

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

ORDER NO. R2-2020-XXXX

**WASTE DISCHARGE REQUIREMENTS AND WATER QUALITY CERTIFICATION
and RESCISSION OF ORDER No. R2-2014-0015 for:**

SANTA CLARA VALLEY WATER DISTRICT STREAM MAINTENANCE PROGRAM

SANTA CLARA COUNTY

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

1. The Santa Clara Valley Water District (Discharger or Valley Water) has applied to the U.S. Army Corps of Engineers (Corps) for a regional general permit to implement its Stream Maintenance Program (SMP) under federal Clean Water Act (CWA) section 404 (33 USC §1344).
2. On August 9, 2019, the Discharger filed an incomplete application for federal Clean Water Act section 401 Water Quality Certification and Waste Discharge Requirements (WDRs) with the Water Board for authorization to continue its SMP. The Discharger's SMP is for conducting routine stream maintenance activities in about 800 miles of streams within the program area (below the 1000-foot elevation contour) throughout Santa Clara County. The SMP maintenance activities provide flood protection and maintain channel conveyance capacity, while protecting natural resources with avoidance and minimization measures. The Discharger completed the application on March 5, 2020.
3. The SMP's goals include:
 - a. Maintaining the flow conveyance capacity of the Discharger's streams, creeks, and channels (collectively "streams" or "creeks") and facilities; and
 - b. Maintaining the structural and functional integrity of the Discharger's facilities.

The SMP's objectives include:

- a. Removing sediment for flow conveyance and safety while maintaining the creeks' habitat functions;
- b. Managing vegetation for flow conveyance and safety, and to allow for levee inspections and maintenance access, while maintaining the habitat functions of the creeks and other Discharger facilities;
- c. Stabilizing creek beds and banks to protect existing infrastructure, maintain public safety, reduce sediment loading, protect water quality, and protect habitat values; and

- d. Avoiding, minimizing, and, as appropriate, mitigating impacts on the environment by identifying when maintenance work is necessary and incorporating stream stewardship measures into maintenance projects, enhancing conditions where possible, and performing only necessary maintenance work.
4. In August 2012, the Valley Water Board of Directors revised its Governance Policies to include Natural Flood Protection and Water Resources Stewardship goals and objectives as Ends Policy.¹ The SMP is consistent with the following Ends Policy objectives:

Natural Flood Protection

Objective 3.1.2. Preserve flood conveyance capacity and structural integrity of stream banks, while minimizing impacts on the environment and protecting habitat values.

Water Resources Stewardship

Objective 4.1.1. Preserve creeks, the [B]ay, and ecosystems through environmental stewardship.

Objective 4.1.2. Improve watersheds, streams, and natural resources.

Objective 4.1.3. Promote the protection of creeks, the [B]ay, and other aquatic ecosystems from threats of pollution and degradation.

5. The Water Board previously authorized the Discharger's stream maintenance program from 2002 through 2012, known as SMP-1, with adoption of Order No. R2-2002-0028, issued on February 17, 2002. The Water Board authorized SMP-2 with adoption of Order No. R2-2014-0015, issued on April 9, 2014. Order No. R2-2014-0015 expired on December 31, 2019. This Order reissues and updates SMP-2.
6. This Order applies to the Discharger's stream maintenance activities conducted pursuant to the SMP within four watersheds in Santa Clara County that drain to San Francisco Bay and are located within the jurisdiction of this Water Board. The four watersheds are, from west to east, the Lower Peninsula, West Valley, Guadalupe, and Coyote. All descriptions, findings, and provisions in this Order apply only to stream maintenance activities within the four above-mentioned watersheds. This Order does not apply to the Pajaro watershed, which is under the jurisdiction of the Central Coast Regional Water Quality Control Board.
7. The Discharger has developed a Stream Maintenance Program Manual (Manual) to guide SMP implementation. The Manual describes the maintenance activities

¹ Valley Water Board Governance Policies:
<http://www.valleywater.org/www.valleywater.org/sites/default/files/Ends.pdf>

conducted in streams, as well as on stream gauges and fish ladders within the Discharger's SMP Program area. The Manual also describes the regulatory framework, annual maintenance planning, impact avoidance measures, best management practices (BMPs), mitigation activities, and program management actions. The Manual includes, as attachments, the following specialized and technical guidance for implementing SMP activities:

- A – Bank Best Management Practices;
- B – Previously Mitigated Areas: Mitigation Provided Under SMP-1 and SMP-2;
- C – Special-Status Plants and Special-Status Fish and Wildlife;
- D – Bank Stabilization Methods;
- E – Water Quality Monitoring Plan;
- F – Sediment Characterization Plans;
- G – Steelhead Impact Minimization Measures;
- H – Stream Maintenance Program Fish Ladder Inspection; and
- I – Compensatory Mitigation Stabilization Methods

8. The Manual, including its attachments, is considered a “living document” that may be updated and revised in order to incorporate maintenance techniques and methods that are more protective of the environment or to improve the SMP. Proposed minor changes shall be submitted via the Notice of Proposed Work or the Annual Summary Report for review and approval. This Order requires that substantive changes to the Manual or the associated attachments comply with all terms and conditions of this Order and may not be implemented until they have been approved in writing by the Water Board's Executive Officer.

SMP Description, Impacts, and Mitigation

9. The Manual covers six primary maintenance activities: vegetation management, sediment removal, bank stabilization, management of animal conflicts, minor maintenance, and large woody debris management. The SMP also includes habitat protection and enhancement components that include invasive plant management, riparian planting, instream habitat complexity enhancement, gravel augmentation, homeless encampment cleanup, and land preservation.
10. The scope and intensity of the Discharger's routine maintenance activities vary based on annual rainfall, stream flow, and vegetation growth. The Discharger maintains channels where it has fee title or easements or where it has received specific direction from the Valley Water Board of Directors. The Valley Water Board may approve maintenance work on private property, if it is determined that the erosion, scour, or other maintenance needs are negatively affecting the flow conveyance and bank stability of the overall creek system, or threatens public safety.

11. The Manual covers maintenance activities in Discharger-maintained streams categorized as modified channels, modified channels with ecological values, and unmodified channels within the SMP Program area. These three stream categories are described in Findings 12 – 14.
12. A modified channel is a stream that has been substantially altered from historical conditions either as a result of recent capital improvement projects (e.g., road construction), or in the course of land development. Some modified streams were designed to provide flood control and will be maintained to continue meeting designed flood conveyance criteria. However, other channels have been modified over time but not necessarily to an engineered design with established flood flow conveyance criteria. Such modified channels include realigned, straightened, or hardened reaches that have been designed to maximize flow of water with minimal erosion. These channels are typically grass or concrete lined and may include a high flow channel. While these channels may have the potential for some environmental enhancement, they are differentiated from modified channels with ecological values, which have existing and often diverse ecological values present.
13. A modified channel with ecological values is a stream that has been significantly altered from historical conditions, but retains functional riparian corridor and/or is known to support special-status species. Modified channels with ecological values may have concrete banks but do not have concrete beds. Some of these streams have had recently completed capital improvement projects, while others have had some level of construction that did not eliminate all of the areas with ecological value, or the reconfigured channel was allowed to return to a natural state. Some of these streams have established flood flow conveyance criteria and are maintained to those criteria. These streams include realigned, straightened, or hardened reaches, designed to convey flood flows with minimal erosion. Modified channels with ecological value include creeks identified as supporting steelhead (*Oncorhynchus mykiss*), fall-run Chinook salmon (*Oncorhynchus tshawytscha*), and green sturgeon (*Acipenser medirostris*), or have features such as earthen beds or closed riparian woodland canopy.
14. An unmodified channel is a stream that is largely unchanged from historic conditions, though they may have small areas of modification, like bridges, outfalls, culverts, gauges, or other appurtenant structures. Unmodified channels usually are located in areas adjacent to floodplains without other types of flood protection measures and generally occur in the foothills or higher elevations of the SMP Program area.
15. Sediment Removal. The Discharger removes sediment from streams to maintain or restore the design capacity of the stream, to allow facilities or appurtenant structures to function as designed to control flood waters, and to facilitate fish passage. Sediment removal under the SMP does not include increasing a stream's flow conveyance capacity beyond the as-built design (where the as-built design is available) or the general design condition (where the general design condition is known). Sediment removal activities may occur along streams and at stream gauges. In unmodified channels sediment removal activities will not enlarge the

channel capacity beyond the general “natural” cross-sectional area of the stream. The number of sediment removal projects undertaken annually and the quantity of sediment removed in a given year depends on weather, hydrologic conditions, and the frequency and extent of past maintenance activities. For most sediment removal projects, excavators are used from the top-of-bank. For projects where the use of excavators from the top-of-bank is not possible, or would cause significant vegetation impacts, sediment removal equipment may be used within the stream if the stream is dry or dewatered. For larger equipment, this may require the construction of temporary access ramps.

16. Vegetation Management. Vegetation management activities include pruning, planting, vegetation removal, herbicide application, mowing, flaming, and grazing. Vegetation management activities are conducted to maintain flow conveyance capacity, establish a canopy of native riparian trees and native understory plants, control invasive vegetation, and as a means of fire fuel control. Vegetation management and removal activities are relatively consistent from year to year, though locations change depending on recent growth and blockages. Vegetation management techniques include hand removal using small tools and hand-held equipment, mechanical removal using heavy equipment such as a flail mower attached to an excavator, spot chemical control on tree stumps and along access roads, herbicide application using backpack applicators or truck-mounted applicators, hand-held flaming equipment, and grazing animals. Vegetation management is performed year-round in a manner that prevents habitat loss and erosion, and does not include clear cutting.
17. Bank Stabilization. Bank stabilization involves repairing channel banks when a weakened, unstable, or failing bank causes or threatens to cause damage to an adjacent property; becomes a flood hazard or public safety concern; creates problems with roads, transportation, or access; causes instream sedimentation; or is otherwise affecting water quality and beneficial uses. The Manual provides for bank stabilization using bioengineering techniques to the maximum extent practicable while limiting the use of bank hardening. The number of bank stabilization projects to be conducted under the SMP will vary annually.
18. Management of Animal Conflicts. Management of animal conflicts activities include (1) repairing damage caused by burrowing and foraging animals along streams and other structures and (2) managing streams to avoid further damage. These activities include methods such as biological control, site alterations, habitat alteration, and lethal control. Management of animal conflict activities will vary annually.
19. Minor Maintenance. Minor maintenance activities include: cleaning and removing sediment (limited to 25 cubic yards per project site) at outfalls, culverts, flap gates, tide gates, inlets, and grade control structures; removing trash and debris; repairing and installing fences and gates; grading small areas above channel banks to improve drainage and reduce erosion; repairing or replacing structures within approximately the same footprint and according to approximately the same design as the original structure; installing and maintaining mitigation and landscape sites;

removing obstructions at structures to maintain functions; and maintaining stream gauges.

20. Large Woody Debris (LWD). Large woody debris (LWD) management addresses the woody debris in streams resulting from natural processes such as bank erosion, landslides, windthrow, and tree mortality throughout the year. For purposes of this Order, LWD is defined as wood with a minimum diameter of 12 inches and minimum length of 72 inches in streams that support anadromous salmonids. Woody debris, including LWD, provides an important ecological role in the Discharger's streams. However, if LWD poses a potential flood risk or threatens to damage infrastructure, this Order conditionally allows the Discharger to reposition, modify, cut, or remove it to maintain channel flood capacity or infrastructure integrity. LWD management under the SMP has the following primary goals:

- a. Retain as much LWD in the channel as possible for the benefit of native fish habitat;
- b. Minimize obstructions that threaten public safety or pose a flooding risk;
- c. Reduce the potential for erosion resulting from downed trees;
- d. Deflect flows towards banks where possible; and
- e. Protect and support the as-built functions of the Discharger's facilities.

The Discharger uses a five-tier prioritization system to achieve these goals. The five tiers, as detailed in the Manual, range from no modifications to the LWD, but monitoring its effects in the stream (Tier 1) to removing the LWD from the creek (Tier 5), and are subject to increasing monitoring, notification, mitigation, and reporting requirements.

21. The following activities are not included in the Manual and therefore not covered in or authorized by this Order:

- a. Capital improvement projects (CIPs);
- b. Maintenance work that would increase the flow conveyance or water supply capacity of a facility beyond the designed channel capacity (as-built design);
- c. Maintenance work in channel reaches that are above the 1,000-foot elevation level;
- d. Maintenance work for dams, reservoirs, and other water supply facilities such as canals, pipelines outside of channel corridors, groundwater percolation ponds, and instream summer dams;
- e. Installation of new or major modification of fish ladders;
- f. Maintenance work conducted on private property either by owners or other agencies;
- g. Maintenance work performed by other agencies;
- h. Maintenance work for large construction projects or CIPs;

- i. Area-wide, intensive maintenance, or rehabilitation of large [>0.05 acre] areas, implemented as part of CIPs that have persisted beyond the establishment period (period of time until the plantings are self-sustaining); and
 - j. Emergency activities and procedures. A situation is considered an “emergency” if it is a sudden, unexpected occurrence involving a clear and imminent danger that demands immediate action to prevent or mitigate loss of or damage to life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Cal. Pub. Res. Code § 21060.3).
22. The Discharger implements stream maintenance activities using an integrated stream management approach to preserve flood conveyance capacity in streams while protecting and enhancing streams’ existing resources and functions. The Manual describes project planning; resource evaluations; maintenance guidelines (see next finding); and avoidance and minimization measures and BMPs to prioritize work activities, avoid conducting any unnecessary maintenance, and avoid impacts during maintenance activities.
23. The Manual includes Maintenance Guidelines, which describe maintenance thresholds and criteria (e.g., vegetation, sediment, and roughness objectives) developed from field surveys and engineering-based analyses to assess stream conditions and maintain flow conveyance for flood control capacity while protecting the streams and associated natural resources. Maintenance Guidelines are prepared within the context of protecting beneficial uses and natural resources. The Discharger has developed Maintenance Guidelines for a number of the streams in the SMP Program area. Maintenance Guidelines are being developed for channels designated as modified or modified with ecological value and in frequently maintained unmodified channels, as specified in the Manual.
24. The Discharger will periodically update completed Maintenance Guidelines, and develop Maintenance Guidelines for the remaining channels, as described in Manual Chapter 3 and Provision D.80. Revisions to Maintenance Guidelines will not be implemented without authorization from the Executive Officer.
25. Compensatory mitigation is one element of a comprehensive impact avoidance, minimization, and mitigation approach. Unavoidable impacts require compensatory mitigation. This Order requires the Discharger to provide appropriate and effective mitigation as described in the Manual. The compensatory mitigation categories that may be implemented in SMP-2 include ecological services, bank stabilization, special status species and associated habitat, land acquisition, single-user programmatic (or bank) mitigation.
26. At the start of SMP-2 in 2014 under Order No. R2-2014-0015, the Discharger had a mitigation deficit associated with impacts from SMP-1 activities conducted from 2002 through 2014, under Order No. R2-2002-0028. The Discharger completed mitigation of SMP-1 impacts in 2016, pursuant to Order No. 2014-0015. The mitigation credits

that were applied to mitigation of impacts from SMP-1 activities are documented in the Manual, Attachment B (Previously Mitigated Areas: Mitigation Provided Under SMP-1 and SMP-2).

27. A portion of the SMP-1 mitigation consisted of land acquisition and preservation of the four properties listed below. The Discharger is protecting the properties consistent with the approved conservation easement and long-term management plan for each property. The properties are in upper watershed areas above the 1,000-foot elevation contour, and were selected for their high habitat value and availability for acquisition.
- a. **Hendrys Creek Property.** Located east of Lexington Reservoir in the West Valley Watershed, the property consists of 117 acres.
 - b. **Coyote Ridge Preserve.** Located next to the northern boundary of Anderson Reservoir Park in the Coyote Creek Watershed, the property consists of 454 acres.
 - c. **Upper Penitencia Creek Property.** Located east of Cherry Flat Reservoir in the Coyote Creek Watershed, the property consists of 192 acres.
 - d. **Rancho Cañada de Pala Preserve.** Located in the Coyote Creek watershed between the Upper Penitencia Creek Property to the west and Arroyo Honda Creek to the east, a 219.89-acre site within this property is used for SMP mitigation.
28. In addition to mitigating for SMP-1 impacts, the land preservation mitigation noted in the above finding also mitigates, in perpetuity, impacts of certain recurring maintenance activities in designated stream reaches. Specifically, the four land preservation projects mitigate impacts from sediment removal, vegetation removal, and aquatic herbicide use below the ordinary high water mark or high tide line in the designated creek reaches. The designated stream reaches are called Previously Mitigated Areas (PMAs) (Manual Attachment B). Impacts from SMP activities in the PMAs other than those noted in this finding must be mitigated through other means, consistent with the Mitigation Program described in Manual Chapter 10.
29. The Discharger restored tidal wetland habitat with the Island Ponds Restoration Project. The “island ponds” are ponds A19, A20, and A21, located between Coyote Slough and Mud Slough near Alviso. The Island Ponds Restoration Project was completed in 2016, resulting in mitigation credit applied in part to certain SMP-1 impacts, and to two other projects. A balance of nine acres pre-mitigates for SMP-2 impacts to tidal wetlands and other tidal waters, as well as tidal marsh species. During 2014 through the present, 0.02 acre of this credit was used. Accordingly, 8.98 acres of mitigation credit is available for mitigation of impacts to tidal wetlands, other tidal waters, or tidal marsh-dependent species
30. Submittal of an annual Notice of Proposed Work (NPW) and Annual Summary Reports (ASRs) will allow the Water Board to appropriately oversee activities conducted pursuant to this certification and WDRs. The NPW will describe the stream maintenance activities to be conducted during the upcoming maintenance season and mitigation projects proposed to compensate for any unavoidable

adverse impacts as outlined in the Manual. The ASRs will describe maintenance activities conducted during the previous maintenance season; mitigation implemented; and monitoring results associated with bank stabilization sites, water quality monitoring, and sediment characterization, consistent with guidelines in Manual Attachments D (Bank Stabilization Methods), E (Water Quality Monitoring Plan), and F (Sediment Characterization Plan). The ASRs will include any lessons learned and recommendations that may result in revisions to the Manual. Annual mitigation monitoring reports may be submitted separately or as attachments to ASRs. In addition to these reports, Discharger and Water Board staff will meet annually to discuss the performance of the SMP, review lessons learned from the previous maintenance season, and determine the need to improve stream maintenance techniques and BMPs.

31. State, and national studies have determined that tracking of mitigation and restoration projects must be improved to better assess the performance of projects covered under the SMP, following monitoring periods that last several years. To effectively carry out the State's Wetlands Conservation Policy of no net loss to wetlands, the State needs to closely track both losses and successes of mitigation and restoration projects affecting wetlands and other waters of the State. The Water Board must also track project performance in Bay Area creeks subject to routine repair and maintenance activities, such as recurring instabilities. Therefore, the Water Board adopted the digital interactive mapping tool EcoAtlas.² EcoAtlas is a web-based tool that integrates maps, project plans, site conditions, restoration efforts, and other elements on a project-by-project basis based on data inputs. Accordingly, the Discharger will coordinate with Water Board staff to ensure SMP impacts and mitigation data are input into EcoAtlas with the Project Tracker tool at <https://ptrack.ecoatlas.org>. The California Wetlands Monitoring Workgroup developed EcoAtlas and maintains detailed instructions for Project Tracker on its website at <https://ptrack.ecoatlas.org/instructions>.

Regulatory Framework

32. Pursuant to Water Code section 13263, Clean Water Act (CWA) section 401, and California Code of Regulations (CCR) Title 23 sections 3857 and 3859, the Water Board is issuing WDRs and Certification for discharges associated with routine stream maintenance activities, including sediment management, vegetation management, bank stabilization, and other maintenance activities in streams within the Discharger's maintenance jurisdiction. The Water Board considers WDRs necessary to adequately address impacts and mitigation to beneficial uses of waters of the State from the six specified categories of maintenance activities described the

² Source: California Wetlands Monitoring Workgroup (CWMW), 2019. *EcoAtlas*. Accessed May 14, 2019. <https://www.ecoatlas.org>. The California Wetland Monitoring Workgroup (CWMW) provides technical oversight on the development of content and functionality of EcoAtlas. As a member of CWMW, San Francisco Estuary Institute provides day-to-day support and management of EcoAtlas, and can be contacted by email at ptrackadmin@sfei.org.

findings, to meet the objectives of the California Wetlands Conservation Policy (Executive Order W-59-93), and to incorporate revisions and changes to the Manual and its attachments over the term of this Order. In accordance with CWC sections 13263(a) and 13241, the Water Board, after considering this matter at a public hearing, has prescribed requirements as to the nature of the proposed discharge. These requirements implement the Water Board's relevant water quality control plans and take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, and the need to prevent nuisance.

33. The CWA (33 U.S.C. §§ 1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) Section 401 of the CWA (33 U.S.C. § 1341) requires every applicant for a federal license or permit that may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the CWA, including water quality standards and implementation plans promulgated pursuant to CWA section 303 (33 U.S.C. § 1313). CWA section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the CWA and with any other appropriate requirement of state law. CWA section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project. This discharge is also regulated under Water Code section 13263 and CCR title 23.
34. Water Code sections 13267 and 13383 authorize the Water Board to require the Discharger to submit technical reports, monitoring, recordkeeping and other information reasonably required. The burden, including costs, of providing these reports bears a reasonable relationship to the need for these reports and the benefits to be obtained from them. Such benefits include demonstrating compliance with this Order, the Basin Plan, State water quality objectives and protection of habitat beneficial uses.
35. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes implementation plans to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law, and U.S. EPA, where required.

The Basin Plan lists the following existing and potential beneficial uses for surface waters within the Discharger's Program area:

- a. Agricultural Supply (AGR);
- b. Freshwater Replenishment (FRESH);
- c. Groundwater Recharge (GWR);
- d. Municipal and Domestic Supply (MUN);

- e. Preservation of Rare and Endangered Species (RARE);
- f. Navigation (NAV);
- g. Water Contact Recreation (REC1);
- h. Non-contact Water Recreation (REC2);
- i. Warm Freshwater Habitat (WARM);
- j. Cold Freshwater Habitat (COLD);
- k. Wildlife Habitat (WILD);
- l. Estuarine Habitat (EST);
- m. Fish Migration (MIGR); and
- n. Fish Spawning (SPWN).

36. SMP activities could temporarily impact beneficial uses of waters of the State including, but not limited to:

- a. Cold Freshwater Habitat (COLD);
- b. Fish Migration (MIGR);
- c. Preservation of Rare and Endangered Species (RARE);
- d. Non-contract Water Recreation (REC2);
- e. Fish Spawning (SPWN);
- f. Warm Freshwater Habitat (WARM); and
- g. Wildlife Habitat (WILD).

37. The Guadalupe River and San Francisco Bay are identified as impaired by mercury on the CWA section 303(d) list. The TMDLs for the Guadalupe River and San Francisco Bay are 0.2 milligram mercury per kilogram suspended sediment dry weight annual median (0.2 milligrams per kilogram (mg/kg) on a dry weight basis, annual median). The discharge prohibitions and specifications in this Order, together with the BMPs in the Manual and its attachments, help to implement the mercury TMDLs by requiring implementation of erosion and runoff controls during maintenance activities, and by authorizing maintenance projects designed to control erosion, improve bank stability, and restore riparian habitat, all of which help reduce the runoff of mercury-containing sediment to the River and Bay and limit rates of mercury methylation. (Basin Plan section 7.7.1.6

38. San Francisco Bay is identified as impaired by polychlorinated byphenyls (PCBs) on the CWA section 303(d) list. The TMDL is an average fish tissue concentration of 10 micrograms (µg) total PCBs per kg of typically consumed fish, on a wet weight basis (10 µg/kg wet weight).

39. Urban creeks of the Bay Area are identified as impaired by diazinon and other pesticides resulting from stormwater runoff on the CWA section 303(d) list.

- a. The TMDL for pesticide-related toxicity is expressed in terms of acute toxic units (TUa) and chronic toxic units (TUc). The targets are as follows: pesticide-related acute and chronic toxicity in urban creek water and sediment, as determined through standard toxicity tests, shall not exceed 1.0 TUa or 1.0 TUc, where $TUa = 100/NOAEC$ and $TUc = 100/NOEC$. "NOAEC" refers to the "no observed adverse effect concentration," which is the highest tested concentration of a sample that causes no observable effect (i.e., mortality) to exposed organisms during an acute toxicity test. For purposes of this strategy, "NOEC" refers to the "no observable effect concentration," which is the highest tested concentration of a sample that causes no observable effect to exposed organism during a chronic toxicity test. NOAEC and NOEC are both expressed as the percentage of a sample in a test container (e.g., an undiluted sample has a concentration of 100 percent).
 - b. The TMDL for a diazinon concentration in urban creeks is that the concentration shall not exceed 100 ng/l as a one-hour average. The target addresses both acute and chronic diazinon-related toxicity.
 - c. These WDRs and Certification help to implement the urban creeks pesticide TMDL by prohibiting the use of pesticides not labeled for aquatic use (see Discharge Prohibition No. 2) and requiring use of Integrated Pest Management techniques in managing vegetation and animal conflicts.
40. The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Definition and Procedures), adopted by the State Water Resources Control Board in April 2019, will go into effect on May 28, 2020. The Definition and Procedures provide a statewide definition of "wetland," and set forth requirements for delineating wetlands, conducting dredge or fill activities, and developing compensatory mitigation for such activities. The requirements of this Order and Manual will be consistent with the Definition and Procedures when they go into effect.
41. The California Wetlands Conservation Policy ("No Net Loss Policy;" Executive Order W-59-93) was adopted to "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 in a manner that fosters creativity, stewardship, and respect for private property." Implementation of the SMP is consistent with the No Net Loss Policy because it is anticipated to preserve existing and potential beneficial uses of waters of the State and may, over time, restore or enhance beneficial uses for some stream reaches
42. State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (Antidegradation Policy), states that discharges to existing high quality waters will be required to meet WDRs that will result in the best practicable treatment or control of the discharge necessary to assure that (a) a condition of pollution or nuisance will not occur, and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained. This Order is consistent with Resolution No. 68-16 because implementation of the proposed activities in accordance with the Manual which is

revised regularly to reflect improved BMPs and lessons learned, will result in the best practicable treatment or control of maintenance-related discharges, and will not contribute to conditions of pollution or nuisance. Furthermore, implementation of this Order in accordance with the Manual is expected to maintain or improve existing water quality by ensuring that maintenance activities minimize or avoid adverse impacts to the aquatic environment, mitigate for any unavoidable impacts, and/or are implemented in conjunction with habitat enhancement or restoration projects.

43. The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Definition and Procedures), adopted by the State Water Resources Control Board in April 2019, will go into effect on May 28, 2020. The Definition and Procedures provide a statewide definition of “wetland,” and set forth requirements for delineating wetlands, conducting dredge or fill activities, and developing compensatory mitigation for such activities. The requirements of this Order and Manual will be consistent with the Definition and Procedures when they go into effect.
44. The California Environmental Quality Act (CEQA) requires all discretionary projects approved by public agencies to be in full compliance with CEQA and requires a lead agency (in this case, the Discharger) to prepare an appropriate environmental document for such projects. The Discharger prepared and certified the Stream Maintenance Program Update Final Subsequent Environmental Impact Report (FSEIR) on February 14, 2012, State Clearinghouse No. 2000 102 055. The FSEIR found significant impacts that are under the purview and jurisdiction of the Water Board: 1) aquatic species including habitat for special status species; 2) water quality; and 3) hazardous materials. The FSEIR also found that the mitigation measures would mitigate all of these impacts to less than significant levels. The mitigation measures specified in the FSEIR include compensatory mitigation to mitigate for any temporary disturbance or loss of aquatic habitat and specific BMPs to avoid and minimize maintenance activity-related impacts.
45. The Water Board, as a responsible agency under CEQA, has considered the FSEIR and finds that the significant environmental impacts of the proposed activities, which are within the Water Board’s purview and jurisdiction, have been identified and mitigated to less than significant levels. The Manual adopted with this Order contains further avoidance, minimization, and mitigation measures in addition to those identified in the FSEIR, such as developing Maintenance Guidelines as explained in more detail in Findings 23 and 24, and Provisions D.78 – D.80. The additional monitoring requirements contained in this Order will provide information regarding the effectiveness of the required mitigation measures. In adopting this Order, the Water Board has further eliminated or substantially lessened the water quality effects identified in the FSEIR and therefore approves the SMP. Overall, the Water Board finds that the SMP will enhance and protect natural resources and the environment.
46. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to

meet discharge levels designed to protect human health and ensure that water is safe for domestic use.

47. The Water Board provided public notice of the application pursuant to 23CCR section 3858 on August 9, 2019, and posted information describing the project on the Water Board's website. The Water Board has notified the Discharger and interested parties of its intent to issue WDRs and Water Quality Certification for the activities proposed in the SMP.
48. The Water Board, in a public meeting, heard and considered all comments pertaining to this Order.

IT IS HEREBY ORDERED that Order No. R2-2014-0015 is rescinded upon the effective date of this Order, except for enforcement purposes, and, in order to meet the provisions of Water Code Division 7 (commencing with § 13000) and regulations and guidelines adopted thereunder, the Discharger, its agents, successors, and assigns shall comply with the requirements in this Order. The Water Board certifies that the Stream Maintenance Program described herein complies with CWA sections 301, 302, 303, 306, 307, and 401, and with applicable provisions of State law, provided that the Discharger complies with the following terms and conditions:

A. Discharge Prohibitions

1. The direct or indirect discharge of wastes, as defined in Water Code section 13050(d), within or outside of an active project site, to surface waters or surface water drainage courses is prohibited, except as authorized in this Order.
2. The Discharger shall not cause degradation of any water supply.
3. All SMP activities that could result in the runoff of pesticides (which category includes, but is not limited to, pesticides, herbicides, insecticides, rodenticides, and fungicides), that are not registered for aquatic use into waters of the State are prohibited
4. Excavated sediment shall remain within designated disposal areas at all times. The designated disposal areas are: a) any offsite, authorized temporary or permanent location maintained in compliance with federal and State regulations, b) any onsite, authorized temporary or permanent location, provided material shall be isolated and contained to prevent impacts to waters of the State and their beneficial uses, or c) a permitted landfill.
5. The discharge of sediment and runoff or decant water from excavated materials disposed of at any temporary or permanent disposal site to waters of the State is prohibited.
6. Maintenance activities subject to these requirements shall not cause a condition of pollution or nuisance as defined in Water Code section 13050.
7. No debris, soil, silt, sand, cement, concrete, or washings thereof, or other construction related materials or wastes, oil or petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be

washed by rainfall or runoff into waters of the State. When operations are completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be washed into waters of the State.

B. Discharge Specifications

1. Appropriate soil erosion control measures as specified in the Manual and BMPs Listings (Manual Attachment A) shall be undertaken and maintained to prevent discharge of sediment to surface waters or surface water drainage courses.
2. Excavated material shall be fully contained to prevent any wind transport, surface runoff, or erosion into waters of the State, per the BMPs Listings for temporary storage.
3. In accordance with Water Code section 13260, the Discharger shall file with the Water Board a report of any material change in the character, location, or quantity of this waste discharge that is beyond the scope of this Order. Any proposed material change in the discharge requires approval by the Water Board.
4. The Discharger shall notify the Water Board promptly by telephone or email, and in no case more than 24 hours after, if an adverse condition occurs as a result of a discharge. An adverse condition includes, but is not limited to, a violation of the conditions of this Order, spill of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance. A written notification of the adverse condition shall be submitted to the Water Board within five days of occurrence. The written notification shall identify the adverse condition, describe the actions taken or planned to remedy the condition, and specify a timetable, subject to approval by the Executive Officer, for the remedial actions that follow any initial response to the adverse condition.

C. Receiving Water Limitations

1. SMP activities shall not cause the following conditions to exist in waters of the State at any place:
 - a. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
 - b. Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or otherwise adversely affect beneficial uses.
 - c. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth cause nuisance or adversely affect beneficial uses.
 - d. Waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

- e. The natural receiving water temperature of inland surface waters shall not be altered unless it can be demonstrated to the satisfaction of the Water Board that such alteration in temperature does not adversely affect beneficial uses. The temperature of any cold or warm freshwater habitat shall not be increased by more than 5°F (2.8°C) above natural receiving water temperature.
2. SMP activities shall not cause the following limits to be exceeded in waters of the State at any point:
 - a. Dissolved oxygen: 5.0 (WARM) or 7.0 (COLD) mg/L minimum. When natural factors cause lesser concentrations, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. pH: a variation of natural ambient pH by more than 0.5 pH units.
 - c. Turbidity: waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU.
3. SMP activities shall not cause a violation of any particular water quality standard for receiving waters adopted by the Water Board or the State Water Board as required by the CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA section 303, or amendments thereto, the Water Board may revise and modify this Order in accordance with such more stringent standards.

D. Provisions

Vegetation Management

1. The Discharger shall follow the vegetation management guidelines described in this Order and Manual Chapters 3 and 4.
2. Vegetation management activities that could result in the discharge of pesticides, which are not registered for aquatic use, into waters of the State are prohibited.
3. Vegetation management activities that are not consistent with the Manual are prohibited.
4. Vegetation management and replanting shall be conducted using a strategy that maximizes the functions of the vegetation to shade the active channel, stabilize active channel banks, and provide instream habitat.
5. Vegetation management activities shall not adversely impact the riparian zone, shade, canopy coverage, or habitat. Overall vegetation management activities consistent with the Manual, including implementation of BMPs and compensatory mitigation, as described in the Manual, shall enhance beneficial uses.

Pesticides and Herbicides

6. The Discharger shall continue coverage under the statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications (Water Quality Order No. 2013-0002-DWQ, General Permit No. CAG990005).
7. The Discharger shall comply with the Integrated Pest Management (IPM) Policy or Ordinance pursuant to sections C.9.a – C.9.g of this Water Board's Municipal Regional Stormwater NPDES Permit (Order No. R2-2015-0047, as amended, and as may be reissued).

Sediment Removal

8. The Discharger shall follow the sediment removal guidelines described in this Order and Manual Chapters 3 and 5.
9. In modified channel and modified with ecological value channel reaches, only sediment removal within the as-built design shall be allowed per the reach-specific thresholds and criteria specified in the Maintenance Guidelines. If maintenance thresholds and criteria have not yet been developed for the reach where sediment removal will be conducted, sediment removal shall be conducted as determined in accordance with Provision D.82.
10. In unmodified channels, sediment removal shall be conducted per the reach-specific thresholds and criteria specified in the Maintenance Guidelines, if developed, or as determined in accordance with Provision D.82.
11. Instream features (e.g., bars and other depositional features) shall be preserved in their location unless bars or other depositional features must be removed to provide conveyance capacity. The Notice of Proposed Work (NPW) shall include an explanation of why these features cannot be avoided and propose mitigation. During removal of bars or other depositional features, the Discharger shall minimize impacts and preserve habitat functions to the extent practicable to protect beneficial uses.
12. After sediment removal, the Discharger shall grade the channel so that the transition between the maintained and non-maintained areas is smooth, continuous, and does not leave a "wall" of sediment or other blockage that could erode or cause erosion once flows are restored.
13. After sediment removal, the Discharger shall compact the soil to match pre-excavation conditions so that disturbed soils are not transported.
14. Excavated materials, maintenance materials, and equipment shall not cover aquatic or riparian vegetation.
15. The Discharger may temporarily stockpile excavated sediment prior to disposal or reuse, provided that appropriate State and federal regulations are met and effective BMPs are implemented to protect water quality and beneficial uses. The excavated sediment may be stockpiled onsite so that it can be loaded into trucks for offsite disposal within seven calendar days of the completion of the active work. Onsite

stockpiled materials shall be fully contained to prevent any wind or water transport. The excavated sediment may also be temporarily stockpiled at an offsite location. Offsite stockpiles shall be covered and surrounded with perimeter sediment control BMPs to ensure that excavated materials remain stable. Runoff, sediment, or decant water from excavated materials shall not contact waters of the State.

16. To prevent sediment-laden water from being discharged into waters of the State during transport of spoils to disposal or reuse locations, truck beds shall be lined with an impervious material (e.g., plastic), or the tailgate shall be blocked with wattles or other appropriate filtration material.
17. Sediment removed as part of maintenance activities shall be properly characterized through laboratory analytical testing, as described in Sediment Characterization Plan (Manual Attachment F), and be hauled offsite to suitable upland disposal sites, a permitted landfill, or at a reuse site in accordance with applicable State and federal regulations including applicable provisions of this Order. Proposed disposal and reuse locations shall be submitted by the Discharger annually in the NPW and approved by the Executive Officer. The Executive Officer will approve the sediment disposal and reuse proposal and provide a notice to proceed, or indicate needed modifications, within 30 days of receipt.
18. Excavated sediment that contains mercury concentrations exceeding the screening guidelines specified in the *Beneficial Reuse of Dredge Materials: Sediment Screening and Test Guidelines* (May 2000) (Beneficial Reuse Guidelines) shall be disposed of in accordance with the sediment disposal proposal pursuant to Provision D.17. Upon completing sediment removal activities, the Discharger shall remedy any residual sediment that contains mercury concentrations exceeding the screening guidelines in accordance with the San Francisco Bay and Guadalupe River TMDLs for mercury.
19. For SMP maintenance projects that excavate or remove between 25 and 500 cubic yards of sediment, the Executive Officer will consider the Discharger's request to waive the sediment characterization for beneficial reuse on a case-by-case basis.

As part of any sediment characterization waiver request, the Discharger shall provide the following information: (1) a narrative discussion explaining the justification for waiving sediment characterization, which may include, but need not be limited to, interpretation of existing historic sediment characterization data for the project reach and/or entire stream; (2) project-specific information: location of the sediment removal project, stream length where sediment will be removed, and volume of sediment to be removed; and (3) sediment reuse information: location of reuse, sediment reuse purpose, foundation reuse or surface reuse, and volume of sediment to be reused.

The Executive Officer will use the Beneficial Reuse Guidelines and existing TMDL load allocations for the stream reach in reviewing sediment characterization waiver requests.
20. The Discharger will not be required to conduct sediment characterization for beneficial reuse of sediments from minor maintenance sediment removal project

activities (activities limited to not more than 25 cubic yards per project, as defined in the Manual), except for any minor maintenance sediment removal conducted within the Guadalupe River watershed. Sediment characterization is required for reuse of any excavated sediments within the Guadalupe River watershed due to the high concentrations of mercury found in the sediments within this watershed.

21. The discharge of any hazardous, designated, or non-hazardous waste, as defined in CCR title 27, shall be conducted in accordance with applicable State and federal regulations.
22. The Discharger shall clean up, remove, and relocate any wastes that are discharged in violation of this Order.
23. The Discharger shall demonstrate compliance with all permitting and CEQA review requirements for offsite sediment disposal sites proposed for the SMP and for any alternative offsite sediment disposal sites. If requested by the Executive Officer, a delineation of existing jurisdictional waters of the State and United States at any temporary or permanent sediment disposal site, verified according to Corps' delineation standards, shall be conducted prior to the preparation for disposal and submitted for the Executive Officer's acceptance prior to the disposal of sediment.

Vegetation Management and Sediment Removal

24. For all proposed sediment removal and vegetation management, the Discharger shall follow the Maintenance Guidelines and procedures described in Manual Chapter 3 and Provisions D.78 – D.79 to justify maintenance needs based on the analysis of channel capacity; hydraulic constrictions; and sediment, vegetation, and roughness objectives.
25. The Discharger shall have equipment and supplies onsite (or readily available nearby) for rapid deployment to prevent, or minimize adverse water quality effects in the event the Discharger causes or may cause an exceedance of receiving water limitations specified in this Order.

Bank Stabilization

26. The Discharger shall follow the bank stabilization guidelines and methods described in Manual Chapters 3 and 6.
27. The Discharger shall follow the bank stabilization treatment selection process specified in Manual Chapter 6 to determine the most appropriate bank stabilization method for each bank stabilization project. The use of hardscape materials shall be restricted to areas where bioengineering systems are demonstrated to be infeasible. Any changes to the bank repair methods (Attachment D – Bank Stabilization Methods) shall be proposed in the NPW, or equivalent document, and may not be implemented until they have been approved in writing by the Executive Officer. The Executive Officer will approve, deny, or indicate needed modifications to any changes to the bank repair method(s) proposed in the NPW or equivalent document, within 45 days of receipt.

28. Where bank stabilization activities may result in modifications to channel cross-sections and/or profiles, the banks shall be re-contoured to match the adjacent bank slope.

Management of Animal Conflict

29. The Discharger shall follow the guidelines for management of animal conflict described in Manual Chapters 3 and 7.
30. Management of animal conflict activities shall not result in direct or cumulative impacts to water quality or beneficial uses of waters of the State.

Minor Maintenance

31. The Discharger shall follow the guidelines for minor maintenance activities described in Manual Chapters 3 and 8.
32. Minor maintenance activities shall not result in direct or cumulative impacts to water quality or beneficial uses of waters of the State.
33. Minor maintenance activities shall not impact more than 0.08 acre of wetland and/or riparian habitat per activity site and 0.4 acre total per year for all activities. Minor maintenance projects resulting in impacts equal to or greater than 0.01 acre shall be included in annual reporting as described in the Manual.
34. Minor sediment removal is defined as 25 cubic yards or less of material removed from any outfall, culvert, flap gate, tide gate, inlet, grade control structure, fish ladder, fish screen, bridge, or, stream flow measuring station (stream gauge) to maintain functions of such structures. Removal of sediment shall not extend farther than 100 feet in any direction from the structure.

Large Woody Debris

35. The Discharger shall comply with the specified program and project limits for each work activity as described in Manual Chapters 3, 6, and 9. The SMP defines large woody debris (LWD) as large naturally occurring wood having a minimum diameter of 12 inches (30.5 cm) and a minimum length of 6 feet (1.82 meters) in stream beds and banks. SMP LWD management actions pertain to streams that function, or potentially could function, as habitat for anadromous salmonids.
36. LWD management shall be conducted in a manner that maximizes the environmental benefit of the LWD to stabilize stream banks and provide instream habitat.
37. The Discharger shall follow the guidelines in Manual Chapter 9 when manipulating or removing LWD for maintenance purposes. If a stream functions, or potentially could function, as habitat for salmonids, then LWD cannot be removed. If the LWD poses a credible risk of blocking a culvert, bridge, or otherwise obstructing flow, causing structural damage, or destabilizing a channel, it may be, cut, relocated, repositioned, or cabled to a stream bank in a manner that protects existing habitat.

38. The SMP LWD management actions apply to LWD below ordinary high water (or bankfull) elevation. The SMP LWD management actions also apply to LWD above ordinary high water in specified high-quality reaches of the salmonid streams listed in Manual Chapter 9, Table 9.2.
39. LWD work activities are permitted year round except where mechanized equipment is required to work within the live stream channel or if water quality may otherwise be affected. If mechanized equipment is required to work within the live stream channel or if water quality may be affected, LWD management actions shall be performed during the SMP work season of June 15 to October 15.

Program and Project Limits

40. The Discharger shall comply with the specified program and project limits for each work activity as described in Manual Chapters 3 through 9. The SMP is managed programmatically and each work activity has a range of overall program and project-specific limitations. Types of limits may include acreage, areal extent, linear feet, percentage of hardscape for bank stabilization, number of trees that can be removed, and the amount of herbicides and pesticides that can be used. These limits are provided to define maximum project, annual, and program maintenance activities until such time as Maintenance Guidelines are established. Where Maintenance Guidelines exist, projects will comply with the quantitative objectives as described in the Maintenance Guidelines for the particular reach. In the event that conformance with Maintenance Guidelines results in exceedance of the limits described in the Manual, the requirements of the Maintenance Guidelines shall be followed.
41. The Discharger may request the Executive Officer to waive the Per-Project Limits for sediment removal or bank stabilization. Any request for a waiver of Per-Project Limits shall be submitted with the NPW and include the following. The Discharger shall implement any conditions included the Executive Officer's acceptance a proposal to waive per-project limits, which conditions may include, but are not limited to, requirements to implement alternative implementation and construction methods and to complete compensatory mitigation, including appropriate monitoring, reporting, and maintenance.
- a. A narrative description of the waterbody. This should include known information about the volume and duration of flood flow events; the approximate length, width, and depth of the waterbody and characteristics observed associated with the ordinary high water mark (e.g., bed and bank, wrack line, or scour marks); a description of the adjacent vegetation community and a statement regarding the wetland status of the adjacent areas (i.e., wetland or non-wetland) surrounding land use; water quality; issues related to cumulative impacts in the watershed; and any other relevant information;
 - b. An analysis of the potential impacts of the proposed SMP maintenance activity on the waterbody;

- c. An analysis of the potential for special-status plants or animals to be impacted by the proposed SMP maintenance activity;
- d. Measures the Discharger will take to avoid and minimize impacts to waters of the State, including alternative implementation and construction methods; and
- e. A compensatory mitigation plan describing how the Discharger proposes to mitigate for unavoidable impacts resulting from the proposed activity.

Best Management Practices

- 42. The Discharger shall implement the best management practices (BMPs) (Manual Attachment A), to prevent pollutants from draining, washing, or otherwise discharging into waters of the State during SMP activities. The BMPs may be revised, as necessary, with the written approval of the Executive Officer, provided that any revisions meet the overall criteria described in this Order and the revised SMP is as protective or more protective of water quality and beneficial uses of waters of the State.
- 43. The Discharger shall visually inspect each active maintenance site, during business hours, within two business days (48 hours) prior to each qualifying rain event producing precipitation of ½ inch or more over a 24-hour period. The visual observations shall include:
 - a. All stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the Discharger shall implement appropriate corrective actions.
 - b. All BMPs to identify whether they have been properly implemented in accordance with the SMP and this Order. If needed, the Discharger shall implement appropriate corrective actions.
 - c. Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.
- 44. The Discharger shall visually inspect each maintenance site at least once daily during storm events that extend beyond a qualifying rain event to confirm that BMPs are effective and maintained as necessary.
- 45. The Discharger shall visually inspect each maintenance site within two business days (48 hours) after each qualifying rain event to determine whether the BMPs were effective and identify the need to modify or include additional BMPs to be protective.
- 46. The Discharger shall visually inspect the discharge of stored or contained stormwater that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more over a 24-hour period at the time of discharge, within each maintenance site. Stored or contained stormwater that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to discharge.

47. The Discharger shall record the time, date, and rain gauge reading of all qualifying rain events.
48. The Discharger shall maintain records of all visual observations (as specified in Provisions D.43 – 46), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.
49. The Discharger is not required to conduct visual observations (inspections) during dangerous weather conditions such as flooding and electrical storms or outside of scheduled site business hours.
50. The Discharger shall divert any flow around active maintenance areas consistent with Manual Chapter 3 and Attachment F (BMPs).
51. The Discharger shall halt work activities and notify Water Board and California Department of Fish and Wildlife (CDFW) staff if fish, amphibians, or other aquatic organisms are exhibiting stress or death within 1,000 feet of maintenance activities or discharges. The Discharger shall immediately assign a qualified biologist to investigate the cause of the problem and to determine if the cause is related to SMP activities. If so, the Discharger shall prepare and implement an acceptable corrective action plan.
52. The Discharger shall divert any flow around active maintenance areas consistent with Manual Chapter 3 and Attachment E (Water Quality Monitoring Plan).
53. All staging shall occur on adjacent access roads or previously-disturbed areas unless demonstrated to be infeasible. If the Discharger is unable to use adjacent access roads or previously-disturbed areas for staging, the Discharger shall choose an area for staging that will result in the least environmental impact. The Discharger shall implement BMPs to ensure impacts to waters of the State and adjacent riparian areas are avoided and minimized and the site returned to pre-project conditions. If repair activities affect the active channel, the work area shall be isolated from flowing channel segments and restored to pre-project conditions after maintenance activities are complete.

Compensatory Mitigation

54. Mitigation for impacts from instream sediment removal, vegetation maintenance, and aquatic herbicide use below ordinary high water or below the high tide line in the Previously Mitigated Areas (PMAs) is provided through the Discharger's land acquisition and preservation of the properties listed in Finding 27. Mitigation for those SMP activities in the PMAs is in perpetuity, consistent with the conservation easement and long-term management plan for each of the preservation sites, except under conditions in Provision D.55.
55. If the Discharger is not able to manage a mitigation property, either in part or in full, consistent with the approved long term management plan for the property, then the Discharger shall notify the Water Board within 30 days. For impacts that will occur at the PMAs the Discharger shall provide other mitigation as specified in Manual Chapter 10.

56. The Discharger shall implement the mitigation program described in Manual Chapter 10 to mitigate for impacts to water quality and beneficial uses from SMP maintenance activities.

57. The mitigation types, methods, and ratios described in Manual Chapter 10 of the Manual, and summarized below, shall be applied to address SMP-2 mitigation requirements:

- a. Ecological Services Mitigation. Ecological Services Mitigation consists of replacing or enhancing ecological services at the impact site or nearby. Ecological services may include the removal of non-native invasive species to facilitate growth of native species; restoration of native plant communities following maintenance activities; encampment cleanup and associated bank rehabilitation; and concrete removal from stream channels. Ecological Services Mitigation shall be conducted using the mitigation ratios summarized in Manual Chapter 10. The Ecological Services Mitigation types are summarized below.
 - i. *Invasive Plant Management Program (IPMP)*. IPMP will eliminate or significantly reduce populations of invasive plant species by removing or controlling the growth of invasive plants within the SMP Program area. Mitigation needs and credit will be determined annually, depending on the proposed work for the year. IPMP may be used to compensate for impacts from vegetation maintenance activities, sediment removal, and certain bank stabilization projects.
 - ii. *Revegetation Program*. The Revegetation Program will restore and enhance riparian habitat along the channel banks and floodplain. Restoration will be accomplished primarily via revegetating creek banks and floodplains within the SMP Program area where the existing physical conditions (i.e., topography, hydrology, and soils) are suitable to establish native-dominated riparian habitat.
 - iii. *Encampment Cleanup/Bank Rehabilitation*. Encampment cleanup mitigation shall include removal of human waste and organic and inorganic trash that is in, or positioned to enter, aquatic and riparian habitats. Encampment cleanup may also include repair and rehabilitation of stream banks impacted by encampment-related excavation.
 - iv. *Concrete Removal*. Concrete removal may act as mitigation-caused stabilization. Concrete removal involves the removal of concrete from below ordinary high water. Removal of concrete may include removal of any concrete structures or fragments of concrete regardless of their provenance. Concrete removals will only be considered valid mitigation if they leave behind softscape in the footprint of the removal.
- b. Bank Stabilization. Bank stabilization mitigation will depend on the bank stabilization method and stream type. The Discharger will conduct bank stabilization mitigation activities along the entire bank slope to provide

- enhancement and restoration via Onsite and Offsite Ecological Services Based Mitigation as described above and at the mitigation ratios summarized in Manual Chapter 10. The Discharger may accrue mitigation credit for implementing mitigation that exceeds the required mitigation ratio on the basis of areal extent, habitat function, and/or natural resources enhanced or restored. The Discharger may apply this mitigation credit to another specifically identified bank stabilization project within the same watershed, as approved by the Executive Officer on a case-by-case basis. Mitigation credits and their application to other bank stabilization sites will be identified and tracked in NPWs and ASRs as described in Manual Chapters 11 and 12.
- c. Land Acquisition Mitigation. Land Acquisition Mitigation under SMP-2 is separate from and independent of the land acquisition requirements associated with SMP-1. Under SMP-2, land may be acquired and protected in perpetuity to address repeated impacts and longer term mitigation needs and may include in-kind or out-of-kind preservation, enhancement, restoration, or establishment as indicated in Manual Chapter 10. The Discharger may also collaborate with other landowners to fund, develop, monitor, and ensure success of aquatic resource preservation, enhancement, restoration, or establishment projects on land not owned by the Discharger. Mitigation ratios will vary depending on the type of mitigation activity conducted in the acquired land and will be included in the NPW for review and approval by the Executive Officer. The Discharger shall develop a long-term management plan, acceptable to the Executive Officer, for all acquired lands. The Discharger shall also provide protection in perpetuity for of lands not owned by the Discharger, but acquired as mitigation for SMP-2 activities through a conservation easement or other instrument acceptable to the Executive Officer.
- d. Mitigation for Impacts to Special Status Species and Associated Habitat. Mitigation for impacts to special status species and associated habitat shall be provided through Species-Targeted Habitat Mitigation. The following mitigation actions may be performed and integrated to compensate for effects on multiple sensitive habitats and resources:
- i. *Mitigation for Impacts to Anadromous Salmonids*. When mitigation for SMP impacts to waters of the State and riparian habitats is conducted along creeks supporting anadromous salmonids (i.e., steelhead and Chinook salmon), the Discharger shall design the mitigation to benefit these species. Mitigation for the loss of spawning gravels and instream complexity features shall be determined using maintenance site assessments as described in the Manual.
- 1) *Gravel Augmentation*. The Discharger shall implement gravel augmentation as described in Manual Chapters 10 through 12 and Attachment G (Steelhead Impact Minimization Measures). The Discharger shall recommend a list of sites for review and approval by the regulatory permitting agencies in the NPW. Mitigation will be

provided by placement of coarse substrate at identified and approved sites.

- 2) *Instream Complexity Mitigation.* The Discharger shall implement instream complexity mitigation as described in Chapters 10 through 12 of the Manual. The Discharger shall recommend a list of sites for review and approval by the regulatory permitting agencies in the NPW. Instream complexity features impacted by bank stabilization and sediment removal activities will be replaced onsite where conditions allow. Where onsite conditions do not permit replacement of instream complexity features, the Discharger shall install mitigation features at a site or sites selected from the approved list.
 - 3) *Large Woody Debris (LWD) Mitigation.* The Discharger shall implement LWD mitigation as described in Manual Chapters 9 through 12. The Discharger shall assess site-specific LWD conditions to determine whether LWD features will be (1) retained; (2) repositioned; (3) modified; (4) relocated; or (5) removed, as Tiers 1 through 5 LWD actions. The Discharger shall provide LWD mitigation for all LWD features in anadromous salmonid channels based on the Tier of the actions, consistent with Manual Chapters 9 and 10, to compensate for the important ecological, geomorphic, and hydraulic functions the LWD provides in the stream. The mitigation requirement associated with removal of LWD shall be based on the volume of wood removed. The Discharger shall estimate the volume of wood to be removed during pre-project assessments and use the estimated volume to determine preliminary mitigation proposal to be included in the NPW for review. The Discharger shall implement LWD mitigation based on actual LWD removed from the maintenance site.
- ii. *Mitigation for Impacts to Tidal Wetland/Aquatic Species.* Through completing the Island Ponds Restoration Project, the Discharger has a mitigation credit of 8.98 acres for mitigation of impacts to tidal wetland, other tidal waters, or tidal-marsh dependent species, consistent with Manual Chapter 10 and Attachments B (Previously Mitigated Areas) and C (Special-Status Plants and Special-Status Fish and Wildlife).
- e. Single-user Programmatic Mitigation Bank. The District may develop a single-user umbrella mitigation bank in coordination with the Corps and the Water Board as described in Manual Chapter 10. The single user umbrella bank will allow for establishment of multiple mitigation sites over time and establish the site protection requirements set forth in a formal banking agreement between the Corps, the Water Board, the District, and possibly CDFW. This single-user mitigation bank will afford a structure with which to provide programmatic mitigation. The single-user umbrella mitigation bank would incorporate any new land acquisition mitigation, other offsite mitigation for bank stabilization

projects, and mitigation for other permanent or repeat impacts not accommodated in the other mitigation approaches.

58. The Manual includes mitigation ratios (Chapter 10) associated with each maintenance activity (e.g., sediment removal, vegetation management) and each mitigation type (e.g., Invasive Plant Management Program, Land Acquisition). Due to the variation in maintenance activity impacts and mitigation types associated with Land Acquisition Mitigation, the Discharger shall propose mitigation for review and approval by the Executive Officer. If the Executive Officer determines that the Discharger has not proposed adequate mitigation for the potential impacts to waters of the State, additional or alternative mitigation shall be required.
59. To the maximum extent practicable, the Discharger shall implement compensatory mitigation projects in advance of, or concurrent with, the activity causing the permitted impacts. This is particularly true when offsite mitigation is pursued. Due to the nature of onsite mitigation, it is recognized that onsite mitigation activities will likely occur during or following the maintenance activities.
60. Any minor changes to any of the aforementioned compensatory mitigation approaches included in the Manual must meet the overall criteria and function of the methods described in this Order and the Manual and may not be implemented until they have been approved in writing by the Executive Officer.
61. The Discharger shall submit proposed mitigation as part of the NPWs to the Executive Officer for approval. In the event that a proposed mitigation activity is denied by the Executive Officer, an alternative mitigation proposal shall be submitted to the Executive Officer for written approval within 45 days. The Executive Officer will approve the alternative mitigation proposal and provide a notice to proceed, deny it, or indicate needed modifications to the NPW, within 45 days of receipt. If the Discharger becomes aware that an approved mitigation proposal is no longer viable, an alternative mitigation proposal shall be submitted to the Executive Officer for written approval within 90 days. The Discharger shall implement the alternative mitigation proposal that the Executive Officer has approved.
62. If any of the mitigation sites have not developed in accordance with the performance criteria as described in Manual Chapters 10 and 11 by year five after completion of mitigation construction, the Discharger shall prepare and implement a revised mitigation plan, acceptable to the Executive Officer, addressing corrective action, outlining additional monitoring, or proposing new mitigation.
63. Throughout the course of the SMP, the Discharger shall continue to look for in-kind mitigation opportunities within the Discharger's jurisdiction to offset impacts resulting from maintenance activities activities
64. Annual minor maintenance activities that impact greater than 0.01 acre of wetland or riparian habitat shall be mitigated per the mitigation program described in Manual Chapter 10.

Monitoring and Reporting

65. The Discharger shall monitor all active maintenance project sites and mitigation project sites in accordance with Manual Chapter 11.
66. The Discharger shall monitor LWD based on its Tier classification, as required under the procedures in Manual Chapters 9, 10, and 11. If Water Board staff determine that the performance criteria, as specified in the approved NPW, have not been met and/or the LWD feature(s) has created any adverse effects, the Discharger shall propose, in the ASR, and implement corrective action and additional monitoring until the approved performance criteria have been met.
67. Any minor changes to any of the monitoring requirements or success criteria in Manual Chapter 11 shall meet the overall criteria and function of the methods described in this Order and the Manual and may not be implemented until they have been approved in writing by the Executive Officer.
68. All monitoring reports shall be prepared and submitted to the Executive Officer for review and approval, in accordance with Manual Chapters 11 and 12.
69. The Discharger shall submit an NPW, acceptable to the Executive Officer, by April 15 of each year. The Discharger shall submit NPWs according to the process established in the Manual and this Order. Annual maintenance plans and NPWs shall be developed by an interdisciplinary team with expertise in hydraulic engineering, horticulture, and biology. The Discharger shall document the team's expertise in a cover letter accompanying the NPWs. The NPW shall include the information as specified in Manual Chapter 12. The Executive Officer will approve the NPWs for that year's projects and provide a notice to proceed, deny NPWs, or indicate needed modifications to the NPW, within 45 days of receipt. The Discharger may also submit a second NPW (second submittal) that identifies additional maintenance projects that become necessary due to unforeseen events such as, but not limited to, late season rain events, earthquakes, or wildfire. Second submittals shall contain the same type of information as required in the NPW. The Executive Officer will approve the second submittals and provide a notice to proceed, deny the NPWs, or indicate needed modifications to the NPW, within 15 days of receipt.
70. Where vegetation management or sediment removal is necessary, but Maintenance Guidelines do not exist, the Discharger shall develop and submit the following information in the NPW:
 - a. Classification of the stream reach as modified, modified with ecological value, or unmodified;
 - b. Statement as to whether the stream reach is part of a PMA, and if so, maintenance activities covered under the PMA;
 - c. For modified and modified with ecological value stream reaches, the design flood return period for each reach (e.g., the one-hundred-year flood) and the design flow rate;
 - d. For unmodified stream reaches, a description of the Discharger's best estimate of the natural condition of the reach and the assumptions to develop it;

- e. Roughness and sediment objectives for the proposed maintenance, including the assumptions and rationale used to develop the objectives;
 - f. Vegetation objectives for the proposed maintenance shall describe the desired vegetation condition (e.g., vegetation type, density) that optimizes environmental values while still providing the design flood flow conveyance;
 - g. Determination of any increase in water surface elevation compared to the as-built condition and the cause of this increase, including whether the work site is a hydraulic constriction, or is subject to backwater effects caused by a downstream constriction, using available field data and/or a hydraulic model, if available;
 - h. Evaluation of alternative approaches that could achieve the same result (e.g., removing a hydraulic constriction, removing sediment instead of instream vegetation);
 - i. General channel reach dimensions;
 - j. Anticipated frequency of maintenance; and
 - k. For all sediment removal and bank stabilization activities proposed in anadromous streams, regardless of channel type and whether Maintenance Guidelines exist or not, provide an evaluation of alternative approaches (e.g., removing a hydraulic constriction, removing vegetation instead of sediment, considering an alternative bank stabilization method) that could achieve the same result while further minimizing or avoiding impacts to the sensitive habitat.
71. After May 1 and before June 15 of each year, the Discharger shall organize a meeting and a field tour with the Water Board, along with other regulatory agencies, to discuss the projects scheduled for that year.
72. The Discharger shall submit ASRs by January 31 according to the process established in Manual Chapter 12.
73. The Discharger shall coordinate with Water Board staff to ensure Project information is entered into EcoAtlas, consistent with Finding 31. The Project information shall be added to the Project Tracker tool in EcoAtlas online at <https://ptrack.ecoatlas.org>.
74. The Discharger shall implement the Water Quality Monitoring Plan (Manual Attachment E).
75. The Discharger shall implement the Sediment Characterization Plan (Manual Attachment F). The Sediment Characterization Plan may be updated and improved with the written approval of the Executive Officer provided that any amendments meet the overall criteria and function of the methods described in this Order and the SMP.
76. After each maintenance season, the Discharger shall coordinate annually with the Water Board staff (and other regulatory agencies) to review overall SMP performance, including, but not limited to: an overview of the ASR from the prior construction season, status of mitigation obligations incurred by maintenance

projects and mitigation site management, data management and reporting, and the effectiveness of program coordination and communication.

77. The Discharger shall coordinate annually with the regulatory agencies to review overall SMP performance, including, but not limited to: an overview of the ASR from the prior construction season, status of mitigation obligations incurred by maintenance projects and mitigation site management, data management and reporting, and the effectiveness of program coordination and communication.

Quantitative Assessments

78. The Discharger shall adhere to the guidelines described in Manual Chapter 3 (Maintenance Planning and Impact Avoidance), including implementing Maintenance Guidelines to evaluate channel conditions and determine the need for maintenance. The Discharger shall consider the natural function of the system, watershed processes, sensitive habitats, and local physical constraints in assessing how, where, and when routine maintenance activities should occur. The Discharger shall identify and implement solutions to minimize the on-going need for maintenance activities.
79. The Discharger shall modify the Maintenance Guidelines, as described in Manual Chapter 3, to incorporate numeric maintenance guidelines and thresholds to meet Discharger goals and objectives while minimizing impacts to channels and natural resources. These Maintenance Guidelines shall be developed according to the work plan description and implementation schedule described in Provision 80.
80. The Discharger shall develop a work plan and implementation schedule for developing new and updated Maintenance Guidelines each year, as described in Manual Chapter 3. Maintenance Guidelines shall describe general stream functions and characteristics, high flow capacity objectives and estimates of flood stage-discharge relationships for creek reaches, so that quantifiable information will inform when maintenance is needed to provide for flood protection. The work plan shall be acceptable to and shall be submitted to the Executive Officer for approval within 60 days following adoption of this Order. The work plan shall include an implementation schedule that addresses all channels listed in Chapter 3 (Table 3-4, List of Facilities for Maintenance Guidelines Development (2014-2023)) of the Manual. All existing Maintenance Guidelines will be updated, and new Maintenance Guidelines developed for channels without existing Maintenance Guidelines, using the information described in Manual Chapter 3.6. The Discharger shall prioritize Maintenance Guidelines for update or development based on the type of maintenance, associated impacts, and the volume and frequency of work likely to occur in the each reach. Maintenance Guideline revisions shall be labeled with a revision date and revision number. Prioritization of developing or updating Maintenance Guidelines will be based on the type of maintenance, associated impacts, and the volume and frequency of work. The list shall not include future CIPs. Any changes to the work plan, or revisions to completed Maintenance Guidelines, shall not be implemented until the Executive Officer approves such changes or revisions in writing.

81. Each successive NPW during the permit term shall contain a higher percentage of work (e.g., proposed sediment removal and vegetation management) that is located within stream reaches where new or updated Maintenance Guidelines have been developed.
82. For routine sediment removal or vegetation management work being performed in streams without updated or new Maintenance Guidelines, the Discharger shall provide analytical documentation for work line items in the NPW. The analytical documentation shall include the information listed in Manual Section 3.6.
83. The following activities are exempt from annual notification requirements and may occur any time at the discretion of the Discharger and consistent with the Manual:
 - a. Non-instream vegetation:
 - i. Routine pruning – overhanging growth (of roadways and fence lines) and in PMAs; and
 - ii. Pruning of vegetation that is expected to result in the removal of less than 0.01 acres (436 sq. ft.) of riparian vegetation per project;
 - b. Corrective pruning;
 - c. Coppicing;
 - d. Flaming;
 - e. Grazing;
 - f. Mowing, unless it is in sensitive habitats such as wetlands or woody riparian vegetation or there are potential impacts to special-status species; and
 - g. Herbicide spraying on maintenance roads.

Fees

84. In accordance with 23 CCR section 2200, the Discharger shall pay an annual fee, if applicable, to the Water Board each fiscal year (July 1 – June 30) until Project construction activities are completed. If monitoring is required, the Discharger shall pay an annual fee to the Water Board until monitoring activities are completed.
85. This Order is conditioned upon total payment of the full fees, including annual fees, required in State regulations (23 CCR sections 2200(a)(3) and 3833(b)(3)) and owed by the Discharger. The application fee for this Project was paid in full on November 13, 2019, and was calculated as “Category A – Fill & Excavation Discharges” with the dredge and fill fee calculator. Extension of this Order’s authorization may require payment of a fee.

Records Provisions

86. The Discharger shall maintain a data management system to monitor stream maintenance activities, natural resources in the SMP maintenance jurisdiction, permitting requirements, and mitigation efforts, consistent with Manual Chapter 12 and this Order.

87. The Executive Officer may request that data and technical reports relating to the SMP be provided to the Water Board at times outside of the reporting requirements specified in this Order. Adequate time will be provided for the data request. The Discharger shall timely submit the requested data and technical reports.
88. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Officer at any time, but not retroactively, to require retention for greater than five years.
89. The Discharger shall submit electronic versions of any submitted reports or documents.

General Provisions

90. All provisions in this Order apply to all streams and activities identified in the Manual.
91. The following activities are not included in the Manual and, therefore, are not covered in or authorized by this Order: CIPs; maintenance work that would increase the flow conveyance or water supply capacity of facility beyond the designed stream capacity (as-built design); maintenance work in stream reaches that are above 1,000-foot elevation level; maintenance work for dams, reservoirs and other water supply facilities, such as canals, pipelines outside of stream corridors, groundwater percolation ponds, and instream summer dams; installation of new or major modification of fish ladders; maintenance work conducted on private property by owners or other agencies; maintenance work performed by other agencies; area-wide intensive maintenance, or rehabilitation of large [>0.05 acre] areas installed as part of a CIP that have persisted beyond the establishment period (period of time until the planting are self-sustaining); and emergency activities and procedures. A situation is considered an "emergency" if it is a sudden, unexpected occurrence involving a clear and imminent danger that demands immediate action to prevent or mitigate loss of or damage to life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Pub. Res. Code § 21060.3).
92. All work performed within waters of the State shall be completed in a manner that minimizes impacts to beneficial uses and habitat; measures shall be employed to minimize disturbances that will adversely impact the water quality of waters of the State. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete project implementation;
93. The Discharger shall comply with all the Prohibitions, Discharge Specifications, Receiving Water Limitations, and Provisions of this Order immediately upon adoption of the Order or as provided in the Order.
94. The Discharger shall comply with all necessary approvals or permits for the SMP and its mitigation projects from applicable regulatory agencies, including, but not

limited to, the Water Board, CDFW, the Corps, the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and local agencies. The Discharger shall submit copies of such approvals or permits to the Executive Officer prior to SMP implementation.

95. This Order does not allow for the take, or incidental take, of any special status species. The Discharger shall use the appropriate protocols, as approved by CDFW and USFWS, to ensure that project activities do not impact the beneficial use of the Preservation of Rare and Endangered Species.
96. The Discharger shall implement the SMP in accordance with the conditions described in the Manual and all the associated attachments, and the findings herein, and shall comply with all applicable water quality standards. The Manual and associated attachments are considered a “living document” that allows for minor updates and revisions in order to incorporate maintenance techniques and methods that are more protective of the environment or to improve the SMP. Any proposed minor changes shall be submitted via the NPW or the ASRs for review and approval. Any substantive changes to the Manual or the associated attachments must comply with all terms and conditions of this Order. The Discharger shall not implement any substantive changes to the Manual or the associated attachments until such changes have been approved in writing by the Executive Officer.
97. The Discharger shall conduct SMP maintenance work during the dry season or low-flow season, June 15 – October 15, as shown in the work windows below. Depending on stream conditions (i.e., dry channel conditions) and whether the channel supports anadromous fish, the Discharger may conduct limited SMP maintenance work activities per the work windows in Tables 1, 2, and 3.

Table 1. Work Windows for Maintenance Activities Below Ordinary High Water or High Tide Line in Creeks That Support Sensitive Fish Species

Work Activity	Jun 15 through Oct 15	Oct 15 through Oct 31 No work once significant rainfall occurs. See footnotes 1 and 2.	Nov 1 Through Dec 31 No work once significant rainfall occurs. See footnotes 1 and 2.	Year Round, except where mechanized equipment crosses a creek or water quality is otherwise affected
Hand pruning, tree removal, and stump treatment	X	X	X	
Herbicide Use ²	X ²	X ²	X ²	
Sediment Removal ³	X	X ³		
Bank Stabilization ³	X	X ³		
Concrete Removal /Bank Rehabilitation Mitigation	X	X		
Encampment Cleanup				X ⁴
Minor Maintenance				X ⁴
Management of Animal Conflict - Burrow Filling				X ⁴
Large Woody Debris				X ⁴

Footnotes:

- X indicates work is allowed.
 - "Sensitive fish" refers to anadromous salmonids, green sturgeon and longfin smelt.
 - All SMP activities that require dewatering of areas within anadromous salmonid streams are restricted to the period between June 15 and October 31.
- 1 No work is authorized once significant rainfall occurs. After October 1, the Discharger shall consult a 72-hour look-ahead weather forecasts from the National Weather Service (or other qualified local vendor) to prepare for possible winterization measures. If a significant rainfall is forecast within the coming 72-hr window, maintenance work that may result in sediment runoff to the stream shall be stopped to allow adequate time to complete erosion control measures. Winterization materials shall be available and installed prior to significant rainfall. Significant rainfall is the local rainfall of 0.5 inches or greater within a 24-hour period in the subject watershed, below the 1,000-foot contour.
- 2 Herbicide use shall adhere to Material Safety Data Sheet and product label limitations. Aquatic herbicide use in California red-legged frog and California tiger salamander SMP potential range map areas is authorized only when the creek is dry and no rain is forecast for the next 48 hours. Surfactant use on the 14 creeks supporting anadromous salmonids is permitted when the stream is dry in the immediate work location and no rain is forecast for the next 24 hours.
- 3 No new instream sediment removal or bank stabilization projects may be initiated after October 15.
- 4 If work is occurring within the wetted channel, biological pre-activity surveys shall occur within 7 days prior to the initiation of work activities and a qualified biologist must be on site to monitor the work (See BMP GEN-1).

Table 2. Instream (Below Ordinary High Water or High Tide Line) Work Windows for Creeks That do Not Support Sensitive Fish Species

Work Activity	Jun 15 through Oct 15	Oct 15 through Nov 30 No work once significant rainfall occurs. See footnotes 1 and 2.	Dec 1 through Dec 31 No work once significant rainfall occurs. See footnotes 1 and 2.	Jun 15 through Dec 31 No work once significant rainfall occurs. See footnotes 1 and 2.	Year-round except where mechanized equipment crosses a creek or otherwise affects water quality
Hand pruning, tree removal, and stump treatment					X
Herbicide	X ³	X ³	X ³		
Sediment Removal	X	X ⁴		X ⁵	
Bank Stabilization	X	X ⁴			
Concrete Removal /Bank Rehabilitation Mitigation	X	X			
Encampment Cleanup					X
Minor Maintenance					X
Management of Animal Conflict - Burrow Filling					X

Footnotes:

- X indicates work is allowed.

1 Defined as 0.5" within 24 hours within watershed

2 72-hour look-ahead weather forecasts from the National Weather Service (or local vendor such as the Western Weather Group) are consulted to prepare for possible winterization measures. If a significant rainfall is forecast within the coming 72-hr forecast window, then maintenance work that may result in discharge of sediment to the stream shall be stopped, to allow adequate time to complete erosion control measures. Winterization materials shall be available and installed when rain falls. If after a storm event occurs there was not significant rainfall, the project may continue until next significant rainfall or October 31.

3 If heavy equipment would be required for instream work, the work shall be included in the NPW for the instream work window.

4 Only for specific reaches of Berryessa, Lower Silver, Thompson, Canoas, Ross, Calabazas, San Tomas Aquino creeks.

5 Only if at least 50% complete on October 15 or is a new project that will be completed in five (5) days or less.

Table 3. Non-Instream (Above Ordinary High Water or High Tide Line) Work Windows

Work Activity	Year-round, except where mechanized equipment crosses a creek or otherwise affects water quality	Work Period
Vegetation Management (including pruning, limb removal, vegetation removal <6 inches dbh and tree removal 6-12 inches dbh)	X	
Herbicide ²	X ¹	X ²
Mowing	X ³	
Grazing ³		Feb 1 through Nov 30
Management of Animal Conflicts	X	
Bank Rehabilitation Mitigation	X	
Encampment Cleanup Mitigation	X ⁴	
Minor Maintenance	X ⁵	

Footnotes:

- X indicates work is allowed.
 - All maintenance vehicles shall stay on maintenance roads during the rainy season and when the soil is damp so as to avoid and minimize disturbed soil conditions within the bed and bank of the channel.
 - Grazing animals shall be restricted from entering the channel, all waters flowing and standing, and wetland habitats.
- 1 Per Material Safety Data Sheet and product label limitations.
- 2 Herbicide application can only occur in California red-legged frog and California tiger salamander SMP mapped areas when the creek or area is dry and no rain is forecast for the next 48 hours.
- 3 See Large Woody Debris management (Manual Chapter 9).
- 4 Per special status species and pesticide requirements.
- 5 Instream work follows activity-specific work windows.

98. Any deviation from the approved work windows requires prior approval by the Executive Officer. The Discharger may submit a work window extension request by October 1, for review and approval by the Executive Officer, for SMP activities that need additional time to complete beyond the work windows described above. The extension request shall include, but not be limited to, the following information: channel names and reaches, maintenance activity type, reason for the extension request, and estimated date of completion. The Executive Officer will approve the proposed work window extension and provide a notice to proceed, deny it, or indicate needed modifications to the work windows and/or proposed maintenance activity(ies), within 15 days of receipt.

99. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises that is not consistent with the requirements of this Order and the water quality objectives specified in the Basin Plan, the associated SMP activities shall cease immediately until corrective actions have been implemented, including ensuring that effective BMPs are implemented to eliminate the discharge and clean up and remediate any recoverable pollutants. The Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.
100. All mitigation activities shall be completed as described in the Manual and this Order.
101. All Discharger or Discharger-contracted personnel who shall engage in maintenance activities shall be educated on the terms of this Order and the specific plans for the subject project site(s).
102. All Discharger or Discharger-contracted personnel shall be trained in fluid (e.g., chemicals, fuels, oil) spill cleanup procedures.
103. The Discharger shall maintain a copy of this Order, site-specific project plans, and site-specific BMP plans at each maintenance site at all times, so as to be available at all times to all personnel.
104. This Water Quality Certification and issuance of WDRs is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and 23 CCR section 3867.
105. This Water Quality Certification 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 section 3855(b), and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
106. The Water Board may add to or modify conditions of this Order, as appropriate, to implement any new or revised TMDLs.
107. The Water Board may add to or modify conditions of this Order, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Water Code or CWA section 303.
108. The Discharger shall correct any and all problems that arise from an SMP activity, including a failure to meet the conditions of this Order that results in an unauthorized release of pollutants, including sediment.
109. The Discharger shall permit Water Board staff or its authorized representative, upon presentation of credentials:
110. Entry on to the premises on which maintenance activities are planned or underway, wastes are located, or in which records are kept.

111. Access to copy any records required to be kept under the terms and conditions of this Order.
112. Access to inspect any treatment equipment, monitoring equipment or monitoring method required by this Order.
113. Access to sample any discharge or surface water covered by this Order.
114. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable State or federal law. For the purposes of CWA section 401(d), the applicability of any State law authorizing remedies, penalties, process or sanctions constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order. In response to a suspected violation of any condition of this Order, pursuant to Water Code section 13267, the Water Board may require the holder of any federal permit or license subject to this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Order, the Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.
115. This Order is not transferable.
116. The authorization of this Order for SMP activities is effective until such time the Water Board adopts a new Order to reissue water quality certification and WDRs for the Discharger's updated SMP. Mitigation and monitoring requirements of this Order that extend beyond the term of this Order remain in full effect and are enforceable.

I, Michael Montgomery, Executive Officer, do hereby certify that the foregoing is a full, complete and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 13, 2020.

Michael Montgomery
Executive Officer

Attachment A: Santa Clara Valley Water District Stream Maintenance Program Manual (Draft, March 17, 2020)
URL: <https://www.valleywater.org/flooding-safety/stream-maintenance-program>