

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**Tentative Order**

**Waste Discharge Requirements and Water Quality Certification for:**

**San Francisco Public Utilities Commission  
Lower Crystal Springs Dam Improvement Project, San Mateo County**

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## A. Findings

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds that:

- 1. Background:** The San Francisco Public Utilities Commission (hereinafter SFPUC or Discharger) owns a regional water system that serves approximately 2.4 million people, most of whom live in the San Francisco Bay Area. The system obtains about 85 percent of its water from the Tuolumne River in the Sierra Nevada, with the remainder originating from watersheds in Alameda, Santa Clara, and San Mateo Counties. The SFPUC conveys water from Hetch Hetchy Reservoir in Yosemite National Park directly to customers and to three local reservoirs in the Bay Area. One of these local reservoirs, Crystal Springs Reservoir, is located on San Mateo Creek about 12 miles south of San Francisco in unincorporated San Mateo County (See Figure 1 in [Attachment A](#)). Crystal Springs Reservoir is formed by impounding water behind Lower Crystal Springs Dam and has a surface area of 1,300 acres when filled to an elevation of 283.8 feet<sup>1</sup>.

The California Department of Water Resources, Division of Safety of Dams (DSOD), is responsible for regulating all dams in California. In 1983, the DSOD restricted the amount of water the SFPUC could store in Crystal Springs Reservoir because of concerns that the dam could be overtopped, and subsequently damaged and/or even fail, during the Probable Maximum Flood (PMF)<sup>2</sup>. Design for the PMF event is mandated by the DSOD as a “fail safe” design for lesser flood events. Therefore, the DSOD required the SFPUC limit the maximum water surface elevation in Crystal Springs Reservoir to 283.8 feet until one of the following actions is taken:

- Demonstrate that the dam as it currently exists can safely pass the PMF;
- Construct hydraulic improvements that would enable the dam to safely pass the PMF; or
- Adopt further restrictive operating procedures that would enable the dam (as it currently exists) to safely pass the PMF.

This operating level is equivalent to 18.5 billion gallons of water storage and represents a 16 percent reduction in the reservoir’s storage capacity when compared to the previously approved water storage of 22.15 billion gallons (equivalent to a maximum water surface elevation of 291.8 feet).

- 2. Project Description:** The purpose of the Lower Crystal Springs Dam Improvements Project (Project) is to lift the DSOD restrictions and restore the reservoir’s historical capacity. To accomplish this, the Project will retrofit the dam to enable it to safely pass the PMF. Specific project components include raising the parapet wall, widening, raising and reshaping the spillway, improving drainage on top of the dam, replacing the existing stilling basin with a

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<sup>1</sup> All elevations in this Order are referenced to the National Geodetic Vertical Datum of 1929.

<sup>2</sup> The PMF is the theoretical flood event predicted to occur under the most severe and extreme combination of meteorological and hydrological conditions in a particular drainage area, and the DSOD includes the PMF as part of its design requirements to ensure the safety of the LCSD.

larger basin, and placing grouted riprap downstream of the new stilling basin (see Figures 2 through 4 in [Attachment A](#)). In addition, a water quality sampling station at the southern end of the reservoir would be raised to accommodate higher reservoir levels (see Figure 5 in [Attachment A](#)). This sampling station was constructed at an elevation of 287.5 feet after the DSOD required the SFPUC to lower reservoir levels to 283.8 feet.

The post-construction operating goals for Crystal Springs Reservoir will be similar to current goals. The SFPUC will try to keep the reservoir as full as possible without exceeding the maximum normal operating level; thereby, avoiding uncontrolled spills (i.e., water over the spillway). As part of the proposed project, the SFPUC will implement an operational policy that limits the maximum normal water surface elevation to 287.8 feet, 4 feet higher than the current normal maximum of 283.8 feet, providing an additional 5,402 acre-feet of open water in the reservoir. In addition, the Discharger will provide beneficial flows for steelhead (*Oncorhynchus mykiss*) by releasing water from the reservoir to San Mateo Creek in accordance with a schedule developed in consultation with the National Marine Fisheries Service and California Department of Fish and Game.

- 3. Complete Application:** On January 25, 2010, the Discharger submitted an initial application for Water Quality Certification and Waste Discharge Requirements for the Project. The application was subsequently completed by additional submittals on October 14, 2010.
- 4. Waters of the United States and State:** There are approximately 1,342 acres of jurisdictional waters of the U.S. and State in the Project area. The site's waters of the U.S. and State are comprised of:
  - a. 253 acres of seasonal and perennial wetlands;
  - b. 53 acres of riparian wetlands;
  - c. 2.2 acres of creeks; and
  - d. 1,034 acres of open water (includes Crystal Springs Reservoir and a 0.06 acre pond).
- 5. Rare and Endangered Species:** Waters at the Project site serve or likely serve as habitat for the following rare, threatened, or endangered species:
  - a. San Francisco garter snake (*Thamnophis sirtalis tetrataenia*): federally-listed and state-listed endangered, and state fully protected species;
  - b. Fountain thistle (*Cirsium fontinale* var. *fontinale*): federally-listed and state-listed endangered;
  - c. Steelhead - Central California Coast Distinct Population Segment: federally-listed endangered;
  - d. California red-legged frog (*Rana aurora draytonii*): federally-listed threatened and state-listed species of special concern;
  - e. American peregrine falcon (*Falco peregrinus anatum*): state-listed endangered and state fully protected species;
  - f. White-tailed kite (*Elanus leucurus*): state fully protected species;

- g.** Cooper’s hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), tricolored blackbird (*Agelaius tricolor*), northern harrier (*Circus cyaneus*), western pond turtle (*Clemmys marmorata marmorata* and *C. m. pallida*), greater western mastiff bat (*Eumops perotis californicus*), merlin (*Falco columbarius*), Common loon (*Gavia immer*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectans*), osprey (*Pandion haliaetus*), and double-crested cormorant (*Phalacrocorax auritus*): state-listed species of special concern; and
  - h.** Western leatherwood (*Dirca occidentalis*): California Native Plant Society List 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere).
- 6. Inundation Impacts:** This Project will impact wetland and riparian functions by inundating wetlands and riparian habitat when reservoir water levels are raised. Once reservoir water levels are raised, both existing wetland and upland habitats will be converted to other habitat types based on changes in the frequency, duration, and magnitude of inundation ([Attachment B](#)). Some wetland habitats will persist although their species composition may change due to the altered pattern of inundation. New wetland habitats will also form within the new, higher fluctuation zone at elevations currently supporting upland habitats. The overall net effect of raising reservoir operating levels will be to convert about 5.8 acres of wetlands and 7.7 acres of upland riparian habitat to open water. Conversion of these wetlands and riparian habitat to open water will impact functions associated with vegetated habitats, such as nutrient cycling, primary production, pollutant filtration, and carbon sequestration<sup>3</sup>.
- 7. Fill Impacts:** The Project will result in the direct fill of 1.62 acres and 362 linear feet of jurisdictional waters of the United States and State (See Figures 6 and 7 in [Attachment A](#)). These impacts include the following:
- a.** Permanent impacts to 0.45 acres and 113 linear feet of San Mateo Creek and willow riparian wetlands;
  - b.** Permanent impacts to 0.06 acres of pond habitat that has formed on top of Lower Crystal Springs Dam;
  - c.** Temporary impacts, including temporal losses in function, to 1.1 acres and 249 linear feet of San Mateo Creek and willow riparian wetlands; and
  - d.** Temporary impacts, including temporal losses in function, to 0.001 acres of willow riparian wetlands at the water quality sampling station.
- 8. Mitigation for Inundation Impacts:** To compensate for impacts to functions resulting from inundation of wetlands and riparian habitat, the Discharger will establish 9.9 acres of wetlands, enhance 3.9 acres of wetlands, and establish 1.3 acres and 820 linear feet of creek and riparian habitat through the Discharger’s Habitat Reserve Program. The Habitat Reserve Program is a program for developing comprehensive consolidated compensation for projects implemented under the Water System Improvement Program, which is seeking to upgrade the SFPUC’s aging drinking water facilities. This mitigation will be provided at the following sites:

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<sup>3</sup> Carbon sequestration is the uptake and storage of carbon ([USEPA Glossary of Climate Change Terms 2009](#)).

- a. Adobe Gulch Grasslands Restoration Site.** The Adobe Gulch Grassland Restoration Site is within the Crystal Springs Reservoir watershed and is located west of Interstate Highway 280 and Upper Crystal Springs Reservoir and south of State Route 92. Mitigation activities at the site will restore 50 acres of grassland, enhance 0.2 acres of seasonal wetland, establish 0.5 acres of seasonal wetland, enhance and establish 9.2 acres of coast live oak woodland, restore 0.5 acres and 1,135 linear feet of creek and arroyo willow riparian forest, and establish 0.4 acres and 1,400 linear feet of creek and coast live oak riparian forest. These ecosystems will provide habitat for the California red-legged frog, San Francisco garter snake, western pond turtle, saltmarsh common yellowthroat, San Francisco dusky-footed woodrat, and two federally endangered butterflies, the Bay checkerspot butterfly (*Euphydryas editha bayensis*) and Mission Blue Butterfly (*Icaricia icarioides missionensis*).
- b. Adobe Gulch Creek Wetland Creation Site.** The Adobe Gulch Creek Wetland Creation Site is within the Crystal Springs Watershed and is located along Adobe Creek between Old Cañada Road and Upper Crystal Springs Reservoir. Mitigation activities at the site will establish 0.4 acres of seasonal wetlands, 0.2 acres of riparian woodlands, and 1.3 acres of oak woodlands. These natural communities will provide habitat for the California red-legged frog and San Francisco garter snake, and San Francisco dusky-footed woodrat.
- c. Boat Ramp Wetland Creation Site.** The Boat Ramp Wetland Creation Site is within the Crystal Springs Watershed and is located west of Interstate 280 and Skyline Boulevard, and north of State Route 92. Mitigation activities at this site will establish 0.12 acres of seasonal wetlands, enhance 0.045 acres of seasonal wetlands, enhance 0.03 acres of riparian woodlands, enhance 0.1 acres of seeps, enhance and restore 28 acres of serpentine grassland, and enhance 0.22 acres of coyote brush scrub. These natural communities will provide habitat for the California red-legged frog, San Francisco garter snake, and San Francisco dusky-footed woodrat.
- d. San Andreas Reservoir Wetland Creation Site.** The San Andreas Reservoir Wetland Creation Site is located along the northwestern shoreline of San Andreas Reservoir. Mitigation activities at the site will establish 2.9 acres of seasonal wetlands and 1.9 acres of emergent wetlands. These wetlands will provide habitat for the California red-legged frog, San Francisco garter snake, western pond turtle, and saltmarsh common yellowthroat.
- e. Skyline Boulevard Habitat Improvement Site.** The Skyline Boulevard Habitat Improvement Site is located north of San Andreas Reservoir and west of Skyline Boulevard. Mitigation activities at the site will establish up to 3.5 acres of seasonal wetlands and restore 2.2 acres of scrublands. These natural communities will provide habitat for the fountain thistle, California red-legged frog, San Francisco garter snake, western pond turtle, and San Francisco dusky-footed woodrat.
- f. Skyline Quarry Site.** The Skyline Quarry Site is within the Crystal Springs Watershed and consists of a reclaimed hard rock quarry located north of State Route 92 and west of Lower Crystal Springs Reservoir. Mitigation activities at the site will enhance 3.7 acres of emergent wetlands. These wetlands provide habitat for the California red-legged frog and San Francisco garter snake.
- g. Upper San Mateo Creek Site.** The Upper San Mateo Creek Site is within the Crystal Springs Reservoir watershed and is located about 0.7 mile upstream and northwest of Mud

Dam on the east side of Pilarcitos Road. Mitigation activities at the site will establish 1.08 acres of wetlands, restore 3.07 acres of native grasslands, and enhance 0.06 acres and 75 linear feet of willow riparian scrublands. These natural communities will provide habitat for the California red-legged frog, San Francisco garter snake, San Francisco dusky-footed woodrat, and Mission Blue Butterfly.

The acres and linear feet of mitigation at each site is provided in Table 1 below.

**Table 1: Compensatory Mitigation for Inundation Impacts**

Location/Habitat Type	Established Wetland Acres	Established Creek/Riparian Acres	Enhanced Wetland Acres
Adobe Gulch Grasslands			
Creek & Willow Riparian	0	1.0 (620 LF)	0
Creek & Oak Riparian	0	0.3 (200 LF)	0
Seasonal Wetland	0.5	0	0.2
Adobe Gulch Creek Wetland			
Seasonal Wetland	0.4	0	0
Boat Ramp			
Seasonal Wetland	0.1	0	0
San Andreas Reservoir HRP			
Emergent Wetland	1.5	0	0
Seasonal Wetland	2.5	0	0
Skyline Boulevard			
Seasonal Wetland (and small amt of seep wetland)	3.8	0	0
Skyline Quarry			
Emergent Wetland <sup>1</sup>	0	0	3.7
Upper San Mateo Creek			
Seasonal Wetland	1.1	0	0
<b>Total</b>	<b>9.9</b>	<b>1.3 (820 LF)</b>	<b>3.9</b>

Notes:

LF Linear feet

- 1 The acres of enhanced wetlands only includes wetlands at the Skyline Quarry Mitigation Site. The enhancement at the Skyline Quarry Mitigation Site, however, will address a source of jubata grass that affects the entire reservoir.

The proposed mitigation shall be completed as described in (1) the *Mitigation and Monitoring Plan—Adobe Gulch Grasslands Site*, (2) the *(S.A.S.S) Mitigation and Monitoring Plan—Sherwood Point Oak Restoration, Adobe Gulch Creek Wetland Creation, Skyline Quarry Wetland Restoration, and Skyline Boulevard Habitat Improvement Sites*, (3) the *Mitigation and Monitoring Plan—Boat Ramp Wetland and Fountain Thistle Sites*, (4) the *San Andreas Wetland Creation (Site 27) Mitigation and Monitoring Plan*, and (5) the *Habitat Mitigation and Monitoring Plan—Upper San Mateo Creek* (hereinafter Mitigation and Monitoring Plans; [Attachment C](#)). The Monitoring and Mitigation Plans are acceptable to the Regional Water Board, with the required submittals and revisions listed in the Provisions.

- 9. Mitigation for Fill Impacts:** To compensate for permanent impacts to waters of the State and temporal losses in function associated with temporary impacts to waters of the State, the Discharger will establish 0.12 acres of seasonal wetland and pond habitat, and will establish 0.80 acres and 489 linear feet creek and associated riparian habitat at the Adobe Gulch Grasslands and San Andreas Wetland Creation Sites. The acres and linear feet of mitigation at each site is provided in Table 2 below.

**Table 2: Compensatory Mitigation for Fill Impacts**

Location/Habitat Type	Restoration Acres	Establishment Acres
Onsite		
Willow Riparian Wetland	1.0 (249 LF)	
Riparian Forest	0.08 (113 LF)	
Adobe Gulch Grasslands		
Creek & Willow Riparian		0.80 (489 LF)
San Andreas Reservoir HRP		
Pond Habitat		0.12
<b>Total</b>	<b>1.1 (362 LF)</b>	<b>0.92 (489 LF)</b>

Notes:

LF Linear feet

The proposed mitigation shall be completed as described in the Mitigation and Monitoring Plans for the Adobe Gulch Grasslands and San Andreas Wetland Creation Sites ([Attachment C](#)). These Monitoring and Mitigation Plans are acceptable to the Regional Water Board, with the required submittals and revisions listed in the Provisions.

To mitigate for temporary impacts to wetlands and creeks, the Discharger will return the habitat to its original condition upon completion of the project as described in the *Lower Crystal Springs Dam Improvements Project Conceptual Restoration and Revegetation Plan* ([Attachment D](#)) (hereinafter Restoration and Revegetation Plan).

- 10. Long-Term Management Plans:** The Discharger is developing a comprehensive long-term management plan for the Adobe Gulch Grasslands, Adobe Gulch Creek Wetland Creation, Boat Ramp Wetland Creation, San Andreas Wetland Creation, Skyline Boulevard Habitat Improvement, Skyline Quarry Wetland Restoration, and Upper San Mateo Creek Sites using the multi-agency mitigation banking template for long-term management plans<sup>4</sup> and the outline provided in [Attachment E](#). The final long-term management plan will describe how the lands are to be managed under a conservation easements. This Order requires the final long-term

<sup>4</sup> The mitigation banking template for long-term management plans was developed through statewide multi-agency effort, involving the California Resources Agency, California Department of Fish and Game, USACE, US Fish and Wildlife Service, US Environmental Protection Agency, US Department of Agriculture - Natural Resources Conservation Service, and National Oceanic and Atmospheric Association - National Marine Fisheries Service. The mitigation banking template was released via U.S. Army Corps of Engineers (USACE) Public Notice (PDF) on May 9, 2008, and is available on-line at <http://www.dfg.ca.gov/habcon/conplan/mitbank/>.



management plan to be approved by the Regional Water Board's Executive Officer and to be included as an addendum to each of the Mitigation and Monitoring Plans.

**11. Legal Authorities.** Pursuant to Section 13263 of the California Water Code (CWC) and Title 23, Section 3857 of the California Code of Regulations (CCR), the Regional Water Board is issuing Waste Discharge Requirements (WDRs) to regulate the proposed discharge of fill materials into waters of the State in addition to issuing Water Quality Certification pursuant to 23 CCR Section 3859. The Regional Water Board considers WDRs necessary to adequately address impacts and mitigation to beneficial uses of waters of the State from this project, to meet the objectives of the California Wetlands Conservation Policy (Executive Order W-59-93), and to accommodate and require appropriate changes over the life of the Project and its construction.

**12. California Environmental Quality Act (CEQA):** CEQA requires all projects approved by State agencies to be in full compliance with CEQA, and requires a lead agency to prepare an appropriate environmental document for such projects. The San Francisco Planning Department, as lead agency for CEQA, certified an Environmental Impact Report (EIR) for the Project on October 7, 2010.

The Regional Water Board, as a responsible agency under CEQA, finds after review of the Project's EIR, that all environmental effects have been identified for Project activities which it is required to approve, and that the environmental effects identified for those activities will be less-than-significant with implementation of mitigation identified in Findings 8 and 9 above.

**13. Water Quality Control Plans.** The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board, US Environmental Protection Agency (USEPA), and the Office of Administrative Law where required. The Basin Plan is the Regional Water Board's master water quality control planning document. It designates beneficial uses of receiving waters, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed by the Plan. Section 2.2.1 of the Basin Plan indicates that the beneficial uses of any specifically identified water body generally apply to its tributary streams. Existing and potential beneficial uses of waters at the Project include the following:

- San Mateo Creek: Freshwater Replenishment (FRSH), Cold Freshwater Habitat (COLD), Preservation of Rare and Endangered Species (RARE), Fish Spawning (SPWN), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), and Noncontact Water Recreation (REC-2)
- Crystal Springs Reservoir: Municipal and Domestic Supply (MUN), COLD, RARE, SPWN, Warm Freshwater Habitat (WARM), WILD, and REC-2

In addition, Section 2.2.3 of the Basin Plan recognizes the multiple beneficial uses provided by wetlands, and Table 2-3 of the Basin Plan lists beneficial uses associated with wetland types. Existing and potential beneficial uses for wetlands at the Project site were established as indicated in Section 4.23 of the Basin Plan by (1) referencing information in the Application to identify wetland types at the Project site, (2) using Table 2-3 of the Basin Plan to identify



examples of beneficial uses associated with these wetland types, and (3) referencing site-specific information provided in the EIR and Application to refine the example beneficial uses listed in Table 2-3 of the Basin Plan into a list of existing and potential beneficial uses for wetlands at the Project site. Wetland types at the Project site include riverine<sup>5</sup>, lacustrine<sup>6</sup>, and palustrine<sup>7</sup>. The beneficial uses associated with wetlands at the Project site include FRSH, COLD, RARE, WARM, WILD, and REC-2.

Requirements of this Order implement the Basin Plan.

**14. Basin Plan Wetland Fill Policy.** The Basin Plan Wetland Fill Policy (Fill Policy) establishes that there is to be no net loss of wetland acreage and no net loss of wetland value when a project and any proposed mitigation are evaluated together, and that mitigation for wetland fill projects is to be located in the same area of the Region, whenever possible, as the project. The Fill Policy further establishes that wetland disturbance should be avoided whenever possible, and if not possible, should be minimized, and only after avoidance and minimization of impacts should mitigation for lost wetlands be considered.

The Project is water dependent; therefore, impacts to wetlands can not be entirely avoided. The Discharger minimized the acres of wetlands being inundated by committing to a modification in operations that would limit the maximum normal water surface elevation to 287.8 feet instead of 291.8 feet as initially proposed. In addition, filling of the reservoir will be delayed to reduce impacts on biological resources, including the special status species that are present around the perimeter of the reservoir). For instance, reservoir levels will not be increased until Fountain Thistle populations have been fully mitigated (i.e., replaced). Water levels will also be increased incrementally over a period of three or more years to allow sufficient time for red-legged frogs, San Francisco garter snakes, and other species to adapt to the 4-foot increase in maximum normal operating water levels.

**15. California Wetlands Conservation Policy.** The goals of the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993) include ensuring “no overall loss” and achieving a “...long-term net gain in the quantity, quality, and permanence of wetland acreage and values....” The California Wetlands Conservation Policy also calls for “development of means to provide flexibility in the regulatory process ... for allowing public agencies, water districts, and landowners to establish wetlands on their property consistent with the primary purpose of the property.”

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<sup>5</sup> A riverine wetland is a wetland within a system that (1) is contained within a channel; (2) is not dominated by trees, shrubs, persistent emergent vascular plants, emergent mosses or lichens; and (3) has less than 0.5 parts per thousand (ppt) of ocean derived salts (Cowardin and others 1979).

<sup>6</sup> A lacustrine wetland is a wetland within a system that (1) is situated in a topographic depression or a dammed river channel; (2) lacks trees, shrubs, persistent emergent vascular plants, emergent mosses or lichens with greater than 30 percent areal coverage; (3) exceeds 20 acres; and (4) has less than 0.5 ppt of ocean derived salts (Cowardin and others 1979).

<sup>7</sup> A palustrine wetland is a wetland within a system that (1) is dominated by trees, shrubs, persistent emergent vascular plants, emergent mosses or lichens and (2) has less than 0.5 ppt of ocean derived salts. It also includes wetlands lacking vegetation that (1) are less than 20 acres; (2) lack of an active wave-formed or bedrock shoreline; and (3) have water depths less than 2 meters in the deepest part of basin at low water (Cowardin and others 1979).

Senate Concurrent Resolution No. 28 states that “[i]t is the intent of the legislature to preserve, protect, restore, and enhance California’s wetlands and the multiple resources which depend on them for benefit of the people of the State.”

Requirements of this Order implement the California Wetlands Conservation Policy.

- 16. Wetland Tracking System.** It has been determined through regional, state, and national studies that tracking of mitigation/restoration projects must be improved to better assess the performance of these projects, following monitoring periods that last several years. In addition, to effectively carry out the California’s Wetlands Conservation Policy, the State needs to closely track both wetland losses and mitigation/restoration project success. Therefore, we require that the Discharger use the Wetland Tracker Standard Form to provide Project information related to impacts and mitigation/restoration measures (see [Provision C.6](#) of this Order). An electronic copy of the form and instructions can be downloaded at: <http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml>. Project information concerning impacts and mitigation/restoration will be made available at the web link: <http://www.californiawetlands.net>.
- 17. Storm Water Discharges.** Discharges of storm water associated with construction activities will occur. The CEQA documents certified for the Project identify such discharges, including the pollutants associated with them, as a potentially significant impact that could be mitigated to less-than-significant. The Discharger is responsible for obtaining and complying with appropriate permits for these discharges, including the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity (NPDES No. CAS000002; Order No. 2009-0009-DWQ).
- 18. U. S. Army Corps of Engineers (USACE).** On May 12, 2010, the USACE issued a Public Notice for a proposed Individual Permit for the Project (USACE File No. 30317S) pursuant to Section 404 of the Clean Water Act.
- 19. Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- 20. Notification of Interested Parties.** The Regional Water Board has notified the USACE, City, U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game, and other interested agencies and persons of its intent to prescribe WDRs and Water Quality Certification for this discharge.
- 21. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
- 22. Records Management.** This Project file is maintained at the Regional Water Board under Site No. 02-41-C0637 and CIWQS Place No. 743590.

**It is Hereby Ordered** pursuant to the provisions of Division 7 of the CWC and regulations, and guidelines adopted thereunder, that the Discharger, its agents, successors, and assigns shall comply with the following:

**B. Discharge Prohibitions**

1. The discharge of wastes, including debris, rubbish, refuse, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plains, is prohibited.
2. The discharge of floating oil or other floating materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.
3. The discharge of silt, sand, clay, or other earthen materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.
4. The wetland fill activities subject to these requirements shall not cause a nuisance as defined in CWC Section 13050(m).
5. The groundwater in the vicinity of the Project shall not be degraded as a result of the Project activities or placement of fill for the Project.
6. The discharge of materials, which are not otherwise regulated by a separate NPDES permit or allowed by this Order, to waters of the State is prohibited.

**C. Provisions**

1. The Discharger shall comply with all Prohibitions and Provisions of this Order immediately upon adoption of this Order or as provided below.

*Mitigation Requirements*

2. To mitigate for temporary impacts to wetlands and creeks, the Discharger shall restore wetland and creek contours, revegetate disturbed areas with native herbaceous and willow riparian plant species, and remove any invasive plant species using methods described in the Restoration and Revegetation Plan ([Attachment D](#)). Restoration and revegetation shall occur within one year of cessation of temporary impacts, and monitoring shall be performed for a minimum of five years, and until the sites have met the success/performance criteria specified in the Restoration and Revegetation Plan and the Regional Water Board's Executive Officer has approved a notice of mitigation completion for temporarily impacted locations (see [Provision C.16 below](#)). Any replacement of seeding or planting shall be monitored for five years from the date of reseeded/replanting. Supplemental watering shall not be supplied; however, should supplemental watering be required, the monitoring period shall be reset to Year 1 starting from the year in which supplemental watering is no longer required. Any Restoration and Revegetation Plan revisions, including changes to the success/performance criteria or timelines, must be submitted to the Regional Water Board's Executive Officer for review and approval before the changes are implemented.

3. To mitigate for impacts to functions resulting from inundation of wetlands and riparian habitat, the Discharger shall establish 9.9 acres of wetlands, enhance 3.9 acres of wetlands, and establish 1.3 acres and 820 linear feet of creek and riparian habitat at the Adobe Gulch Grasslands, Adobe Gulch Creek Wetland Creation, Boat Ramp Wetland Creation, San Andreas Wetland Creation, Skyline Boulevard Habitat Improvement, Skyline Quarry Wetland Restoration, and Upper San Mateo Creek Sites. This mitigation shall be completed as described in the Mitigation and Monitoring Plans ([Attachment C](#)). In addition, monitoring shall be performed for (1) a minimum of five years for wetland sites and a minimum of ten years for creek and riparian sites, and (2) until the sites have met the success/performance criteria specified in the Mitigation and Monitoring Plans and the Regional Water Board's Executive Officer has approved a notice of mitigation completion (see [Provision C.17 below](#)). Plant monitoring shall also be performed independently at each mitigation site and for seasonal wetlands, perennial wetlands, oak riparian woodlands, and willow riparian woodlands (i.e., data from each mitigation site and plant community shall not be pooled with data from any other mitigation site or plant community). Any replacement of seeding or planting shall reset the monitoring period from the date of reseeding/replanting. Any supplemental watering beyond Year 2 shall also reset the monitoring period to Year 1 starting from the year in which supplemental watering is no longer required. In addition, the following revisions shall be incorporated into to the success/performance criteria specified in the Mitigation and Monitoring Plans:

a. **Willow Riparian Criteria.** The success/performance criteria for willow riparian woodlands at all applicable mitigation sites shall be as follows:

**Year 1:** 5 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 90 percent survival of planted trees and shrubs.

**Year 2:** 10 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 85 percent survival of planted trees and shrubs.

**Year 3:** 25 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees and shrubs.

**Year 4:** 55 percent or greater absolute canopy cover of native riparian tree and shrub species.

**Year 5:** 70 percent or greater absolute canopy cover of native riparian tree and shrub species.

The criteria for absolute cover of invasive plants shall remain as specified in the Mitigation and Monitoring Plans.

b. **Oak Riparian Criteria.** The success/performance criteria for oak riparian woodlands at all applicable mitigation sites shall be as follows:

**Year 1:** 5 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 90 percent survival of planted trees and shrubs.

**Year 2:** 10 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 85 percent survival of planted trees and shrubs.

**Year 3:** 15 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees.

**Year 4:** 20 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees.

**Year 5:** 25 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 75 percent survival of planted trees and shrubs.

**Year 7:** 35 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 75 percent survival of planted trees and shrubs.

**Year 9:** 45 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 70 percent survival of planted trees and shrubs.

**Year 10:** 50 percent or greater absolute native woody plant canopy cover (willows, oaks, and other native woody plant recruitments). At least 65 percent survival of planted trees and shrubs.

The criteria for absolute cover of invasive plants shall remain as specified in the Mitigation and Monitoring Plans.

- c. Deeper Pool Hydrology Criteria.** The deeper pools at the San Andreas Reservoir Wetland Creation, Adobe Gulch Creek, and Skyline Boulevard Sites shall provide appropriate conditions to allow for successful breeding of California red-legged frog. In Year 5, the pools shall be a minimum depth of 3 ft. In addition, the ponds shall remain wetted long enough into the summer (generally through July) to allow for complete metamorphosis of tadpoles. However, to ensure that bullfrog breeding habitat is not created, these areas shall also dry out completely each year.
- d. Wetland Delineation Criteria.** The total acreage of seasonal and emergent wetlands created at the mitigation sites shall be equal to or greater than the acreage proposed for mitigation in Year 5. A formal delineation including an examination of vegetation, soils, and hydrology to determine the acreage and distribution of the wetlands shall be performed to verify that the acres of created wetlands equal or exceed the acres of created wetlands required for mitigation. Field indicators of hydric soils are not anticipated to be present by Year 5 in the created wetlands because hydric soils typically develop over long periods of time (e.g., tens to hundreds of years). As such, the protocol outlined in Section F “Atypical Situations,” Subsection 4 “Man-Induced Wetlands” of the Corps of Engineers Wetlands Delineation Manual<sup>8</sup> describing the use of 2 parameters (hydrology and plants) or an equivalent protocol shall be followed.

Any revisions to the Mitigation and Monitoring Plans, including changes to the success/performance criteria or timelines, must be submitted to the Regional Water Board’s Executive Officer for review and approval before the changes are implemented.

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<sup>8</sup> Environmental Laboratory. (1987). "Corps of Engineers wetlands delineation manual," [Technical Report Y-87-1](#), U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A176 912.

4. To mitigate for permanent fill impacts to wetland, pond, and creek habitat and temporal losses in functions associated with temporary impacts to wetland and creek habitats, the Discharger shall establish 0.12 acres of seasonal wetland and pond habitat, and establish 0.80 acres and 496 linear feet creek and associated riparian habitat at the Adobe Gulch Grasslands and San Andreas Wetland Creation Sites. The proposed mitigation shall be completed as described in the Mitigation and Monitoring Plans for the Adobe Gulch Grasslands and San Andreas Wetland Creation Sites ([Attachment C](#)). In addition, monitoring shall be performed for (1) a minimum of five years for wetland sites and a minimum of ten years for creek and riparian sites, and (2) until the sites have met the success/performance criteria specified in the Mitigation and Monitoring Plans and the Regional Water Board's Executive Officer has approved a notice of mitigation completion (see [Provision C.17 below](#)). Plant monitoring shall also be performed independently at each mitigation site and for seasonal wetlands, perennial wetlands, oak riparian woodlands, and willow riparian woodlands (i.e., data from each mitigation site and plant community shall not be pooled with data from any other mitigation site or plant community). Any replacement of seeding or planting shall reset the monitoring period from the date of reseeded/replanting. Any supplemental watering beyond Year 2 shall also reset the monitoring period to Year 1 starting from the year in which supplemental watering is no longer required. In addition, the following revisions shall be incorporated into to the success/performance criteria specified in the Mitigation and Monitoring Plans:

a. **Willow Riparian Criteria.** The success/performance criteria for willow riparian woodlands at the Adobe Gulch Grassland Site shall be as follows:

**Year 1:** 5 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 90 percent survival of planted trees and shrubs.

**Year 2:** 10 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 85 percent survival of planted trees and shrubs.

**Year 3:** 25 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees and shrubs.

**Year 4:** 55 percent or greater absolute canopy cover of native riparian tree and shrub species.

**Year 5:** 70 percent or greater absolute canopy cover of native riparian tree and shrub species.

The criteria for absolute cover of invasive plants shall remain as specified in the Mitigation and Monitoring Plans.

b. **Oak Riparian Criteria.** The success/performance criteria for oak riparian woodlands at Adobe Gulch Grassland Site shall be as follows:

**Year 1:** 5 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 90 percent survival of planted trees and shrubs.

**Year 2:** 10 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 85 percent survival of planted trees and shrubs.



**Year 3:** 15 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees.

**Year 4:** 20 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 80 percent survival of planted trees.

**Year 5:** 25 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 75 percent survival of planted trees and shrubs.

**Year 7:** 35 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 75 percent survival of planted trees and shrubs.

**Year 9:** 45 percent or greater absolute canopy cover of native riparian tree and shrub species. At least 70 percent survival of planted trees and shrubs.

**Year 10:** 50 percent or greater absolute native woody plant canopy cover (willows, oaks, and other native woody plant recruitments). At least 65 percent survival of planted trees and shrubs.

The criteria for absolute cover of invasive plants shall remain as specified in the Mitigation and Monitoring Plans.

- c. Deeper Pool Hydrology Criteria.** The deeper pools at the San Andreas Reservoir Wetland Creation shall provide appropriate conditions to allow for successful breeding of California red-legged frog. In Year 5, the pools shall be a minimum depth of 3 ft. In addition, the ponds shall remain wetted long enough into the summer (generally through July) to allow for complete metamorphosis of tadpoles. However, to ensure that bullfrog breeding habitat is not created, these areas shall also dry out completely each year.
- d. Wetland Delineation Criteria.** The total acreage of seasonal and emergent wetlands created at the mitigation sites shall be equal to or greater than the acreage proposed for mitigation in Year 5. A formal delineation including an examination of vegetation, soils, and hydrology to determine the acreage and distribution of the wetlands shall be performed to verify that the acres of created wetlands equal or exceed the acres of created wetlands required for mitigation. Field indicators of hydric soils are not anticipated to be present by Year 5 in the created wetlands because hydric soils typically develop over long periods of time (e.g., tens to hundreds of years). As such, the protocol outlined in Section F “Atypical Situations,” Subsection 4 “Man-Induced Wetlands” of the Corps of Engineers Wetlands Delineation Manual<sup>9</sup> describing the use of 2 parameters (hydrology and plants) or an equivalent protocol shall be followed.

Any revisions to the Mitigation and Monitoring Plans, including changes to the success/performance criteria or timelines, must be submitted to the Regional Water Board’s Executive Officer for review and approval before the changes are implemented.

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<sup>9</sup> Environmental Laboratory. (1987). "Corps of Engineers wetlands delineation manual," [Technical Report Y-87-1](#), U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A176 912.



*Reporting Requirements*

5. All reports pursuant to these Provisions shall be prepared under the supervision of suitable professionals registered in the State of California.
6. The Discharger shall submit Project information, including impacts and restoration measures, using a standard Wetland Tracker form within 14 days from the date of adoption of this Order. An electronic copy of the form can be downloaded at: <http://www.waterboards.ca.gov/sanfranciscobay/certs.htm>. The completed Wetland Tracker form shall be submitted electronically to [habitatdata@waterboards.ca.gov](mailto:habitatdata@waterboards.ca.gov) or shall be submitted as a hard copy via mail to the Regional Water Board to the attention of Wetland Tracker.
7. Within 90 days of adoption of this Order, the Discharger shall submit, acceptable to the Regional Water Board's Executive Officer, a draft long-term adaptive management plan that includes all appropriate details that are not presently included in the Mitigation and Mitigation Plans but are necessary to manage the mitigation sites after the final success criteria have been met. This plan shall be developed using the multi-agency mitigation banking template for long-term management plans<sup>10</sup> and shall include goals and objectives for each habitat type, monitoring methods for assessing whether these goals and objectives are being achieved, management actions to achieve these goals, and schedules for activities. Activities addressed in this Plan shall include, but not be limited to, invasive plant management, invasive predator control, infrastructure management, erosion and sedimentation control, and grazing management. This Plan must be of sufficient detail to feed into the Property Analysis Record (PAR) or equivalent analysis that will be used to derive the financial assurance amount for the conservation easement. The final long-term management plan, acceptable to the Regional Water Board's Executive Officer, shall be submitted to the Regional Water Board within 180 days of adoption of this Order and shall be included as an addendum to each of the Mitigation and Monitoring Plans.
8. Within 180 days of adoption of this Order, the Discharger shall submit, acceptable to the Regional Water Board's Executive Officer, draft conservation easements for all mitigation areas. The final executed easements, acceptable to the Regional Water Board's Executive Officer, shall be submitted to the Regional Water Board within 1 year of the date of adoption of this Order.
9. Within 180 days of adoption of this Order, the Discharger shall submit, acceptable to the Regional Water Board's Executive Officer, proof of financial assurance adequate to ensure long-term management of the mitigation sites. This may consist of a bond, certificate of deposit, or other appropriate instrument. Along with the proof of financial assurance, the Discharger shall submit PAR or equivalent analysis, acceptable to the Regional Water Board's Executive Officer, that provides the information necessary to demonstrate that the amount in the financial assurance completely covers all activities needed to manage the mitigation sites in perpetuity.

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<sup>10</sup> The mitigation banking template for long-term management plans was developed through statewide multi-agency effort, involving the California Resources Agency, California Department of Fish and Game, USACE, US Fish and Wildlife Service, US Environmental Protection Agency, US Department of Agriculture - Natural Resources Conservation Service, and National Oceanic and Atmospheric Association - National Marine Fisheries Service. The mitigation banking template was released via U.S. Army Corps of Engineers (USACE) Public Notice on May 9, 2008, and is available on-line at <http://www.dfg.ca.gov/habcon/conplan/mitbank/>.

- 10.** Within 180 days of adoption of this Order, the Discharger shall submit, acceptable to the Regional Water Board's Executive Officer, proof of financial assurance adequate to ensure the success of the proposed creek and wetland mitigation projects. This may consist of a bond, certificate of deposit, or other instrument callable by the Regional Water Board in the event of creek and/or wetland mitigation failure. Along with the proof of financial assurance, the Discharger shall submit a report, acceptable to the Regional Water Board's Executive Officer, with supporting information necessary to demonstrate that the amount in the financial assurance includes all that is necessary to cover implementation of the proposed mitigation.
- 11.** As per the Restoration and Revegetation Plan, monitoring reports for the temporary impact locations shall be submitted to the Regional Water Board by December 31 for the first five monitoring years, and until the sites have met their success/performance criteria and the Regional Water Board's Executive Officer has approved a notice of completion of restoration and revegetation for each temporary impact location (see [Provision C.16 below](#)). Monitoring reports shall be submitted either by uploading them to the Wetland Tracker website at <http://www.californiawetlands.net/tracker/ba/list> or via mail, and shall be prepared as described in the Restoration and Revegetation Plan, including photographs from the photo-documentation points and all mitigation monitoring data collected between October 1<sup>st</sup> and September 31<sup>st</sup> the previous year, to document whether success/performance criteria are being achieved. If success criteria are not being achieved, the monitoring reports shall also describe adaptive management measures to be undertaken to ensure that success/performance criteria will be achieved, including additional planting and/or extension of the monitoring period as warranted.
- 12.** As per the Monitoring and Mitigation Plans, monitoring reports for wetland mitigation sites shall be submitted to the Regional Water Board by December 31 for the first five monitoring years, and until the sites have met their performance standards and final success criteria and the Regional Water Board's Executive Officer has approved a notice of mitigation completion for each site (see [Provision C.17 below](#)). For creek and riparian mitigation sites, monitoring reports shall be submitted to the Regional Water Board by December 31 for the first five monitoring years and Years 7, 9 and 10, and until the sites have met their performance standards and final success criteria and the Regional Water Board's Executive Officer has approved a notice of mitigation completion for each site (see [Provision C.17 below](#)). Monitoring reports shall be submitted either by uploading them to the Wetland Tracker website at <http://www.californiawetlands.net/tracker/ba/list> or via mail, and shall be prepared as described in the Mitigation and Monitoring Plans, including photographs, special-status species monitoring, and all other information, as appropriate.
- 13.** Within 8 weeks of completing Project construction activities, including restoration and replanting of the temporarily impacted locations, the Discharger shall submit an as-built report and plan to the Regional Water Board either by uploading it to the California Wetlands Portal website at <http://www.californiawetlands.net/tracker/ba/list> or via mail. The report shall provide a revised Project plan clearly identifying and illustrating the location of temporary impacts.
- 14.** As-built plans for the mitigation sites shall be prepared as per the Mitigation and Monitoring Plans, and submitted to the Regional Water Board within 8 weeks of the completion of mitigation site construction. The Discharger shall submit an as-built report and plan to the

Regional Water Board either by uploading it to the Wetland Tracker website at <http://www.californiawetlands.net/tracker/ba/list> or via mail.

15. When the Discharger has determined that the success/performance criteria specified in the Restoration and Revegetation Plan have been achieved for a restored temporary impact location, it shall submit a notice of restoration and revegetation completion (restoration notice) to the Regional Water Board's Executive Officer for approval. The restoration notice shall include a description of the status of the restoration component that has been determined to be successful. After approval of the restoration notice in writing by the Regional Water Board's Executive Officer, the Discharger's submittal of restoration monitoring reports for that location is no longer required.
16. When the Discharger has determined that a mitigation site (i.e., Adobe Gulch Grasslands Site, Adobe Gulch Creek Wetland Creation Site, Boat Ramp Wetland Creation Site, San Andreas Wetland Creation Site, Skyline Boulevard Habitat Improvement Site, Skyline Quarry Wetland Restoration Site, or Upper San Mateo Creek Site) has achieved the performance standards and final success criteria specified in the Mitigation and Monitoring Plan, it shall submit a notice of mitigation completion (mitigation notice) to the Regional Water Board's Executive Officer for approval. The mitigation notice shall include a status report on the implementation of the long-term maintenance and management portion of the Mitigation Plan and a description of the status of the mitigation component that has been determined to be successful. After approval of the mitigation notice in writing by the Regional Water Board's Executive Officer, the Discharger's submittal of mitigation monitoring reports for that mitigation component is no longer required.

#### *Other Requirements*

17. The Discharger shall immediately notify the Regional Water Board by telephone whenever an adverse condition occurs as a result of this discharge. Such a condition includes, but is not limited to, a violation of the conditions of this Order, a significant spill of petroleum products or toxic chemicals, or damage to control facilities that would cause noncompliance. Pursuant to CWC §13267(b), a written notification of the adverse condition shall be submitted to the Regional Water Board within two weeks of occurrence. The written notification shall identify the adverse condition, describe the actions necessary to remedy the condition, and specify a timetable, subject to the modifications of the Regional Water Board, for the remedial actions. The Discharger shall notify the Regional Water Board in writing at least 30 days prior to actual start dates for each Project component (i.e., prior to the start of grading or other construction activity for any Project component, including the creek and wetland mitigation components).
18. The Discharger shall at all times fully comply with the engineering plans, specifications, and technical reports submitted with its application for water quality certification and the completed report of waste discharge.
19. The Discharger is considered to have full responsibility for correcting any and all problems that arise in the event of a failure that results in, or threatens to result in, an unauthorized release of waste or wastewater. The discharge of any hazardous, designated or non-hazardous waste as defined in Title 23, Division 3, Chapter 15 of the California Administrative Code, shall be disposed of in accordance with applicable state and federal regulations.

- 20.** The Discharger shall remove and relocate any wastes that are discharged at any sites in violation of this Order.
- 21.** The Discharger shall maintain a copy of this Order at the Project site so as to be available at all times to site operating personnel and agencies.
- 22.** The Discharger shall permit the Regional Water Board or its authorized representative at all times, upon presentation of credentials:
  - a.** Entry onto Project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
  - b.** Access to copy any records required to be kept under the terms and conditions of this Order.
  - c.** Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order.
  - d.** Sampling of any discharge or surface water covered by this Order.
- 23.** In accordance with CWC §13260, the Discharger shall file with the Regional Water Board a report of any proposed change in ownership or any material change in the character, location, or quantity of this waste discharge. Any proposed material change in the discharge requires approval by the Regional Water Board after a hearing under CWC §13263. Material change includes, but is not be limited to, all significant new soil disturbances, all proposed expansion of development, or any change in drainage characteristics at the Project site. For the purpose of this Order, this includes any proposed change in the boundaries of the area of wetland/waters of the State to be filled and mitigated.
- 24.** This Order does not authorize commission of any act causing injury to the property of another or of the public; does not convey any property rights; does not remove liability under federal, state, or local laws, regulations or rules of other programs and agencies, nor does this Order authorize the discharge of wastes without appropriate permits from other agencies or organizations.
- 25.** Certification is conditioned upon full payment of the required fee as set forth in 23 CCR Section 3833. The total fee required for certification of the Project is \$4,878. Regional Water Board staff received payment in full on May 4, 2010.
- 26.** This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the CWC and 23 CCR Section 3867.
- 27.** This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

**28.** The Regional Water Board will consider rescission of this Order upon Project completion and the Regional Water Board’s Executive Officer’s approval of notices of restoration and mitigation completion for all revegetation, restoration, establishment, and enhancement projects required or otherwise permitted now or subsequently under this Order.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on [Date].

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BRUCE H. WOLFE  
Executive Officer

## **Attachment A: Figures**

**Figure 1: Project Location**

**Figure 2: Proposed Modifications to Lower Crystal Springs Dam, Plan View**

**Figure 3: Proposed Spillway Modifications, Cross-section View**

**Figure 4: Proposed Stilling Basin Modifications, Plan and Cross-section Views**

**Figure 5: Water Quality Sampling Station #5, Staging and Storage Areas**

**Figure 6: Impacts to Waters of the State at Lower Crystal Springs Dam**

**Figure 7: Impacts to Waters of the State at Water Quality Sampling Station #5**

**Figure 1: Project Location**



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**Figure 5: Water Quality Sampling Station #5, Staging and Storage Areas**

**Figure 6: Impacts to Waters of the State at Lower Crystal Springs Dam**

**Figure 7: Impacts to Waters of the State at Water Quality Sampling Station #5**

**Attachment B: Operational Impacts of the Lower Crystal Springs Dam Improvements Project on Vegetation and Habitat**



## **Attachment C: Mitigation and Monitoring Plans**

## **Attachment D: Restoration and Revegetation Plan**

## **Attachment E: Long-Term Management Plan Outline**