

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Agnes Farres)
MEETING DATE: July 10, 2019

ITEM: 6

SUBJECT: **Napa County Flood Control and Water Conservation District, Stream Maintenance Program, Napa County** – Adoption of Waste Discharge Requirements and Water Quality Certification and Rescission of Order No. R2-2012-0063

CHRONOLOGY: The Board issued waste discharge requirements and water quality certification for these activities on August 8, 2012, as Order No. R2-2012-0063

DISCUSSION: The Tentative Order (Appendix A) would update and reissue waste discharge requirements and water quality certification to the Napa County Flood Control and Water Conservation District (District) to implement its Stream Maintenance Program (Program) as specified in the Napa County Stream Maintenance Manual (Manual) (Appendix B). Adoption of the Order will allow the District to continue its existing Program, which has been in place since 2012. The Program purpose is to complete stream maintenance activities in a manner that enhances and protects natural resources, while allowing the District to continue to improve its understanding of creek processes, reducing over time the need for maintenance. The Order would authorize routine maintenance activities including vegetation and downed tree management, erosion protection, bank stabilization, sediment and debris removal, and other minor maintenance activities within the Napa River watershed and the portion of the Suisun Creek watershed within Napa County, consistent with the Program and the Manual. With the reissuance, the District also will conduct maintenance in streams in American Canyon and Yountville per new agreements with the City and Town, respectively. Finally, the Tentative Order would incorporate monitoring and maintenance of the completed cleanup work associated with Site Cleanup Requirements being considered for rescission in Item 5.D.

This approach is expected to result in long-term benefits to riparian and aquatic habitat by reducing the amount of sediment delivered to maintained channels, reducing maintenance over time, and enhancing stream channels and riparian corridors.

The Tentative Order was circulated for a 30-day public comment period ending on June 14. We did not receive any comments.

**RECOMMEN-
DATION:** Adoption of the Tentative Order

APPENDICES:

A: Tentative Order

B. Napa County Stream Maintenance Manual and Attachments

(https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/tentative_orders.html)

Attachment A: Napa County Stream Maintenance Manual

Attachment B: Sediment Monitoring and Reporting Program

Attachment C. Monitoring and Reporting Schedule

Appendix A

The Tentative Order

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

TENTATIVE ORDER

**WASTE DISCHARGE REQUIREMENTS and WATER QUALITY CERTIFICATION and
RESCISSION OF ORDER No. R2-2012-0063 for:**

**Napa County Flood Control and Water Conservation District
Stream Maintenance Program
Napa County**

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

1. The Water Board regulates discharges to surface waters and controllable water quality factors to protect the physical, chemical, and biological components of aquatic ecosystems and the associated functions provided by streams, wetlands, and associated riparian areas. Stream maintenance activities may affect vegetation or the physical features of a stream or riparian area and are considered controllable water quality factors.
2. The Water Board regulates the implementation of Stream Maintenance Programs (SMPs) for routine stream maintenance activities, including sediment and debris removal, vegetation management, bank stabilization, and other maintenance activities in streams. It is anticipated that routine maintenance activities will not only provide flood protection by maintaining conveyance capacity but will also enhance and protect natural resources.
3. This Order applies to stream maintenance activities conducted pursuant to an approved SMP Manual (Manual) to guide implementation of the SMP. The Manual describes routine stream maintenance activities conducted in a manner that enhances ecosystem processes while helping to mitigate flood-related hazards. The Manual includes methods to improve understanding of channel conditions, identify potential underlying causes for maintenance, and develop channel discharge and vegetation objectives to reduce the frequency and need for future maintenance activities. This Order may be amended to include additional Dischargers or to authorize SMPs in other counties upon submittal of a complete application for Water Quality Certification, including an approved Manual.
4. The Manual and its appendices are considered a “living document” that may be updated or revised to improve maintenance protocols and increase their environmental protectiveness. Proposed changes will be submitted via an Annual Notification Report or Annual Post-Maintenance Report for review and approval. All changes to the Manual and the associated attachments must comply with all terms and conditions of this Order and be approved in writing by the Executive Officer.
5. This Order applies to the following:
 - a. The Napa County Flood Control and Water Conservation District’s (Discharger’s) stream maintenance activities conducted pursuant to the SMP within the Napa River watershed, which drains to San Pablo Bay, and that portion of the Suisun Creek watershed within Napa County,

which drains to Suisun Bay. This Order does not apply to stream maintenance activities conducted in the Lake Berryessa/Putah Creek watershed, which is under the jurisdiction of the Central Valley Regional Water Board.

Napa County Flood Control and Water Conservation District Findings

6. On June 5, 2018, the Discharger submitted an application for reissuance of Waste Discharge Requirements (WDRs) and Water Quality Certification (Certification) for their SMP. The Discharger previously conducted stream maintenance activities under Waste Discharge Requirements (WDRs) and Water Quality Certification Order No. R2-2012-0063. This Order reauthorizes the Discharger's ongoing maintenance activities within their maintenance jurisdiction as described in their updated Manual, dated January 2019 (Attachment A).
7. The Discharger developed a quantitative approach and completed channel assessments to develop flow capacity and vegetation maintenance objectives for specific channel reaches to guide implementation of the SMP as required by Order No. R2-2012-0063, Provision D.26, and described in the *Stream Maintenance Program Quantitative Assessment & Channel Inventories Work Plan*, dated May 30, 2014.

Stream Maintenance Program

8. The Manual includes the following primary maintenance activities: (1) vegetation management; (2) downed tree management; (3) erosion protection; and (4) sediment and debris removal. In addition, the Manual discusses other minor and less-frequent maintenance activities (see "Other Maintenance Activities," below).
9. The Manual categorizes streams according to the following channel types: (1) engineered channels; (2) modified channels; (3), semi-modified channels; and (4) natural streams. The Manual also characterizes the hydrologic, geomorphic, and biological processes influencing each stream reach where maintenance is conducted. The channel type and stream reach characterizations help determine the timing, frequency, strategy, and need for maintenance activities. Maintenance activities in natural streams are more limited compared to maintenance activities in other channel types.
10. Vegetation management generally refers to selective trimming, thinning, and removal of trees and vegetation that increase flood risk or are a flood hazard. Vegetation management activities also include maintenance conducted for public safety and to reduce fire fuel load. Vegetation management will be performed in a manner designed to prevent or minimize erosion, sedimentation, and loss of habitat.
11. Downed tree management refers to pruning, stabilizing, repositioning, or removal of fallen trees and large branches that increase flood risk, erosion, or threaten infrastructure like stream crossings or culverts. Downed tree management is performed in a manner designed to maximize in-stream habitat value of this woody debris, while maintaining channel flow capacity.
12. Erosion protection refers to activities implemented to manage erosion, repair or enhance eroded banks, and activities implemented to stabilize streambanks thereby eliminating the need for maintenance in the foreseeable future. Bank stabilization activities will use bioengineering techniques to the maximum extent possible and minimize the use of hardscape.

13. Sediment and debris removal refers to activities that remove accumulated sediment and debris from stream channels to restore conveyance capacity and alleviate flood risk. Sediment removal is limited to occur within modified and engineered channels, or within proximity to culverts and bridges. Sediment and debris removal activities will be conducted with the minimum amount of soil disturbance to prevent downstream sedimentation.

Napa County Flood Control and Water Conservation District's Other Maintenance Activities

14. The Discharger also conducts routine monitoring and maintenance for other projects, including (1) restoration projects within the Napa County Community Facilities District (Rutherford Reach and Oakville to Oak Knoll Reach; Manual Appendices A and B), (2) dredged material rehandling sites (Edgerly Island and Imola Avenue sites, Manual Chapter 10), and (3) the Napa River/Napa Creek Flood Protection Project (Manual Appendix M). Restoration projects will be monitored and maintained as described in the Manual and in project-specific maintenance plans approved by State and federal agencies. Maintenance of uplands at dredged material rehandling sites, including mowing the levees to minimize potential fire hazards, is also described in the Manual.
15. The Discharger has partnered with the Napa Resource Conservation District to protect streams and water resources in the County by improving and maintaining unpaved roadways and drainages to reduce erosion and improve water quality. The Manual describes unpaved road maintenance goals, project activities, methods, and avoidance and minimization measures (Manual Appendix L).
16. The Manual also describes maintenance activities to maintain channel access roads, roadside drainage ditches, bridges, drainage systems and outfalls, and to repair and replace culverts and beaver controls (Manual Chapter 12).
17. The Discharger developed a *Post-Construction Contingency Plan* (PCCP; Manual Appendix N) that describes long-term monitoring of the Petroleum Residual Contamination Area (PRCA), located between 5th Street and Tulocay Creek, where petroleum contamination in soil and groundwater was investigated and remediated concurrent with construction of the Napa River/Napa Creek Flood Protection Project. The cleanup involved removal of petroleum-impacted soil and capping of residual contamination in soils. The PCCP requires semi-annual inspections of the soil cap and implementation of corrective actions as needed to ensure the long-term protectiveness of the cleanup.

Impacts to Waters of the State

18. The stream maintenance activities in the Manual will only result in temporary impacts. No permanent impacts are proposed or anticipated from stream maintenance activities. Temporary impacts can result from the following vegetation management activities: (1) removal of live trees greater than six inches in diameter at breast height (dbh), and (2) removal of riparian vegetation.
19. Sediment removal also results in temporary impacts, for example when the sediment supports wetland vegetation, when the sediment/gravel removed provides habitat for benthic or aquatic species, including aquatic invertebrates, or when there are discharges such as sediment or turbidity associated with the removal.

Avoidance and Minimization Measures

20. The SMP has been designed to minimize impacts to beneficial uses. The Manual proposes activities that are expected to result in long-term beneficial effects on riparian and aquatic habitat for a suite of fish and wildlife species by (1) reducing the amount of sediment delivered to maintained channels; (2) reducing maintenance over time; and (3) enhancing stream channels and riparian corridors.
21. The Manual includes planning guidelines that will be used in the development of each year's maintenance work plan to determine how, where, and when routine maintenance activities should occur. These guidelines consider factors such as the natural function of the system, local physical constraints, sensitive habitats, and watershed processes to (1) determine when action is needed, (2) identify maintenance activities needed, and (3) minimize the ongoing need for maintenance activities.
22. Stream assessments will be conducted on a reach-by-reach basis that describes hydrology, geomorphology, and biological resources. Assessments will be updated periodically to reflect changes and progress in achieving the goals of the SMP. These stream characterizations will be developed to provide enough detail and photographic documentation to support the annual review and approval of maintenance projects.
23. Vegetation management conducted for public safety and fire fuel load reduction will be based, in part, on local fire code requirements and will balance public safety, homeless encampment issues, and fire fuel load reduction responsibilities with the protection and restoration of beneficial uses. These activities include pruning the lower limbs of trees up to a height of about five feet and mowing along access roads.
24. Non-ground-disturbing work may be performed in the channel zone, but not within the low-flow channel, throughout the year. Non-ground-disturbing work includes hand removal of debris and non-native invasive plant species, planting riparian vegetation, maintaining access roads for drainage and accessibility, and conducting minor repairs of culverts, provided there is no discharge of waste that may adversely impact water quality or beneficial uses.
25. Ground-disturbing maintenance activities occurring below top-of-bank will be completed during the low-flow or dry season (herein defined as June 15 - October 31), unless an exception is granted. Ground-disturbing activities include downed tree management, mechanized vegetation management, bank stabilization, and sediment removal. During dry years, when channels remain dry earlier than June 15 or later than October 31, an extension may be granted to conduct ground-disturbing maintenance activities outside this work window. Exceptions may be made on a project-by-project basis with advance approval by the Executive Officer and federal and State regulatory agencies as appropriate.
26. The Manual contains Sediment Sampling and Analysis Guidelines that describe protocols for sampling, analysis, characterization, reuse and disposal of sediment removed during maintenance activities. Sediment reuse or disposal options are based on the chemical quality of the sediment removed.
27. Any observations of contamination, such as chemical odors, oily sheens, or irregularly-colored sediment will be immediately reported to the Water Board. Consultation with Water Board staff, and other regulatory agencies as appropriate, will determine additional follow-up actions including

investigating potential sources of contamination, corrective actions, and appropriate disposal of contaminated sediment.

28. The following activities are not included in the SMP and therefore are not covered in this Order: capital improvement projects, projects that would alter the designed flood conveyance capacity of a channel, sediment removal or dredging projects greater than 500 feet in length, 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 (Pub. Res. Code §21060.3).

Channel Assessments

29. Conducting channel assessments to gain an improved understanding of channel conditions, including causal factors for maintenance, flow capacity objectives, and vegetation maintenance objectives of routinely-maintained channels is fundamental to the SMP’s approach to avoid and minimize environmental impacts while conducting maintenance.
- a. The Napa County Flood Control District will develop a channel assessment approach that will identify one stream reach per year where routine maintenance activities will be assessed for the following conditions: (1) typical maintenance needs; (2) geomorphic and hydrologic conditions; (3) vegetation communities; (4) habitat functions and values; (5) existing constraints and limiting factors to achieving improved habitat functioning; (6) opportunities for potential habitat enhancement or restoration; and (7) longer-term maintenance goals. These channel assessments will be used to identify restorative maintenance activities that will be integrated into routine maintenance projects to enhance physical and biological processes over time (Manual Chapter 14).

Mitigation

30. Impacts on beneficial uses from SMP activities that cannot be avoided entirely through pre-maintenance planning will be minimized through implementation of the mitigation measures and Best Management Practices (BMPs) described in the Manual.
31. The Manual describes mitigation that will be implemented to restore temporarily-impacted locations and compensate for temporal losses in function associated with the temporary impacts. Mitigation includes revegetation at bank stabilization sites, riparian planting, invasive plant removal, enhancing or developing in-stream habitat complexity, and gravel augmentation.
32. Any trees between 4 and 6 inches dbh that are removed will be mitigated at a 3:1 replacement ratio. Trees greater than 6 inches dbh will be mitigated at a 6:1 replacement ratio. Mitigation and tree planting activities will be included in the Annual Post-Maintenance Report submitted annually to the Water Board.
33. Mitigation for ground-disturbing activities will be (1) of the same type; (2) located where it is most likely to successfully replace lost area, functions, and beneficial uses; and (3) implemented in advance of, or concurrently with project impacts. This mitigation will include, in general order of preference: the restoration, creation, enhancement, or preservation of stream and wetland systems. In addition, the minimum amount of mitigation will be provided at a 1.1:1 mitigation ratio based on the extent of impacts in acres and linear feet and the duration of temporal loss. The minimum 1.1:1 mitigation ratio includes 1:1 for restoration of the temporarily-impacted project area plus

0.1:1 to compensate for temporal loss in functions associated with the temporary impacts. The additional 0.1:1 can also be achieved if the temporarily impacted project area is restored to better than pre-project conditions resulting in the long-term improvement of functions.

Monitoring and Reporting

34. This Order requires submittal of an Annual Notification Report (ANR), acceptable to the Executive Officer, by May 1 of each year. The ANR will describe the maintenance activities to be conducted during the upcoming maintenance season and propose mitigation to compensate for unavoidable impacts as described in the Manual. The ANR will include the following information: (1) the location of proposed maintenance activities; (2) the stream(s) and structures affected; (3) an assessment of potential project impacts; (4) the expected total cubic yards of material to be removed; (5) if dewatering will be required; and (6) proposed mitigation, if required.
35. This Order requires submittal of an Annual Post-Maintenance Report, acceptable to the Executive Officer, by January 31 of the year following the completion of maintenance activities. The Annual Post-Maintenance Report will describe the stream maintenance activities that were conducted, any mitigation implemented, monitoring results, lessons learned, and recommendations to update the BMPs identified in the Manual, as needed.
36. This Order requires that, after each maintenance season, the Discharger meet with Water Board staff to discuss the performance of the SMP, review lessons learned from the prior maintenance season, and determine the need to improve any stream maintenance techniques and BMPs. The Discharger will implement all stream maintenance techniques and BMPs deemed necessary under this SMP performance review and update the Manual accordingly.
37. All monitoring and reporting in this Order is required pursuant to California Water Code (Water Code) section 13267. The burden of such monitoring and reporting, including cost, is outweighed by the benefits derived from such monitoring and reporting, including, but not limited to avoiding, minimizing and mitigating for the environmental impacts resulting from routine maintenance activities.

Napa County Flood Control and Water Conservation District Monitoring and Reporting

38. This Order requires submittal of monitoring reports as required by (1) the *Post Construction Contingency Plan* for the Petroleum Residual Contamination Area; (2) the *Operations, Maintenance, Repair, Replacement and Rehabilitation Manual for the Napa River/Napa Creek Flood Protection Project*; (3) the *Monitoring Plan for the Rutherford Reach Restoration of the Napa River*; and (4) the *Napa River Restoration: Oakville to Oak Knoll Project Monitoring Plan*.

Regulatory Framework

39. Pursuant to Water Code section 13263 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.
40. 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 beneficial uses of any water body identified in the Basin Plan generally apply to all its tributaries. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law and U.S. Environmental Protection Agency, where required.

41. The Basin Plan lists the following existing and potential beneficial uses for surface waters and groundwater:

Napa County Flood Control and Water Conservation District

- a. Within the Napa River and Suisun Creek watersheds: agricultural supply; cold freshwater habitat; municipal and domestic supply; commercial and sport fishing; estuarine habitat; fish migration; fish spawning; freshwater replenishment; navigation; non-contact water recreation; water contact recreation; rare, threatened, or endangered species; warm freshwater habitat; and wildlife. The Discharger routinely conducts maintenance activities within the Napa River and Suisun Creek watersheds which may temporarily impact the beneficial uses identified above.
 - b. The Napa-Sonoma Valley and Napa-Sonoma Volcanic Highlands groundwater basins are located in the Napa River watershed area and support the following beneficial uses: agricultural water supply; industrial service water supply; industrial process water supply; and municipal and domestic water supply.
42. The Basin Plan also identifies water bodies that are impaired on the CWA section 303(d) list and lists the sources of impairment. The Manual discusses how the SMP supports the goals and objectives of the Total Maximum Daily Loads (TMDLs) that have been developed for impaired water bodies.

Napa County Flood Control and Water Conservation District

- a. The Napa River is identified on the Clean Water Act (CWA) section 303(d) list as impaired by nutrients, pathogens, and sedimentation/siltation. The Water Board adopted a Resolution on February 12, 2014, to delist the non-tidal portion of the Napa River for nutrients (Resolution No. R2-2014-0006).
 - b. The Napa River drains into San Pablo Bay, which is identified on the CWA section 303(d) list as impaired by chlordane, dichloro-diphenyl-trichloroethane (DDT), dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), and selenium.
 - c. Suisun Creek is identified on the CWA section 303(d) list as impaired by low dissolved oxygen and temperature.
 - d. Suisun Creek drains into Suisun Marsh and Suisun Bay. Suisun Marsh is identified on the CWA section 303(d) list as impaired by mercury, nutrients, organic enrichment/low dissolved oxygen, and salinity. Suisun Bay is identified on the CWA section 303(d) list as impaired by chlordane, DDT, diazinon, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, nickel, PCBs, polybrominated diphenyl ethers (PBDEs), and selenium.
43. 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 is not expected to adversely affect existing or potential beneficial uses of the waters of the State, and existing water quality will be maintained or improved.

44. 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.
45. 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 to prepare an appropriate environmental document for such projects.
 - a. The Napa County Flood Control and Water Conservation District, as lead agency, adopted an Initial Study/Mitigated Negative Declaration (State Clearinghouse No. 2019029055) for the Project and filed a Notice of Determination on March 22, 2019.
46. The Water Board, as a Responsible Agency under CEQA, has reviewed the project CEQA documents and finds that the Project’s significant environmental effects that are within the Water Board’s purview and jurisdiction have been identified and will be mitigated to less-than-significant levels. Specifically, significant impacts pertaining to wetland and aquatic habitat and water quality will be mitigated to less-than-significant levels through implementation of mitigation measures identified in the CEQA documents and the mitigation identified in this Order, all of which are required to be implemented and reported on by this Order.
47. 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. (Water Code Section 106.3.) 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.
48. State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to the activities covered by this Order. Resolution No. 92-49 directs the Regional Water Boards to set cleanup levels equal to background water quality or the best water quality which is reasonable, if background levels cannot be restored. In this instance, background levels cannot be restored, based on the nature of the contamination, the limitations of available cleanup methods, and the Water Board’s experience with many other similarly-impacted sites. This Order requires monitoring provisions designed to ensure that residual contamination will not unreasonably affect present and anticipated beneficial uses of such water and will not result in exceedance of applicable water quality objectives. This Order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.
49. State Water Board’s 2004 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (Nonpoint Source Enforcement Policy) requires that all nonpoint source pollution, including discharges from grazing lands, be regulated through WDRs, waivers of

WDRs, or discharge prohibitions. This Order is consistent with the Nonpoint Source Enforcement Policy because implementation of BMPs described in the Manual will effectively control nonpoint source pollution.

50. The Water Board has notified the Discharger and interested parties of its intent to issue WDRs and Certification for the activities proposed in the SMP.
 - a. The Water Board provided public notice of the Napa County Flood Control and Water Conservations District's application pursuant to 23 CCR section 3858 on May 15, 2019, and posted information describing the project on the Water Board's website.
51. The Water Board, in a public meeting, heard and considered all comments pertaining to this Order.
52. The CWA (33 USC §§ 1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 USC § 1251(a)). CWA Section 401 (33 USC § 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 USC § 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.

IT IS HEREBY ORDERED that Order No. R2-2012-0063 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 the active project site, to surface waters or surface water drainage courses is prohibited, except as authorized in this Order.
2. The discharge 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. SMP activities that could result in long-term adverse impacts, such as destabilization of stream banks or a deleterious increase in sediment input into waters of the State, are prohibited.
5. Excavated sediment shall remain within designated disposal areas unless it is determined appropriate for beneficial reuse. Designated disposal areas are: (1) any off-site, authorized temporary, or permanent location maintained in compliance with federal and State regulations, (2) any on-site, 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 (3) a permitted landfill.

6. The discharge of sediment and runoff or decant water from excavated materials disposed of at any temporary or permanent disposal, to waters of the State, is prohibited.
7. Maintenance activities subject to these requirements shall not cause a condition of pollution or nuisance as defined in Water Code section 13050.
8. Groundwater beneficial uses shall not be degraded as a result of activities conducted under this Order.
9. No unauthorized construction-related materials or wastes shall be allowed to enter into or be placed where they may be washed by rainfall or runoff into waters of the State. When construction is completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be discharged to waters of the State.

B. Discharge Specifications

1. Appropriate soil erosion control measures shall be implemented and maintained to prevent the discharge of sediment to surface waters, including 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.
3. In accordance with Water Code section 13260, the Discharger shall file with the Water Board a report of any material changes in the character, location, or quantity of this waste discharge that is beyond the scope of this Order. Any proposed material changes in the discharge or SMP requires approval by the Water Board after a hearing under Water Code section 13263.
4. The Discharger shall immediately, and in all cases within 24 hours, notify the Water Board staff by telephone or e-mail of an adverse condition that results from a discharge. An adverse condition includes, but is not limited to, a violation or threatened 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 its occurrence. The written notification shall identify the adverse condition, describe the actions necessary to remedy the condition, and specify a timetable, subject to approval by the Executive Officer, for any necessary remedial actions.

C. Receiving Water Limitations

1. SMP activities shall not cause the following conditions to exist in any waters of the State:
 - a. Waters shall not contain floating materials, 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 that 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 Executive Officer that such alteration in temperature does not adversely affect beneficial uses.
 - f. The temperature of any cold or warm freshwater habitat shall not be increased by more than 5°F (2.8°C) above the 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.¹ When natural factors cause lesser concentrations, then discharges under this Order shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide: All water shall be free from dissolved sulfide concentrations above natural background levels. Concentrations of only a few hundredths of a milligram per liter can cause a noticeable odor or be toxic to aquatic life. Violation of the sulfide objective will reflect violation of dissolved oxygen objectives as sulfides cannot exist to a significant degree in an oxygenated environment.
 - c. pH: A variation of natural ambient pH by more than 0.5 pH units.
 - d. Toxicity: All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
 - e. Un-ionized Ammonia: 0.025 mg/L as N, annual median; and 0.16 mg/L as N, maximum.
 - f. Salinity: Maintenance activities shall not increase total dissolved solids or salinity to a degree that the increase adversely affects beneficial uses.
 - g. 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 there under. 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 more stringent standards.

D. Provisions

1. The Discharger shall implement all mitigation measures identified in the Manual. In addition, the Discharger shall comply with (1) the Monitoring and Reporting Program attached to this Order,

¹ Resolution No. R2-2018-0015 adopted site-specific objectives for dissolved oxygen in Suisun Marsh.

and (2) the Manual and its appendices. Any proposed changes to the Manual or appendices shall be submitted via the ANR or the Annual Post-Maintenance Report for review and approval. All changes to the Manual or appendices must comply with all terms and conditions of this Order and be approved in writing by the Executive Officer.

Vegetation Management

2. Targeted and localized vegetation removal areas shall not exceed 100 contiguous feet of channel length. Vegetation removal activities exceeding this limit will require Project Specific Notification.
3. Vegetation management and replanting shall be conducted in a manner that maximizes the functions of the vegetation, including shading the stream, stabilizing channel banks, erosion and sediment control, and providing in-stream habitat while addressing public safety and land management responsibilities, including visibility, access, and fire management.
4. The Discharger shall describe how proposed vegetation management activities meet maintenance channel objectives for that reach in the ANR Selection and prioritization of vegetation management activities shall consider channel capacity conditions, hydraulic constrictions, channel dimensions, roughness objectives, reach specific vegetation templates, public safety, and land management responsibilities, such as visibility, access, and fire management.
5. Vegetation management activities shall be conducted, as described in the Manual, in a manner that ensures that the work is effective and avoids, minimizes, and compensates for potential environmental impacts.
6. Vegetation management activities shall not adversely impact the riparian zone, shade, canopy coverage, or habitat.
7. Overall impacts of vegetation management activities shall improve beneficial uses.
8. The Discharger shall follow the Bay Friendly Landscape Guidelines, or its equivalent, to minimize the use of herbicides to the maximum extent practicable.
9. The Discharger shall maintain coverage and comply with the State Water Board's Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Aquatic Pesticides Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications (General Permit No. CAG990005; Water Quality Order No. 2013-0002-DWQ, as amended, and as may be reissued).

Downed Tree Management

10. The Discharger shall follow the downed tree management guidelines described in the Manual.
11. Downed tree management shall be conducted in a manner that maximizes the environmental benefit of the vegetation to stabilize stream banks and provide in-stream habitat.
12. Downed tree management activities shall not adversely impact riparian zone habitat. Overall downed tree management activities shall be conducted such that they improve water quality and beneficial uses.
13. The Discharger shall follow the guidelines in the Manual when removing large woody debris for maintenance purposes. If a channel functions, or potentially could function, as habitat for

salmonids or other threatened and endangered species, then large woody debris cannot be removed. If the large woody debris poses a credible risk of blocking a culvert, bridge, or otherwise obstructing flow, causing structural damage, or destabilizing a channel, it may be relocated, repositioned, or cabled to a stream bank in a manner that protects existing habitat.

For channels designated by the SMP not to have existing or potential salmonid or other threatened and endangered species habitat, large woody debris can be removed or relocated to a more suitable location if the large woody debris is posing a significant and imminent threat to infrastructure or structures on adjacent properties.

Erosion Control and Bank Stabilization

14. The Discharger shall follow the erosion control and bank stabilization guidelines described in the Manual. The use of soil bioengineering systems as presented in the Natural Resource Conservation Service (NRCS) manual² shall be used as the first and primary strategy for stream bank stabilization projects. Rock and rock riprap installation shall be limited to only those areas experiencing shear stresses that exceed the performance of vegetation-based soil bioengineering systems, as designated in the NRCS and U.S. Army Corps of Engineers shear stress tables.³
15. Any changes to bank repair methods shall be proposed in the ANR and be approved in writing by the Executive Officer before implementation. Proposed changes to the bank repair methods must demonstrate to the satisfaction of the Executive Officer that the change does not adversely affect beneficial uses and will result in no net loss and a long-term net gain in the extent, functions, and beneficial uses of waters of the State.
16. Where bank stabilization activities may result in modifications to stream cross-sections and/or profiles, the banks shall be re-contoured to match the adjacent bank slope.

Sediment and Debris Removal

17. In its ANR, the Discharger shall describe how proposed sediment management activities meet maintenance channel objectives for that reach. Selection and prioritization of sediment management activities shall consider: (1) channel capacity conditions; (2) hydraulic constrictions; (3) sediment, channel dimension, and roughness objectives; (4) how the activity will address short-term flood management needs; and (5) whether proposed maintenance activities will result in longer-term habitat and water quality benefits consistent with the maintenance strategy for that reach.
18. Targeted and localized sediment removal shall occur in limited areas that do not exceed 500 contiguous linear feet of channel. Sediment removal in areas greater than 500 linear feet will require Project Specific Notification. In addition, individual sediment removal activities occurring in close proximity to each other and resulting in cumulative impacts to a stream reach will require a Project Specific Notification to the Water Board.

² Bentrup, G. and J.C. Hoag. 1998. The Practical Streambank Bioengineering Guide, User's Guide for Natural Streambank Stabilization Techniques in the Arid and Semi-Arid Great Basin and Intermountain West. U.S. Department of Agriculture, Natural Resources Conservation Service.

³ Fischenich, C. 2001. Stability Thresholds for Stream Restoration Materials. EMRRP Technical Notes Collection (ERDC TN-EMRRP-SR-29). U.S. Army Engineer Research and Development Center, U.S. Army Corps of Engineers, Vicksburg, MS.
National Resource Conservation Service (NRCS). 2007. Part 654 National Engineering Handbook Stream Restoration Design.

19. In-stream depositional features (e.g., bars) shall be preserved in their location unless they must be removed to avoid imminent threat of flooding. During removal of depositional features, the Discharger shall minimize impacts and preserve habitat functions to the extent practicable to protect beneficial uses.
20. After sediment removal, the Discharger shall grade the channel so that the transition between the existing channel both upstream and downstream is smooth and continuous between the maintained and non-maintained areas and does not present a “wall” of sediment or other blockage that could erode or cause erosion once flows are restored.
21. Maintenance activities that may modify stream cross-sections and or profiles require Project-Specific Notification to the Water Board. The Discharger is required to submit a grading plan that describes steps to be taken towards achieving a dynamic equilibrium channel, including project design details with a channel form (e.g., channel shape, width/depth ratio) consistent with channel dimension objectives.
22. Excavated sediment may be temporarily stockpiled prior to disposal or reuse, provided that appropriate State and federal regulations are met and BMPs are implemented to protect water quality and beneficial uses. The excavated sediment may be stockpiled onsite within engineered containment areas so that it can be loaded into trucks for off-site disposal within three working days. The excavated sediment may also be temporarily stockpiled at an offsite location. Runoff, sediment, or decant water from the excavated materials shall not discharge to waters of the State, nor discharge from trucks during transport.
23. Sediment removed as part of maintenance activities shall be properly characterized through laboratory analytical testing, as described in the approved Sediment Sampling and Analysis Guidelines included in the Manual and shall be hauled offsite to an approved suitable upland disposal site, to a landfill approved to accept the sediment as characterized, or to another approved location. Vegetative debris generated by maintenance activities will either be chipped and left onsite or taken to a local compost or mulch facility.
24. Any observed contamination during maintenance activities, as evidenced by chemical odors, oily sheens, or irregularly colored sediment shall be immediately reported to the Water Board. The Discharger shall work with Water Board staff, and other regulatory agencies as appropriate, to conduct additional follow-up actions, including investigating potential sources of contamination, corrective actions, and appropriate disposal of contaminated sediment.
25. The Discharger shall have equipment and supplies on-site (or readily available nearby) that shall be quickly deployed to provide additional filtration if turbidity is observed.
26. All staging shall occur on adjacent access roads or previously disturbed areas. Soil and rock riprap shall be staged in areas that have been previously disturbed (e.g., service roads and turnouts). If maintenance activities affect the active channel, the work area shall be effectively isolated from stream segments containing standing or flowing water through the use of effective BMPs and restored to pre-project conditions immediately after maintenance is complete.
27. The disposal of any hazardous, designated, or non-hazardous waste as defined in 27 CCR Division 2, Subdivision 1, Chapter 2 shall be conducted in accordance with applicable State and federal regulations.
28. The Discharger shall clean up, remove, and relocate any wastes that are discharged in violation of this Order.

Napa County Flood Control and Water Conservation District's Other Maintenance Activities

29. The Discharger shall follow the guidelines described in the Manual for other maintenance activities.
30. Maintenance activities for restoration projects within the Napa County Community Facilities District (Rutherford Reach and Oakville to Oak Knoll Reach) shall be implemented in accordance with the maintenance plans developed for each project, as described in the Manual (Appendices A and B).
31. Maintenance activities for the Napa River/Napa Creek Flood Protection Project shall be implemented as described in the Manual (Appendix M) and in accordance with the *Operations, Maintenance, Repair, Replacement and Rehabilitation Manual for the Napa River/Napa Creek Flood Protection Project*, dated April 2018, and incorporated herein by reference.
32. Other stream maintenance activities shall not result in direct or cumulative significant impacts to water quality or beneficial uses of waters of the State.
33. The Discharger shall implement the approved *Post Construction Contingency Plan (PCCP)* in the Petroleum Residual Contamination Area (PRCA). Inspections shall be conducted in April and October of each year and after significant flood events, significant earthquakes, or major modifications to the Napa Creek/Napa River Flood Protection Project. Significant damage that threatens the integrity of the soil cap in the PRCA shall be reported to the Water Board within seven days of discovery. A corrective action plan to remedy such damage shall be submitted within 30 days after observation.

Best Management Practices

34. The Discharger shall implement the BMPs described in the Manual and CEQA documents (or alternative BMPs of comparable effectiveness) to prevent pollutants from draining, being washed, or otherwise discharging into waters of the State during SMP activities.
35. The Discharger shall divert any flow at work sites around the active maintenance areas in a non-erosive manner.
36. The Discharger shall operate pumps/generators in locations where spills will not result in direct discharge of petroleum products or other pollutants to waters of the State.
37. The Discharger shall halt work activities if fish, amphibians, or other aquatic organisms are exhibiting stress or are dead within 1,000 feet of a work activity or discharge. The Discharger shall immediately assign a qualified biologist to investigate the cause of the problem, develop an acceptable corrective action plan, and determine if the cause is related to SMP activities. The Discharger shall immediately report all incidents involving stressed or dead aquatic organisms, as well as prescribed action plans, to the Water Board and other regulatory agencies as appropriate.

Channel Assessments

38. Channel assessments shall be conducted as follows:
 - a. The Napa County Flood Control and Water Conservation District shall develop a channel assessment approach to identify one stream reach per year where routine maintenance activities will be assessed to better understand underlying flood management needs, habitat conditions, existing constraints, and opportunities for potential habitat enhancement or restoration. These

channel assessments shall be used to develop restorative maintenance recommendations that achieves flood management objectives and enhances physical and biological processes over time.

Mitigation

39. The Discharger shall mitigate for impacts to water quality and beneficial uses from its maintenance activities as described in the Manual. The Discharger shall submit proposed compensatory mitigation, acceptable to the Executive Officer, as part of the ANR.
40. To the maximum extent practicable, the Discharger shall implement compensatory mitigation projects in advance of, or concurrent with, the activity causing the permitted impacts, particularly when off-site mitigation is pursued. Due to the nature of on-site mitigation, it is recognized that on-site mitigation activities will likely occur during or following the maintenance activities.
41. Mitigation shall be provided to compensate for impacts from ground-disturbing maintenance activities. The minimum amount of mitigation shall be provided at a 1.1:1 mitigation ratio based on the extent of impacts in acres and linear feet and the duration of temporal loss. The minimum 1.1:1 mitigation ratio shall consist of 1:1 for restoration of the temporarily impacted project area plus 0.1:1 compensatory mitigation for temporal loss in functions resulting from maintenance activities. The additional 0.1:1 may be achieved through the long-term improvement of functions within the project area if the Executive Officer determines that the temporarily-impacted area is restored to better than pre-project conditions.
42. If mitigation sites do not meet performance criteria after completion of the monitoring period, 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.
43. The Discharger shall be responsible for the long-term management and maintenance of the mitigation sites. The mitigation site(s) shall be placed under a perpetual deed restriction to provide long-term protection.

Monitoring and Reporting

44. The Discharger shall monitor all active project sites according to the Sediment Monitoring and Reporting Program attached to this Order (Attachment B). All self-monitoring reports shall be submitted annually to the Water Board as part of the Annual Post-Maintenance Report.
45. The Discharger shall submit the Annual Notification Report (ANR), acceptable to the Executive Officer, by June 1 of the year maintenance is proposed to be conducted. The ANR shall describe the location of the proposed maintenance activity, the stream(s) and structures affected, the extent of the impact area in acres and linear feet, the expected total cubic yards of material to be removed, if dewatering will be required, and proposed compensatory mitigation if required. The ANR will also include photo documentation of existing conditions, an assessment of the need for the proposed maintenance activities, and measures taken to avoid and minimize impacts to beneficial uses.
46. The Discharger shall submit the Annual Post-Maintenance Report, acceptable to the Executive Officer, by January 31 of the year following completion of maintenance activities. The Annual Post-Maintenance Report shall describe activities conducted, mitigation implemented, monitoring results, and post-maintenance photos to document BMP effectiveness as well as channel and bank

conditions immediately upstream and downstream of each project site. The Annual Post-Maintenance Report shall also include a description of any corrective actions planned to ensure effectiveness of BMPs and the results of any threatened or endangered species surveys conducted.

47. Project Specific Notification on all channels shall include photo documentation of existing conditions, a description of the project, an assessment of the need for the proposed maintenance activities, and measures taken to avoid and minimize impacts to beneficial uses.
48. The Discharger shall submit a Project Specific Notification Summary Report, acceptable to the Executive Officer, by January 31 of the year following completion of maintenance activities. This report shall describe activities conducted, mitigation implemented, and monitoring results including photo documentation of BMP success.
49. Reports, including maintenance plans, the ANR, and the Annual Post-Maintenance Report shall be developed by an interdisciplinary team with expertise in fisheries biology, hydrology, and fluvial geomorphology. The team's expertise shall be documented in the reports.
50. Before June 15 of each year, the Discharger shall organize a meeting and field tour (to discuss the projects scheduled for the upcoming maintenance season, based on the ANR.
51. After each maintenance season, the Discharger shall meet with Water Board staff to discuss the performance of the SMP, review lessons learned from the completed construction season, and determine the need to implement improved stream maintenance techniques and BMPs. The Discharger shall implement all stream maintenance techniques and BMPs deemed necessary by the Executive Officer in connection with such review to protect beneficial uses.
52. 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: (1) maintenance of existing access roads located along the top-of-bank where there will be no impact on waters of the State; (2) maintenance of drainage ditches along existing service roads where all work is above the level of top-of-bank of the adjacent stream, and there will be no impact to waters of the State; and (3) hand removal of debris (e.g., trash, shopping carts) that does not involve the removal of vegetation or large woody debris.
53. After four years of SMP implementation, the Discharger shall review the SMP and Manual with the Water Board and other regulatory agencies as appropriate, to evaluate its overall effectiveness. The review shall include an assessment of maintenance activities conducted to date, BMPs, adequacy of the SMP mitigation program, data management, adaptive updates and revisions of the Manual, and overall program coordination and communication between the Discharger and the regulatory agencies. The Manual may be revised or updated based on this review. The Executive Officer may extend this Order's authorization administratively, and the Water Board may consider issuing Water Quality Certification and WDRs for additional five-year periods to allow continuation of SMP implementation.

Napa County Flood Control and Water Conservation District Monitoring and Reporting

54. The Discharger shall submit monitoring reports as required by the *Post Construction Contingency Plan*, dated February 2019 (see Attachment C for monitoring and reporting schedule). This report shall describe monitoring conducted for the Petroleum Residual Contamination Area and shall include the results of semi-annual inspections, any episodic inspections, and any corrective actions that may have been implemented.

55. The Discharger shall submit monitoring reports as required by the *Operations, Maintenance, Repair, Replacement and Rehabilitation Manual for the Napa River/Napa Creek Flood Protection Project*, dated April 2018 (see Attachment C for monitoring and reporting schedule).
56. The Discharger shall submit monitoring reports as required by the *Monitoring Plan for the Rutherford Reach Restoration of the Napa River*, dated 2015 (see Attachment C for monitoring and reporting schedule).
57. The Discharger shall submit monitoring reports as required by the *Napa River Restoration: Oakville to Oak Knoll Project Monitoring Plan*, dated March 2015 (see Attachment C for monitoring and reporting schedule).

Fees

58. In accordance with 23 CCR section 2200, the Discharger shall pay an annual fee 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.
59. 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.
 - a. For the Napa County Flood Control and Water Conservation District, the application fee for this Project, \$9,853, was paid in full on May 15, 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

60. The Discharger shall maintain a data management system to monitor stream maintenance activities, natural resources in the SMP area, permitting requirements, and mitigation activities.
61. The Executive Officer may request that information regarding the SMP be provided to the Water Board at times outside of the reporting requirements specified in this Order.
62. 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.
63. The Discharger shall submit electronic versions of any submitted reports or documents.

General Provisions

64. All provisions in this Order apply to all streams and maintenance activities identified in the Manual.
65. The following activities are not included in the Manual and, therefore, are not covered in this Order: capital improvement projects; discharge of decant water from dredged sediments back to receiving waters; projects that would alter the designed flood conveyance capacity of a channel; large sediment removal or dredging projects (greater than 500 feet in length); 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).

66. 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 otherwise provided in the Order.
67. This Order does not allow for the take, or incidental take, of any special status species.
68. The Discharger shall implement the SMP in accordance with the methods described in the Manual and the requirements of this Order and shall comply with all applicable water quality standards.
69. Ground-disturbing maintenance activities occurring below top-of-bank shall only occur during the low-flow or dry season (herein defined as June 15 - October 31), unless an exception is granted. No new instream sediment removal work shall start after October 15 of any year but work already underway shall have until October 31 to be completed. During dry years, when channels become dry earlier than June 15 or remain dry later than October 31, an exception may be granted to conduct ground-disturbing maintenance activities outside this work window. Exceptions may be made on a project-by-project basis with advance approval by the Executive Officer and federal and State regulatory agencies, as appropriate.
70. Disturbed soil related to SMP activities shall be stabilized and winterized. Required planting shall be performed no later than the fall/winter planting season in the year following project installation.
71. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated SMP activities shall cease immediately until corrective actions have been implemented. Corrective actions shall include (1) implementing adequate BMPs to eliminate the discharge, and (2) 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.
72. This Water Quality Certification and issuance of WDRs is subject to modification or revocation upon administrative or judicial review, including review and/or reconsideration pursuant to Water Code section 13330 and 23 CCR section 3867.
73. 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, Subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
74. The Water Board may add to or modify the conditions of this Order, as appropriate, to implement any new or revised water quality standards and implementation plans, such as new or revised total maximum daily load requirements adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or CWA section 303.
75. The Discharger shall maintain a copy of this Order and all relevant plans and BMPs at SMP work sites, so as to be available at all times to site operating personnel.

76. 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.
77. The Discharger shall permit Water Board staff or its authorized representative, upon presentation of credentials:
 - a. Entry on to the premises on which maintenance activities are planned or underway, wastes are located, or in which records are kept;
 - b. Access to copy any records required to be kept under the terms and conditions of this Order;
 - c. Access to inspect any treatment equipment, monitoring equipment or monitoring method required by this Order; and
 - d. Access to sample any discharge or surface water covered by this Order.
78. 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 in this Order, 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 in this Order, the Water Board may add to or modify the conditions in this Order as appropriate to ensure compliance.
79. Any requirement for a report made as a condition to this Order is a formal requirement pursuant to Water Code section 13267, and failure to submit, late or inadequate submittal, or falsification of such technical report(s) is also subject to civil liability pursuant to Water Code section 13268. This Order is not transferable.
80. This Order authorizes SMP activities for the following periods. That authorization may be extended for periods of up to five years by the Executive Officer following a review of the SMP by the Discharger and Water Board staff, submittal of a comprehensively updated Manual to address the results of the review, and acceptance of that Manual by the Executive Officer, as described in the Provisions. Mitigation and monitoring requirements that extend beyond the term of this Order are not subject to the Order's expiration date outlined above and remain in full effect and are enforceable.
 - a. For the Napa County Flood Control and Water Conservation District, the authorization expires on October 31, 2024.

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, and effective on, **DATE**.

Michael Montgomery
Executive Officer

Attachment A: Stream Maintenance Program Manual
Attachment B: Sediment Monitoring and Reporting Program
Attachment C: Monitoring and Reporting Schedule

Tentative Order

Appendix B

Napa County Stream Maintenance Manual and Attachments

Attachment A: Napa County Stream Maintenance Manual

Attachment B: Sediment Monitoring and Reporting Program

Attachment C: Monitoring and Reporting Schedule

Attachment A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

NAPA COUNTY STREAM MAINTENANCE MANUAL FOR THE

NAPA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT STREAM MAINTENANCE PROGRAM

NAPA COUNTY

ORDER NO. R2-2019-00XX

- The Napa County Stream Maintenance Manual, including its appendices is attached separately in two parts due to its large size.

Part 1:

https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2019/July/NapaCounty/Attachment_A_Napa_Stream_Maintenance_Manual_Part_1.pdf

Part 2:

https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2019/July/NapaCounty/Attachment%20A_Napa%20Stream%20Maintenance%20Manual_Part%202.pdf

Attachment B

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

**SEDIMENT MONITORING AND REPORTING PROGRAM
FOR THE**

NAPA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

STREAM MAINTENANCE PROGRAM

NAPA COUNTY

ORDER NO. R2-2019-00XX

A. GENERAL

1. This Monitoring and Reporting Program (MRP) is issued in accordance with Water Board Order No. R2-2019-00XX (Order) and pursuant to Water Code sections 13263 and 13267(b).
2. The MRP is necessary to: 1) document compliance with waste discharge requirements and prohibitions established by the Water Board, 2) facilitate self-policing by the Napa County Flood Control & Water Conservation District (Discharger) in the prevention and abatement of pollution arising from waste discharge, 3) evaluate the effectiveness of the Stream Maintenance Program (SMP), including assessment of best management practices (BMPs) and mitigation measures, and 4) assist the Discharger in complying with State requirements and policies. The evidence supporting this MRP is in the public file for this matter.
3. The MRP includes monitoring requirements for maintenance and restoration activities including the following monitoring elements: receiving water monitoring for the types of pollutants and conditions listed under the Standard Observations section; surface water monitoring during active water diversions; sediment monitoring from sediment removal projects; erosion and sediment control monitoring for bank stabilization projects; monitoring of revegetation projects and biotechnical bank stabilization projects to determine if plant establishment success criteria have been met; and monitoring BMPs to assess their effectiveness.
4. For monitoring, the Discharger shall follow requirements contained in this MRP and any additional requirements listed in the Sediment Sampling and Analysis Guidelines in the Discharger's Stream Maintenance Manual (Manual).

B. SAMPLING AND ANALYTICAL METHODS

1. Sample collection, storage, and analyses shall be performed according to the most recent version of U.S. EPA Standard Methods for the Analysis of Water and Wastewater.
2. Water and sediment analyses shall be performed by a laboratory certified for these analyses by the State of California.
3. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A **grab sample** is a discrete sample collected at any time.
2. A **composite sample** is a discrete sample comprised of two or more grab samples collected at any time from a defined project area.
3. **Receiving waters** refers to any water body that actually or potentially receives surface or groundwater, which passes over, through, or under

dredged sediment during placement, dewatering, settling/consolidation, and excavation/removal activities.

4. **Receiving Waters Standard Observations** refer to:
 - a. Evidence of floating and suspended materials as recorded by visual observations.
 - b. Discoloration and turbidity: description of color, source, and size of affected area.
 - c. Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

5. **Site Standard Observations** refer to visual inspection of:
 - a. For sediment removal projects, the overall condition of the sediment containment structure(s) and area and any BMPs to contain the excavated sediment.
 - b. The location of placed material, distance to waters of the State, and whether any discharge of dredged sediments outside of the containment structures has occurred.
 - c. The condition of the excavated material transport equipment along the entire length of the transport path from the sediment removal area to the point of discharge into the containment area.
 - d. For bank stabilization projects, the overall condition of the bank stabilization structure (e.g., rock riprap, crib wall, wrapped soil lifts) and the areas of the bed and bank of the channel adjacent to the bank stabilization structure. Overall condition includes, but is not limited to, the presence or absence of vegetation, the stability of the structure, or the presence of slumping, rills, or other evidence of erosion on the channel bank.

D. MONITORING REQUIREMENTS

1. **Observations and Monitoring Schedule** - The schedule of observations and monitoring is as follows: (1) receiving water standard observations shall be performed twice daily and reported annually; and (2) site standard observations shall be performed along the project area twice daily and reported annually.

2. **Standard Observations** - The following Standard Observations of the receiving water shall be recorded on every day of operation on the field reporting form:
 - a. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
 - b. Discoloration and turbidity: description of color, source, and size of affected area.
 - c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.

- d. Hydrographic conditions, including: time and height of corrected low and high tides and depth of water columns and sampling depths.
 - e. Weather conditions, including: air temperatures, wind direction and velocity, and precipitation.
3. **Active Water Diversion Monitoring** - For all activities involving an active diversion of a stream:
- a. The Discharger shall establish surface water monitoring stations, one representative of typical undisturbed conditions directly upstream of the active work area and the point of diversion, and one representative of surface water affected by the diversion that is directly downstream of the water diversion outlet.
 - b. Baseline measurements shall be taken before installation of diversion structures at the established surface water monitoring stations identified above in 3.a.
 - c. If for whatever reason work within that reach is interrupted for over one day, new baseline measurements shall be taken.
 - d. Water diversion activity monitoring shall be in accordance with the following: grab samples shall be collected once daily at each monitoring station and analyzed for dissolved oxygen, pH, temperature, and turbidity.
 - e. The daily sampling set shall be taken during work hours but not within the first hour after maintenance activities have started each day.
 - f. Samples shall be taken with accurately calibrated field measurement instrument(s) and the results shall be saved and logged.
 - g. A Quality Assurance/Quality Control (QA/QC) plan equivalent to requirements of the State's Surface Water Ambient Monitoring Program shall be followed.
 - h. The Discharger shall observe surface water conditions upstream and downstream of the active project area to visually detect impacts of the water diversion.
 - i. Observations shall be conducted during sampling events at sampling locations for presence of bottom deposits, color, film, or coating (from oil, grease, wax, etc.), floating material (including solids, liquids, foams, and scum), and odor. See the Standard Observations section for the complete list of observations that will be tracked. If any visual events occur, additional samples as detailed in Table 2 shall be taken, with results being saved, logged, and reported.
 - j. The Discharger shall have equipment and supplies onsite (or readily available nearby) that could be quickly deployed to provide additional filtration if turbidity is observed. These supplies may include: bladders for settling, filter bags and pumps, silt filter dams, or a silt barrier as appropriate depending on site conditions.

- k. Surface water observations detecting exceedances of Discharge Specifications and Receiving Water Limitations are subject to "Reporting" requirements in Section F of this document.
- l. During the installation and removal of diversion structures, the Discharger shall monitor surface monitoring stations as described in 3.a, above and shall collect grab samples twice daily to be analyzed for turbidity.

4. **Sediment Monitoring**

a. *Sampling Frequency and Locations*

- i. For sediment removal projects and bank stabilization projects at creeks that have not been approved for reduced sampling frequency, one sample will be collected and analyzed for every 500 cubic yards of sediment removed. Several grab samples may be composited into one sample to represent the bulk of sediment to be removed from the creek.
- ii. For long channel reaches that are not particularly wide or deep with sediment, the Discharger will collect grab sediment samples for every 1000 feet of project length rather than per 500 cubic yards of sediment removal. The Discharger shall use whichever approach results in more samples to better characterize the variability along the entire length of the project site.
- iii. For project sites that require more than one sample, grab sampling locations will be selected to represent overall reach conditions. Sampling sites will also specifically target conditions downstream of culvert crossings, culvert outfalls, and key stream confluences.
- iv. In all cases, sampling locations shall be within the project area where there is the highest potential for detecting the maximum number of contaminants at the highest concentrations, and the sampling locations shall be the most representative of site conditions.
- v. Upon approval by the Executive Officer, sampling frequencies may be reduced at locations where the review of readily available, existing information, including all results of previously collected physical and chemical testing, have continually demonstrated attainment of screening guidelines. The Discharger may propose reduced sampling frequency for sites within a minimum of two years of data. Testing results must meet screening criteria for "Wetland Surface Material" established in the May 2000 *Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines* or be commensurate with natural/anthropogenic background concentrations. For sites with reduced sampling frequency, Water Board staff may still require sediment sampling and analysis when there is a suspected contamination source.

b. Sediment Sampling Methodology

This guidance applies to discrete (single) samples and composite samples:

- i. All samples shall be collected in accordance with U.S. EPA Guidelines and sampling methodologies.
- ii. The methods of analyses and detection limits must be appropriate for the expected concentrations, water quality standards, and screening levels depending on the final disposition of the sediment. For example, if the material is proposed for beneficial reuse at an aquatic site, then appropriate sampling methodology should be used to determine if the material meets screening criteria for wetland surface material. Specific methods of analyses must be identified. If methods other than U.S. EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer.
- iii. Sediment sampling methodology is described in the Manual's Sediment Sampling and Analysis Guidelines.
- iv. For each sediment removal project, the Discharger shall characterize the sediment and summarize all sediment sampling analyses, prior to proposed sediment removal activities.
- v. Every sediment sample location shall be sampled for grain size, total organic carbon, total solids, and the full list of analytes listed in Tables 1, 2, and 3 as appropriate, depending on the final disposition of the sediment. Sampling analytes listed in Tables 1, 2, and 3 may be modified after a history of sampling is obtained. This may result in not requiring monitoring for some of these contaminants under certain situations or at certain locations, or adding more parameters/analytes if deemed necessary by the Executive Officer.
- vi. The Discharger shall maintain records of field sampling in a log containing at least the following information:
 - Date and time
 - Site location
 - Sample collector
 - Sampling methods
 - Sampling location
 - Sampling depth
 - Number of sampling containers
 - Specific site conditions
 - Analysis requested
 - Other information describing the sampling event
- vii. Field sampling logs shall be made available to Water Board staff upon request.

- viii. The most recent version of U.S. EPA’s Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” also known as SW-846, shall be used.

5. **Post-Project Monitoring**

a. Bank Stabilization Erosion and Sediment Control Monitoring

- i. For the first year following completion of a bank stabilization project, the Discharger shall inspect surface waters daily following larger storm events to determine if the project and the installed BMPs are adequately functioning to stabilize soil and prevent excessive erosion.
- ii. Photos shall be taken to document all site inspections.
- iii. After the first year of monitoring, the project site shall be monitored annually for a minimum of five years monitoring post-construction.
- iv. The Discharger shall observe surface water upstream and downstream of each bank stabilization site for bottom deposits, color, turbidity, and floating material. Monitoring shall include a visual observation of conditions 200 feet upstream and downstream of the site, conditions of the bank stabilization repair, and conditions of any vegetation planting that was performed.
- v. If any site fails such that erosion or degradation is apparent or the appearance of surface water is degraded, the Water Board shall be immediately notified. The Discharger shall undertake an evaluation that identifies the causes of excessive erosion/sedimentation and develop corrective actions to ensure channel stability. The Discharger shall implement all corrective actions identified in the evaluation upon receiving written acceptance by the Executive Officer.

b. Revegetation Monitoring including Bank Revegetation

- i. The Discharger shall monitor all revegetated sites annually for five years after planting, and for at least two years after supplemental watering is discontinued, to determine if supplemental watering, weed control, rodent control, protection from vandalism or herbivory, or other actions are required to encourage plant establishment.
- ii. The Discharger shall implement all vegetation management requirements until the success criteria are attained.

c. Geomorphic Shaping Activities

- i. The Discharger shall monitor all projects that require “geomorphic shaping activities” to determine the sustainability of the grading. These project sites shall be monitored for a minimum of five years and all monitoring results shall be submitted to the Water Board.
- ii. For geomorphic shaping projects, post-project monitoring shall include evaluating the following channel conditions: channel bank stability, bed scour, thalweg location, and any indications of excessive erosion,

instability, or deposition in the channel. If signs of excessive erosion or deposition are observed and/or if the project reach is not geomorphically stable at the end of the five-year monitoring period, the Discharger shall prepare an analysis of the cause of instability implement corrective actions upon receiving written acceptance by the Executive Officer.

d. *Maintenance Activities in Alluvial Fans*

The Discharger shall monitor all maintenance projects located in or influenced by alluvial fan environments to determine if adaptive management of these areas will inform future management plans. These project sites shall be monitored for a minimum of five years and all monitoring results shall be submitted to the Water Board.

6. Best Management Practices Monitoring

- a. The Discharger shall inspect temporary and permanent structural BMPs at active sites on an on-going basis and at least once each morning and once each afternoon that an activity is being implemented to determine if maintenance, repair, or replacement of BMPs is necessary.
- b. The Discharger shall maintain, repair, or replace BMPs as appropriate to prevent sediment discharge and reduce erosion.
- c. The Discharger shall document BMPs installations and inspections and enter all data in the BMPs inspection log.
- d. The Discharger shall document BMPs effectiveness, maintenance and repair, and corrective actions taken, and enter all data in the BMPs inspection log.
- e. The BMPs inspection log shall be kept onsite while the site is active and shall be available to Water Board staff upon request.
- f. At a minimum, BMPs at active project sites shall be inspected and maintained within two business days (48 hours) prior to each qualifying rain event and within two business days (48 hours) after each qualifying rain event. For this requirement, a qualifying rain event is one producing precipitation of ½ inch or more of discharge.

E. QUALITY ASSURANCE AND QUALITY CONTROL

A QA/QC plan is an important component of a monitoring program involving extensive field sampling and laboratory analyses. The two objectives of the QA/QC plan are: 1) to provide a means of ongoing control and evaluation of the sampling and analysis procedures; and 2) to quantify data precision and accuracy for use in data interpretation. The QA/QC plan will be followed in all phases of the monitoring program including sampling, data validation, and reporting. QA/QC requirements are noted below.

- a. The Discharger shall use a sampling contractor or internal staff to perform field measurements with appropriate field instruments and sampling

equipment; the persons performing field measurements will be responsible for managing all field sampling and analysis.

- b. All equipment used for field sampling shall be tested and calibrated before leaving the office and verified upon arrival at the site to ensure the instruments are in proper working condition.

F. REPORTING

1. General Reporting Requirements

- a. The Discharger shall comply with reporting dates and requirements within the SMP Manual and the Order.
- b. All results of monitoring performed in compliance with this Order shall be made available to Water Board staff upon request.
- c. The Discharger shall submit a transmittal letter with all required monitoring reports to demonstrate compliance with the Order.

2. Records to Be Maintained

Written reports shall be maintained by the Discharger or its laboratory and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Water Board. Such records shall show the following for each sample:

- a. Identity of sample and sample station number.
- b. Date and time of sampling and the name of the person performing the sampling.
- c. Date and time that analyses are started and completed and name of the personnel performing the analyses.
- d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
- e. Calculation and evaluation of results.
- f. Results of analyses, reporting limits for each analytical batch, and detection limits for each analysis.

3. Reports to Be Filed With the Water Board

Written monitoring reports shall be filed with the Water Board annually. The reporting requirements are noted below.

- a. A letter transmitting the essential points in each report should accompany the Annual Post-maintenance Report (APR). Such a letter shall include a discussion of any violations of the requirements of the Order found during the last report period, and actions taken or planned for correcting the violations. If the Discharger had previously submitted a detailed time schedule for correcting violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have

occurred in the last report period, this shall be stated in the letter of transmittal.

Monitoring reports and the letter transmitting the monitoring reports shall be signed by the duly authorized representative of the Discharger that is responsible for implementing projects authorized by this Order.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

- b. The APR shall contain the following: (1) a summary of all maintenance activities implemented under the SMP authorized by this Order; (2) tabular and graphical summaries of the monitoring data obtained during the previous year; (3) a summary and certification of completion of all Standard Observations for each project site; and (4) a description of the compliance record and any corrective actions taken or planned that may be needed to bring the Discharger into full compliance with this Order.
- c. The Discharger shall submit an APR to the Water Board by January 31 of each year, covering the previous calendar year activities.
- d. For each sedimental removal project, the APR shall provide (1) characterization of the sediment; and (2) a summary of all sedimental sampling analyses.
- e. For each sediment disposal event, the APR shall provide (1) the quantity and locations of excavated material placed at the site and the source of the excavated material; (2) an estimate of the total volume of dried excavated material that was reused or disposed of off-site during the past year along with a description of the reuse or disposal location(s) where this material was sent; and (3) a map or aerial photograph showing the sediment disposal location.
- f. Laboratory statements of results of analyses specified in the MRP must be included in each sediment removal and sediment disposal report. The laboratory reporting requirements are as follows.
 - i. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Water Board.
 - ii. Laboratory QA/QC information must be included in the monitoring report.
 - iii. The laboratory QA/QC information should include: the method; equipment and analytical detection limits; the reporting limits for each analytical batch, the recovery rates of method spikes and matrix spikes; an explanation for any recovery rate that is less than the recovery acceptance limits specified in the U.S. EPA method procedures or the laboratory's acceptance limits (if they are more stringent than those in the U.S. EPA method procedures); the results of

equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

4. Contingency Reporting

A report to the Executive Officer and Water Board case manager shall be made by telephone of any accidental discharge of whatever origin immediately after it is discovered. A written report shall be filed with the Water Board within five days thereafter. This report shall contain the following information:

- a. A map showing the location(s) of discharge(s);
- b. Approximate quantity of discharged material;
- c. Nature of effects, i.e., all pertinent observations and analyses; and
- d. Corrective measures under way or proposed.

5. Violation Reporting

- a. Upon discovery of a violation of any Water Quality Standard or Water Quality Objective in the Basin Plan, the Discharger shall identify the source of the exceedance, implement corrective action, and resample or make additional observations to determine whether or not the exceedance was corrected.
- b. A report to the Executive Officer and the Water Board case manager shall be made by telephone of any accidental discharge of whatever origin immediately after it is discovered. A written report shall be filed with the Water Board within five days thereafter.
- c. The Discharger shall stop all work at the site for violations lasting longer than two hours. The Discharger shall update Water Board staff of site conditions and obtain verbal permission to resume work.
- d. The Discharger shall notify Water Board staff in writing within five calendar days of all violations. Written reports shall include time and date of incident, duration, estimate of discharge or bypass volume, and documentation of sampling results/observations determining compliance status. The report shall also include detailed discussion of reasons for noncompliance, and specific steps that were or will be taken to correct the failure and prevent it from reoccurring.

G. MODIFICATION

Any part of this Monitoring and Reporting Program may be revised with the written approval of the Executive Officer.

Table 1. Discrete Sediment Sampling and Analysis for Total Metals

Total Metals	Reporting Limit for Soil (mg/kg)
Arsenic	0.05
Cadmium (total)	0.05
Chromium (total)	0.1
Copper (total)	0.1
Lead (total)	0.1
Mercury (total)	0.01
Nickel (total)	0.1
Selenium (total)	0.1
Silver (total)	0.1
Zinc (total)	1.0

Table 2. Discrete Sediment Sampling and Analysis for Organochlorine Pesticides and Polychlorinated biphenyls (PCBs)

Organochlorine Pesticides/PCBs	Reporting Limit for Soil (mg/kg)
Aldrin	0.02
α -HCH (hexachlorocyclohexane)	0.02
β -HCH	0.02
γ -HCH (Lindane)	0.02
δ -HCH	0.02
Chlordane (tech)	0.02
2,4'-DDD	0.02
4,4'-DDD	0.02
2,4'-DDE	0.02
4,4'-DDE	0.02
2,4'-DDT	0.02
4,4'-DDT	0.02
Total DDT	NA
Dieldrin	0.02
Endosulfan I	0.02
Endosulfan II	0.02
Endosulfan sulfate	0.02
Endrin	0.02
Endrin aldehyde	0.02
Heptachlor	0.02
Heptachlor epoxide	0.02
Toxaphene	0.02
PCBs (sum)	

Table 3. Discrete Sediment Sampling and Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic Aromatic Hydrocarbons	Reporting Limit for Soil (mg/kg)
2-Methylnaphthalene	0.005
Acenaphthene	0.001
Acenaphthylene	0.001
Anthracene	0.001
Benz(a)anthracene	0.001
Benzo(a)pyrene	0.001
Benzo(b)fluoranthene	0.001
Benzo(k)fluoranthene	0.001
High molecular weight PAHs (sum)	NA
PAHs (total)	NA
Chrysene	0.001
Dibenz(a,h)anthracene	0.001
Fluoranthene	0.001
Fluorene	0.001
Indeno(1,2,3-cd)pyrene	0.001
Naphthalene	0.001
Phenanthrene	0.001
Pyrene	0.001
Low molecular weight PAHs (sum)	NA

Attachment C

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

**MONITORING AND REPORTING SCHEDULE
FOR THE**

NAPA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

STREAM MAINTENANCE PROGRAM

NAPA COUNTY

ORDER NO. R2-2019-00XX

NAPA FLOOD CONTROL DISTRICT MONITORING AND REPORTING SCHEDULE

Project Area	Inspection schedule	Pre-maintenance notification	Monitoring Report Due
Routine Stream Maintenance Activities (District wide including Flood, Rutherford and Oakville to Oak Knoll Projects)	Annually	ANR due June 1	Annual Post-Maintenance Report due January 31
Flood Control Features – Napa River/Napa Creek Flood Protection Project ¹	May (post-rainy season per Table 10-1 ¹)	June 1	December 1
	October (pre-rainy season per Table 10-1 ¹)		
	After high flow events (per Table 10-4 ¹)		
	After significant earthquakes (per Section 10.12.4 ¹)		
Vegetation monitoring - Napa River/Napa Creek Flood Protection Project ¹	Annually (per Section 10.5.3.2 ¹)		
Petroleum Residual Contamination Area - Napa River/Napa Creek Flood Protection Project ²	October and May (pre- and post-rainy season)	Submit corrective action plan within 30 days of observed erosion that threatens exposure of residual contamination	
	After high flow events		
	After significant earthquakes		
Comprehensive Vegetation monitoring - Napa River/Napa Creek Flood Protection Project ¹	Every 5 years (per Section 10.9.3.1 ¹)	Every fifth year due on January 31 (next report due in 2023)	
Rutherford Reach Restoration Project - All Phases ³	Annual Resource Monitoring Report		March 31
Oakville to Oak Knoll Restoration ⁴	Annual Resource Monitoring Report		March 31

¹ Operations, Maintenance, Repair, Replacement and Rehabilitation Manual for the Napa River/Napa Creek Flood Protection Project, April 2018.

² Post Construction Contingency Plan, February 2019.

³ Monitoring Plan for the Rutherford Reach Restoration of the Napa River, 2015.

⁴ Napa River Restoration: Oakville to Oak Knoll Project Monitoring Plan, March 2015.