstances during project construction. See also response to Comment CAB-03.

CAB-05	CCCR, Audubon, and Baykeeper	CAB is concerned that the order, specifically Provision 15.f, does not adequately potential adverse impacts from turbid discharges and sediment transport in downstream reaches from the project site.	Comment noted. Provision 15.f (now 18.f) regards the transportation and erosion or deposition of sediment within the channel and not water column turbidity. Our best professional judgement about the Project design is that the Project will result in sediment aggradation. While this indirectly affects creek processes downstream with respect to sediment budgets, the concern in this case is the direct effect of aggradation within the Project site rather than effects from sediment being transported offsite. During construction, we do not expect the Project to cause increased turbidity levels above water quality objectives downstream of the Project site, provided that the Discharger implements an acceptable Dewatering Plan.
CAB-06	CCCR, Audubon, and Baykeeper	CAB is concerned that the order does not adequately address the potential nesting areas within the project footprint.	Comment noted. We have revised the order, Provision 18 (now Provision 20), to require the Discharger to conduct nesting bird surveys following established protocols prior to construction and during the nesting season, which is consistent with the EIR (e.g., Table ES-2, Section 3.5.5 and 3.5.6).
CAB-07	CCCR, Audubon, and Baykeeper	CAB is concerned that because the California Department of Fish and Wildlife did not comment on the project draft EIR and were not part of the permitting process, the State-mandated nesting surveys that are routine for other similar projects are not included in this project.	See response to Comment CAB-06.
CAB-08	CCCR, Audubon, and Baykeeper	CAB noted it is pleased that the order incorporates maintenance measures applicable to post-construction maintenance that are comparable to the District's Stream Maintenance Program (SMP), specifically that timely nesting surveys are performed prior to maintenance actions.	See response to Comment CAB-06.
CAB-09	CCCR, Audubon, and Baykeeper	CAB requested the Water Board revise the order to incorporate State nesting survey actions during construction activities.	See response to Comment CAB-06.

RCD-01	GCRCD	The Guadalupe-Coyote Resource Conservation District (GCRCD) appreciates this opportunity to provide comments regarding the tentative order for Waste Discharge Requirements for Santa Clara Valley Water District and U.S. Army Corps of Engineers, Upper Berryessa Creek Flood Risk Management project, Santa Clara County.	Comment noted.
RCD-02	GCRCD	GCRCD noted that the project does not meet its 2001 Notice of Preparation objectives under the CEQA process. While acknowledging that the original NOP describes a larger project, the Corps' decision to remove the higher-quality watershed area from the project should not reduce its obligation to meet the stated objectives, which include: improve flood protection in the cites of San Jose and Milpitas; reduce sedimentation and maintenance requirements in the creek; provide for recreational amenities; and integrate ecosystem restoration into the project.	This is a CEQA comment for the Lead Agency; the Water Board is not the Lead Agency. We agree that the stated objectives of reduced sedimentation and maintenance in the creek, as well as integrating ecosystem restoration into the Project, are consistent with the Water Board's requirements for mitigation.
RCD-03	GCRCD	The GCRCD stated the project appears to make no attempt to improve the ecological condition of the creek, and focuses on stability, rip rap, vegetation (roughness) maintenance, and sediment routing.	We concur and are requiring mitigation as a result of the Project's impacts to beneficial uses. See response to Comment C-13-a pertaining to the Project's impacts on beneficial uses and the need for compensatory mitigation.
RCD-04	GCRCD	The GCRCD is concerned that the Mitigation and Monitoring Plan is not available to review, and presumes mitigation will occur offsite.	Comment noted. See responses to Comments RCD-09, RCD-11, and S-21. In addition, both the Adaptive Management Plan and O&M Manual will be developed in a public process.

RCD-05	GCRCD	GCRCD stated that the tentative order does not consider the potential for steelhead to adaptively thrive in warmer waters, as evidenced in other areas in the Coyote Creek watershed, nor does it consider other special status species included in the Santa Clara Valley Habitat Plan (e.g., Habitat Plan, Volume 4, pages 4-83, 84).	Comment noted. Regarding steelhead thriving in warmer waters in the Coyote Creek watershed, we concur that the Project design could have provided better water quality and habitat conditions for steelhead. Regarding the other species in Habitat Plan, Chapter 4, pages 83-84, we agree that the Project site could have provided better quality habitat for western pond turtle, California tiger salamander, and California red-legged frog by, at a minimum, serving as a migration corridor to the better-quality habitat downstream and upstream of the Project site (see response to Comment 13-a).
RCD-06	GCRCD	The GCRCD is concerned that the Corps used the baseline conditions, with generally poor quality habitat, as the standard for determining the project design and will perpetuate the existing conditions. The GCRCD cited the following excerpt from the USFWS Coordination Act Report for this point: "A variety of suitable habitats for the western pond turtle, a State-listed species of concern, are present within the Coyote Creek watershed... The stream channel downstream from Los Coches Creek has a small, constant flow throughout the year, and may provide suitable aquatic habitat for the western pond turtle. However, steep channel slopes do not provide suitable nesting habitat for western ponds turtles within the study area. Lower Berryessa and Lower Penitencia creeks do provide some marginal basking habitats within the channel; yet this species has not been documented to occur. The Corps has determined that due to the limitations in suitable habitat, the project would have no effect on State listed species as well (Corps 2013)."	We agree the Project site could have better-quality habitat than existing conditions, and a different project design could have provided suitable habitat for species not currently present, such as the western pond turtle. The USFWS Coordination Act Report noted the existing low-quality habitat, as follows, but also recommended a more natural design to improve habitat quality: The highly impacted nature of the creek provides little habitat or diversity for fish and wildlife species in its current state. Designs focused on alternatives which provide benefits to fish and wildlife through the creation of a more natural stream profile should be completed. The creation of vegetated floodplain benches is a step in this direction and could significantly improve the utility of the creek for fish and wildlife as well as provide an appropriate level of flood protection." Further, the final recommendation in the USFWS Coordination Act Report is for the Corps to: "Continue work with the Service and other resource agencies to quantify project affects and determine mitigation needs as modifications to the selected project alternative develop." Due to the Project's impacts, the Water Board requires compensatory mitigation. The Corps asserts that mitigation onsite is not feasible due to budgeting and scheduling constraints. By default, the mitigation project will need to be offsite. In addition, the requirement for an Adaptive Management Plan in the revised tentative order (Provision 18) is intended to inform sediment and vegetation maintenance activities to minimize future, ongoing impacts to the extent feasible.

RCD-07	GCRCD	The GCRCD is concerned that the Corps has not adequately addressed sedimentation issues within the project area. To make this point, the GCRCD referenced the Peer Review Report (Batelle Institute, 2013) and Water Board staff memo (Riley and Bozkurt-Frucht, 2016) citing the same concerns. Specifically, these references noted that the sediment transport model attributed 50 percent of sediment flux originating from the channel bed and banks, yet this is not supported by empirical or analytical evidence; and that the Operations and Maintenance Manual will be developed after construction is completed, suggesting that the Corps has not fully considered sediment maintenance needs in the project."	See response to Comment S-26.
RCD-08	GCRCD	The GCRCD stated that the District's Stream Maintenance Plan manual is being updated, and in its current or future form, may not address the issues needed for this project, particularly with respect to herbicide application.	The SMP's herbicide application criteria have been approved by agencies including the Water Board, California Department of Fish and Wildlife, and National Marine Fisheries Service. We note that any sediment and vegetation maintenance activities in the Project, including herbicide use, would need to be approved via the Adaptive Management Plan procedures, as stated in Provision 18(b): "A decision-making process to avoid sediment and/or vegetation removal before analyzing channel capacity based on field survey data..." Further, as stated in Finding 16.c of the revised tentative order: "In the event there is a conflict between the SMP Order, the O&M Manual, and this Order, the requirements of this Order will govern."
RCD-09	GCRCD	The GCRCD stated that "Insufficient detail has been provided to evaluate the adequacy of the adaptive management plan. For example, there is a requirement for the geomorphology report to be prepared after 5 measurable flood events, but as has been discussed with the Guadalupe River Flood Control project Adaptive Management Team, details such as which gage is used and what period of record is used, are important to decision-making and determination of	The revised tentative order specifies monitoring and tracking of flow events to evaluate sediment transport potential, channel morphology features, sediment deposition, and a synthesis of field observations compared to design outputs and assumptions. We recognize that the order does not cover every aspect of the plan but we expect that any gaps will be addressed during the development of the Adaptive Management Plan, the process of which will be an open, public process with a public review period.

		whether objectives have been met."	
RCD-10	GCRCD	The GCRCD stated that it is hard to justify moving the project forward without clarity on what that mitigation will be required, and is concerned that the minimum mitigation-to-impact ratio requirement of 2:1 may or may not be adequate.	We concur that a 2:1 ratio in and of itself would be insufficient. As such, the order states the minimum ratios that would be required for permanent and temporary impacts and includes an escalation rate of 10 percent each year when there is a delay in implementing the mitigation. Further, it describes other factors that would increase the ratio, such as uncertainty of success and out-of-kind mitigation. Please note that the order includes examples of conceptual projects that would meet the minimum ratios listed and be appropriate to use as mitigation. Finding 21 states: Examples of potentially acceptable mitigation projects include dam removal, increasing salmonid habitat complexity in another creek, replacing a concrete channel with restored riverine wetland habitat, and preparing a watershed management plan and implementing specified projects … . See response to Comment CAB-03 pertaining to the MMP final due date of June 30, 2017.
RCD-11	GCRCD	The GCRCD requested that the MMP monitoring requirements be developed in sync with the Santa Clara Valley Habitat Plan, pursuant to the following excerpt: "The Implementing Entity will also coordinate and share monitoring and other experimental results with other regional restoration and management programs. A well-coordinated and scalable monitoring program design will enable the Implementing Entity and others to measure and evaluate change in resources and threats in individual reserves, across the entire Plan area, and within the ecoregion. Such coordination requires standardization of protocols, sampling design, and training of personnel, as well integrative data analysis."	Comment noted. Such a coordinated approach would be allowable under the revised tentative order.
RCD-12	GCRCD	The GCRCD stated that the project is not in compliance with the Santa Clara Valley Habitat Plan, even though it falls within its regional planning area. The GCRCD cited the following excerpt in the Habitat Plan, applicable to Berryessa Creek improvements:	Comment noted. A portion of the Project reach, from station 185 to Interstate 680, is within the Habitat Plan area. We concur that construction in this section (from stations 185 to 192, about 700 linear feet) is not consistent with the Habitat Plan and will consider this when evaluating the Mitigation and Monitoring Plan. The goals of the Habitat Plan are consistent with the Water Board's policies.

		"…methods that balance flood protection with protection of streams and natural resources. Examples of these methods include expanding the inchannel flood plain in areas where the existing channel is highly constrained, and installing bypass channels to reduce the quantity of water flowing through natural streams during high flows, thus reducing flooding and scouring potential. These flood-protection technologies help keep streams as natural as possible."	
RCD-13	GCRCD	The GCRCD noted that the project does not conform to the voter-approved purpose of Santa Clara Valley Water District's (SCVWD) Safe, Clean Water & Natural Flood Protection Program. This project has been funded in part by this SCVWD program, which was approved in 2012 by two-thirds of voters. The project does not meet the community's needs and values, as stated on the SCVWD's website: "In November 2012 the voters of Santa Clara County overwhelmingly supported Measure B, the Safe, Clean Water and Natural Flood Protection Program. Developed with input from more than 16,000 residents and stakeholders, this 15-year program was created to match the community's needs and values." "The voters of Santa Clara County clearly recognize the importance of a safe, reliable water supply. They value wildlife habitat, creek restoration and open space. They want to protect our water supply and local dams from the impacts of earthquakes	Comment noted.

		and natural disasters."	
RCD-14	GCRCD	The GCRCD requested the Water Board to postpone its consideration in adopting the order, until the outstanding questions for a mitigation plan have been answered and the missing plans, manuals, etc. have been developed and circulated for public review.	Comment noted. In addition, as noted in responses to Comments RCD-09 and S-21, the Water Board will post for public comment the draft Mitigation and Monitoring Plan for public review.
S-01	SCVWD	The Santa Clara Valley Water District (District) appreciates the opportunity to Comment on the tentative order for waste discharge requirements related to the Upper Berryessa Creek Flood Risk Management project.	Comment noted.
S-02	SCVWD	The District urges the Regional Water Board ***not*** to adopt the tentative order for the reasons described in the letter.	Comment noted. See responses to Comments C-02, C-03, and C-13-a pertaining to why we are bringing the order before the Water Board for its consideration at this time.
S-03	SCVWD	The District stated that the "…tentative order would distract from the watershed-wide planning and habitat enhancements that the District is working on with many agencies including the Water Board…"	We disagree. The Order is consistent with the Project's EIR, which includes objectives to avoid, reduce, or mitigate any significant effect (EIR, page ES-i). It is also consistent with the District's efforts to maximize the beneficial uses supported by its creeks and associated right-of-way. The compensatory mitigation that would be required by the order could consist of creek restoration and/or enhancement projects conducted by the District under its watershed planning and enhancement work. Also, as we identified the need for the order in 2015 and finalized discussions on it at our January 4, 2016, interagency meeting, the District has had the opportunity to incorporate this process into its other work.
S-04	SCVWD	The District stated that the Water Board "…would be responsible, under the California Constitution, for reimbursing the District for the millions of dollars that the District anticipates will cost to comply with the order's conditions."	We disagree. The types of mitigation requirements included in the order are the same that are required of all entities – public or private – who propose to discharge into waters of the State, as is the case here. The circumstances fall well within the unfunded mandates exceptions where the requirement is not unique to local governments. Moreover, the District has the ability to comply with these requirements through charges and fees. (Gov't Code §17556.) In response to this comment, we propose to revise the tentative order to consolidate the Certification and WDRs, tying both more clearly to the requirements of the federal Clean Water Act. (*Id.*)

S-05	SCVWD	The District stated that the Certification issued to the Corps on March 14, 2016 order "…had the effect of certifying that construction of the project, as conditioned in that order, was consistent with all applicable laws and was regulated by pre-existing WDRs."	See response to Comment C-03.
S-06	SCVWD	The tentative order includes numerous factual errors.	See responses to Comments C-32 and C-45.
S-07	SCVWD	Those draft WDRs include an unnecessary new mitigation project (estimated to cost up to $20 million) and new conditions that conflict with the ongoing construction of the project.	We disagree that the mitigation requirement is new, as we have been discussing it with Corps and District staff since as early as June 2015 (Letter dated June 5, 2015, from Keith Lichten, Watershed Management Division Chief, to Amanda Cruz, Corps project manager), and it is required by the existing Certification (Certification, p. 2). As the District has not proposed a compensatory mitigation plan or even suggested a potential project, it is unclear how the estimated mitigation cost of up to $20 million was derived. In our numerous meetings with District staff, we have indicated our desire to be flexible and to coordinate the mitigation requirement with other creek restoration and enhancement projects the District may have already proposed to complete, or may be considering, such as enhancement work at Lake Almaden, Guadalupe Creek channel behind its headquarters, Coyote Creek, or Permanente Creek. There is significant local support for such restoration and enhancement projects, as shown by the two recent large bond issuances approved by votes of the public. We have also discussed with District staff the opportunity to complete smaller scale projects with benefits reaching beyond their immediate construction footprint, such as removal of fish barriers that could allow access to upstream habitat. One example of a project the District has under development is work to reduce the fish barrier and temperature impacts of the water impounded by Lake Almaden, near the District's headquarters. Some designs under consideration could open up to several miles of fish spawning habitat, while reducing a significant temperature and structural barrier to fish passage. While the District has not yet submitted a proposal, so it is not possible to make a determination, this is an example of a project that could comprise or contribute to the required compensatory mitigation under the revised tentative order.
S-08	SCVWD	The District stated the order would "…impose new conditions related to O&M for the project-even though the project construction will not be completed until late 2017 at the earliest, the Corps has not yet	We disagree. Board staff has sought clarification from District staff about what is being referred to as the new conditions related to O&M. District staff clarified that this comment refers to the following six criteria (email from James Manitakos to Susan Glendening, October 31, 2016), listed here with Board staff's responses (we note that items 3, 4, and 6 are not specific to O&M): *1) Identify maintenance through process similar to SMP annual notification* The Project would be subject to the annual notification process whether the Project is under the authority of the order or the

		drafted the O&M Manual for the project, and O&M activities will not occur until many months or years after project construction is completed."	Stream Maintenance Program (SMP). This requirement ensures that annual maintenance activities are subjected to a public review process by notifying the agencies that have regulatory authority for those activities. *2) Lessons learned report required after 5 years of maintenance* We deleted this requirement. See response to Comment C-32. *3) Compensation for impacts to habitat based on mitigation ratios of 1.5:1 for temporary impacts and 2:1 for permanent impacts* See response to Comment C-04-a. While the mitigation requirement is not new, we recognize that the mitigation ratios were not previously discussed with the District and Corps. See response to Comment S-07 pertaining to the Water Board's flexibility in accepting an appropriate mitigation plan. *4) Post-construction stormwater management plan* The Water Board requires this in all projects of this size and type when significant areas will have impervious surfaces. In this project, about 7 acres (40 percent of total project area) will be impervious. *5) Adaptive Management as basis for future creek maintenance* The activities required under the Adaptive Management Plan are largely based on the District's existing activities under its SMP. By maintaining such activities under requirements of the order, rather than the SMP, they would be prioritized under capital improvement program scheduling and budgets. We recognize the Corps' O&M Manual will not be completed until after the Project is transferred to the District. However, as stated in the order, the timing for the transfer is uncertain. The Adaptive Management Plan activities to inform O&M activities will serve in the interim for O&M activities until the Corps' manual is completed and transfers the Project, and the manual, to the District. *6) Offsite mitigation requirements* See item 3 above.
S-09	SCVWD	The District objects to the Water Board's issuance of new WDRs at this time. The District incorporates all its prior objections to the extent those objections have not been fully resolved.	Comment noted. The objections raised in this comment letter incorporate prior objections; the Water Board therefore is not responding separately to prior correspondence. See responses to Comments C-02, C-03, S-03, and S-07.

S-10	SCVWD	The District stated it welcomes the Water Board's input on the District's One Water Plan under development, and requested the Water Board to defer further consideration of the order to facilitate focusing on watershed-wide planning under the One Water Plan. The District believes that development and implementation of the One Water Plan would "…further the mutual goals of the District and the Regional Board to maintain and improve the quality and beneficial uses in the five watershed areas while allowing the District to fulfill its mandate to provide water supply and flood protection services to the communities and act as stewards for the region's streams."	Comment noted. We support the District's work for the One Water Plan, and we expect to continue to participate in the District's One Water Program. Further, we support the District's efforts to do watershed-based planning and identify opportunities to improve the beneficial uses of its system while achieving its other mandated goals. We are disappointed that this Project does not comport with the multi-objective natural flood protection approach the District states in the Plan that it embraces. The order's requirements for compensatory mitigation would complement, rather than conflict with, the intent of the One Water Plan. We have discussed on numerous occasions with District staff, and most recently at our August 15, 2016, meeting with District management, that creek restoration or enhancement implementation projects under the One Water Plan could be proposed as compensatory mitigation for this Project. However, the District has not yet proposed specific implementation tasks under One Water to mitigate for the Project's impacts.
S-11	SCVWD	The District elaborated on the previous comment, citing that the Water Code, section 13263(a) requires waste discharge requirements to "take into consideration ... the provisions of Section 13241," which in turn requires consideration of regional issues, such as the "coordinated control of all factors which affect water quality in the area, "[e]conomic considerations", and "[t]he need for developing housing within the region." Because the tentative order considers none of these things, it does not fully comply with requirements in Sections 13263 and 13241."	The commenter selectively quotes Water Code sections out of context, reading meaning into them that is not present in the context of the Project. Nonetheless, the revised tentative order appropriately considers Water Code section 13263(a), which states: The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241. The revised tentative order appropriately includes requirements that consider the conditions in the receiving waters into which the discharge is proposed and, as noted elsewhere in this Response to Comments document, address in detail the relevant water quality control plan (the Basin Plan), identified beneficial uses, relevant water quality objectives, and, to the extent appropriate, the provisions of Water Code section 13241. The Water Board has considered all cost data submitted by the Corps and District.
S-12	SCVWD	The District noted that meeting the requirement of "20.2 acres" of mitigation area referenced in the order would cost	Comment noted. See response to Comment S-07.

		millions of dollars.	
S-13	SCVWD	The District elaborated further on the comment in S-04 about the California Constitution requiring "…state agencies to reimburse local governments for the costs associated with mandates imposed by those state agencies that go beyond whatever mandates federal law imposes. (Cal. Const., art. XIII B, § 6(a).) The California Supreme Court just last month broadly construed this constitutional provision to hold that a Regional Board must reimburse local water agencies for the costs associated with complying with conditions in a waste discharge requirement order because those conditions derived from State, not federal, law. *(Department of Finance v. Commission on State Mandates* (August 29, 2016) 1 Cal.5th, no. S214855.)"	We disagree. See responses to Comment S-04.
S-14	SCVWD	The District stated that because the tentative order has new conditions that go beyond what the Certification requires, or what might be required under federal law, that the Regional Board will be responsible for reimbursing the District for all its costs associated with those new conditions, including all mitigation costs and the fees referred to in Provision 37.	We disagree. We are open to discussing options for the District to use for compensatory mitigation capital improvement projects under the District's One Water Plan, provided that the projects result in a net benefit to water quality. Our understanding is that the District plans to move forward and fund these projects. As such, the mitigation will not be an unfunded mandate. Further, we are exercising our authority under CWA section 401; therefore, the unfunded mandate claim is not applicable. See responses to Comments C-03, S-04, and S-07.

S-15	SCVWD	The District challenged the Water Board's authority to issue waste discharge requirements when the project is already covered under the Certification. The District stated that although the Certification refers to the need for mitigation that would be "considered" in the WDR to be issued in the near future, the Certification does not contain conditions that construction-related WDRs would be issued in the future. The District also challenged the permitting strategy by which the Certification "pre-committed" requirements in a future WDR. The District further stated that the Water Board stated that the Certification is "incomplete" as an explanation for why the Water Board intends to consider WDRs.	We disagree. See response to Comment C-03 regarding the two-stage permitting approach we developed collaboratively with the District, and Corps; Comment S-05 pertaining to the Water Board's authority to issue WDRs for the Project; and Comments C-13-a, C-14, C-23, C-24, and S-44 for the Water Board's authority to issue WDRs and require mitigation for the Project. In addition, we revised the tentative order to add a new finding, Finding 5, stating this Order rescinds the previous Certification. Finding 5 reads: "…This Order rescinds and supersedes the previously-issued water quality certification with waste discharge requirements (WDRs) and a reissued water quality certification."
S-16	SCVWD	The District disagrees with the approach for the Water Board to name the District as a discharger with the Corps because the District is not involved with the construction activities, so views its role as separate from any discharge pursuant to Water Code section 13263.	We disagree. See responses to Comments C-02 and C-03.
S-17	SCVWD	The District contended that as a public agency effectively leasing land to the Corps, another public agency, for construction of the project, the California Water Code, section 13270 prohibits the Water Board from issuing waste discharge requirements to the District for construction of the project on the District's property. The District cited the following excerpt from State Water Board Order WQ 90-3 (*San Diego Unified Port*	We disagree. See response to Comment C-03. To the points the District raised regarding Water Code section 13270 and State Water Board Order WQ 90-3, we disagree. Water Code section 13270 states: > Where a public agency … leases land for waste disposal purposes to any other public agency …, the provisions of Sections 13260, 13263, and 13264 shall not require the lessor public agency to file any waste discharge report for the subject waste disposal, and the regional board … shall not prescribe waste discharge requirements for the lessor public agency as to such land…. The State Board has provided useful guidance on section 13270 in State Water Board Order WQ 90-3 (San Diego Unified Port

		District) to support this contention: “Section 13270 prohibits a Regional Board from requiring a report of waste discharge and from issuing requirements to any lessor public agency which leases land to another public agency ... "	District). In that Order, the State Board considered whether it was appropriate to name the Port District as a discharger on National Pollutant Discharge Elimination System (NPDES) permits held by various ports and boatyards. The State Board first noted that Water Code section 13270 “supports the conclusion that it is appropriate to name non-operating landowners in waste discharge requirements.” (San Diego Unified Port District at 4.) The State Board ultimately remanded the NPDES permits to the Regional Water Board with instructions to more clearly specify that the Port District was not responsible for monitoring or day-to-day operations, “or at most it should be held only secondarily liable for permit obligations.” (Id at 4 and 5.) State Water Board Order No. WQ 90-3, section III.1, states: "The Regional Board has the discretion to name non-operating landowners in waste discharge requirements/NPDES permits because landowners may properly be considered "dischargers" under the Clean Water Act and the Water Code." Under the facts of this Project, the proposed WDRs contemplate terms and conditions pertaining to the capital project (for which both the Corps and the District have some responsibility) and ongoing operations and maintenance (O&M), for which the District is solely responsible. Additionally, the District is playing an active role in the Project by making available to the Corps required right-of-way, committing to be responsible for the permanent operation and maintenance of the completed Project, and providing, through its Clean, Safe Creeks plan, "$38 million to design and construct" the Project, without which the Corps would be unlikely to participate in funding or constructing the Project (quote is from the District's Clean, Safe Creeks brochure for the Upper Berryessa Creek flood protection project, at http://www.valleywater.org/uploadedFiles/Services/FloodProtection/projects/Upper_Berryessa_Creek_Flood_Protection_project/Upperpercent20Berryessapercent20Creekpercent20shell_FINAL_080515(1).pdf?n=442. (Accessed October 21, 2016)). This funding is out of a total reported project cost of $75 million (http://www.valleywater.org/Services/UpperBerryessaFloodProtection.aspx. Accessed October 21, 2016)). This is not a situation, like the Port of San Diego, where there is an entity who only holds title to the land but is not actively involved in the discharge. Based upon the Port of San Diego, however, it would be appropriate to note that the O&M tasks are solely the District’s responsibility, and we have included in the revised tentative order our understanding that the District is responsible for maintenance for the life of the Project (Finding 16). In short, it is appropriate to name both the District and Corps as dischargers. That is also consistent with the Board's approach on previous flood control projects co-sponsored by the Corps and a local sponsor (See response to Comment C-13-a, for a list of projects at the end of the response). See also response to Comment C-12.

S-18	SCVWD	The District stated that the Water Board may not adopt additional mitigation for the Upper Berryessa project for impacts identified in the EIR as less-than-significant without at least taking one of the three actions in California Code of Regulations, section 15096(e) pertaining to the California Environmental Quality Act (CEQA). Otherwise, the Regional Board is deemed to have waived any objection to the EIR's findings about less-than-significant impacts and to the adequacy of the EIR's mitigation measures, and the Water Board cannot impose additional mitigation.	CEQA case law provides that the Water Board may request additional mitigation for a project's design based on agency consultations after the EIR is adopted. We have previously responded to the District's contention that once a CEQA lead agency has adopted an EIR, the responsible agencies are bound by those findings and limited to the mitigation in the EIR. Counsel for the District suggested that *Ogden Environmental Service v. City of San Diego* (S.D. Cal. 1988) 687 F.Supp. 1436, 1450-1452 supports that position. We respectfully disagree. In *Ogden*, the issue was whether or not an EIR was required. The lead agency made the determination that an EIR was not required; a responsible agency (the City) believed that an EIR was necessary and denied approval of the project because there was no EIR. The court construed sections 15096, subdivision (e) and 15162 of the CEQA Guidelines, pertaining to the steps a responsible agency must take to challenge the lead agency's determination where the responsible agency believes the final EIR or negative declaration is not adequate for use by the responsible agency. More on point, the CEQA Guidelines explicitly contemplate that a responsible agency may require additional mitigation and, in fact, imposes a duty to do so upon the responsible agency: • "When considering alternatives and mitigation measures, a responsible agency has responsibility for mitigating or avoiding the direct or indirect environmental effects of those parts of the project which it decides to approve." (Cal. Code Regs., tit. 14, § 15096, subd. (g) (1).) • "When an EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." (Id. at § 15096, subd. (g)(2) [emphasis added].) *Riverwatch v. Olivenhain Mun. Water Dist.* (2009) 170 Cal.App.4th 1186, 1207 reiterates that a responsible agency has an independent duty to review the EIR and "issue its own findings regarding the feasibility of relevant mitigation measures or project alternatives that can substantially lessen or avoid significant environmental effects." (Citing Remy et al., Guide to the Cal. Environmental Quality Act (CEQA) (11th ed.2007) ch. III, subd. (B)(2), p. 53; Pub. Res. Code § 21081; and 1 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2d ed.2008), § 3.22, p. 126.) We also disagree with the District's interpretation of *Riverwatch*, which does not "caution responsible agencies against second guessing the findings in the EIR." *Riverwatch* states that a responsible agency "generally" relies on the information in the CEQA document, as the Water Board has done here, but, the critical function of a responsible agency is to adopt feasible alternatives or mitigation measures that will lessen or avoid significant effects (*Riverwatch v. Olivenhain Mun. Water Dist.*(2009) 170 Cal. App.4th 1186, 1202), and the responsible agency must "reach its own conclusions on whether and how to approve the project involved" (*id.*

			at p. 1215.) The Water Board has been extremely vocal in identifying the shortcomings of the EIR as it pertains to biological and hydrological impacts and mitigation. The Water Board sent a 93-page letter identifying deficiencies with the District's Draft EIR. (Letter from William Hurley to Santa Clara Valley Water District (Nov. 12, 2015).) With respect to mitigation, that letter noted: • Inconsistencies related to sediment and vegetation maintenance activities and mitigations. (p. 2) • Mitigation for impacts on waters of the U.S. and waters of the State does not comply with the State and Regional Water Board policies. (p. 2) • [T]he DEIR does not adequately describe the potential post-project impacts or mitigations necessary to address impacts for sediment removal maintenance activities. (p. 2) • Please revise the DEIR to include appropriate mitigation to compensate for both temporal and spatial losses in functions and values of the open water/aquatic vegetation and transitional vegetation. (p. 5) • The details [of the types, numbers, densities, and locations of vegetation plantings, and success criteria] would need to be further developed in a mitigation and monitoring plan. (p. 5) • Please revise the DEIR to recognize the project reach's designated beneficial uses and a plan to appropriately mitigate any unavoidable impacts on the creek habitat, especially the REC-2 and WILD beneficial uses. (p. 5.) • [T]he DEIR does not include any mitigation for this potential impact [of exposing the water table and resultant alterations in the creek's hydrology] on the post-project hydrology. (p. 5) • The DEIR is well-organized, but it does not adequately describe the proposed project's environmental impacts and associated mitigations. (p. 8) This is consistent with the findings in the EIR that determine that mitigation is necessary to reduce impacts (see response to Comment 13-a). As described above, the Water Board "shall not" approve the project as the District has proposed where, as here, the Board has found feasible alternatives or mitigation measures within its powers that will substantially lessen or avoid significant effects. (Cal. Code Regs., tit. 14, § 15096, subd. (g)(2).)

S-19	SCVWD	The District stated that adopting the tentative order without taking any of the steps in Section 15096(e) would violate CEQA. Because the Regional Board has not taken any of the necessary steps to challenge the District's findings about less-than-significant impacts on waters, the Regional Board is deemed to have waived any objection. The District cited case law, Ogden Envt'l Serv. v. City of San Diego (S.D. Cal. 1988) (687 F.Supp. 1436, 1450-1452.), holding that if the responsible agency believes that the lead agency's environmental review was inadequate, the responsible agency "must take the necessary steps to challenge the lead agency's findings or otherwise be deemed to have waived any objection." (/d. at 1451, citing Section 15096(e).)	The District's attorneys have raised this issue in the past, and we responded with the analysis provided in the response to Comment S-18. (See also email from Tamarin Austin, Water Board legal counsel, to Rita Chan, District legal counsel and Peter Prows, District consulting legal counsel, July 13, 2016.) The response to Comment S-18 describes each of the District's own findings in the EIR that determined that mitigation was necessary. We agree with those findings and exercise the Water Board's independent authority as a responsible agency to mitigate and avoid the Project's direct and indirect environmental impacts related to water quality to lessen or avoid significant effects on the environment. The District's logic deprives section 15096, subdivision (g)(2) of all meaning. There is no requirement to sue or take any of the other actions under subdivision (e) before adopting feasible alternatives or mitigation measures under subdivision (g)(2).

S-20	SCVWD	The District cited an additional case to further argue that without taking any of the steps in Section 15096(e), the Water Board would violate CEQA if the Board adopted the WDRs (RiverWatch v. Olvenhain Mun. Water Dist. (2009) 170 Cai.App.4th 1186, 1207.) RiverWatch applied the rule that a responsible agency "must consider the environmental effects of the project as shown in the EIR," and that, before approving the project, the responsible agency must "find either that the project's significant environmental effects identified in the EIR have been avoided or mitigated, or that unmitigated effects are outweighed by the project's benefits." (/d., emphasis added.) RiverWatch does not authorize responsible agencies to second guess the findings in the EIR; rather, RiverWatch effectively cautions responsible agencies, such as the Regional Board, against second guessing the findings in the EIR.	See responses to Comments S-18 and S-19.
S-21	SCVWD	The District is concerned that the required mitigation project will have its own "impacts," thus triggering the need for additional environmental review and additional mitigation under CEQA. The District cited case law, *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cat.3d 376, 401, which holds that "mitigation measures must be discussed in an EIR". The tentative order contains none of these findings required by CEQA, and gives no reason why any exemption or	See responses to Comments S-18 and S-19. We agree that discretionary decisions by a public agency regarding "projects" under CEQA require the agency to ensure that the project complies with CEQA. In this case, a mitigation project has yet to be proposed by the District. The types of mitigation that may be acceptable for the Project have yet to be proposed, and as a result, CEQA analysis would necessarily be speculative. We agree that, depending upon what project the District ultimately proposes, additional environmental review may be necessary. On the other hand, there are many types of mitigation that were contemplated in the EIR or may be subject to a categorical exemption or a finding of no significant impact, which would not necessarily require substantial time or effort by the District to prepare CEQA documentation. The court's reasoning in Laurel Heights Improvement Assn v. Regents of University of California(1988) 47 Cal.3d 376, noted the chronology of when mitigation measures would ultimately be approved for a specific project: As a matter of logic, the EIR must be prepared before the decision to approve the project. Not until project approval does the agency determine whether to impose any mitigation measures on the project. (§ 21002.1, subd. (b).) One

		exclusion should apply to the required environmental review for impacts and mitigation requirements of the off-site mitigation requirement.	cannot be certain until then what the exact mitigation measures will be, much less whether and to what degree they will minimize environmental effects… . The decision imposing mitigation measures, however, is not made, and cannot be made under CEQA, until after the EIR has been completed. (Id. at pp. 401-402.) In the case of the Upper Berryessa project, the revised tentative order's requirements have continued to unfold through negotiations between Board and District staff; not to mention the Water Board has the ultimate decision of whether to accept the revised tentative order. When the District proposes mitigation measures, the Board will consider the compensatory mitigation project's CEQA compliance. The process for accepting a Mitigation & Monitoring Plan (MMP) will include the necessary public review required by CEQA. The Board will notify the public upon receipt of the MMP and consider public comments received as stated in the revised tentative order, Finding 21, second paragraph, which reads: ...This Order requires the Discharger to submit a Mitigation and Monitoring Plan (MMP), acceptable to the Executive Officer, by June 30, 2017, and to timely implement the MMP. … The Water Board will notify the public upon receipt of the required MMP and consider public comments before the Executive Officer accepts it. In addition, the revised due date of June 30, 2017, for the MMP is now included in Provision 19 in the revised tentative order.
S-22	SCVWD	The District stated that as the lead agency, it has already approved the project as-is, and that the Water Board would be responsible for any additional environmental review that may be necessary to select and construct the required mitigation project. The District cited CEQA Guidelines, section 15162(c), which states that after the lead agency approves a project, "…a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval."	We disagree. See Title 23 of the California Code of Regulations, sections 3740-3742. In addition, as the District has not yet submitted a proposal for a compensatory mitigation project, it is premature and speculative to discuss which public agency might take the lead agency role. We note that the District has already determined it will serve as the CEQA lead agency for at least one project we have discussed as having the potential to provide compensatory mitigation, its Lake Almaden project by Alamitos Creek, Guadalupe Creek, and the Guadalupe River near District headquarters (http://www.valleywater.org/mercury/almadenlake.aspx). See also responses to Comment S-18 and S-21.
S-23	SCVWD	The District disagrees with the Water Board's finding that the creek channel area from the ordinary high water mark to the tops of bank is waters of the State, and pointed out that the EIR identified identify 4.8 acres of waters of the State, consisting only of the	We disagree. The District is referring to the requirements in Title 14 of the California Code of Regulations, section 15096, subsection (e), concerning the actions a responsible agency must take if the EIR is not "adequate for use." That is not the case here. The EIR identifies about 4.8 acres of affected waters of the State based on the elevation of the ordinary high water mark (OHWM) in the creek channels but omits the additional approximately 5 acres of creek channel above the OHWM as being adversely affected. The amount of 4.8 aces is incorrect and fails to take into account the California Wetland Conservation Policy and, accordingly, ignores USFWS recommendation no. 7 to continue to work with USFWS and other resource agencies to quantify Project affects and

		waters below the ordinary high water mark; the District stated that the Water Board is not authorized to second-guess the EIR findings on this matter. The District pointed out that the Water Code defines "waters of the State" as "any surface water or groundwater" (Water Code § 13050(e), and contends that the statutory phrase "surface water or groundwater" cannot reasonably be interpreted to include *non-wetland* areas above the ordinary high water mark.	determine mitigation needs as modifications to the selected project alternative develop (Coordination Act Report, Recommendation no. 7). That does not necessarily make the EIR "inadequate for use," but it is incumbent upon the Water Board to use accurate figures when exercising its independent authority as a responsible agency to mitigate and void the direct and indirect environmental effects on water quality. The revised tentative order correctly identifies a reasonable estimate of waters of the State, which, as the commenter notes, consist of "any surface or groundwater." The Project's design, through its placement of rock riprap and floodwalls to stabilize the creek banks and control flows of water through the creek, assumes that the cited area will be a surface water during relevant flows. That was also found by the flood models used to estimate flows through the Project reach, which estimate that the pre-project tops-of-bank are at the elevation of a ten to twenty-year flow event - the amount of flow that occurs about once every 10 to 20 years (i.e., a fairly frequent event). Indeed, were flows not expected to reach the top of bank, there would have been a greater opportunity for changes in the Project's design more supportive of existing and beneficial uses, because less rock would have been required. This area, which is 5.63 acres (revised from 5.92 acres based on communications with District staff), is part of the creek's floodplain and thus is part of the waters of the State in the Project, as defined in the Basin Plan, section 2.2.3. The Water Board is authorized under 23 CCR, sections 3830-3869, to exercise independent authority under the Water Code to regulate the discharge of dredge and fill materials in the Project. In addition, Water Code section 13260 requires dischargers of waste "within any region that could affect the quality of waters of the State" to file a report of waste discharge with the Water Board and may be subject to waste discharge requirements under Water Code section 13263, which must implement the applicable Water Quality Control Plan(s), beneficial uses to be protected, the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, etc. See responses to Comments C-13-a and S-47. Finally, we note the commenter does not suggest a basis for the assertion that it is unreasonable to consider a creek's regularly-flooded bed and bank areas to be waters of the State. The basis for why it is reasonable was thoroughly considered as part of preparing the revised tentative order and is laid out in part in this Response to Comments. Further, CWA section 401(d) requires: Limitations and monitoring requirements of certification - Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

S-24	SCVWD	This District contends that there will be no net loss of wetland acreage or function, and that aquatic habitat will be improved, so the project would be consistent with the Basin Plan, section 4.23, which states: "Water Board will evaluate both the project and the proposed mitigation together to ensure that there will be no net loss of wetland acreage and no net loss of wetland function." The District further contends there is no basis for mitigation ratios greater than 1:1.	We disagree. The revised tentative order's requirements are well-founded based on the Project's identified impacts to existing and potential beneficial uses, the achievable timing for implementation of compensatory mitigation (i.e., the potential for temporal loss of functions and values associated with Project impacts taking place before the compensatory mitigation can be completed), and applicable policy, including the Basin Plan directive that mitigation preferentially be located onsite, or as close to onsite as possible, and be in-kind. The requirements are consistent with the Board's compensatory mitigation requirements for other projects with similar impacts. See responses to Comments C-13-a, C-23, and C-24 pertaining to the regulatory bases for mitigation requirements and the Basin Plan definition for wetlands, and C-13-a regarding the Project's impacts. The ratios reflect a similar approach the Corps uses to determine compensatory mitigation (Source: *U.S. Army Corps of Engineers, 12501-SPD Regulatory Program Standard Operating Procedures for Determination of Mitigation Ratios. South Pacific Division*. Posted August 5, 2013. Online: http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/487060/12501-spd/. Accessed October 21, 2016.) The Basin Plan's No Net Loss Policy and California Wetlands Conservation Policy apply to other waters, including creeks, not just wetlands as defined by the 1987 Corps manual criteria.
S-25	SCVWD	The District stated that the requirements for the discharger to submit items to "...include but not be limited to…" certain criteria makes such requirements be open-ended, and lacks "sufficient definiteness that ordinary people can understand…" *(*see case law, *Skilling v. United States* (2010) 561 U.S. 358, 402 (quoting *Kolender v. Lawson* (1983) 461 U.S. 352, 357)), thereby violating due process, and being invalid.	We use the clause "not limited to" and similar qualifiers to avoid being prescriptive. (See Water Code § 13360 [waste discharge requirements may not specify manner of compliance].) We list the main requirements, and the qualifiers allow the Discharger to include additional details that are not listed in the revised tentative order. We regularly and successfully include similar language in WDRs and find that the best way to ensure compliance with these types of provisions is regular communication between the discharger and Board staff, who are willing to vet drafts in advance of deadlines to ensure timely compliance. Given the close working relationship between the District and Board staff on this Project, we anticipate no difficulties with compliance.

S-26	SCVWD	The District disagree with the Water Board's findings that the project will make the system more depositional and thereby cause sedimentation problems (Finding 16). The District contends that its studies and observations strongly suggest that the assumptions in the tentative order about current conditions are flawed in that current conditions are erosional, so making the system more depositional would bring the system closer to equilibrium, which should reduce the need for O&M in the project reach. The District included a staff technical memorandum as Exhibits 1 and 2, explaining these sedimentation issues, and responding to Water Board staff's analysis of this issue.	Board staff has reviewed the District's technical memorandum dated July 20, 2016, attached to the District's comment letter. Based upon Board staff's analysis of the sediment transport modeling (provided last March) and existing studies that the District relied on, and our review of the Final EIS and other sediment transport studies for the Project reach, we conclude that the dominant process in the Project reach is aggradation. Furthermore, we do not agree with the District's primary argument that all sediment along the Project reach is from local sources (i.e., bank erosion). Finding 16 presents Board staff's best professional judgement about the Project site being in a depositional reach, and we anticipate that sediment maintenance will result in repeated impacts to the Project site during its operation over the long term. We respectfully disagree with the District's comment that the information is incorrect, even though the Board staff's analysis was partially based on the District's plan set presented as the as-built plans for the existing channel. The District's comment letter states that the plans submitted as the as-built plans for the existing channel are not as-builts, after all. This, however, does not affect our comparison of the creek's 1973 cross section to the current cross section and the Project's proposed cross section. The previous memorandum supplementing the revised tentative order established that the current baseline cross section is comparable to that of 1973 and that the Project as designed would result in a significant deepening and widening of the channel (as did the 1973 project), which will then be filled again (as it filled in over the last 40 years). In addition, we provided six different lines of geomorphic evidence to show that the Project reach is overall aggradational (Water Board Staff Memo to Keith Lichten from Setenay Bozkurt-Frucht, October 19, 2016). In addition, we have again requested that the District submit the as-built plans of the existing channel (email to Christopher Hakes from Susan Glendening, September 23, 2016). We have prepared a technical memorandum (attached) justifying our basis and responding to District's memorandum. As we explain in the attached memorandum: 1) Berryessa Creek lies within an actively accreting alluvial fan. There are secondary/temporary/limited reaches where erosion may take place; however, as the EIS articulated, "[o]n the Berryessa Creek fan, at some point between the apex of the fan and the Bay, all but the finest sediments will be deposited." That the system may, from time to time and on shorter reaches, experience localized entrenchment or lateral shifting, does not change the primary process of deposition along the alluvial fan; 2) Long-term maintenance records confirm that sediment deposition is a regular, persistent management issue. The District's maintenance records indicate that more than 250,000 cy of sediment has been removed from Berryessa Creek since 1980s; 3) Tributary creeks upstream of the Project reach (Sweigart, Crosley, Sierra, and Piedmont) also contribute sediment and will continue to do so in the future. This is an important sediment source that has contributed to the Project reach from upstream and not from local sources; 4) There are erosional sites and segments along the Project reach that are triggered in response to hydraulic structures, which may cause channel instability (e.g., at the mouths of Los Coches Creek and Piedmont Creek). We have visited the site and believe that, along the Project reach, the bank instabilities do not represent an overall trend and are localized geomorphic

			processes; 5) The District references the Jordan (2009) study to suggest that bank erosion and channel incision are the primary processes acting along the Project reach. However, the Jordan study did not cover the Project reach and included a longitudinal profile comparison of the reach upstream from 1967 and 2004. Our review and interpretation of the data are provided in our memorandum. Regardless, incision trends upstream of the Project reach, as District states, would suggest more sediment contributed to the Project reach from upstream; 6) Board staff still has unanswered questions on model inputs, boundary conditions, choice of sediment transport equations, etc. In the last meeting Board geomorphology staff had with the District's engineering team and sediment transport modeling consultant on March 9, 2016, we had agreed to continue the discussion through a share-screen conference for the team to respond to Board staff's questions, but that meeting did not occur. Neither Tetra Tech (the District's sediment transport consultant) nor the District provided a technical summary outlining their sediment transport analysis, the basis of modeling inputs, results, and their interpretation. We cannot draw the same conclusions based on the most recent model provided to us in March 2016.
S-27	SCVWD	The District stated that because only the Corps will be responsible for project construction, Finding 3 incorrectly states that both the Corps and the District will be responsible for project construction.	We disagree. See our responses to Comments C-02, C-03, and S-17. However, we understand that the Corps is responsible for the construction contract to build the Project. We have modified Finding 3 to convey our understanding of which discharger will complete the various tasks that would be required under the order. We have also clarified, per comments submitted by the District and Corps, which discharger is completing various Project elements.
S-28	SCVWD	The District stated that Finding 4 incorrectly names the District as the "discharger" collectively with the Corps, because the District is not involved in construction, and has not proposed any discharges associated with future operations and maintenance.	We disagree. See responses to Comments C-02, C-03, and S-17 pertaining to naming both the District and Corps as the Discharger and the regulations that authorize the Board to do so.
S-29	SCVWD	The District stated that Finding 5 incorrectly states that construction of the Lower Berryessa Creek and Lower Calera Creek Flood Protection Improvements project will be completed in October 2017; the current schedule shows completion of that project (except for revegetation planting) in October 2018.	Comment noted. See response to Comment C-44 for the correction.

S-30	SCVWD	The District stated that Finding 6 incorrectly states that the mitigation and monitoring requirements are necessary for the compliance with federal and state regulations; there are no federal monitoring requirements, and no additional construction-related mitigation is appropriate.	We disagree that a correction is necessary. Finding 6 (now Finding 7) refers to the mitigation and monitoring requirements referenced in Findings 19 - 30. The cited federal regulations are those for which the Water Board is responsible, flowing out of CWA section 401 and the need to ensure that projects comply with State water quality standards. In addition, see our responses to Comments C-13-a and S-44 regarding the need for mitigation due to the Project's impacts; RCD-09 and S-12 for how we determine the amount of mitigation necessary; and C-03, C-23, C-24, and S-43 regarding the regulatory authorities for mitigation requirements.
S-31	SCVWD	The District stated that Finding 6.e incorrectly states that the project will include a third ramp, downstream of the Montague Expressway crossing. The project will include construction of only two ramps, both located upstream of the Montague Expressway crossing.	Comment noted. We have revised Finding 6 (now Finding 7) as noted in responses to Comments C-32 and C-45.
S-32	SCVWD	The District stated that Finding 6.i could be read to suggest that the project will replace and realign all utilities within the project right-of-way, while only utilities directly affected by construction will be replaced or realigned; that replacement or realignment will be performed by the Corps as part of project construction.	Comment noted. We have revised Finding 6 (now Finding 7). See responses to Comments C-32 and C-45.
S-33	SCVWD	The District stated that Finding 6, Table 1, incorrectly lists the area of ramps as 0.01 acre; the correct area is 0.1 acre.	Comment noted. We have revised Table 1; see response to Comment C-41.
S-34	SCVWD	The District is concerned that since both the Corps and the District are named as the discharger, the tentative order fails to make clear which of the two agencies would be responsible for complying with the conditions, and specifically, findings 7-9 do not state that the Corps will be performing	Comment noted. See responses to Comments C-02 and C-03.

		the tasks in these findings.	
S-35	SCVWD	The District noted discrepancies in the due dates for the submittals required in Findings 10-15, and also noted that Finding 10 fails to mention that the Corps submitted a project groundwater management plan to the Regional Board on or about January 26, 2016.	Comment noted. Regarding Finding 10, please see responses to Comments C-03 and C-32 regarding deletion of this finding and rearranging its contents into Finding 3, etc. In addition, the response to Comment C-32 explains the updated text for Findings 11, 12, 13, 14, and 15, and that we have revised any due dates and documented receipt of current plans to replace references to plans that are now outdated. See response to Comment C-35 for revised language for the Dewatering Plan (Finding 14) and Finding 15 pertaining to receipt of the Groundwater Management Plan dated January 26, 2016. See responses to Comment C-32 and S-53 regarding the due dates for technical reports**.**
S-36	SCVWD	The District stated that Finding 16 makes incorrect statements about sedimentation.	We disagree. See response to Comment S-26.
S-37	SCVWD	The District stated that Finding 16 incorrectly states that development of the O&M Manual will be a "…collaboration of the Water Board and other appropriate state agencies," and stipulated its understanding being that the Corps alone will be developing the O&M Manual. In addition, the District stated that some of the requirements in Finding 16 are premature, and given that the Corps has yet to develop the manual, the District may need to approach the Water Board for modifications to the tentative order depending on the content of the manual. The District also noted that the statement that " ... compliance with this Order will be determined by compliance with the terms of this Order" does not make logical sense.	Comment noted. The intent is for the O&M Manual to be prepared in a collaborative process for this publicly-funded project. Such a collaborative process is already being completed between the Corps, the Water Board, and other agencies for the Napa River flood control project, so this approach is not a novel requirement. If the final O&M Manual warrants the need to amend the order, we would consider that need when it arises. By incorporating requirements into the revised tentative order now, we intend to proactively minimize the need to amend the order later. This is because the adaptive management process allows for modifications as needed based on data and observations. We agree that the statement: "... compliance with this Order will be determined by compliance with the terms of this Order" sounds confusing. We have rephrased this to clarify that we require the Corps to incorporate the requirements of this Order into the O&M Manual. See response to Comment C-38.
S-38	SCVWD	The District pointed out the inconsistencies in the Adaptive Management Plan due date stated in findings 10 and 17, and Provision 15.	Comment noted. See response to Comments C-32. (Finding 17 does not mention the due date.)

S-39	SCVWD	The District stated that the finding that the project site provides potential habitat for rare or endangered species (Finding 19) is speculative and is not supported by any evidence, and that the Water Board ignored the project documents stating that no special species would be affected, or impacts would be less than significant, according to the U.S. Fish and Wildlife Coordination Act Report (CAR), EIR, and EIS.	Finding 19 is not speculative. See response to Comment C-15. As we presented in response to Comment C-13-a, the EIR found impacts on water quality standards, which include beneficial uses, based on the WAQ-1 and WAQ-6 significance criteria, and BIO-4 for impacts to a native resident or migratory fish or wildlife species, but the proposed mitigation is only for the short-term construction activities. See also response to Comment C-13-a.
S-40	SCVWD	The District stated it is not responsible for construction-related impacts, but Finding 20 does not make that distinction, and that the Water Board has no authority to impose conditions on the District related to construction.	We disagree. See responses to Comments C-02, C-03, and S-17.
S-41	SCVWD	The District disagrees with the Water Board's finding that the project will have permanent impacts to waters of the State and waters of the U.S. (Finding 20), noting that this contradicts findings in the EIR and USFWS CAR. Further, the District disagrees that placement of "buried rock riprap in the creek bed" will permanently impact beneficial uses of the creek, and reiterated that the Water Board is not authorized to second-guess the EIR.	We disagree. See responses to Comments C-13-a.
S-42	SCVWD	The District pointed out inconsistencies in the due date for the Mitigation and Monitoring Plan stated in Finding 21 and Provision 16, and reiterated its assertion that the Water Board is not authorized to impose additional construction-related conditions	Comment noted. See response to Comment S-21 on the revised due date for the MMP. In addition we disagree with the assertion that the Water Board is not authorized to impose the waste discharge requirements. See responses to Comments C-13-a, C-23, and S-43 for the regulatory authorities requiring mitigation.

		now.	
S-43	SCVWD	The District stated that the project does not include jurisdictional wetlands based on the project's wetland delineation results and that no wetlands will be impacted in the project, yet the tentative order cites policies for mitigation impacts to jurisdictional wetlands (Finding 21). The District also pointed out that the Certification, Finding I, states: "[n]o jurisdictional wetlands are in the project."	We disagree. The Certification does not provide the entire context. The Certification later states that the Project will not impact any jurisdictional wetlands under the Corps' 1987 manual. The cited policy addresses impacts to wetlands generally, which is a significantly broader category than jurisdictional wetlands, as noted in the policy itself. See responses to Comments C-23, and S-50. In addition, we revised Finding 18, second paragraph, to read as follows: "No jurisdictional wetlands, as defined by the Corps' 1987 manual for wetland delineation, are in the Project area. However, significant portions of the creek, inset floodplain, and riparian habitat from top of bank to top of bank are riverine wetlands that are waters of the State (see Finding 26)." In the original tentative order, the sentence stated there are no jurisdictional wetlands in the Project area, which is inaccurate, since creek channels and floodplains, which the Project includes, are jurisdictional as described in response to Comment C-24, and as defined in the Basin Plan.
S-44	SCVWD	The District stated that the Water Board failed to account for features in the project that the District asserts would offset or mitigate for the project within the project reach (Finding 21), which include: a net increase of 3.18 acres of waters of the U.S. and the State; improved habitat value due to the removal of nonnative and invasive vegetation and the seeding of native species; and an increase of 3 acres of native grassland habitat; preservation of existing upland trees and shrubs wherever possible; and replacement of removed native trees and shrubs with native plantings at an overall ratio of 2:1.	Comment noted. We thoughtfully considered the Project design and its expected impacts, whether positive or negative, in developing the revised tentative order's compensatory mitigation requirements. We noted that the USFWS CAR identifies *emergent* vegetation as the primary target habitat goal based on the egret's habitat needs. As we stated in responses to Comments C-08 and C-13-a, it's unclear how the Project design will fully meet the intended goal of establishing native grass habitat in the creek channel and riparian area within the banks. The USFWS CAR also identified upland grassland mitigation as a less pressing goal, based on red-tail hawk habitat needs. As noted in response to Comment C-13-a, the channel bank and upland areas without riprap have a better chance to succeed since root depth will not be restricted by the Project design. However, assuming the grasses in those non-riprapped areas succeed, their establishment would not be consistent with the mitigation goal to compensate for the loss of function and value in the emergent vegetation. See responses to Comments C-13-a pertaining to the Project's impacts and CEQA findings, and RCD-10, S-04, S-07, and S-24 pertaining to development of the Mitigation and Monitoring Plan.
S-45	SCVWD	The District pointed out that monitoring for the Lower Berryessa Creek and Lower Calera Creek Flood Protection Improvements project (see CJQWS Place no. 768945 (MB), SM 1600-2013-0159-R3) tree plantings is only five years, and noted that the Certification only requires five years.	We acknowledge that the monitoring requirement in the Lower Berryessa-Lower Calera project is only for 5 years. We apply monitoring requirements on a case by case basis. The Lower Berryessa Creek project has willow plantings. Because willows grow quickly, 5 years of monitoring is sufficient. The Upper Berryessa Creek project has slow growing trees and shrubs, including oaks and buckeyes, thus warranting 10 years of monitoring. However, we revised the tentative order to delete the requirement to amend the Planting Plan with additional five years of monitoring, as stated in response to Comment C-32.

S-46	SCVWD	The District stated that the Regional Board does not have authority to impose requirements for off-site mitigation on the District now for construction –related impacts.	We disagree. See responses to Comments C-13-a, C-14, S-36, and S-44 for the Project's impacts and why mitigation is required and responses to Comment C-23, C-24, and S-44 for the regulatory authorities requiring mitigation.
S-47	SCVWD	The District stated that the Water Board is not authorized to impose additional reporting conditions on the District (Finding 22), and that the Finding 22 does not identify which agency is responsible for the required reports.	The reporting requirements are standard requirements we require of all dischargers for projects of this nature and size. As stated in Finding 22, we are authorized under Water Code, section 13267 to require the reports. Finding 22 also identifies the reasons why the reports are necessary. In addition, CWA section 401 requires the inclusion of "monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations."
S-48	SCVWD	The District stated that Finding 23 incorrectly asserts that the project 401 Certification states that the WDR will address "an off-site mitigation plan," and that the EIR finds that on-site plantings will mitigate for all project impacts to habitat.	We agree on both points. First, we agree that we incorrectly cited the language in the Certification, and we have revised Finding 23 to state: The Certification states that the Water Board would consider WDRs for the Project to address the future operations and maintenance activities, vegetation monitoring for construction mitigation plantings, and an offsite mitigation plan for impacts due to the Project's design. Second, we agree that the EIR has findings that onsite plantings will mitigate for all project impacts to habitat. However, we are obligated to require additional compensatory mitigation due to the lack of soil for native vegetation to establish and thrive at the site, and for impacts to beneficial uses due to bank riprapping and widening of the creek channel. See responses to Comments C-13-a, C-14, and S-44 for the Project's impacts and why mitigation is required and responses to Comment C-23, and S-43 for the regulatory authorities requiring mitigation.
S-49	SCVWD	The District pointed out that Finding 25 incorrectly states that "…pre-construction aquatic life and wildlife surveys" will be conducted in the list of EIR mitigation measures.	See response to Comment CAB-06.
S-50	SCVWD	The District stated that the Basin Plan Wetlands Fill Policy (Finding 28) and California Wetlands Conservation Policy (Finding 30) are not applicable to the project because the District asserts that no	We disagree. See responses to Comments C-23 and C-24, which notes that the entirety of Upper Berryessa Creek is a wetland under Water Board regulations.

		jurisdictional wetlands are present in the project area and the project will not impact wetlands.	
S-51	SCVWD	The District stated that the Water Board is not authorized to impose any provisions related to construction on the District.	We disagree. The Water Board is authorized and obligated to issue WDRs in accordance with the CWA and the Water Code. See responses to Comments C-02, C-13-a, S-05, S-15, and S-17.
S-52	SCVWD	The District noted that Provisions 6, 8, and 9 do not clarify that the Corps will be performing project construction and will be the sole discharger during the project construction phase.	We disagree. See responses to Comments C-02 and C-03 pertaining to naming both the Corps and District in the revised tentative order as the Discharger, C-32 pertaining to revisions in Provisions 11 - Rain Event Action Plan and 12 - Dewatering Plan; and C-35 regarding revisions to Finding 14 -Dewatering Plan. Per Comment C-32, Provision 8 - Utilities Realignment has been deleted.
S-53	SCVWD	The District pointed out the inconsistencies in due dates for the required reports in Finding 10 and Provisions 9, 12, 15 and 16.	Comment noted. See responses to Comments C-02 and C-32 pertaining to consolidating certain plans from Finding 10 into Finding 3, deleting Finding 10, and revising Provisions 9, 12, 15, and 16 (Dewatering Plan, Post-Construction Stormwater Management Plan, Adaptive Management Plan, and Mitigation and Monitoring Plan, respectively).
S-54	SCVWD	The District stated that the Water Board does not have authority to now require a Utilities Plan, in part because this requirement was deleted from the Certification issued to the Corps (Provision 8).	Comment noted. We disagree regarding authority but, given the information submitted for the Project to date regarding utilities, have removed the Utilities Plan requirement in the revised tentative order. See response to Comment C-32.
S-55	SCVWD	The District stated that the Water Board does not have authority to require a dewatering plan (Provision 9).	The requirement for a Dewatering Plan in the original tentative and the revised tentative order is consistent with EIR mitigation measure WAQ-B, which is "prepare and implement a Dewatering Plan." Further, this is a standard requirement for all projects of this size and nature. See response to Comment C-35 for revised language in the order reflecting the current status of the Corps' consultant's Dewatering Plan dated October 21, 2016.
S-56	SCVWD	This District stated that the post-construction stormwater monitoring plan (Provision 12) is due 60 days prior to start of construction. This was not a requirement under the Certification and, construction has already started, making the due date infeasible.	Comment noted. See response to Comment C-36 for the revised due date. Provision 12 (now 15) requires a Post-Construction Stormwater Management Plan because the Project design includes 6.8 acres of impervious surfaces due to 4.33 acres of new maintenance roads to be created in the Project, and 2.47 acres of existing roads to be redeveloped. This amount of impervious surface will make up roughly 40 percent of the Project's total area (i.e., about 6.8 acres of total area of 17.2 acres). Impervious surfaces are known to impact water quality by accumulating and subsequently discharging pollutants in groundwater and altering the hydrograph of creeks. At the Project site, we have observed erosion at the tops of banks that could be attributed to runoff from existing maintenance roads.

			The plan is required to demonstrate how road runoff at the site would not replicate the same erosion that appears to have occurred under existing conditions and to ensure that the expected discharge of other pollutants will be appropriately addressed. We acknowledge that the Board will consider adoption of the revised tentative order after Project construction has begun. Therefore, we have revised the due date of the Post-Construction Stormwater Management Plan accordingly, to be due 90 days after adoption of the order. See response to Comment S-53. Further, the Post-Construction Stormwater Management Plan is necessary to fully mitigate for the impacts of impervious surfaces to alterations in drainage at the site (i.e., EIR significance criterion WAQ-3, "Alteration in Drainage Resulting in Erosion or Siltation." Although mitigation measures WAQ-A and WAQ-B will be implemented during construction, these measures are specific to construction-related activities (WAQ-A is "good housekeeping" procedures for preventing construction materials from entering surface waters and storm drains; and WAQ-B is to prepare and implement a Rain Event Action Plan) and will not address the reasonably foreseeable post-construction adverse impacts of the Project's impervious surfaces. See response to Comment S-53 regarding the revised due date.
S-57	SCVWD	The District stated that the planting soil or soil amendments used during project revegetation will be obtained from commercial sources and will be free of contaminants, consistent with Provision 13.	Comment noted. Under Provision 15 (formerly Provision 17), the Discharger would be required to provide a report consisting of a cover letter and supporting documentation that demonstrates the soil fill material is appropriately free of contaminants.
S-58	SCVWD	The District is concerned that the development of the Adaptive Management Plan and the O&M Manual must dovetail, and the two plans need to be developed together, making the due date for the Adaptive Management Plan infeasible since the Corps has not specified a schedule for developing the O&M Manual.	Comment noted. See responses to Comments C-02 and C-32 pertaining to the revised due date for the Adaptive Management Plan and revised text in Finding 3. The Board would accept an amendment to the Adaptive Management Plan, if needed, to account for unanticipated post-construction conditions, O&M procedures, or other factors that had not been considered in development of the plan.
S-59	SCVWD	The District stated that the Adaptive Management Plan requirements in Provision 15 are based on the incorrect assumptions about sedimentation in Finding 16.	We disagree. See responses to Comments S-26.

S-60	SCVWD	The District noted that the monitoring and reporting requirements in Provision 15, parts (a) and (f) are inconsistent. In addition, the District noted that the geomorphological monitoring for the Lower Silver Creek capital project (Water Board Order No. R2-2002-0012), consists of a relatively downscaled geomorphology report to summarizes how the channel is behaving every few years as to whether the (i.e., is the channel incising/aggrading?).	Comment noted. Part (a) of this provision (now 18) requires the work plan to be developed, while part (f) requires the report to be submitted that meets the criteria listed in part (f). We revised part (a) to delete the reference to the "five year report". Regarding the Lower Silver Creek project, as authorized under Board Order No. R2-2002-0012, this project incorporates best engineering practices for flood control channels, so there is less need for monitoring than for the Upper Berryessa Creek project (Santa Clara Valley Water District, Hydraulic Engineering Unit, June 2009. *Design Manual-Open Channel Hydraulics and Sediment Transport).* The amount of monitoring for the Upper Berryessa Creek project is warranted to compensate for the uncertainties of the Project design with respect to sediment transport processes in the channel (see response to Comment S-26) and success of vegetation establishment in the Project site (see response to Comment and C-13-a).
S-61	SCVWD	The District stated that the monitoring requirements for determining sedimentation rates under 17.F is extremely difficult, and such monitoring assumes that sedimentation will occur and sediment removal can be used as quantitative data, which will not be the case (current or in the future).	We agree sediment transport rates are difficult to quantify. However, sedimentation rates, especially with detailed information on baseline channel topography –as will be the case in the Project reach with as-built surveys, can be estimated. Please refer to Reid and Dunne (1996) for a discussion on channel sediment storage (L. M. Reid and T. Dunne, Rapid Evaluation of Sediment Budgets; Geo-Ecology Texts, Catena Verlag, Reiskirchen, Germany, 164 pp., 1996). Along the Project reach, there are several approaches that would inform sedimentation rates including: 1) cross sectional and longitudinal surveys following channel-forming flow events and/or larger flows (regularly placed cross sections), and 2) volume of sediment removed for maintenance. These approaches would provide an acceptable estimate for sedimentation rates along the Project reach. A geomorphic survey of the reach to delineate channel storage zones in between surveyed cross sections would further refine sedimentation rates in the Project reach. See response to Comment S-26 regarding sediment transport processes in the Project.
S-62	SCVWD	The District stated that the requirements for monitoring of cross-sections, longitudinal profiles, and stage discharge relationships at the UPRR bridges are unnecessary because they are redundant with monitoring being planned already for O&M to inform aggradation and degradation processes.	Comment noted. The required monitoring will complement any existing plans for cross-sectional and longitudinal monitoring the Corps is planning to conduct to inform O&M, and it is not our intent to require duplicative monitoring provided the Corps will make its monitoring data available to inform the Board's monitoring requirements. The monitoring is necessary to verify the Project design assumptions, which have been generated by computer modeling. In addition, monitoring at the UPRR bridge is particularly needed because this area has been identified in the sediment transport model as an aggradation area (EIR, Chapter 7, response to Comment 3-3, citing the sediment transport consultant as follows: Tetra Tech, 2015. Sediment Transport Analysis Report for the Upper Berryessa Creek Flood Risk Management project. Prepared for Santa Clara Valley Water District), so monitoring there would help to validate the existing modeling. Monitoring of stage-discharge relationships at various flow rates has been required in lieu of installing a stream flow gage, although that could be an acceptable, albeit potentially more expensive, alternative. This monitoring is necessary to inform maintenance guidelines for the Project, which is consistent with SMP procedures.

S-63	SCVWD	The District suggested that "Vegetated buried bed and bank rock" more accurately describes the proposed project in Attachment A, Figures 2 and 3.	Comment noted. We have revised Figures 2 and 3 with the edit referencing that the rock riprap is covered by 4 inches of soil and hydroseed.
S-64	SCVWD	The District stated that Attachment A, Figure 3, incorrectly shows the upstream boundary of vegetated and buried bed and bank rock.	Comment noted. We corrected the figure to accurately show the area with riprap.
S-65	SCVWD	The District stated there is no authority or justification for the mitigation requirements in Provisions 16 and 19, because the project will not impact jurisdictional wetlands. The District also stated the Water Board would need to comply with CEQA before committing to such a project.	We disagree that the Board lacks authority to require compensatory mitigation for impacts to wetlands associated with the placement of fill and that the Project will not place fill into wetlands; see responses to Comments C-13-a, C-23, and C-24, and S-44 pertaining to the need for mitigation and the regulatory authorization to require mitigation. We agree that when making a discretionary decision for a "project" under CEQA, the Board must ensure that the Project complies with CEQA. See responses to Comments C-13-a and S-40 regarding the impacts of the Project on the beneficial uses of Berryessa Creek and authorities for mitigation requirements. Regarding CEQA, we addressed this issue previously in an email from Tamarin Austin, Water Board legal counsel, to Rita Chan, District legal counsel, and Peter Prows, District's outside legal counsel, as follows (email, July 13, 2016), and we reiterate it here: > We agree that, depending upon what project the District ultimately proposes, additional environmental review may be necessary. On the other hand, there are many types of mitigation that were contemplated in the EIR or may be subject to a categorical exemption or a finding of no significant impact, which would not necessarily require substantial time or effort by the District to prepare CEQA documentation. … > (i)t is premature to say one way or the other what additional environmental review will be necessary. The court's reasoning in Laurel Heights Improvement Assn v. Regents of University of California (1988) 47 Cal.3d 376, noted the chronology of when mitigation measures would ultimately be approved for a specific project: "As a matter of logic, the EIR must be prepared before the decision to approve the project. Not until project approval does the agency determine whether to impose any mitigation measures on the project. (§ 21002.1, subd. (b).) One cannot be certain until then what the exact mitigation measures will be, much less whether and to what degree they will minimize environmental effects… The decision imposing mitigation measures, however, is not made, and cannot be made under CEQA, until after the EIR has been completed." (Id. at pp. 401-402.) In the case of the Upper Berryessa project, the final project requirements under the WDRs continue to unfold through negotiations between Regional Water Board staff and the District, and may also be informed by the Water Board's consideration of the tentative order. As more details are known about the environmental impacts of any proposed mitigation measures, we will

			certainly revisit this topic.
S-66	SCVWD	The District pointed out that Provision 18 requires pre-construction surveys for aquatic life and wildlife, yet the EIR determined that no significant impacts would result to aquatic life or wildlife, and the Regional Board does not have authority to second-guess that EIR finding. Further, the District stated that construction is also scheduled to begin before the Water Board's consideration of the tentative order so, even if adopted, the condition would be infeasible.	See response to Comment CAB-06.
S-67	SCVWD	The District suggested that more time is needed to provide the as-built drawings than the 8-week time frame in Provision 28, and that the Water Board is not authorized to impose such a schedule on the District.	We revised Provision 28 (now 30) to require the as-built plans no later than 180 days after Project construction is completed.
S-68	SCVWD	The District disagrees with Provision 37 requiring the discharger to pay fees, and does not find the Water Code authorizes the District to pay fees. Further, the District believes the Water Board would be responsible for any fees the District might be required to pay.	The relevant codes give the Water Board the authority to require dischargers, including the District, to pay fees. A discharger is required to pay a fee pursuant to Water Code section 13263 and California Code of Regulations Title 23, section 2200(a)(3). For example, pursuant to these codes, the District has recently paid fees for the following projects: • Lower Berryessa Creek and Lower Calera Creek Flood Improvements Project (California Integrated Water Quality System (CIWQS) ID No. 768945) • Permanente Creek Flood Improvements Project (CIWQS ID No. 393476) • Hale Creek Enhancement Pilot Project Geotechnical Investigation (CIWQS ID No. 403079) • Almaden Dam Project Geotechnical Investigation (CIWQS ID No.820005) • Anderson Reservoir Dam Phase 2 Geotechnical and Geologic Investigations (CIWQS ID No. 816739) • Calero Dam Seismic Retrofit project Geotechnical Investigations (CIWQS ID No. 826511). See responses to Comments S-04, S-13, and S-14 regarding comments about the order being an unfunded mandate.

S-69	SCVWD	The District stated that Attachment C, item b requires plantings "…based on the outdated 2013 U.S. Fish and Wildlife Service Coordination Act Report, yet the EIR Mitigation Measure BlO-B already addresses replacement plantings of native trees and shrubs." Further, the District stated that the Water Board is not authorized to second-guess the EIR.	The revised tentative order includes Attachment C (now B) as a model because an MMP has not yet been proposed. If the mitigation plan has riparian habitat, then the criteria in Attachment B (or comparable, appropriate criteria) for riparian habitat are applicable. The revised tentative order requires the MMP to include appropriate performance standards and criteria. See responses to Comments C-13-a, C-23, C-24, and S-44, which describe the authority supporting the requirement for an MMP with performance standards and criteria.
S-70	SCVWD	The District stated that Attachment C, item c addresses irrigation of wetlands plantings, yet the project does not include wetlands plantings and none are necessary to mitigate project impacts.	Comment noted. We concur the Project site does not include wetland plantings. An acceptable compensatory mitigation project, however, may include wetland plantings where irrigation is necessary for establishment. See response to Comment S-69.
S-71	SCVWD	The District pointed out that the vegetation performance standard in Attachment C, Table 1, exceed the criteria for the Lower Berryessa Creek and Lower Calera Creek Flood Protection Improvements project, which are: Year 1: 40 percent cover; Year 2: 50 percent cover; Year 3: 60 percent cover; Year 4: 70 percent cover; Year 5: 70 percent cover; and to maintain invasive (but not non-native) plants at no more than 10 percent. Further, the District stated that it is not possible to maintain non-native (as opposed to invasive) vegetation to 10 percent in this area where abundant amounts of non-natives are growing in the urbanized areas surrounding the creek and provide continuous input of non-native seeds.	We concur the percent cover criteria are appropriate for the native grasses and forbs to be hydroseeded in the Project site and would likely be appropriate for the offsite mitigation project, with the exception that, for invasive species, we do not concur with the statement that: "…invasives ("but not non-native") plants would be maintained at no less than 10 percent cover." Instead, the order would require that the monitoring goal and success criterion for invasive species categorized as "highly invasive" defined by the California Invasive Plant Council (Cal-IPC, see http://www.cal-ipc.org/ip/inventory/index.php) shall not exceed a maximum of 10 percent cover. We revised this criterion for vegetation performance criteria in the revised tentative order, Attachment B (formerly C).

S-72	SCVWD	The District stated that even though it believes the project will not impact riparian trees/shrubs and does not include riparian planting, the order, Attachment C, Table 1 addresses riparian plantings.	We disagree. As noted by the District in its comment letter (Comment S-69) and in the EIR, the Project *will* adversely impact trees and shrubs in the Project site, including riparian trees and shrubs (BIO-2 significance criterion). As such, the EIR requires mitigation for these impacts. However, the District does not consider the "majority of" (EIR, Appendix F) the affected trees and shrubs as part of the riparian habitat, and, per the project plans, mitigation trees will be planted along the outboard edge of the Project's maintenance roads. We revised the tentative order in Provision 19 to *not* require additional performance standards or success criteria for the tree and shrub plantings within the Project site. Nevertheless, Attachment C's (now B's) standards and criteria are applicable to trees and shrubs for any riparian habitat plantings that may be included in the MMP that has yet to be developed. We are open to considering other appropriate and comparable performance standards and success criteria for riparian plantings and riparian habitat the District may propose with the MMP. See also response to Comment S-69.
S-73	SCVWD	The District stated that the Water Board is not authorized to require offsite mitigation, and that even though the project will not impact jurisdictional wetlands, the order, Attachment C, Table 1, includes criteria for seasonal wetland communities in offsite mitigation areas.	See responses to Comments C-13-a, C-23, and C-24 regarding our authority to require compensatory mitigation, including mitigation that may be completed offsite. Attachment C (now B), Table 1, includes criteria for seasonal wetland communities in case the required compensatory mitigation project(s) include(s) a seasonal wetland component. We included Attachment C (now B) as a model (see response to Comment S-72), and it addresses criteria for seasonal wetland communities, which would be applicable to a mitigation site with seasonal wetland habitat. We are open to considering other, appropriate criteria the District will propose during the District's process to develop the MMP. See response to Comment S-69.
S-74	SCVWD	The District requests that it be given a reasonable amount of time to review and reply to any additional arguments, documents, or evidence, before any hearing.	Comment noted. We will distribute the response to comments and a revised tentative order in advance of the Board's hearing on January 11, 2017. The time for written comment letters has passed, but the District may respond during its presentation at the hearing. We note that we arranged a meeting to discuss various aspects of this Project and the District and Corps declined to attend a meeting until this Response to Comments document was prepared. We subsequently reiterated to the District and Corps our openness to meeting to discuss the project and tentative order, and District staff continued to decline to meet. We ultimately have scheduled a meeting for January 6, 2017, after the planned release of the Response to Comments, and have indicated our willingness to meet additionally prior to that.
S-75	SCVWD	The District requests a hearing on the tentative order, with the right to call witnesses and to cross examination.	Comment noted. The Board is scheduled to consider the revised tentative order at its January 11, 2017, meeting. As a part of that meeting and consistent with the meeting rules, the District may present testimony to the Water Board. The Board's consideration of waste discharge requirements does not typically include witnesses or cross-examination.
S-76	SCVWD	The District asked about how the Water Board plans to implement *ex parte* communication restrictions.	*Ex parte* communication restrictions apply in the adoption of waste discharge requirements for an individual project (as opposed to the adoption of general waste discharge requirements). Communications to Board members in the absence of all parties are prohibited unless there is notice and an opportunity for all parties to comment. A summary of questions and answers pertaining to the *ex parte* rules may be found at http://www.waterboards.ca.gov/laws_regulations/docs/exparte.pdf.

			Separation of functions is only necessary in limited situations when there is a clear need to do so, primarily in the area of enforcement, which is prosecutorial in nature. Board staff evaluate each Board item on a case-by-case basis to determine if it is necessary to have separate staff functions. In this case, Board staff evaluated the following factors and determined there was no need to separate functions: 1) the private interest at stake; 2) the risk of erroneous deprivation of that private interest through the procedure used and the probable value of additional procedural safeguards; and 3) the government's interest, including the burden to the government by affording more process.
S-77	SCVWD	The District requested the Water Board to reject the tentative order based on the various comments it has submitted.	We disagree. See above responses to comments.
S-78	SCVWD	The District believes that the watershed-wide planning approach is a comprehensive and more effective approach for the two agencies to work together collaboratively towards our mutual goal of achieving water quality objectives, and invited the Water Board to participate in the watershed-wide planning underway as part of the District's One Water Program, rather than requiring the WDR.	Comment noted. See also response to Comment S-10.

Response to Comments on Revised Tentative Order

ID#	Source	Comment	Response
RTO-C-01	Corps	The Corps disputes the Water Board's authority to rescind the existing water quality certification (Certification) and replace it with the WDRs and a reissued Certification.	We disagree. This response addresses both the Corps' and the District's comments that the Water Board is not authorized to rescind the existing Certification. The Corps and the District pressed the Water Board to issue Clean Water Act (CWA) section 401 water quality certification for the Project before the Project's mitigation measures were fully designed and evaluated by Board staff, or vetted with the public, because of the Project's time-sensitive nature. Water Board Executive Officer Bruce Wolfe also received a letter and telephone calls from Senator Feinstein's and Congressman Honda's offices requesting that the Board expedite the certification. That urgency is the reason Board staff agreed to the two-phase permitting approach developed collaboratively with Corps and District staff and formally laid out in our meeting of January 4, 2016, as detailed in the responses to Comments C-02 and C-03. Soon thereafter, the District urged the Board to memorialize one of the agreements made during the January 2016 meeting that the Board would expedite the certification as soon as the District completed its CEQA process (emails from Melanie Richardson to Keith Lichten, on January 7 and January 8, 2016). Responding to the emails from Ms. Richardson, Mr. Lichten sent a letter to the Corps and District affirming the Board's intent to expeditiously prepare the certification as soon as CEQA was completed and identified the project to be certified (letter from Keith Lichten to Melanie Richardson, January 15, 2016). In addition, Corps staff asked on numerous occasions for Board staff to provide updates on its progress to complete the certification (for example, email from Amanda Cruz (Corps) to Susan Glendening, January 13, 2016). Immediately after the District certified the Project's EIR on February 9, 2016, Board staff issued an administrative draft certification to the Corps and District for review on February 11, 2016, followed by another draft on March 2, 2016. It is contradictory that the Dischargers now object to the Board's revision of the Certification to fill in the blanks that were left in the Certification at their request. At the time the Certification was issued, the Dischargers neither requested it be amended nor petitioned the State Water Board objecting to its language. That was unsurprising, because the two-phase permitting approach and related issues had been frequently discussed in meetings and emails, included in the administrative draft certifications of February 11 and March 2, 2016, and included in the Certification, issuance of which allowed the Dischargers to commence project construction in October 2016. By now objecting to the revised tentative order, the Dischargers seek to avoid the second part of the two-phase permitting approach we developed with their support, which is described in detail in the response to Comment C-03. In their comment letters concerning the initial tentative order (issued on August 19, 2016), in which we named both the Corps and the District collectively as the Discharger, the Corps and the District both commented that the issuance of WDRs could potentially result in duplicative and/or inconsistent regulation of the Project, when viewed against the requirements of the Certification.

			In response to that comment, we recommended an approach that consolidates the Certification with the WDRs, clarifying which tasks in the Certification have already been completed, and replacing "placeholders" for mitigation in the Certification with specific mitigation tasks. The Corps and the District now assert that the Water Board "lacks authority to rescind the WQC." (Corps letter at p. 1; District letter at p. 2.) Both the Corps' and the District's comments ignore specific "placeholders" in the Certification issued March 14, 2016, which are listed below, which indicated that the Certification was contingent upon additional requirements, including a requirement for compensatory mitigation: • Certification, p. 2, 2nd full paragraph: This Certification is being issued to facilitate the Applicant's contracting and construction schedule for the Project, which is intended to result in the completion of Project construction prior to the planned opening of the Milpitas Bay Area Rapid Transit (BART) station in late 2017. Subsequent to issuance of this Certification, the Water Board will consider adoption of Waste Discharge Requirements (WDRs) with the District named as the permittee for the Project. The following is a partial list of items the WDR will address: … A plan to compensate for the capital project's impacts… • Certification, p. 10, Finding I.K: As noted elsewhere herein, the Water Board will also consider WDRs to address other needs for the Project, including the need to compensate for temporal and permanent losses of functions and values by the Project design and future O&M activities and to monitor vegetation establishment and success. • Certification, p. 6, Finding I.H: Mitigation necessary for future O&M activities is intended to be considered as a part of the WDRs for the Project to be brought before the Water Board later this year. • Certification, p. 10, Finding I.K (this section was repeatedly revised based on the Corps' review and comments for language acceptable to the Corps): The need for compensation of impacts from the Project design and future O&M will be addressed as a part of the WDRs for the Project to be brought before the Water Board later this year.

			As described above, the initial Certification described the additional conditions – mitigation measures – that would be necessary before the Project could be considered in compliance with applicable sections of the Clean Water Act. In other words, the failure to include mitigation would mean that the Project would *not* be in compliance with CWA section 401. It is also possible to modify a water quality certification when the underlying permit or license has been changed and the modifications relate to the changes in the permit/license *(Del Ackels v. USEPA* (9th Cir. 1993) 7 F.3d 862, 867.) Here, the original Certification notes where modifications would be necessary, and the mitigation requirements added to the WDRs fall within those necessary changes. The Corps and District cite to *Keating v. FERC* (D.C. Cir. 1991) 927 F.2d 616, 624[1] to support their claim that the Water Board has not complied with limitations on the ability to revoke or rescind a water quality certification. The facts of this case are different from *Keating*, however, in which the court emphasized that the state certification underlying the Keating project was "final and unqualified." (*Id.* at p. 621.) In contrast, and as described above, the Project's Certification for Upper Berryessa was, on its face, issued explicitly subject to incorporation of future conditions pertaining to mitigation. The Corps and the District also protest that the Water Board failed to meet the 60-day timeline for notifying the Dischargers that "there is no longer reasonable assurance that there will be compliance with the applicable provisions" of the Clean Water Act. (33 U.S.C. § 1341(a)(3).) On the contrary, the original Certification advised the Dischargers that, without appropriate mitigation measures, the Project would not meet CWA compliance, as stated in Finding I.I: > The need for compensation of impacts from the Project design and future O&M will be addressed as a part of the WDRs for the Project to be brought before the Water Board later this year. The requirement for notification has been met. The District claims that the Board may not impose water quality certification on it; the Corps contests the ability of the Board to regulate it with WDRs. We address each of these claims in turn. The District states that it may not be regulated under CWA section 401 because the District has not applied for a federal license or permit. As U.S. EPA explains in the "Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool

[1] The District also cites to *City of Shoreacres v. Tex. Comm'n on Envtl. Quality* (Tex. App. 2005) 166 S.W.3d 825, 834-35 for the same proposition.

			For States and Tribes," (401 Handbook), the Corps does not process a permit for its own dredge and fill activities pursuant to CWA section 404 but will still apply for section 401 water quality certification. (401 Handbook, https://www.epa.gov/sites/production/files/2016-11/documents/cwa_401_handbook_2010.pdf, at p. 4.) This is codified in the Code of Federal Regulations: Although the Corps does not process and issue permits for its own activities, the Corps authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including public notice, opportunity for public hearing, and application of the section 404(b)(1) guidelines. *** The CWA requires the Corps to seek state water quality certification for discharges of dredged or fill material into waters of the U.S. (40 C.F.R. §336, subd. (a)(1).). Pursuant to CWA section 402, the State of California is authorized to administer water quality certification on behalf of U.S. EPA and has promulgated Title 23 of the California Code of Regulations, section 3855, which requires that an "application for water quality certification shall be filed with the regional board executive officer in whose region a discharge may occur." Section 401 must be construed in conjunction with both CWA section 301, prohibiting discharge without a permit, and section 3855, requiring submission of an application for certification before discharging. There is no question that certification is required for the Project, which involves dredge and fill activities that impact waters of the United States. There is also no question that the District is appropriately named as a discharger in a certification for this Project, as described in detail in the responses to Comments C-02 and C-03. We have construed the Corps' application for certification (submitted on September 25, 2015) and the District's EIR (Notice of Determination - February 9, 2016; State Clearinghouse No. 2001104013) to be an application that covers both the District and the Corps. The only alternative interpretation is that the Corps and District have failed to comply with requirements that parties apply for water quality certification for dredge and fill activities. The Corps claims that the Water Board may not issue WDRs because it violates the limited waiver of sovereign immunity under the CWA, and yet the Corps and other federal agencies are identified as dischargers in numerous WDRs this Board has issued. From 1990 to the present, this Board has regulated the Corps' maintenance dredging activities under WDRs, adopting WDRs for the Corps' dredging activities approximately every two to three years. The Board issued the most recent maintenance dredging WDRs to the Corps in May 2015 (Water Board Order No. R2-2015-0023). The Corps did not petition the ability of the Board to issue that permit. The Corps provides no reference to any new provision of law or change in circumstance that would restrict the Board's

			ability to continue to regulate the Corps' dredging activities with WDRs. There is a clear and explicit waiver of sovereignty in this case. The Water Boards' authority is pursuant to the Porter-Cologne Water Quality Control Act. (Wat. Code, § 13000 et seq.) Porter-Cologne applies to federal agencies, "to the extent authorized by federal law." (Wat. Code, § 13050, subd. (c).) Under the Supremacy Clause (U.S. Const., art. VI, cl. 2.) and the doctrine of sovereign immunity, federal agencies and facilities are subject to state law only to the extent authorized by Congress. (*Hancock v. Train* (1976) 426 U.S. 167.) Any such authorization must be "clear and unambiguous" and any waiver must be narrowly construed. (*Goodyear Atomic Corp. v. Miller* (1986) 486 U.S. 174, 180.) Because only Congress may waive sovereign immunity, any such waiver will be found within a federal statute. There are two waivers of sovereign immunity within the federal CWA (33 U.S.C. § 1251 et seq.): CWA § 313 and CWA § 404(t). Both sections contain similar language; however, the former is a more general sovereign immunity waiver applicable to "the discharge or runoff of pollutants," while the latter is more specific and applies to the "discharge of dredge or fill material in any portion of the navigable waters." Both sections require federal agencies to comply with both substantive and procedural requirements set forth by the applicable state. Both the U.S. Supreme Court and the Ninth Circuit Court of Appeals have upheld requirements of state and local governments to obtain permits pursuant to the CWA's waivers of sovereign immunity. (See *Cal. Coastal Com. v. Granite Rock Co*. (1987) 480 U.S. 572; *Friends of the Earth v. U.S. Navy* (9th Cir., 1988) 841 F.2d 927.) However, any such WDRs issued would be limited to CWA requirements. The WDRs in this case are intended to fulfill CWA requirements and are therefore consistent with the waiver of sovereign immunity.
RTO-CAB-01	Complete the Refuge, Audubon Society, and Baykeeper	CAB is concerned that since the Corps plans to construct the project during the rainy season, and requested that the Water Board require the contractor to remove equipment from the channel at the end of each work day.	Comment noted. The contractor does not plan to work in the creek channel until at least March 1, 2017, and, when working in the creek channel, will remove any construction materials and equipment, including dewatering equipment, from the channel if significant rainfall is predicted. We disagree with the suggested change to require the contractor to remove all equipment from the creek channel at the end of each day, rather than using the 48-hour rain forecast to trigger preparation for a rain event, because daily removal is unreasonable given that most days do not have significant rain events that would trigger implementation of a Rain Event Action Plan, and the existing 48-hour lead time should be sufficient to prevent potential impacts from construction activities and dewatering operations.

RTO-CAB-02	Complete the Refuge, Audubon Society, and Baykeeper	CAB is concerned about whether the hydroseed will stabilize the layer of soil on the creek bed and bank riprap, and asked about the basis for the design with only 4 inches of soil.	We agree. Please see the response to Comment C-13-a regarding our concerns about the vegetation and the need for compensatory mitigation. The Design Documentation Report (DDR), section 4.5, states: "Temporary erosion protection will be provided during the first approximately three years after construction through the use of a bio-degradable erosion control fabric (coir roll) that will help to increase the erosion resistance during the establishment period of hydro-seeded native grasses." The DDR does not address the rationale for the 4-inch soil layer. The Water Board will consider the Project's revegetation methods when reviewing mitigation proposals and determining acceptable compensatory mitigation for the Project.
RTO-CAB-03	Complete the Refuge, Audubon Society, and Baykeeper	CAB is concerned that the revised Tentative Order does not stipulate criteria for soil stockpiling duration, and the fate of stockpiled soil is not specified.	Comment noted. Under the statewide Construction General Permit, a permittee may stockpile soils within the construction site and is required to protect the stockpiles from wind and rain. The revised tentative order requires the Discharger to characterize the soil to determine the appropriate disposal or recycling methods. Although the order does not require the Discharger to submit the soil analytical results, Provision 39 provides that the Discharger shall permit the Board or its authorized representative to review the soil sampling and disposal records.
RTO-CAB-04	Complete the Refuge, Audubon Society, and Baykeeper	CAB suggests that the Water Board require a revised Dewatering Plan within 30 days of the Water Board's comments to the contractor, and to reinstate a due date for the final Dewater Plan.	We disagree because this is not necessary. Board staff is reviewing a revised draft plan submitted by the contractor on December 8, 2016. Based on the prompt responses to Board staff from the contractor, there is no need to assign a due date in the order.
RTO-CAB-05	Complete the Refuge, Audubon Society, and Baykeeper	CAB questions whether the native vegetation would become established, rather than non-natives, and asked for details of the vegetation success criteria and contingency plan if the native vegetation fails to establish.	Comment noted. The requirements for compensatory mitigation are intended to address the impacts of the Project's design, including the elements for establishment of native vegetation at the Project site. The success of native vegetation establishment for erosion control will be subject to the maintenance and adaptive management evaluations. In addition, we note that the Construction General Permit requires the permittee to ensure that 70 percent of background native vegetation coverage or equivalent stabilization measures have been applied for final soil stabilization of disturbed areas. See responses to Comments C-08 and C-13-a, pertaining to our concerns about the soil root depth requirements of native species to be hydroseeded, and Comment C-08, pertaining to our concerns about the reuse of native soil containing non-native and invasive seeds.
RTO-CAB-06	Complete the Refuge, Audubon Society, and Baykeeper	CAB asks whether impacts have occurred yet based on the planned construction start of October 2016 and suggested that the mitigation-to-impact ratio should be increased because project construction has already started.	Comment noted. Regarding the Commenter's question about whether impacts have occurred in the Project yet, approximately 500 linear feet of the creek were graded and lined with rock riprap in October 2016. Provision 21 in the revised tentative order requires the Discharger to maintain a log of impacts to track the start of impacts and to eventually also track mitigation activities. When evaluating the Discharger's mitigation plan, the Executive Officer will consider whether the impacts to beneficial uses resulting from the delay between Project impacts and completion of compensatory mitigation have been appropriately addressed before the Executive Officer accepts the plan.

RTO-CAB-07	Complete the Refuge, Audubon Society, and Baykeeper	CAB concurs with the Water Board's assessment of the project site being a riverine habitat with beneficial uses. CAB provide photographs of the project site with ducks in the creek; channel flow with and gentle meanders; and inset floodplains.	Comment noted. Board staff have made similar observations of the creek's beneficial functions and values on September 3, 2015, and April 21 and November 21, 2016. See also response to Comment C-13-a.
RTO-CAB-08	Complete the Refuge, Audubon Society, and Baykeeper	CAB suggests the following edits for the highly invasive species criterion: "The Discharger shall ~~maintain~~ ensure invasive plant species in the Project site ~~at a maximum~~ does not exceed cover ~~of no more~~ than 10 percent based on the percent cover of…"	We agree and have revised Provision 19.d to read: "The Discharger shall ensure invasive plant species in the Project site do not exceed cover of more than 10 percent based on the percent cover of… .
RTO-S-01	SCVWD	The District disputes the authority for the Water Board to rescind the CWA section 401 water quality certification already issued to the Corps.	We disagree. See response to Comment RTO-C-01.
RTO-S-02	SCVWD	The District disputes the Water Board's authority to name the District to the project's water quality certification.	We disagree. See response to comment RTO-C-01.
RTO-S-03	SCVWD	The District comments that it has not agreed to be responsible for certain requirements, nor does the Project Partnership Agreement between the Corps and District require the District to be responsible for them.	Comment noted. The District has misinterpreted Finding 3 by suggesting that all of the roles and responsibilities that are divided between the Corps' and the District are stipulated in the Project Partnership Agreement (PPA). Finding 3 states (italics added for emphasis*): "The Water Board's understanding is that the District will be responsible for…."* the Adaptive Management Plan, Mitigation and Monitoring Plan, and Post-Construction Stormwater Management Plan. Finding 3 does not state that these plans are required in the PPA. Board staff understands that these items were not included in the PPA because the Corps did not account for Board requirements in its rigid project planning and budgeting structure. Further, we understand that items not included in the PPA are, by default, the responsibility of the District, as the co-sponsor. We base this understanding on the numerous meetings and email exchanges between Board, Corps, and District staffs, including, but not limited to, the interagency meetings on July 16, August 4, August 11, and

			December 14, 2015, and January 4, February 29, March 2, and October 11, 2016.
RTO-S-04	SCVWD	The District states that using the Cowardin naming convention to describe the jurisdictional waters of the State in the project does not substitute for the Porter-Cologne Act, section 13050(e) definition for state waters, and is not meant to be used to determine State jurisdiction. The District specifically disagrees that the area from the ordinary high water mark to the tops of banks is part of the project's jurisdictional waters of the State, and states that it is not a riverine wetland under the Cowardin system, based on the high water mark as the boundary.	We agree to the District's first and second points that the Cowardin classification system is not a substitute for the definition of waters in the Water Code, section 13505(e) and that it is not intended to determine regulatory jurisdiction for waters of the State. Rather, the Cowardin classification system is the tool that the Board uses for mapping and inventorying wetlands (See Basin Plan Section 2.2.3). In response to the District's and Corps' previous comments that the Project site does not include wetlands, Board staff indicated that the Board uses the Cowardin classification system for determining wetland types to convey the point that the Project's waters of the State are wetlands subject to the State's No Net Loss Policy and Basin Plan Wetland Fill Policy. We disagree with the District's contention that the area from the ordinary high water mark (OHWM) to the tops of banks is not jurisdictional waters of the State subject to the No Net Loss Policy and the Basin Plan Wetland Fill Policy. The diagram the District included with its comment letter for the riverine wetland type being below the "high" water line shows that a creek floodplain is part of both the riverine wetland and palustrine wetland types (Source: Federal Geographic Data Committee (2d ed., 2013). Classification of Wetlands and Deepwater Habitats of the United States, p. 2. Online: https://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf). This is because the "high" water line is the elevation of high flow events. In comparison, the "ordinary high water mark" that forms the boundary of federal jurisdictional waters tends to be closer to the elevation in the diagram labeled as the "average" water line near the bankfull flow, which is "seasonally flooded," or even lower at the "low" water line which is "semi-permanently flooded." The creek beds and banks in the Project, including the upper bank sections, are subject to the wetland protection policies because they clearly serve the functions and values of wetlands (regardless of which Cowardin habitat types may apply) and therefore support the creek's beneficial uses. The Project reach contains flow up to only the 10-year flow event (or 20 years in some sections). Although the creek's full floodplain throughout the Project reach is artificially constrained by channelization and urban development, the tops of banks are an indisputable part of waters of the State that the Project will permanently impact. The effective discharge (also known as the bankfull discharge), which is the channel-forming flow, for ephemeral and intermittent streams in the arid western states is generally the 5- to 10-year event (Lichvar and McColley, 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States-A Delineation Manual*. ERDC/CRREL TR-08-12. Cold Regions Research and Engineering Laboratory U.S. Army Engineer Research and Development Center. Hanover, NH. Online: http://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Ordinary_High_Watermark_Manual_Aug_2008.pdf. Accessed

			December 7, 2016). This indicates that the channel's entire cross-section up to the tops of banks contributes to the significant channel-forming geomorphological processes in the Project reach, at least in some areas of the Project reach. We recognize that the wetland delineation states that, due to incision, the tops of the creek's banks are at a lower elevation than the physical top of the bank. However, Board staff disagrees with this interpretation and always interprets the top of the bank as being the elevation where the top of the bank actually exists. In the Project reach, the top of the bank ranges from zero to 6 feet above OHWM. This area amounts to about 5.63 acres of waters of the State that are outside the boundary of federal waters and, given that it is flooded fairly regularly – about every 10 years, it is clearly part of the creek and waters of the State. In addition to the hydraulic and geomorphic processes from bank to bank in the Project, the existing soft earthen banks up to the tops of banks are vegetated and contribute to nutrient cycling in the creek, trap and contain sediment and pollutants, and help to stabilize soil in the upper banks. Due to the District's vegetation maintenance activities of mowing and herbicide spraying, natural vegetation types and establishment patterns have been artificially limited in the Project reach. The growth of trees and shrubs in the Lower Berryessa Creek reach, which has a more natural morphology with a wide, relatively undeveloped floodplain, suggest similar growth could occur in the Project reach if the District's maintenance activities did not prevent it. Yet the existing vegetation still contributes to the creek's beneficial uses.
RTO-S-05	SCVWD	The District contends that construction of the project is not a discharge of "waste" so should not be subject to the Porter-Cologne Act.	We disagree. Water Code section 13370 recognizes that the CWA authorizes permits to regulate the discharge of dredged or fill materials, and section 13377 authorizes the Board to regulate discharges of dredge and fill materials with WDRs to protect the beneficial uses of waters of the State: > … the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with any more stringent effluent standards or limitations necessary … for the protection of beneficial uses … Further, Water Code section 13374 states that the term "waste discharge requirements" refers to the definition of "permits" under the CWA, which means that an order for WDRs for discharges of dredged or fill materials is the same as a discharge permit for dredged or fill materials. WDRs for the Project are necessary because they address standards and criteria necessary to allow the discharge of dredged and fill materials in waters of the State that are outside federal jurisdiction. Water Code sections 13263 and 13377 authorize the Board to issue WDRs for dredge and fill projects.

RTO-S-06	SCVWD	The District asserts that the Water Board staff's analysis of sediment transport information is flawed. The District included a staff technical memorandum dated December 2, 2016, with its comment letter. The memorandum gives examples of processes in other creeks in order to compare them with Upper Berryessa Creek and seeks to rebut some of the points made by Water Board staff in its memorandum of October 21, 2016.	We disagree. The District's new technical memorandum of December 2, 2016, did not present any new analyses or findings, nor any evidence to support the District's claim that the Project will make the existing unstable Berryessa Creek channel a stable channel closer to geomorphic equilibrium with minimal maintenance needed. The Board's in-house experts (geomorphologists, sediment transport analysts, and environmental scientists) analyzed existing environmental assessments and technical reports; reviewed the sediment transport model; performed a comparison of channel cross sections under existing, project, and historical conditions ("as-built" conditions per District's signed and stamped engineering designs); and conducted several field visits to the Project reach. Based on these four different lines of evidence, as well as our experience and knowledge of other channel systems in the Santa Clara Valley, we presented our findings and supporting evidence in the memorandum on October 21, 2016. We found the Project will create a significant disturbance to the channel. As designed, the Project is likely to result in sedimentation in the Project area and unnecessarily frequent sediment maintenance, which will result in repeated impacts over the Project's life. It is our intention to validate sediment transport processes through the monitoring required under the Adaptive Management Plan required by the order to guide decisions about future O&M, because the design data, alone, are insufficient to inform O&M. The Adaptive Management Plan requires that the monitoring and O&M plan development be an open process, similar to the maintenance project review process under the District's existing Stream Maintenance Program.
RTO-S-07	SCVWD	The District requests an edit to clarify the location of one of the access ramps.	We agree and have revised the order. Finding 7.e now states: "…and the other one is 900 feet downstream of I-680."
RTO-S-08	SCVWD	The District disputes the Water Board's contention that establishment of native vegetation will be restricted, pointing out that the roots can grow through the interstitial spaces of the rocks.	We disagree. The rock riprap covered with a thin layer (4 inches) of soil is likely to significantly restrict the establishment of the native vegetation to be hydroseeded, even though some plants may grow with their roots extending through the interstitial spaces of the rocks. By occupying a significant percentage of the underlying soil area within the native plants' rooting depth, the rock will restrict potential growth. In addition, the Project's specifications indicate the use of geotextile fabric beneath the rocks, which will further restrict the root zone. See also the responses to Comments C-08 and C-13-a.
RTO-S-09	SCVWD	The District clarifies that the reference in Finding 21 for a mitigation and monitoring plan "consistent with the District's schedule to adopt its 5-year capital improvements projects" is incorrect.	Comment noted. We revised Finding 21 to reflect that the June 30, 2017, due date for the final mitigation plan coincides with the District's One Water Plan budgeting process based on the information District staff provided in the meeting between Water Board and District staffs on August 15, 2016. Finding 21 now reads: This Order requires the Discharger to submit a Mitigation and Monitoring Plan (MMP), acceptable to the Executive Officer, by June 30, 2017, and to timely implement the MMP. The Water Board's understanding is that this schedule coincides with the District's schedule to adopt the capital improvement project budget for its One Water Plan. However, this Order does not require the District to propose a One Water Plan project as compensatory

			mitigation.
RTO-S-10	SCVWD	The District disputes that the EIR "acknowledges that riparian habitat is waters of the State," as stated in the revised tentative order, Finding 26.	We disagree. EIR section 3.5.2.2 states: A stand of cottonwoods, coastal live oaks, and non-native holly oaks is present, and as they are found on a small bench below the top of the bank, this is considered riparian habitat and is under the jurisdiction of the California Department of Fish and Wildlife (CDFW) and SFBRWQCB.
RTO-S-11	SCVWD	The District comments that it will be difficult to meet the velocity monitoring requirements under Provision 17 because it will require a crew of two to three staff, and the District stated it cannot guarantee the monitoring would be done.	Comment noted. We recognize the monitoring requirements will require staff resources. The use of a stream gage could be an alternative that would reduce reliance on staff. The monitoring is required to evaluate Project performance and to inform Project operation and maintenance, particularly since Board and District staffs disagree on the sediment transport modeling results and interpretations of the results. Some monitoring will be done by the Corps to inform the development of the O&M Manual, which may present an opportunity for the District to partner and collaborate with the Corps for the creek monitoring requirements. In addition, we encourage the District to reach out to watershed groups that may have the capabilities and expertise to help with such monitoring, such as community college and State university groups and non-governmental organizations.

Attachment – 10/21/16 memo

Attachment

Water Board Staff Memorandum on Upper Berryessa Creek Sediment Analysis

9TO: Keith Lichten, Chief
WATERSHED MANAGEMENT DIVISION

FROM: Setenay Bozkurt Frucht
PLANNING and TMDL DIVISION

DATE: October 21, 2016

SUBJECT: **RESPONSE TO SANTA CLARA VALLEY WATER DISTRICT COMMENTS ON THE UPPER BERRYESSA CREEK FLOOD PROTECTION PROJECT TENTATIVE ORDER**

This memorandum includes responses to the Santa Clara Valley Water District's (District's) comments on the sedimentation analysis in the tentative order issued on August 19, 2016, and reiterates our analysis of, and the evidence for, the long-term depositional environment of Upper Berryessa Creek.

1. UPPER BERRYESSA CREEK LIES WITHIN AN ALLUVIAL FAN AND IS PRIMARILY DEPOSITIONAL

   The District states that "studies and observations by the District strongly suggest that the assumptions in the tentative order about current conditions are flawed in that current conditions are erosional, so making the system more depositional would bring the system closer to equilibrium."

   Berryessa Creek lies within an alluvial fan. An alluvial fan, by its very nature, is primarily a depositional environment. Alluvial fans are major sediment storage areas, formed where a stream rapidly loses its transporting ability because of either an abrupt reduction in slope, which decreases stream power, or a sudden change from confined to unconfined status, which leads to flow divergence (Knighton, 1998). Upper Berryessa Creek meets all three conditions that are required for optimal fan development, namely:

   a) A topographic setting where a channel becomes unconfined as it emerges from an upland drainage basin onto flatter land as evidenced by the longitudinal profile (Corps, 2014);

   b) The production of sufficient sediment for fan construction as reported by previous geomorphic studies (NHC, 1993; Corps, 2014). These studies report on the instabilities of Berryessa Creek's "canyon zone" above Old Piedmont Road where active landsliding provides "a plentiful supply of boulders, cobbles, and gravel that are transported downstream." Upper watershed site inspections reported in Corps (2014) note that the canyon reach is striking in the number of large landslides and that there are evidences of debris torrents or flows; and

   c) A climatic environment capable of generating high stream discharges and mass wasting events, which is the case for all of the Bay Area streams with their Mediterranean climate

and active tectonic setting (the Hayward Fault Zone primarily crosses the canyon reach). The flashy hydrologic nature of such a setting dictates highly variable sediment loads and infrequent, but very large sediment pulses.

There may be episodic and temporary erosional processes acting on certain reaches (secondary processes that remobilize previously deposited sediment); however, the overall process along the Berryessa Creek fan is deposition.

That the long-term and larger geomorphic tendency of Upper Berryessa Creek is of deposition has been observed and reported on all the previous sediment studies. An analysis of geomorphology and sediment transport in the project is included in the Environmental Impact Statement (EIS), Appendix B, Part III, in which the Corps (2014, p 3-1) accurately describes the larger geomorphic context of the Project reach:

> "The Berryessa Creek Project Area […] lies within an alluvial fan. Alluvial fans are created by sediment deposition as streams carrying large sediment loads exit the steep confined channel of the uplands and meet the lower gradient unconfined valley. As a result, sediment deposition is an inevitable process on an alluvial fan and any channel improvements must recognize this behavior. On the Berryessa Creek fan, at some point between the apex of the fan and the Bay, all but the fine sediments will be deposited."

2. LONG-TERM MAINTENANCE RECORDS CONFIRM THAT SEDIMENT DEPOSITION IS A REGULAR, PERSISTENT MANAGEMENT ISSUE

The District states "Sedimentation is a major and persistent problem on Berryessa Creek. Large quantities of sediment have been removed from the creek in an ongoing effort to maintain flow capacity in the channel.[…] Locations of historical sediment accumulation and removal are concentrated in three main areas: (1) in the sediment retention basin downstream of Piedmont Road, (2) from Sierra Creek to Cropley Road, and (3) from Interstate 680 to Calaveras Boulevard." (NHC, 2003)

The District's Sediment Removal Maintenance Records indicate that a total of more than 250,000 cubic yards of sediment has been removed from Berryessa Creek since 1980s (Corps, 2014, p.2-19). Of this sediment, approximately 21,400 cubic yards deposited along the project reach between I-680 and Calaveras Boulevard. Sediment deposition is an expected management problem in an alluvial fan reach and is not solely a result of localized bank erosion as the District suggests. An additional 193,227 cy were removed from Berryessa Creek downstream of the Project reach during the same period. Given the reduction in sediment transport capacity under Project conditions, we anticipate that a portion of this load will accumulate along the Project reach rather than being transported downstream.

3. TRIBUTARIES ALSO CONTRIBUTE SEDIMENT TO THE BERRYESSA CREEK

The District's primary argument is that the sediment along the Project reach is solely from local sources via bank erosion. In addition to the upstream watershed, which produces substantial amounts of sediment via mass wasting, tributaries to Berryessa Creek also contribute significant amounts of sediment upstream of the Project reach. An overall estimate of the sediment yield for Berryessa Creek was developed by NHC and was reported in the EIS (2012, p. 2-16). This study estimated that tributaries[1] delivered a total of 5,800 tons (4,300 cubic

[1] Sweigert, Crosley, Sierra, Piedmont, and Arroyo de los Coches Creeks

yards[2]) of sediment to Berryessa Creek every year. Incorporating Berryessa Creek upstream of Old Piedmont Road, a total of 15,700 tons or 11,600 cubic yards of sediment is delivered to the system every year. This 11,600 cy of sediment is delivered to the Project reach from upstream and is not related to other local sources along the Project reach. Therefore, the District's argument that all of the sediment along the Project reach is generated locally from bank erosion is invalid. Therefore, suggesting that the Project will make the system less erosive and thus closer to equilibrium, therefore eliminating the need for maintenance, is also unfounded (it is a *non sequitur*).

4. THERE ARE EROSIONAL SITES OR SEGMENTS WITHIN THE LARGER DEPOSITIONAL ENVIRONMENT

   As is the case in any stream channel, there are erosional and depositional sites within the larger geomorphic process domain (in the case of Berryessa Creek, the larger domain is the alluvial fan environment). Along the Berryessa Creek Project area, there are erosional sites where hydraulic structures cause bed or bank instabilities. Jordan, et al. (2009) states that "engineered river infrastructure elements are the primary causes of channel instability." The District provided several examples of instabilities due to or near hydraulic structures in their technical memorandum of July 20, 2016. All of these example sites point to the erosive impacts of hydraulic structures and do not provide evidence for overall trends. Indeed, Water Board staff's observations during field trips on September 4, 2015, and April 21, 2016, did not indicate a significant channel erosion tendency on a reach-scale in the proposed Project area.

   The Jordan, et al. (2009) study indicated that drainage area capture and urban land use change increased water yield by 48% and sediment yield up to 61% in the Berryessa Creek watershed. The limited erosional segments along the project reach are either a direct result of in-channel structures or indicators of the hydrologic and sediment impacts of urbanization in the watershed between the 1960s and the 2000s. However, with the recognition of hydrologic impacts of development and adoption of HMP practices, as well as LID practices and constraints on new impervious surfaces, these trends will not be as significant in the future.

   As articulated in the EIS (2012), sediment deposition along Berryessa Creek is an inevitable process and at some point between the apex of the fan and the Bay, all but the finest sediments will be deposited. The challenge of the proposed project is anticipate where and how much deposition will take place, develop a comprehensive and well thought-out management plan, and appropriately mitigate for the impacts.

5. DISTRICT'S INTERPRETATION OF EXISTING ANALYSES IS INCONCLUSIVE AND INCOMPATIBLE WITH THE ENVIRONMENTAL IMPACT REVIEW ASSESSMENT

   The District's technical memorandum of July 20, 2016, includes a graphic showing the longitudinal profile comparison from 1967 and 2004 (see below) and interprets this graphic as evidence of incision. This graphic's spatial extent is from Old Piedmont Road to the Crosley Creek culvert, which is primarily the section of the creek known as the "Greenbelt Reach." This graphic shows the channel upstream of the Project reach and does not include the proposed Project reach.

[2] Assuming a dry unit weight of 100 lbs/ft^3 (1.35 tons/cy).

We do not have adequate information to interpret this graphic. We do not know how many points were collected along each profile and whether the perceived differences are merely a function of line interpolation or an actual difference in elevation between surveyed points (assuming both surveys have the same datum and were performed with comparable care and quality). Without knowing anything about the quality of the surveys, one could also interpret this graphic as showing a sediment wave that passed through the upstream part of the reach with incision along the downstream part (again, assuming these lines do actually have enough data points). The upstream, downstream, and middle of the reach (around station 1,200 in Figure 1) have stable elevations. A sediment wave that deposited in the upstream of this reach in 1967 may have spread downstream by 1987. There appears to be another depositional site around station 800; however, because the 400 meter long reach downstream of it stayed at the same elevation for almost 50 years suggests that the reach does not have an incisional trend, rather that the sediment wave likely passed and spread downstream. We would expect to see large sediment pulses that temporarily deposited in this upstream reach considering the large storms of 1962, 1963, and 1967.[3] Without providing any other context and evidence for incision, this graphic is not evidence for incision upstream of the project reach.

Finally, even with all the uncertainty, if this graphic is considered as evidence of incisional trends upstream of the Project reach this would suggest that there has been a significant amount of sediment scoured from the creek bed upstream of the Project reach anddelivered to the Project reach in the last 40 years, invalidating the District's suggestion that sediment along the project reach is locally sourced.

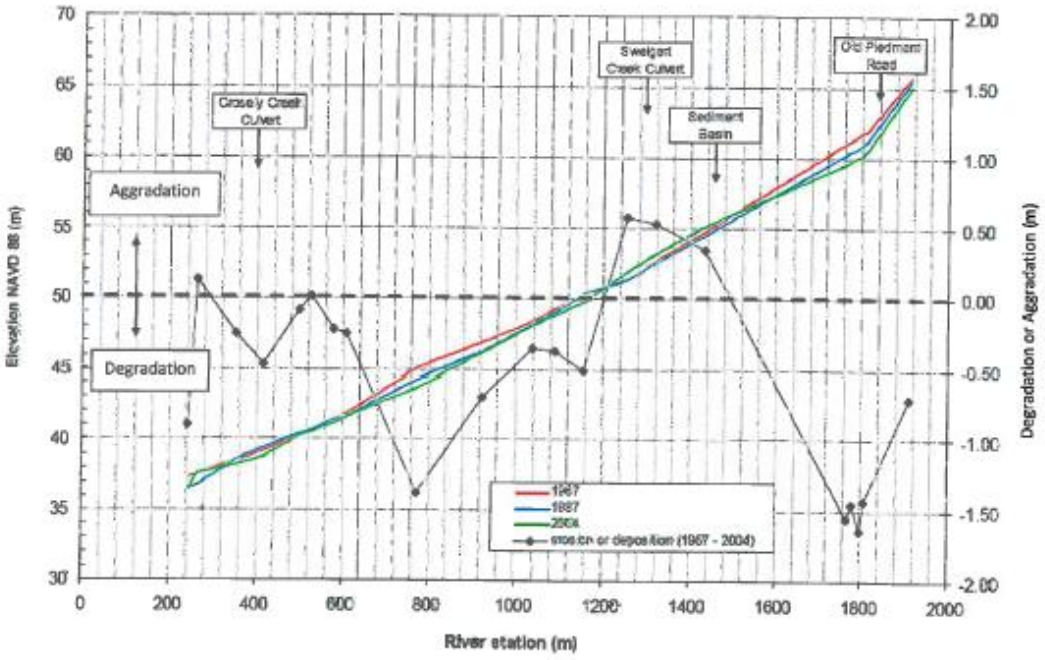

Figure 1. Longitudinal Profile Comparison of primarily the "Greenbelt Reach" (Crosley Creek Culvert to Old Piedmont Road) in 1967, 1987, and 2004.

[3] Goodridge (1996) states that several Santa Clara Valley stations reported 20 inches of precipitation in a 3-day storm in February 1963 and nine station in Santa Clara Valley reported greatest ever 3-day rainfalls in 1960s.

The EIS (Corps, 2014) highlights the stability of the Greenbelt:

> "It contains the only section of channel that is not an excavated section constructed on an engineered alignment. The reach has only minor influences from bridges within its boundaries […] The channel capacity if more representative of a natural stream section in this reach than in other reaches" (p. 2-9)

and further emphasizes the stability of this reach and cautions against any intervention:

> "Changes to the channel in the Greenbelt Reach should be analyzed carefully and kept to a level that does not create problems with the stability of this reach. Potential problems that would have to be mitigated would be reduced stability after disturbing the vegetation on the banks and increased flow confinement if the channel was lowered."

Our field visit also pointed to the same conclusion: that the Greenbelt Reach is mostly in an equilibrium state, with a low-flow channel that formed within the larger channel and with stable and vegetated banks. The active channel ranges between 10 to 20 feet wide and approximately 4 to 6 feet deep. These active channel dimensions are what would be expected from a watershed of this size in the East Bay of approximately 15 mi^2.

6. UNANSWERED QUESTIONS ON THE SEDIMENT TRANSPORT MODELING

Tetra Tech and the Water Board engaged in a review of the HEC-RAS model in March 2016 to resolve questions on sediment transport conditions. The technical rationale for the modeling effort that would provide the basis for the selection of model inputs with respect to the upstream boundary sediment loads, bankfull flow, etc., is needed to evaluate the impacts of any project. TetraTech and the Water Board agreed to set up a meeting to resolve unanswered modeling questions. However, that meeting never happened and our questions about the sediment transport model have never been answered.[4]

A summary of our main unanswered questions is as follows:

- Discrepancy between sediment inputs to the Project reach under existing and Project conditions. The version of the sediment transport model that was provided to the Water Board shows that the upstream boundary conditions were modeled differently for existing and project conditions as detailed in our email of 3/4/2016. While baseline conditions model sediment input to the upstream boundary via a rating curve, Project conditions model boundary conditions as equilibrium load. This results in different sediment inputs to the model, which then results in different sediment inputs to the Project reach, making the comparison invalid.

- Based on the most recent sediment transport model that was made available to us, we summarized, in Table 1, below, sediment inputs to the upstream boundary and sediment erosion/deposition estimates along the project reach under baseline and project conditions. The table shows that: 1) the sediment inputs under baseline and Project conditions are different; 2) two different sediment transport equations chosen (Yang and MPM) result in

[4] The last email exchange on this subject was a series of questions from Setenay Bozkurt Frucht to Dragi Stefanovic on 3/4/2016 (with other Water Board, District, and Corps project participants cc'ed). That email was never answered, nor did any follow-up calls or meetings take place.

greatly different estimates for sediment transport capacity; iii) the Project reach will be more depositional under Project conditions (which we already established with the District and Tetra Tech).

- The District or Tetra Tech did not articulate the basis for the choice of sediment transport equations or the discrepancies between the inputs, nor did they provide a summary of their findings or explain the implications of the modeling. Water Board staff's questions on sediment modeling were never clarified. We cannot confirm that the sediment transport modeling is adequate until we are provided a technical document detailing the modeling effort and the most recent sediment transport model. We currently do not have any documentation that form the basis of the District's statement that the "sediment transport modeling and analysis on the Project design by Tetra Tech shows a system closer to equilibrium after the Project is completed." Therefore, we are not able to accept the conclusion that the Project will reduce the operation and maintenance needs below current levels. Our review of existing studies and Tetra Tech's model indicates the contrary.

Table 1. Comparison of Three Sediment Transport Models: Sediment Input and Deposition Conditions between Baseline and Project Conditions

Model	Sediment Input Boundary Condition (tons)		Erosion(-) / Deposition along Project Reach (tons)		Comments[5]	
	Baseline	Project	Baseline	Project	Baseline Conditions	Project Conditions
100-yr Yang	8,095	8,075	-1289	522	7,068 tons deposit at the most upstream cross section so only 1,027 tons are delivered downstream of Piedmont Rd.	8,075 tons are delivered downstream of Piedmont Rd.
100-yr MPM	8,085	2,046	-997	-642	5,625 tons deposit at the most upstream cross section so only 2,460 tons is delivered downstream of Piedmont Rd.	2,046 tons is delivered downstream of Piedmont Rd.
Dominant Q Yang	15,804	4,895	-2,628	870	14,660 tons deposit at the most upstream cross section so only 1,144 tons is delivered downstream of Piedmont Rd.	4,895 tons is delivered downstream of Piedmont Rd.

7. UNANSWERED QUESTIONS ON THE COMPARISON OF PREVIOUS AS-BUILT PLANS AND PROPOSED PROJECT

[5] Cross section stationing is different under the Baseline and Project Conditions models. I680 Bridge is at XS 14011 and XS 20511 under the Baseline and Project conditions models, respectively. Project reach is between I680 and Calaveras Boulevard.

The District previously sent the Water Board (per our request) the “As-Built Plans” for the Project reach. District staff later informed us that the design plans that were sent were not the actual as-built plans based on post-project surveys, and that they were proposed design drawings. Therefore, we are not including the comparison of 1973 cross sections to current conditions in this analysis as we presented in a previous technical memorandum (May 2016). However, the 1973 design drawings include baseline conditions at the time and show that the channel had a width-to-depth ratio similar to today, suggesting that the channel tends to move toward some “equilibrium” dimensions. We still would like to compare current proposed Project to the previously built project to understand channel evolution in the last 50 years and to anticipate how the system will respond to the proposed modifications. Therefore, we request the as-built surveys, or in the absence of those, 100% design plans of the previous project.

SUMMARY

In summary, all lines of geomorphic evidence, analysis, and existing studies indicate that the Project reach is aggradational in the long-term. Greenbelt Reach, which represents conditions closest to reference conditions in this system, points to the tendency that even after being disturbed due to channel widening and deepening during the construction of the previous flood control project, the channel returns to these quasi-steady equilibrium conditions. The Water Board views these trends as part of natural processes in the watershed, recognizes the stream’s tendency to move toward these equilibrium conditions, and recognizes the environmental benefits and much improved habitat conditions under these equilibrium conditions. Since the District is proposing to significantly modify the channel and will have to continuously intervene in the channel’s natural processes and tendencies, it is critical to develop a management plan based on sound geomorphic analysis and evidence-based adaptive management for the Project reach and to mitigate for the expected impacts of the Project.

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