APPENDIX A
DRAFT WASTE DISCHARGE REQUIREMENTS FOR NONPOINT SOURCE DISCHARGES RELATED TO CERTAIN LAND MANAGEMENT ACTIVITIES ON FEDERAL LANDS IN THE NORTH COAST REGION, ORDER NO. R1-2024-0012

California Regional Water Quality Control Board

North Coast Region

Order No. R1-2024-0012

General Waste Discharge Requirements

for

Nonpoint Source Discharges

Related to Certain Federal Land Management Activities

on

Federal Lands

in the

North Coast Region

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The California Regional Water Quality Control Board, North Coast Region, (hereinafter North Coast Water Board) finds that:

I. FINDINGS

A. INTRODUCTION

1. The federal lands of Northern California form a mosaic of landscapes that support a wealth of natural resources, native flora and fauna, diverse ecosystems, and beneficial uses of water. From the ancient forests of Redwood National Park to the King Range National Conservation Area, across the Yolla Bolly – Middle Eel Wilderness, over the snow-covered peaks of the Trinity Alps, and to the desert plains of the Modoc Plateau, federal lands constitute almost half of the total land area of the North Coast Region.

2. Although these lands have sustained and benefited humans since time immemorial, the seemingly boundless resources they provide are at risk and have experienced significant stressors over the past century and a half. The effects of past and present land use activities, disruption of native plant and animal communities, changes to instream flows, effects of climate change, and catastrophic wildfires, threaten and degrade many aquatic ecosystems. Today, most of the watersheds of the North Coast Region are identified as impaired[1] due to excess sediment and elevated temperatures as a result of modern land use practices degrading the beneficial uses of water.

3. Federal land management agencies (Federal Agencies[2]) – including the United States Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Reclamation, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the U.S. Coast Guard – are entrusted with the responsibility of caring for these resources. These agencies are required to protect and manage these lands, including taking actions to sustain native wildlife populations, maintain the health of forests and grasslands, and protect and restore water quality, while simultaneously managing uses for forest products, energy, mineral extraction, recreation, and more.

4. The North Coast Water Board is California's primary water pollution control agency and is responsible for protecting and restoring the beneficial uses of waters of the state within the North Coast Region. The Porter-Cologne Water

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[1] List of waterbodies in the North Coast Region identified as impaired on Section 303(d) of the Clean Water Act can be found at the following webpage: https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/.

[2] Federal land management agencies in the North Coast Region include the United States Forest Service, Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, and United States Coast Guard. See Findings B.1-9 for discussion of federal land management in the North Coast Region.

Quality Control Act[3] is the state's comprehensive water quality control statute which implements portions of the federal Clean Water Act[4]. Working together, Federal Agencies and the North Coast Water Board share responsibilities under state and federal laws to protect and restore the quality and availability of clean water for people and the environment.

5. While the vast expanses of federal lands in the North Coast Region are a highly valuable resource, they also present a challenging responsibility to manage. Federal Agencies frequently cite insufficient resources that act as a barrier to addressing the needs of the lands they manage. Staffing and funding deficiencies can impede these agencies' abilities to manage their responsibilities such as maintaining infrastructure and roads, addressing legacy sediment sources, conducting fuels management, restoring impaired waterbodies, managing grazing, and overseeing timber, mineral, and gas extraction. At times the Federal Agencies are challenged to meet their own stated mandates or to fully comply with their obligations under state and federal law. These federal resource limitations have inadvertently resulted in impacts to the environment and degradation of water quality.

6. Federal Agencies periodically receive new mandates and/or funding from Congress to implement restoration and remediation actions on federal lands. The Great American Outdoors Act (H.R. 1957) and the Inflation Reduction Act of 2022 are examples of these types of actions. Legislation like this, along with grant funding and regular funding allocations at the federal level, helps to accelerate and facilitate implementation of remediation and restoration actions in the North Coast Region. Although these funds will support federal land agencies in addressing some of the backlog of pollution control projects and aquatic habitat restoration projects needs in the North Coast Region, varying congressional appropriations of funds and staffing will continue to present a conundrum for Federal Agencies once these funds are expended.

7. The North Coast Water Board and its staff must uphold its obligations to protect the state's waters on federal lands in a manner that is commensurate with its regulation of state owned and private lands. This *General Waste Discharge Requirements Order for Discharges Related to Certain Federal Land Management Activities on Federal Lands in the North Coast Region*, also known as the Federal Lands Permit, addresses discharges of waste to waters of the state from certain activities on federal lands. Through this Order, the North Coast Water Board and its staff will continue to work with the Federal Agencies to ensure conformance with California's water quality laws and regulations and the applicable federal requirements.

[3] Water Code section 13000 et seq.

[4] The primary objective of the federal Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters (Clean Water Act section 101(a)).

B. FEDERAL LAND MANAGEMENT IN THE NORTH COAST

1. The North Coast Region encompasses approximately 12,416,000 acres. Federal Agencies cumulatively manage 5,746,798 acres between various Administrative Units. Administrative Unit is a term used in this Order to refer to individual USFS National Forests, BLM Field Offices, and NPS National Parks or National Monuments. There may be similar subdivisions of other Federal Agencies, but for the purposes of this Order, Administrative Unit applies only to USFS, BLM, and NPS. Collectively, Federal Agencies administer approximately 46 percent of the North Coast Region (Table 1).

Table 1. Identification of the acreage and percentage of federal land ownership in the North Coast Region.

Agency	Administrative Unit	Acreage	Federal Lands %	North Coast Region %
USFS Pacific Southwest Region	Modoc National Forest Klamath National Forest Shasta-Trinity National Forest Mendocino National Forest Six Rivers National Forest	651,781 1,474,503 1,258,693 467,491 1,163,006	87	40
USFS Pacific Northwest Region	Rogue River-Siskiyou National Forest	83,506	1.5	0.6
Bureau of Land Management	Arcata Field Office Ukiah Field Office Redding Field Office Applegate Field Office	204,215 37,532 98,719 41,387	7	3
National Park Service	Redwood National and State Parks[5] Lava Beds National Monument	131,983 46,504	2.5	1.4
Other Federal Agencies		124,030	2	1

2. The USFS, BLM, and NPS cumulatively manage the greatest percentage of federal land ownership in the North Coast Region. As a result, the conditions

[5] There are 60,268 acres of California Department of Parks and Recreation lands within Redwood National and State Parks. Certain activities on these state-owned lands are eligible for enrollment in this Order when conducted in conjunction with activities on federal lands due to the 1994 Memorandum of Understanding between the National Park Service and California Department of Parks and Recreation that established joint land management. See Attachment G ("Supplemental Order Findings) Findings III.C.1-2 for further detail.

of this Order and the requirements of the Monitoring and Reporting Program (MRP) largely focus on these Federal Agencies.

3. Other federal agencies include the Bureau of Reclamation, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the U.S. Coast Guard which also manage a combined total of 124,030 acres in the North Coast Region. The types of activities conducted on these federally managed lands typically differ from those conducted by the USFS, BLM, and NPS, and therefore are not specifically described in this Order. However, these other agencies can apply for coverage as needed if and when conducting activities covered by this Order. For enrollments by these other federal agencies, applicable Order conditions apply, except for the Watershed Assessment and Recovery Program requirements, and only Sections I, II, VI, and X of the MRP applies (General Conditions, Discharge Notifications, Monitoring for Category B Projects, and California Environmental Quality Act Mitigation Monitoring and Reporting Program Compliance, respectively).

4. Typical land use activities that are conducted on federal lands and covered by this Order include timber harvest, road management, livestock grazing, vegetation and fuels management, fire suppression, and fire recovery. See Section I.B.3 for detailed descriptions of covered activities.

5. The implementation of federal land management activities is governed by federal planning frameworks which provide overarching land management policies and guidance. These frameworks include aquatic conservation strategies designed to prevent and mitigate potential water quality impacts and enhance and protect aquatic habitat and species. The policies that inform federal land management decisions begin with federal laws such as the Clean Water Act, the National Environmental Policy Act (NEPA), and the Federal Land Protection and Management Act. These laws guided the development of overarching landscape management approaches and aquatic conservation goals included in documents such as the Northwest Forest Plan, Sierra Nevada Forest Plan, federal agency-specific Best Management Practices (BMPs), and Administrative Unit-specific management plans. In this Order, these types of documents are considered components of and referred to as “Federal Guidance”. Please refer to Attachment G Section III.D for further discussion of Federal Guidance documents.

6. The stated goals of federal planning frameworks and their associated BMPs, when fully implemented, are intended to prevent, minimize, and mitigate waste discharges and other controllable water quality factors. To rely on the implementation of Federal Guidance to ensure water quality protection, there must be transparency regarding which on-the-ground prescriptions are selected to implement BMPs and documentation of BMP implementation and effectiveness.

7. To comply with this Order, its associated MRP, and sediment, temperature, dissolved oxygen, and nutrient Total Maximum Daily Loads (TMDLs), Federal Agencies, as well as grazing permittees and other third parties, must

successfully implement management measures, adhere to Federal Guidance, and comply with the standards provided by the *Water Quality Control Plan for the North Coast Region* (Basin Plan). Failure to meet these requirements may result in notices of violation and/or additional progressive enforcement actions.

8. Compliance with this Order constitutes conformance with sediment, temperature, dissolved oxygen, and nutrient TMDL goals, implementation plans, or policies. This Order provides the implementation mechanism to address impairments from activities covered by this Order in watersheds listed on the Clean Water Act section 303(d) list.

9. The implementation strategy for the remainder of the sediment and temperature impaired waters, including those with completed TMDLs, are described in the *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region*[6] and the *Policy for the Implementation of the Water Quality Objective for Temperature*[7], contained within sections 4.3.2.1 A and B of the Basin Plan. Both policies state that the North Coast Water Board shall address sediment waste discharges on a watershed-specific basis and direct staff to use permitting authorities to control sediment and temperature waste discharges. See Attachment G, Section I.G. and I.H., respectively, for further discussion on the Sediment and Temperature Policies.

C. REGULATORY BACKGROUND

1. In 2004, the North Coast Water Board developed its first regulatory permitting program for the portion of federal lands within USFS ownership in the North Coast Region through the adoption of the *Waiver for Discharges Related to Timber Harvest Activities on Federal Lands Managed by the United States Department of Agriculture, Forest Service in the North Coast Region*, Order No. R1-2004-0015 (2004 Waiver).The 2004 Waiver has since been modified, expanded, and reapproved by the *Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region*, Order R1-2010-0029 (2010 Waiver) and the subsequent *Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region*, Order No. R1-2015-0021 (2015 Waiver). The 2010 and 2015 Waivers are supported by a 2010 Mitigated Negative Declaration[8] prepared by North Coast Water Board staff pursuant to the California Environmental Quality Act (CEQA). In 2020, the North Coast Water

[6] Resolution R1-2004-0087.

[7] Resolution R1-2014-0006.

[8] State Clearinghouse No. 2010042031. The 2010 Mitigated Negative Declaration may be accessed at the following webpage: https://ceqanet.opr.ca.gov/2010042031.

Board renewed the 2015 Waiver[9] to allow for development of this Federal Lands Permit and an updated CEQA analysis.

2. Many lessons have been learned as the various iterations of the Waivers have been implemented. This Order contains significant modifications from the most recent 2015 Waiver. A rapidly changing climate, increasing annual fire regime, lessons regarding regulatory efficacies, new state and federal policies, and other factors have informed the changes from the 2015 Waiver and are included in this Order. These modifications were developed considering North Coast Water Board staff's experience implementing the Waiver as well as input received from North Coast Water Board members, Federal Agencies, tribal governments, and other communities of interest. The most substantive modifications include the following:
    a. converting from a Waiver of Waste Discharge Requirements to a Waste Discharge Requirements (WDR) permit;
    b. removing project-level legacy sediment site treatment and requiring agencies to transition to a programmatic, Administrative Unit-wide Watershed Assessment and Recovery Program for controllable sediment discharge sources;
    c. specifying a set of general conditions that apply to livestock grazing activities on federal lands rather than relying on federal grazing permit renewals;
    d. updating water quality protection measures for fuels management activities; and
    e. integrating and referencing Federal Guidance and monitoring and reporting requirements from non-USFS Federal Agencies, such as the BLM and NPS.
3. For the purposes of adoption of this Order, the North Coast Water Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.). As a result of the significant modifications included in this Order, as well as recognizing that over ten years has passed since the analysis of environmental impacts in the 2010 Mitigated Negative Declaration, and a host of smaller considerations, the North Coast Water Board has prepared and circulated an Environmental Impact Report (EIR) that analyzes the potential environmental impacts of this Order (SCH number 2022090353). The North Coast Water Board certified the EIR pursuant to CEQA on [adoption date] when it issued Order No. R1-2024-0012.

[9] Short-term renewal of the *Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region,* Order No. R1-2020-0021.

D. ORDER STRUCTURE

1. Findings D.2-3 below describe the types of activities that are conditionally authorized (permitted) by this Order and have the potential to result in discharges of waste to waters of the state. Findings D.4-6 below describe types of activities that are not authorized by this Order and may require separate North Coast Water Board permit coverage. Authorized nonpoint source activities, except for emergency activities, are separated into two categories; activities that pose a low risk or activities that pose a moderate risk to water quality (designated as Category A and Category B, respectively). Attachments A and B contain lists of Category A and B activities. Category A and B projects have different enrollment procedures which are described in detail below (Findings D.7-9). Emergency activities are described in Findings E.20-24.

Activities Covered

2. This Order addresses nonpoint discharges of waste to waters of the state from activities associated with certain activities on federal lands. Most of the potential water quality impacts are associated with erosion and sediment delivery and/or alterations to riparian systems that may reduce shade and affect water temperatures. Livestock grazing can affect dissolved oxygen and nutrient concentrations in water.

3. This Order authorizes the incidental discharge of waste to waters of the state that occur when Order conditions are adequately implemented and associated with the following activities:

    a. **Timber Harvest**: Timber harvested from federal lands. Timber harvest activities include different silvicultural prescriptions, heavy equipment use, and construction and/or use of logging infrastructure (e.g., roads, landings, skid trails) that can influence watershed conditions. Activities conducted in riparian zones as part of commercial timber harvest can result in increased sediment delivery and elevated surface water temperatures by reducing stream shade and/or contributing to sediment delivery.

    b. **Vegetation and Fuels Management:** In addition to timber harvesting, Federal Agencies manage vegetation for forest health, rehabilitation, and fuels management. Management may include understory and overstory thinning, tribal cultural burns, prescribed burns, mastication of fuels, and other means to improve forest health and resiliency. Due to increased wildfire activity on federal lands, Federal Agencies are taking steps to increase fuels reduction projects surrounding wildland urban interfaces to reduce the likelihood and severity of wildfire and protect communities at risk.

c. **Roads and Trails**: Construction, maintenance, upgrades, storm proofing, and decommissioning of roads and motor vehicle trails[10]. Roads constitute the largest anthropogenic source of chronic and episodic sediment delivery to waterbodies and therefore require prioritization for treatments and implementation of BMPs. This Order regulates road construction, maintenance, and use on federal lands through implementation of management measures and includes most road and watercourse crossing upgrades conducted through the Watershed Assessment and Recovery Program (WARP). See controllable sediment discharge source-specific Findings E.2-18 and Conditions D.1-6.

d. **Recreational Facilities Management** - Development, maintenance, and management of recreation facilities such as campgrounds, staging areas or parking lots, high use recreation sites, and recreational event locations. The construction or maintenance of recreation facilities may require ground disturbing operations and recreational use activities may result in nonpoint source pollution as well as aquatic or riparian habitat alteration[11].

e. **Grazing**: Grazing of privately-owned animals on federal lands for food/forage and/or for the purposes of fuels management or other management objectives. Federal Agencies conduct range monitoring to inform the development of annual operating instructions and grazing permits, or other similar authorizing mechanisms that provide for adaptive management of grazing allotments. Livestock grazing has the potential to impact water quality through increased surface erosion from hoof action, changes to rates of surface water runoff and/or groundwater infiltration, changes in composition and function of native vegetation, increased solar radiation, and introduction of animal wastes. These actions may reduce the stream shade of watercourses in allotments and the capacity of those watercourses to trap sediment and may contribute nutrients and pathogens contained in fecal matter. Grazing activities must be appropriately managed by the Administrative Units and the grazing permittee to ensure that activities are complying with Federal Guidance. See grazing-specific Findings E.19-24 and Conditions F.1-9.

f. **Emergency Activities**: Emergency Activities may include fire suppression and flood response[12] activities. Fire suppression activities may generate sediment and impact designated riparian zones during and after the firefighting process, which may include road construction, re-

[10] This Order applies to any federal land management activity involving road- and motor vehicle trail-related activities, including those roads associated with mining.

[11] When federal projects or activities – including ground-disturbing management measures implemented pursuant to the Proposed Project – would disturb greater than one acre of land, federal agencies may be subject to the Construction General Permit.

[12] "Flood response" activities are actions necessary to address infrastructure (e.g., roads or watercourse crossings) damage resulting from a storm event.

opening of old roads, fire line construction and repair, and back-burning. Each Federal Agency has conditions and processes in its Federal Guidance to address fire suppression activities, including guidance for fueling equipment, use of fire retardants, and other components of fire suppression. During an emergency, this Order automatically authorizes a Federal Agency to conduct necessary response actions to mitigate harm to life, property, or important natural or cultural resources, including implementation of post-fire suppression repair actions. Typically, after, but sometimes in conjunction with, Fire Suppression Damage Repair, some Federal Agencies conduct Burned Area Emergency Response[13] evaluations to identify and prescribe protection measures for resources at risk. Burned Area Emergency Response activities are considered a component of emergency response, though projects following Burned Area Emergency Response that are conducted through the NEPA process or with a NEPA categorical exclusion require coverage under this Order. Federal Agencies adhere to their Federal Guidance when conducting any emergency activities to minimize impacts of the suppression activities on water quality. See emergency activities-specific Findings E.20-24 and Conditions G.1-2.

g. **Fire Recovery**: Fire recovery operations include management measures such as post-fire salvage, vegetation management, and other rehabilitation activities. Some fire recovery projects may be conducted as part of emergency response activities depending upon the immediacy of the threat to life, property, infrastructure, and the environment.

Activities Not Covered

4. This Order does not authorize any discharges that require a separate permit from the State or North Coast Water Board or other agencies, such as activities that require a National Pollutant Discharge Elimination System point source permit or Clean Water Act section 401 water quality certification.

5. This Order does not authorize the discharge of waste to waters of the state from the following activities:

   a. **Aquatic Habitat Restoration:** These activities are generally associated with stream channel and floodplain habitat improvements, large wood augmentation, fish-migration barrier removal, treatment of invasive plant species, wetland enhancement, and forest rehabilitation. These activities are restorative in nature and are designed to enhance the structure and function of aquatic habitat conditions, improve the riparian zone, and reduce long-term erosion and sedimentation.

[13] Information about Burned Area Emergency Response, or BAER, can be accessed at the following webpage: https://www.nifc.gov/programs/post-fire-recovery

The State Water Resources Control Board and North Coast Water Board maintain separate general permits to authorize aquatic habitat restoration projects, including the (1) General Water Quality Certification for Small Habitat Restoration Projects[14] and (2) the Statewide Restoration General Order[15]. Federal Agencies should contact the North Coast Water Board for guidance regarding which permit is best suited for a given aquatic habitat restoration project.

b. **Mining**: Where prospecting- or mining-related actions discharge or have the potential to discharge waste(s) into waters of the state, the operator is required by state law to file a report of waste discharge with the North Coast Water Board and/or seek enrollment under the Industrial Storm Water General Permit[16] as necessary.

c. **Application of herbicides or pesticides:** Federal Agencies may contact North Coast Water Board staff regarding proposed pesticide applications to determine if a North Coast Water Board permit is required.

d. **Hazardous or human waste:** Any project activity that involves the handling, disposal, or treatment of any hazardous waste or any human waste is not authorized.

e. **Third parties conducting activities on federal lands**: Activities conducted by grazing permittees or other third parties under written authorization by the appropriate Federal Agency except as specified in Conditions I.1-2.

f. **Land disturbance activities unrelated to silvicultural operations that disturb one or more acres**: Construction or demolition activities related to residential, commercial, or industrial development on federal lands, including but not limited to clearing, grading, grubbing, or excavation, that disturb one or more acres or are part of a larger common plan of development are subject to enrollment under the Construction Storm Water General Permit[17].

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[14] Information regarding the General Water Quality Certification for Small Habitat Restoration Projects can be found at the following web address (see year 2012): https://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders.html.

[15] Information regarding the Statewide Restoration General Order can be found at the following web address (see year 2022): https://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders.html

[16] Information regarding the statewide Industrial Storm Water program and the current permit may be accessed at the following webpage: https://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.html.

[17] Information regarding the statewide Construction Storm Water program and the current permit may be accessed at the following webpage: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html.

6. This Order does not authorize projects that, through a combination of size and intensity, would pose greater than a moderate risk to water quality. Projects that pose a greater than moderate risk to water quality must submit a separate Report of Waste Discharge and be covered under an individual Waste Discharge Requirements permit.

Project Activity Categories

7. This Order, issued pursuant to Water Code section 13263, applies to two categories of activities, Category A and Category B, which are grouped according to the level of potential impact to water quality and consider the following factors:
   a. the type of the activity;
   b. the activity's proximity to water (e.g., inside a designated riparian zone vs. outside a designated riparian zone);
   c. the type of proposed equipment (e.g., hand tools vs. heavy machinery);
   d. the on-the-ground conditions where the activity takes place (e.g., equipment on steep ground vs. flat ground and soil and slope conditions); and
   e. the activity's geographic setting (e.g., geomorphic province, such as the Coast Ranges, Modoc Plateau, Klamath Mountains, etc.) in the North Coast Region.

8. **Category A projects**[18] include activities that, as proposed, present a low risk to water quality and which are listed in Attachment A. This Order requires Federal Agencies to implement Federal Guidance and appropriate management measures for all Category A projects. Category A projects are automatically enrolled in this Order and **do not** require Federal Agencies to conduct subsequent project implementation monitoring and reporting.

9. **Category B projects** include activities that, as proposed, present a moderate risk to water quality and which are listed in Attachment B. This Order requires Federal Agencies to complete and submit a Notice of Intent (NOI) (i.e., application form), implement Federal Guidance and appropriate management measures, and conduct project implementation monitoring and reporting as described in this Order and attached MRP (Attachment C). Category B projects require North Coast Water Board staff review and evaluation for compliance with this Order.

10. North Coast Water Board staff will evaluate projects for conformance with Order requirements and to determine conformance with its CEQA analysis,

[18] Federal Agencies may propose to add additional types of activities to this category, subject to approval by the Regional Water Board Executive Officer.

an EIR (SCH number 2022090353). Following this evaluation, some projects may require alternative permitting and/or additional environmental analysis.

E. ACTIVITY-SPECIFIC FINDINGS

1. This Order includes the following activity-specific findings in support of certain significant changes from the 2015 Waiver:
   a. controllable sediment discharge sources (Findings E.2-18);
   b. livestock grazing activities (Findings E.19-24); and
   c. emergency activities (Findings E.25-29).

Controllable Sediment Discharge Sources

2. Sediment is recognized as the most widespread pollutant affecting the health of watersheds in the North Coast Region. Although sediment is a natural and necessary component of all waterbodies, excess sediment degrades the quality of water and a watershed's ability to fully support its beneficial uses. Human-caused sedimentation of waterbodies comes from a wide range of activities, including many that are regulated through this Order. If not planned, implemented, and monitored carefully, activities such as timber harvest, road- and watercourse crossing-related work, livestock grazing, vegetation management, and recreation infrastructure can cause preventable sediment discharges to waters of the state. This Order includes regulatory conditions designed to prevent, minimize, or address these controllable sediment discharges to waterbodies.

3. Addressing controllable sediment sources is necessary to both prevent further sediment pollution and ecosystem impairment and maintain high quality, unimpaired waterbodies. As a result, this Order requires treatment of controllable sediment sources in all watersheds on federal lands regardless of Clean Water Act section 303(d) listing status for sediment.

4. This Order defines sediment discharges that can be prevented as "Controllable Sediment Discharge Source(s)", or "CSDS"[19]. The term CSDS replaces the term "legacy sediment site" which was previously used in the 2010 and 2015 Waivers. The criteria for what constitute a legacy sediment site and CSDS are identical. The purpose of this administrative change is to eliminate the word "legacy" from the term, since non-legacy sources (i.e., those caused by recent activities) can also meet the CSDS criteria.

5. A CSDS meets all the following conditions:
   a. is discharging or has the potential to discharge sediment to waters of the state in violation of applicable water quality requirements;
   b. was caused or affected by human activity; and

[19] This Order uses "CSDS" as both a singular and plural noun.

c. may feasibly and reasonably respond to prevention and minimization management activities.

6. The 2010 and 2015 Waivers required Federal Agencies to systematically address all CSDS located within a given Category B project area. Experience overseeing the implementation of the 2010 and 2015 Waivers has shown that the requirements to treat CSDS within Category B project areas had unintended consequences for certain project types, including but not necessarily limited to the following:

   a. an ever-increasing backlog of CSDS treatment driven largely by activities responding to large wildfire events that are considered Category B type activities;

   b. complicated project management due to disjointed project objectives (e.g., fuel management vs. addressing CSDS);

   c. potential impediments to implementation of beneficial projects (e.g., community protection, restoration, forest resilience) due to CSDS treatment costs; and

   d. limited resources being directed towards significantly degraded watershed areas when higher quality watersheds are a greater priority or vice versa.

7. This Order replaces project-level treatment of CSDS with the Watershed Assessment and Recovery Program, which details how Administrative Units will systematically treat CSDS over time.

Watershed Assessment and Recovery Program

8. The Watershed Assessment and Recovery Program, or WARP, is a new, iterative regulatory approach designed to support the implementation of water quality improvement projects on federal lands. The WARP is designed to satisfy the state and federal agencies' obligations to conform with provisions of the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act.

9. The WARP establishes regulatory requirements for the USFS, BLM, and NPS to advance the treatment of CSDS across federal lands over time. The Program relies on a performance-based credit system that obligates treatment credit requirements for each Administrative Unit based on the water quality conditions and land management activities unique to these lands.

10. Administrative Units accrue credits through the annual treatment of CSDS, including those associated with road-related sediment discharges from various sources, such as hydrologically connected road surfaces and inboard ditches, road surface and cutslope erosion sources, unstable areas, gully and rill erosion, stream diversions, and failing or compromised watercourse crossings structures.

11. The WARP provides the Administrative Units with some compliance flexibility for a portion of their CSDS treatment credit obligations by allowing for

alternative actions that protect or improve water quality, including but not limited to aquatic habitat restoration[20] activities, forest resilience and climate adaptation treatments, comprehensive planning strategies, and certain monitoring and adaptive management actions.

12. WARP credit obligations are intended to be adjusted over time, as treatments are applied, watershed conditions change, and management activities evolve.

13. Attachment F to this Order provides detailed information about the WARP, including but not limited to its treatment credit methodology, assignment of treatment credit obligations per Administrative Unit, creditable pollutant source treatment activities, alternative credit generating activities, prioritized waterbody planning, and reducing credit obligations. Attachment D, the Notice of Intent (enrollment form), includes procedures for requesting enrollment under the Federal Lands Permit and proposing accreditable activities.

14. The Federal Lands Permit's Monitoring and Reporting Program Order No. R1-2024-0012 (Attachment C) describes the monitoring and reporting requirements associated with the WARP, including but not limited to, annual reporting on creditable activities and a Five-Year Retrospective. The Monitoring and Reporting Program also includes procedures for documenting completion of an approved credit earning activity, procedures for seeking changes to an Administrative Unit's treatment credit obligations, and more.

15. Conformance with the WARP is a requirement of the Order and constitutes sediment, temperature, dissolved oxygen and nutrient TMDL compliance for activities covered under this Order so long as the Administrative Unit complies with WARP requirements pursuant to Conditions D.1-23.

16. The WARP and its associated monitoring and reporting requirements are issued pursuant to Water Code sections 13267 and 13304.

17. Noncompliance with the WARP requirements may result in a notice of violation, site-specific cleanup and abatement order, time schedule order pursuant to Water Code section 13308, and/or additional progressive enforcement actions.

18. North Coast Water Board staff will provide an update on WARP compliance to the North Coast Water Board every five years following Order adoption. The update will include a description of the performance of Administrative Units' implementation of the WARP and Order and MRP compliance.

Livestock Grazing Activities

19. This Order provides regulatory coverage to those Federal Agencies that authorize private livestock grazing activities on the federal lands within the

[20] See Finding D.5.a. above for guidance on permitting pathways for aquatic habitat restoration projects.

North Coast Region. All grazing activities on federal lands are subject to the conditions of this Order regardless of the enrollment status of any grazing allotment under the 2010 and 2015 Waivers.

20. This Order requires Administrative Units who permit livestock grazing to ensure implementation of BMPs and associated management measures provided in Federal Guidance. Federal Guidance documents include many BMPs pertaining to grazing, such as the Standards and Guidelines adopted as part of the Northwest Forest Plan and its associated Aquatic Conservation Strategy objectives.

21. Private parties who are authorized by an Administrative Unit to conduct livestock grazing on federal lands are referred to in this permit as “grazing permittees” and the federal permit authorized by an Administrative Unit as a “grazing permit” for the purposes of this Order. Administrative Units issue guidance documents, such as Annual Operating Instructions (AOIs), to grazing permittees that specify the allowed operational activities within the grazing permit.

22. Administrative Units authorizing livestock grazing are required to ensure that grazing activities are conducted in a manner consistent with approved grazing permits and associated Annual Operating Instructions. To be covered by this Order, Administrative Units must oversee and adaptively manage grazing activities to conform with applicable Federal Guidance standards, management measures, and applicable conditions of this Order to ensure that water quality is being protected.

23. Administrative Units are required to conduct sufficient monitoring of grazing allotments to verify compliance with grazing permits. North Coast Water Board staff intend to conduct periodic monitoring with and without Administrative Units and grazing permittees to verify compliance with Federal Guidance standards and water quality standards and Order conditions.

24. Failure by an Administrative Unit to comply with Federal Guidance, comply with Conditions F.1-9 of this Order, or manage a grazing allotment in a manner that impacts or threatens to impact water quality may result in progressive enforcement actions by the North Coast Water Board. Enforcement actions by the North Coast Water Board against an Administrative Unit may include any of the following: notice of violation, request for technical documents order, cleanup and abatement order, or a time schedule order. Although grazing permittees are not directly permitted by this Order, the North Coast Water Board reserves the right to take any enforcement action authorized by law against a grazing permittee for discharges of waste.

Emergency Activities

25. California is facing a growing forest and wildfire crisis which is leading to an increase in emergency activities on federal lands. Decades of fire suppression, coupled with the increasing impacts of climate change, have

dramatically increased wildfire size and intensity. High severity wildfires result in the loss of significant vegetation, canopy, and root strength, increased hydrophobic soils, and can lead to adverse impacts to water quality through increases in erosion, landslide frequency, sediment yield, turbidity, peak flows and flooding, temperatures, and other parameters.

26. Timely management can help to mitigate the impacts to water quality from wildfire. For example, installation of erosion control measures, reconstruction of appropriately sized drainage structures, and construction of critical dips can help reduce the potential for sediment discharges to waterbodies. Additionally, it is often necessary to remove hazard trees to protect the public and agency personnel and salvage dead and dying trees with subsequent replanting to accelerate forest rehabilitation. In some cases, these actions may result in short-term impacts that cannot be mitigated to less-than-significant but nevertheless can and should be implemented in a timely manner.

27. During emergency responses, the responsible Federal Agency official is authorized to take actions necessary to control the immediate impacts of the emergency and to mitigate harm to life, property, or important natural or cultural resources. When taking such actions, the responsible official must consider the probable environmental consequences of the emergency action and mitigate foreseeable adverse environmental effects to the extent practical[21] (Conditions G.1-2).

28. The formal process for submitting a report of waste discharge and processing an individual WDR or waiver takes many months and unduly delays recovery. Providing coverage under the emergency exemption discussed in Conditions G.1-2 is an appropriate response in such cases, subject to Order conditions.

29. This Order authorizes discharges from emergency actions referenced in Finding D.3.e. These activities and those specific actions necessary to prevent or mitigate an emergency (does not include long-term projects) are exempt from CEQA[22].

F. MONITORING AND REPORTING

1. Monitoring and reporting requirements pursuant to Water Code section 13267 are contained in the associated MRP, Attachment C of this Order. This Order and its associated MRP largely rely upon existing Federal Agency strategies for project and activity level monitoring and/or in-channel monitoring.

2. Different types of monitoring are necessary to support distinct monitoring objectives. *Project implementation monitoring and effectiveness monitoring* (Attachment C Section VI) is conducted to identify whether management

[21] 36 CFR § 220.4 General requirements: NEPA (42 U.S.C. 4332(2)(C)).(b)(1).

[22] Cal. Code Regs., tit. 14, section 15269.

measures have been conducted as designed and are functioning to protect water quality. *In-channel monitoring* (Attachment C Section IX) typically requires more detailed qualitative and quantitative measurements including physical habitat monitoring, vegetation monitoring, biological assessment, water quality, and other measures of watershed biological integrity, and is used for purposes of overall waterbody assessments, determining trends in waterbody conditions, and to inform CWA section 303(d) listing or delisting decisions.

3. The Federal Agencies regulated by this Order manage vastly different landscapes and land use activities which warrant unique monitoring objectives, procedures, and focused water quality targets. Together, these differences present a challenge to the creation of a one-size-fits-all monitoring strategy, and therefore warrant a tailored approach for different Federal Agencies and Administrative Units. As such, the requirements in the MRP are intended to leverage the Federal Agencies' existing protocols, management measures, monitoring resources, and infrastructure to comply with the objectives of this Order.

4. To address these distinct monitoring needs, this Order contains conditions that require Federal Agencies to:

   a. implement the applicable Federal Guidance documents for each Administrative Unit;

   b. adhere to management measures developed for an individual project or activity, such as on-the-ground prescriptions, BMPs, and Project Design Features developed for a specific project;

   c. commit to procedures that ensure implementation of prescriptions that provide water quality protections; and

   d. implement monitoring requirements to ensure adherence to on-the-ground prescriptions and to evaluate their effectiveness.

5. Federal Agencies translate general BMPs into site-specific on-the-ground prescriptions for a project or activity. Those on-the-ground prescriptions are then included in contracts, grazing permits, or other agreements. The MRP requires evaluation of implementation and effectiveness of on-the-ground prescriptions at the contract or timber sale-level.

G. SUPPLEMENTAL FINDINGS

1. Attachment C1 of this Order, Supplemental Monitoring and Reporting Program Findings, contains additional findings related to the MRP. Attachment G of this Order, Supplemental Order Findings, contains findings related to 1) the legal and regulatory framework that supports the North Coast Water Board's issuance and implementation of this Order, including information regarding how the North Coast Water Board implements elements of the Federal Clean Water Act, California's Porter-Cologne Water Quality

Control Act, the Basin Plan, and state and regional policies[23] designed to protect and restore the beneficial uses of waters of the state; 2) tribal consultations and outreach and engagement to the public and disadvantaged communities to inform the development of this Order and associated Monitoring and Reporting Program; and 3) Federal Agency-specific information for the USFS, BLM, and NPS that describe agency-specific documents or processes that pertain to the implementation and/or enforcement of the Federal Lands Permit. Attachment F and F1 contain additional findings related to the WARP. These Attachments are incorporated into and constitute Findings for this Order.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to Water Code sections 13263, 13267, and 13304, as applicable, the Federal Agencies must each individually comply with the following:

II. CONDITIONS

A. PROJECT PLANNING

1. Federal Agencies must facilitate early North Coast Water Board involvement in the NEPA project planning process. North Coast Water Board involvement may include, but is not limited to, pre-project consultations and inspections and review of NEPA scoping and draft documents.

2. Federal Agencies must conduct an interdisciplinary review of proposed project activities and identify on-the-ground prescriptions needed to implement Federal Guidance and any additional necessary water quality protection measures for a given proposed activity.

3. To be considered as adequate for Federal Lands Permit enrollment, Federal Agencies must identify within NEPA documents whether proposed activities include:
    a. management in designated riparian zones;
    b. road, landing, and watercourse crossing construction and reconstruction;
    c. heavy equipment use;
    d. vegetation management;
    e. prescribed fire; and/or

[23] State Water Board and Regional Water Board policies applicable to this Order include, but are not limited to the following: *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program; Statement of Policy With Respect to Maintaining High Quality of Waters in California; Policy for the Implementation of the Water Quality Objective for Temperature; Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region; the Water Quality Enforcement Policy; and Policy in Support of Restoration in the North Coast Region*.

f. forest restoration activities.

4. Federal Agencies must include project-specific prescriptions, such as management measures, BMPs, Project Design Features, and/or Standard Project Requirements[24], within NEPA documents.

5. Federal Agencies must identify Category B activities 1 through 6 in Attachment B as Category A activities for projects located in the Lost River and Butte Valley Creek Hydrologic Units.

B. PROJECT ENROLLMENT AND TERMINATION

1. Federal Agencies must submit a complete NOI (Attachment D) signed by an Authorized Representative for all projects eligible for Category B coverage under this Order. The NOI and related materials must be submitted in a searchable Portable Document Format (PDF) by email to NorthCoast@waterboards.ca.gov or to any future online data submission tool.

2. For projects that include Category B activities, Federal Agencies must comply with project implementation monitoring and reporting requirements pursuant to the MRP (Attachment C).

3. For projects that include both Category A and B activities, the Federal Agency must identify the project as Category B. Federal Agency staff must contact North Coast Water Board staff if they require assistance determining whether an activity qualifies as Category A or B.

4. If a Federal Agency conducts Category B activities to abate hazardous conditions after a wildfire and prior to project enrollment under this Order, subject to emergency exemptions identified in California Code of Regulations, title 14, section 15269, the Administrative Unit must complete the last question in Section 6 of the NOI for any subsequent disaster recovery project in that same area to describe which activities were conducted.

5. For Category B project activities subject to NEPA, the Federal Agency must submit an NOI after the NEPA decision (or issuance of a Determination of NEPA Adequacy) and at least 30 days prior to anticipated commencement of on-the-ground activities.

6. For projects that are anticipated to be implemented over a long period of time and include phased planning, the Federal Agency may apply for Federal Lands Permit coverage based on project phases.

[24] Federal Agencies may use terms such as “project design features” and “best management practices” differently. These references are included in the definition of management measures, which is defined in Attachment I. Refer to the appropriate Federal Guidance for agency-specific term definitions.

7. North Coast Water Board staff will review NOIs for completeness and eligibility. The North Coast Water Board Executive Officer will accept, return, or deny the NOI in writing within 30 days from NOI submittal. The North Coast Water Board Executive Officer has the discretion to adjust timeframes at the written request of a Federal Agency or as otherwise needed.

8. North Coast Water Board and Administrative Unit staff should meet annually, or as necessary, to discuss the status of enrolled projects, WARP implementation, and to rectify any issues with Order and/or MRP compliance.

9. Federal Agencies must submit a Notice of Termination (NOT) (Attachment E) upon Category B project completion certifying that all the conditions and monitoring and reporting required by this Order and attached MRP have been met. Project enrollment under this Order must be terminated upon receipt of a Termination of Coverage letter from the Executive Officer.

C. FEDERAL GUIDANCE

1. Federal lands are managed according to the federal planning frameworks, which are composed of guidance documents applied through a nesting or hierarchy of spatial scales (e.g., national, regional, province, forest, district, watershed, project site) as described below. These types of Federal Guidance Documents are the focus of this section. The North Coast Water Board considers each Federal Agency's adherence to their applicable Federal Guidance Documents as foundational to compliance with this Order.
    a. Federal manuals provide **national** direction for federal lands.
    b. Federal handbooks and guidelines provide **regional** policy direction.
    c. The NWFP and SNFP provide overall guidance on a **multiple-USFS National Forest or BLM Field Office scale**.
    d. Land Resource Management Plans (LRMPs), Resource or Joint Resource Management Plans, and General Management Plans are developed by and provide guidance for **individual Administrative Units**.
    e. The Watershed Condition Framework[25] and Watershed Restoration Action Plans (WRAPs) guide watershed assessment and restoration on a watershed scale for **individual USFS National Forests**.

2. All activities undertaken by Federal Agencies must comply with Federal Agency-specific Federal Guidance Documents, as defined in Attachment H, and applicable federal BMPs for water quality protection identified in Conditions C.3-5 below.

3. Reference to Federal Guidance Documents includes any modifications to those documents during the life of this Order, so long as the modifications are equally or more protective of water quality as determined by the Executive

[25] USDA, 2011. Watershed Condition Framework.

Officer. Federal Agencies must submit scoping request letters or other information related to any proposed modifications to Federal Guidance Documents described in this Order. Such correspondence must be delivered electronically to the North Coast Water Board and copy the appropriate North Coast Water Board liaison[26]. North Coast Water Board staff will review and comment on proposed modifications to Federal Guidance Documents.

4. Federal Agencies must conduct activities in accordance with the project description in the project's accompanying NEPA document, including any project modifications and the specific on-the-ground prescriptions designed to implement the management measures identified to avoid any adverse impact(s) to water quality. Project-specific management measures constitute Federal Guidance within those project areas. This includes both smaller project NEPA and larger NEPA documents that cover all or part of an Administrative Unit.

5. The NPS and other Federal Agencies must implement management measures of similar water quality protection as described in their respective Federal Guidance Documents.

D. WATERSHED ASSESSMENT AND RECOVERY PLAN

As described in Findings E.9-18, the WARP establishes regulatory requirements for the USFS, BLM, and NPS to advance the treatment of CSDS over time. The WARP relies on a performance-based credit system developed for each Administrative Unit based on the water quality conditions and land management activities of its lands.

In addition to supplemental findings in Attachment G, Attachment F to this Order provides detailed information about the WARP, including but not limited to, the treatment credit methodology and assignment of initial obligations to each Administrative Unit, descriptions of creditable pollutant source treatment activities, alternative credit generating activities, prioritized waterbody planning, and processes for reducing credit obligations.

WARP Requirements

1. Administrative Units of the USFS, BLM, and NPS in the North Coast Region must complete annual treatment credit obligations described in Attachment F by December 31, 2025, and annually thereafter. Compliance with annual treatment credit obligations will be assessed by averaging treatment credits over a 5-year period.

[26] A list of staff liaisons to each Administrative Unit is located on the Regional Water Board's Federal Lands Permitting webpage: https://waterboards.ca.gov/northcoast/water_issues/programs/forest_activities/US_forest_service/.

2. Administrative Units should work closely with the appropriate North Coast Water Board Federal Lands Permit liaison regarding compliance with the WARP, including but not limited to submitting information in the Notice of Intent

3. Administrative Units must submit written requests for any modification to the WARP treatment credit obligations within Attachment F to the North Coast Water Board Executive Officer for review, comment, and approval. Requests for modification to the WARP treatment credit obligations included in Attachment F for an individual Administrative Unit must include sufficient detail and supporting information to support the request for revision. WARP monitoring and implementation requirements are issued pursuant to Water Code sections 13267 and 13304 and may be modified by the North Coast Water Board Executive Officer.

4. At the onset of the fourth year of WARP implementation during any five-year reporting cycle, Administrative Units may request extensions if they determine that they are unlikely to meet their annual credit treatment obligations, assessed as a five-year average. WARP compliance extension requests will be considered if reasonable progress and/or a good-faith effort to implement the accreditable activities can be demonstrated by the Administrative Unit. Deadline extension requests will be subject to North Coast Water Board Executive Officer review and approval. Deadline extension requests must be submitted in writing and include the following information:
   a. a discussion of and supporting information for the deadline extension request;
   b. a discussion of and supporting information documenting WARP implementation progress; and
   c. a proposed alternative date for meeting the WARP treatment credit obligations.

5. Administrative Units must submit a complete NOI (Attachment D) whenever they are seeking enrollment of a Category B project under this Order and must include information pertaining to the types of activities proposed in a project that may qualify for WARP crediting. North Coast Water Board staff will review, accept, return, deny, or comment on all NOIs prior to enrolling projects under the Order.

6. Implementation of and compliance with the WARP must be demonstrated through submittal of the annual WARP Tracking Form and five-year retrospective report described in the Monitoring and Reporting Program (see Attachment C, Section IV.A).

E. RIPARIAN ZONE MANAGEMENT

1. Federal Agencies must manage and maintain designated riparian zones pursuant to agency-specific Federal Guidance.

2. Except as provided in Condition E.3, Federal Agencies must protect site-specific potential effective shade conditions as described in the Temperature Policy (see Attachment G, Section H).

3. Exceptions to Condition E.2 above require a written justification in the project NOI. Exceptions will be considered if the project protects or enhances site-specific potential effective shade conditions. The justification must identify the proposed canopy reduction and expected recovery time, provide an estimate of the pre- and post-project shade or solar impacts, and explain how such an exception will result in a net long-term benefit to water quality and stream temperatures.

4. Except as provided in Condition E.5, Federal Agencies must retain mature stream bank trees and their roots that provide or contribute to stream bank stability for ephemeral, intermittent, and perennial watercourses.

5. Exceptions to Condition E.4 above requires a written justification in the NOI. Exceptions will be considered on a case-by-case basis but must identify the rationale for removing mature stream bank trees, the potential impacts to the associated waterbody, and measures to be taken to avoid, minimize or mitigate for their removal.

6. Where prescribed or tribal cultural fire management activities are conducted within designated riparian zones, Federal Agencies must prevent, minimize, and mitigate discharges to waters of the state by implementing the appropriate BMPs or other standard erosion control techniques.

F. LIVESTOCK GRAZING

1. Grazing allotments that contain only ephemeral watercourses, regardless of Order enrollment status, are excluded from compliance with the Livestock Grazing-specific conditions in the remainder of this section.

2. Administrative Units must ensure that grazing activities comply with Aquatic Conservation Strategy or Aquatic Management Strategy goals and grazing-related standards and BMPs included in Federal Guidance Documents.

3. Administrative Units must comply with management measures that minimize, control, and prevent the discharge of pollutants (e.g., sediment, bacteria, dissolved oxygen, and nutrients) and elevated solar radiation loads from livestock grazing activities that affect federal lands in the North Coast Region. The following are management measures that will minimize, control, and prevent the discharge of pollutants (e.g., sediment, bacteria, and nutrients) and elevated solar radiation loads from livestock grazing activities to waters of the state. Administrative Units must implement management measures to comply with these standard conditions or management measures developed in consultation with North Coast Water Board staff that provide equal or better protection:

a. riparian areas and wetlands are managed in a manner that allows the natural establishment and abundance of native riparian and wetland plant species;

b. riparian areas and wetlands are managed in a manner that allows sufficient vegetation to minimize, control, and prevent surface erosion;

c. riparian areas and wetlands are managed in a manner that maintains their essential functions supporting beneficial uses (e.g., sediment filtering, woody debris recruitment, streambank stabilization, nutrient cycling, pollutant filtering, shading);

d. grazed lands are managed in a manner that minimizes, controls, and prevents pollutant discharges;

e. grazing within riparian corridors and wetlands occurs for short durations, and only when forage consisting of non-woody vegetation is available;

f. livestock are removed from riparian areas and wetlands or moved to other portions of an allotment when stubble height reaches the standards established in the appropriate Administrative Unit's management plan, or livestock shift preference to browsing of woody species, whichever occurs first;

g. livestock are prevented from disturbing sediment discharge sites and other unstable features adjacent to watercourses;

h. all livestock must be removed from the allotments by the off date specified in the Annual Operating Instructions; and

i. any drift of livestock from an allotment to areas outside that allotment are prevented and, if identified, addressed.

4. Observations of non-conformance with Federal Guidance standards, Condition F.3 above, and/or potential impacts to water quality may result in additional monitoring and reporting requirements issued by the Executive Officer pursuant to Water Code section 13267 and/or progressive enforcement actions. Potential monitoring requirements may include but are not limited to bacteria or water chemistry sampling, evaluations of riparian vegetation composition, physical habitat assessments, biological community sampling, sediment discharge monitoring, and/or surface water temperature monitoring.

5. If management measures or grazing permit conditions on a grazing allotment are not adhered to, or if grazing activities are causing a discharge of waste that violates or threatens to violate water quality standards or other Basin Plan requirements, then the Federal Agency is responsible for working with the grazing permittee to immediately address the matter and to revise the AOI for the following year to reflect the appropriate protections.

6. Administrative Units must incorporate management measures, including Condition F.3, into grazing permits and the administration of Annual Operating Instructions that comply with Condition E.2 to retain site-specific potential effective shade.

7. Administrative Units must provide copies of the Order to all existing and new grazing permittees and provide certification of this requirement to the North Coast Water Board Executive Officer by one year from the adoption date of this permit.

8. During renewal of the NEPA analysis for a grazing allotment, Administrative Units must include the following in the revised grazing permit:

    a. specific management measures developed for the activity that implement the Federal Guidance management measures and conforms with Aquatic Conservation Strategy or Aquatic Management Strategy standards and any additional water quality measures identified in the NEPA document and other environmental documents supporting the project;

    b. a copy of the Order; and

    c. a signed certification form stating that the grazing permittee has received a copy of this Order.

9. In addition to reporting requirements described in the MRP, Administrative Units must make information from inspections and monitoring of conditions on grazing allotments available to North Coast Water Board staff upon request.

G. EMERGENCIES

1. During emergency responses, the responsible Federal Agency official is authorized to take actions necessary to control the immediate impacts of the emergency and to mitigate harm to life, property, or important natural or cultural resources. When taking such actions, the responsible official must consider the probable environmental consequences of the emergency action and mitigate foreseeable adverse environmental effects to the extent practical[27]. These types of actions may be required prior to enrollment of a fire recovery project under this Order.

2. Portions of a fire recovery project submitted under Category B may qualify for the emergency exemption upon a finding by the Executive Officer. Administrative Units must describe in the NOI how the project meets the description under California Code of Regulations, title 14, section 15269, and additional information contained in Section 6 of the NOI.

H. MONITORING AND REPORTING

1. Administrative Units must comply with the monitoring and reporting requirements contained in the MRP attached to this Order. Monitoring and reporting requirements are issued pursuant to Water Code section 13267 and may be modified as necessary by the North Coast Water Board Executive Officer. Other federal agencies in the North Coast Region, as identified in Finding B.3, who apply for Category B coverage under this Order are subject

[27] 36 CFR section 220.4 General requirements: NEPA (42 U.S.C. 4332(2)(C)).(b)(1).

only to Sections I, II, VI, and X of the MRP (General Conditions, Discharge Notifications, Monitoring for Category B Projects, and California Environmental Quality Act Mitigation Monitoring and Reporting Program Compliance, respectively).

I. THIRD PARTY INVOLVEMENT

1. Federal Agencies must include site-specific management measures contained within project NEPA documents in all contracts, agreements, and other instruments used to direct the activities of grazing permittees and any activities conducted by third parties specified in this Order.

2. Federal Agencies must provide copies of this Order to grazing permittees and any other third parties. Administrative Units maintain exclusive authority to determine whether third parties are complying with the terms and conditions of the Federal Agency's contract.

J. GENERAL CONDITIONS

1. Compliance with all conditions of this Order constitutes compliance with sediment, temperature, dissolved oxygen, and nutrient TMDL implementation for those activities covered by this Order, which includes:
   a. inventory, prioritization, and treatment of CSDS through the implementation of a WARP;
   b. application of project-specific on-the-ground prescriptions, project design features, and/or best management practices that prevent and minimize sediment delivery to surface waters;
   c. retention of existing effective shade and attainment of the potential effective shade that site-specific conditions (e.g., soils, hydrology, aspect, etc.) allow;
   d. compliance with the conditions of the attached Monitoring and Reporting Program; and
   e. compliance with federal lands grazing requirements.

2. Discharges of waste not specifically regulated under this Order or in compliance with the Water Code are prohibited.

3. Activities authorized under this Order must not cause pollution, contamination, or nuisance as defined by Water Code section 13050.

4. Federal Agencies must not cause or contribute to an exceedance in the receiving waters of any applicable Basin Plan water quality objective (whether numeric or narrative), or any other applicable Basin Plan or policy provision. Specific applicable objectives include, but are not limited to the following:
   a. Indicator Bacteria
   b. Biostimulatory Substances

c. Dissolved Oxygen
d. Oil and Grease
e. Pesticides
f. Sediment
g. Settleable Material
h. Suspended Material
i. Toxicity
j. Temperature
k. Turbidity

5. Federal Agencies must comply with the mitigation measures for Biological Resources identified in the supporting EIR (SCH number 2022090353). The EIR identified potential significant impacts to Biological Resources that may result from the implementation of this Order. Mitigation measures to address these potential significant impacts are identified in the Mitigation Monitoring and Reporting Program of the supporting EIR, Appendix C. This Order requires Administrative Units to implement the identified mitigation measures and monitor and report the implementation of the mitigation measures in accordance with CEQA. CEQA mitigation measures identified in the EIR, including the conditions in the Mitigation Monitoring and Reporting Program, constitute enforceable conditions under this Order.

6. Nothing in this Order shall be interpreted to require obligation or payment of funds in violation of the Antideficiency Act, 31 U.S.C. § 1341. Specific projects or activities that involve the commitment of funds, services, or property are contingent upon the availability of appropriated funds. Pursuant to federal Executive Order 12088, Dischargers must ensure sufficient funds for compliance with applicable pollution control standards are requested in their agency budgets. (43 Fed. Reg. 47707, 47708) (Oct. 13, 1978), Section 1-5 (Funding), revoked in part by Executive Order 13148 (65 Fed. Reg. 24595) (Apr. 21, 2000).)

K. ENROLLMENT OF PROJECTS UNDER PREVIOUS WAIVERS

1. Projects currently enrolled under R1-2004-0015, R1-2010-0029, R1-2015-0021, and R1-2020-0021 (previous Waivers) may proceed under the conditions of those previous Waivers until August 24, 2025, after which time coverage will be administratively terminated.

2. Projects that will operate past August 24, 2025, and that meet the eligibility requirements for Category B under this Order must enroll under this Order. By February 24, 2025, each Administrative Unit must provide the North Coast Water Board Executive Officer the following:

   a. a list of all existing Category B enrollments to be enrolled under this Order, and

b. a list of all existing Category B enrollments to be terminated under the previous Waivers.

3. North Coast Water Board staff will review the lists identified in section K.2.a-b, and, relying on the applications for those existing Category B enrollments, issue coverage under this Order for all existing listed projects and terminate coverage under the previous Waivers for all projects proposed to be terminated.

4. No additional projects will be enrolled under the previous Waivers after the adoption date of this Order.

This Order will become effective on [month, day, year].

Certification:

I, Valerie Quinto, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on [month, day, year].

_____

Valerie Quinto

Executive Officer

Attachments

Attachment A – Category A Activities

Attachment B – Category B Activities

Attachment C – Monitoring and Reporting Program No. R1-2024-0012

Attachment C1 – Supplemental Monitoring and Reporting Program Findings

Attachment C2 – WARP Tracking Form

Attachment D – Notice of Intent (Project Application Form)

Attachment E – Notice of Termination (Project Termination Form)

Attachment F – WARP Overview

Attachment F1 – WARP Technical Analysis

Attachment G – Supplemental Order Findings

Attachment H – Glossary of Terms and Acronyms

Federal Lands Permit

Attachment A
Category A Activities

1. Non-commercial fuels reduction and vegetation management using manual treatment[1] outside of designated riparian zone.

2. Cultural burning, understory burning, or pile burning outside of designated riparian zones.

3. Activities conducted by manual treatment that do not pose a risk of discharge.

4. Tree planting and revegetation of disturbed areas with no mechanical site preparation.

5. Christmas tree harvesting and firewood cutting under individual permits[2].

6. Hazard tree removal of individual or small clusters of trees along roads, in designated camp sites, and in other areas.

7. Low-impact recreation activities such as dispersed camping, camping in developed recreation sites, use of non-motorized trails, and fence building.

8. Installation of vault toilets.

9. Foot trail bridge replacement and trail work using manual treatment.

10. Routine annual road and OHV trail maintenance, such as:
    a. culvert cleaning;
    b. ditch relief culvert replacement/modification/upgrading outside of designated riparian zones;
    c. road surface improvements (paving, patching, blading, gravel surfacing);
    d. brushing;
    e. ditch cleaning; and
    f. cross drain cleaning.

11. Livestock grazing activities with no water sources within designated riparian zones, such as allotments with well-based troughs.

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[1] Manual treatment refers to the use of only hand tools (mechanical or gas-powered) to implement project activities, such as the manual treatment of fuels (i.e., hand thinning). See No. 11 for livestock grazing activities outside of riparian zones.

[2] Does not include commercial Christmas tree or firewood cutting on federal lands.

12. Activities conducted in compliance with Road Use Permits.

13. Road and trail maintenance, such as:
    a. installing and maintaining signs;
    b. brushing for sight distance and road clearance;
    c. creating closure devices;
    d. installing and maintaining culvert appurtenances (inlet sections, riprap, over-side drains, drop inlets, risers, etc.); and
    e. repairing, upgrading, or replacing paved surfaces.

Federal Lands Permit

Attachment B
Category B Activities[1]

1. Timber harvest, fuels reduction, and vegetation management activities that have a commercial component.

2. Roadside hazard tree removal along more than 500 linear feet of cumulative road length.

3. Fuels reduction and vegetation management activities that use heavy equipment in designated riparian zones that do not have a commercial component.

4. Non-emergency rehabilitation of burned areas and fire recovery work, including salvage harvest.

5. Cultural burning, understory burning, or pile burning in designated riparian zones.

6. Vegetation management activities conducted by manual treatment[2] in designated riparian zones that pose a risk of discharge.

7. Road decommissioning and road storage/road deactivation.

8. Upgrading, stormproofing, and new construction activities on roads and motor vehicle trails as well as treatments of Controllable Sediment Discharge Sources that are not subject to coverage under the statewide Construction Stormwater General Permit[3].

9. Maintenance activities on roads and motor vehicle trails in designated riparian zones that pose a risk of discharge.

10. Livestock grazing activities with water sources within designated riparian zones.

11. Construction of access roads and pads associated with mining that do not involve use or handling of any designated mining wastes.

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[1] For projects located in the Lost River and Butte Valley Creek Hydrologic Units, Federal Agencies must identify Category B activities 1 through 6 as Category A activities.

[2] *Manual treatment* refers to the use of only hand tools (mechanical or gas-powered) to implement project activities, such as the manual treatment of fuels (i.e., hand thinning).

[3] Construction Stormwater General Permit information may be accessed at the following webpage: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html.

Federal Lands Permit

Attachment C
Monitoring and Reporting Program No. R1-2024-0012

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code (Water Code) section 13267 subdivision (b) and is associated with the *General Waste Discharge Requirements for Discharges Related to Certain Federal Land Management Activities on Federal Lands*, Order No. R1-2024-0012 (hereinafter referred to as "the Order" or "Federal Lands Permit"). The reasons for requiring the Discharger to provide this information, and the evidence supporting this need, can be found in the Findings and Conditions of the Order. The North Coast Regional Water Quality Control Board (North Coast Water Board) has delegated its authority to the North Coast Water Board Executive Officer (Executive Officer) to revise, modify, and reissue the MRP as appropriate and without reopening the Federal Lands Permit.

This MRP is issued to the United States Forest Service (USFS), Bureau of Land Management (BLM), and the National Park Service (NPS), collectively referred to in this document as the Federal Agencies. Each of these Federal Agencies are organized into Administrative Units, such as individual USFS National Forests, BLM Field Offices, and NPS National Parks or National Monuments. Administrative Units conduct monitoring to meet both internal agency objectives and prescribed objectives set by other agencies, as described in Supplemental Findings (Attachment G). Other Federal Agencies, including the Bureau of Reclamation, Army Corps of Engineers, US Fish and Wildlife Surface, and the US Coast Guard collectively administer small portions of the North Coast Region and rarely conduct projects that are eligible for coverage under this Order. If one of these agencies receives coverage for a project under Category B of the Order, only MRP Section VI applies to those agencies. Please refer to Finding B.3 and Order section II.H.1 for additional information on requirements for other federal agencies.

To the extent practicable, this MRP leverages existing federal monitoring programs to streamline monitoring and reporting requirements. As an example, the current USFS National BMP Effectiveness monitoring program satisfies some MRP monitoring requirements. However, to meet the conditions of the Order and the objectives of the Federal Lands Permit program, additional monitoring is required under this MRP at both project-specific and Administrative Unit scales.

This MRP covers the following:

- **General Requirements (Section I)**
- **Discharge Notifications (Section II)**
- **Road and Trail Monitoring (Section III)**
- **Watershed Assessment and Recovery Program (Section IV)**
- **Federal BMP Monitoring (Section V)**
- **Monitoring for Category B Projects (Section VI)**
- **Grazing Allotment Monitoring (Section VII)**
- **Post-Fire Monitoring (Section VIII)**
- **In-Channel Monitoring (Section IX)**
- **CEQA MMRP Compliance (Section X)**

Federal Agencies must report on the required monitoring and reporting actions at different timeframes, as identified in this MRP and summarized below:

- **Ongoing** – Requirements must be completed whenever the conditions described in the reporting section are met.
- **Annual** – Administrative Units must submit specified information in annual reports for the previous water year.
- **Five-Year** – Administrative Units must submit specified information in summary reports for the preceding Five-Year period.
- **Submitted Upon Request** – Administrative Units must provide specified information to the North Coast Water Board upon request.

Under the authority of the Water Code section 13267 subdivision (b), the Federal Agencies named above are required to comply with the monitoring and reporting requirements summarized in Table 1.

Table 1: Summary of Monitoring and Reporting Program

MRP Section	Page	Agency	Reporting Interval
I. GENERAL REQUIREMENTS	**4**		
A. MRP Compliance and Extension Requests	4	All	N/A
B. General Reporting Requirements	4-5	All	N/A
II. DISCHARGE NOTIFICATIONS	**5-7**	All	O, A
III. ROAD AND TRAIL MONITORING	**7-9**		
A. Storm Patrol for Roads and Trails	7-8	USFS, BLM, NPS	O, A
B. Off-Highway Vehicle Trail Monitoring	8-9	USFS, BLM	A
IV. WATERSHED ASSESSMENT AND RECOVERY PROGRAM (WARP)	**9**		
A. WARP Reporting	9	USFS, BLM, NPS	A, 5-yr
V. FEDERAL BMP MONITORING	**10**		
A. Best Management Practices Monitoring Program	10	USFS	A, 5-yr
VI. MONITORING FOR CATEGORY B PROJECTS	**10-12**		
A. Federal Contract Submission	11	All	O
B. Implementation and Effectiveness Monitoring Checklists	11-12	All	SoR
VII. GRAZING ALLOTMENT MONITORING	**13-18**		
A. Routine Grazing Allotment Evaluations	13-14	USFS, BLM	SoR
B. Grazing Allotment Condition Evaluations	14	USFS	A
C. Annual Operating Instructions	15	USFS	A
D. Indicator Bacteria Monitoring	15-17	USFS, BLM	Required as needed
E. Order Submission	18	USFS	A, Required as needed
VIII. POST-FIRE MONITORING	**18**	USFS, BLM	
IX. IN-CHANNEL MONITORING	**18-22**		
A. In-Channel Water Quality Monitoring	19-21	USFS, BLM, NPS	A, 5-yr
B. Temperature Monitoring	21-22	USFS, BLM, NPS	A, 5-yr
X. CEQA MMRP COMPLIANCE	22	All	A

Reporting Intervals: O – Ongoing, A – Annual Report, 5-yr – Five-Year Report, SoR – Submitted upon Request

I. GENERAL REQUIREMENTS

A. MRP Compliance and Extension Requests

Each Administrative Unit within each Federal Agency is responsible for implementing MRP obligations and proactively communicating with the North Coast Water Board if questions or compliance issues arise, or to request extensions under certain circumstances.

Unless otherwise specified, the following general requirements apply to compliance and extension requests:

1. Administrative Units must comply with all due dates in this MRP unless the North Coast Water Board Executive Officer has approved an extension request.
2. Administrative Units must submit extension requests to the Executive Officer in writing at least ten working days prior to the due date and must include the following information:
    a. reason(s) for the request;
    b. identification of the reporting requirement(s) subject to the extension request;
    c. a description of efforts completed to conform with the requirement(s); and
    d. a proposed time extension for conformance with the requirement(s).
3. The North Coast Water Board Executive Officer will respond in writing to an Administrative Unit's request for an extension by approving, denying, or providing comments and/or questions regarding the request.
4. Compliance with the technical reporting requirements and the implementation of required corrective measures does not prevent the North Coast Water Board from taking enforcement action under any other requirements of this MRP.

B. General Reporting Requirements

Below is a summary of the due dates and frequencies for the different types of reporting requirements. Please refer to Table 1 for a summary of the monitoring intervals.

1. Annual Reporting Requirements
    a. Annual Reports are due by April 15 of each year.
    b. Annual Reports must include information from the previous calendar year.
2. Five-Year Reporting Requirements

a. The first Five-Year Report must include information from the adoption date of this permit until December 31, 2029. This first report will include the fractional portion of 2024 after the adoption date.

b. The first Five-Year Report is due on or before April 15, 2030, and then every five years thereafter (e.g., April 15, 2035)

c. Subsequent Five-Year Reports must include information from the prior five calendar years, so for example the second Five-Year Report must include data from 2030-2035.

d. The Five-Year Report may be combined with the Annual Report during the year in which it is required.

3. Document Submission Requirements

a. Unless an alternative document submission requirement is identified, all documents, including the NOI, the WARP tracking form (Attachment C2) and any other reports or documents that are required to be submitted to the North Coast Water Board in the Order or MRP, must be provided electronically via e-mail to northcoast@waterboards.ca.gov.

II. DISCHARGE NOTIFICATIONS

1. General Conditions (All Federal Agencies)

a. Each Administrative Unit must file a Discharge Notification (see Section II, C) if a discharge of earthen material, petrochemicals, or other waste from an anthropogenic source (such as a road-related failure) or a natural feature (such as a landslide), threatens to cause or contribute to an exceedance of a water quality standard or violation of any applicable water quality requirement from this Order.

b. Each Administrative Unit must implement, when feasible, corrective measures immediately following the discovery of a discharge to surface waters. In some cases, discharges may be identified during Storm Patrols (see MRP Section III.A) conducted later in the spring or summer once roads are accessible.

2. Monitoring

a. Each Administrative Unit must conduct periodic monitoring of its road and motor vehicle trail network.

b. Each Administrative Unit must monitor and determine whether road and motor vehicle trail conditions are discharging or threatening to discharge sediment to waterbodies.

3. Reporting (Ongoing)
    a. Each Administrative Unit must submit a Discharge Notification to the North Coast Water Board within 48 hours following discovery of the discharge.
    b. This Discharge Notification must be delivered electronically to the North Coast Water Board (MRP Condition I.B.3.a).
    c. The e-mail must include Discharge Notification and the Administrative Unit name in the title.
    d. Each Administrative Unit must submit a Discharge Report to the above e-mail address within 14 days of submittal of a Discharge Notification.
    e. The Discharge Report must include the following:
        i. the date the discharge was discovered;
        ii. identification of the federal agency and Administrative Unit;
        iii. the name and title of the person who discovered the discharge;
        iv. a map showing the location of the discharge;
        v. the latitude, longitude, and datum of the location of discharge;
        vi. a description of weather conditions prior to discovering the discharge;
        vii. the nature and cause of the discharge;
        viii. photos of the site characterizing the discharge, including photos of the receiving water downstream of the discharge if applicable;
        ix. an estimate of the discharge to a receiving water in cubic yards;
        x. any management measures currently being implemented;
        xi. any maintenance or repair of existing infrastructure affected by the discharge;
        xii. any additional management measures that will be implemented to prevent or minimize discharges to surface waters following the discharge;
        xiii. an implementation schedule for corrective actions if additional repair work is required; and
        xiv. the signature of the person preparing the Discharge Report.
4. Reporting (Annual)
    a. Each Administrative Unit must provide the North Coast Water Board with a summary of discharges that have occurred, unpermitted

discharges that were treated, and a description of any unpermitted discharge sites that were deemed infeasible to treat across the Administrative Unit.

III. ROAD AND TRAIL MONITORING

Federal Agencies administer extensive road and motor vehicle trail networks across the North Coast Region. Administrative Units periodically monitor the roads and trails to evaluate conditions and perform regular maintenance. This MRP requires Federal Agencies to monitor and report information to the North Coast Water Board regarding: (1) the discovery of new sediment delivery sources through Discharge Notifications, (2) the implementation of Storm Patrols for roads and trails following major precipitation events, and (3) the conditions of Off-Highway Vehicle trails.

A. Storm Patrol for Roads and Trails (All Federal Agencies)
Storm Patrols are inspections conducted on Federal Lands after major storm events. The purpose of a storm patrol is to identify and, to the extent feasible, repair damage to roads, trails, and other infrastructure that impacts or threatens to impact water quality. Major storm events are periodic events of intense rainfall or rain-on-snow events that have the potential to cause major damage to federal roads and trails that could result in sediment discharges to waterbodies.

1. General Conditions

    a. Administrative Unit staff must conduct storm patrols after major storm events in order to effectively evaluate and take appropriate measures to address threats to water quality.

    b. Each Administrative Unit must either implement existing protocols or develop protocols for storm patrol inspections.

    c. If no written storm patrol protocol exists, each Administrative Unit must develop protocols to describe the conditions under which storm patrols are initiated. Storm patrol protocols must include the following information:

        i. procedures for road and trail monitoring;

        ii. definition of events that trigger a storm patrol inspection;

        iii. categories of proposed corrective actions; and

        iv. a description of reporting requirements.

2. Monitoring

    a. Each Administrative Unit must conduct storm patrols along federal system roads during and after major storms, to the extent allowed by weather, safety, and road conditions.

3. Reporting (Ongoing)

    a. Each Administrative Unit must prepare and provide any storm patrol reports to the North Coast Water Board within 14 days

4. Reporting (Annual, if applicable)

    a. Each Administrative Unit must provide the North Coast Water Board with a storm patrol protocol document (See MRP section III.A.1.c) in the first annual report due on June 30, 2024.

    b. Each Administrative Unit must include any modifications to Storm Patrol documents in the following year's annual report.

B. Off-Highway Vehicle Trail Monitoring (USFS/BLM)

The USFS and BLM satisfy off highway vehicle trail monitoring requirements using the Green-Yellow-Red trail condition rating system to identify and assess the Off Highway Vehicle trail network on federal lands. There are other monitoring approaches that the California Off Highway Vehicle Grants and Cooperative Agreements Program accepts, but Green-Yellow-Red is the standard used by Federal Agencies. Green-Yellow-Red ratings are based on the number, length, type, and magnitude of problems identified on segments of Off Highway Vehicle trails on USFS and BLM lands. Green-Yellow-Red monitoring is performed to evaluate existing trail conditions, identify unauthorized trails, and prioritize treatments for Off Highway Vehicle trails that are threatening or causing water quality impacts.

1. General Conditions

    a. Each Administrative Unit that implements Green-Yellow-Red or equivalent monitoring must identify Off Highway Vehicle trails in need of maintenance and prioritize treatment of red and yellow-designated Off Highway Vehicle trail segments.

    b. Each Administrative Unit that implements Green-Yellow-Red or equivalent monitoring must identify unauthorized Off Highway Vehicle trails to assess treatment options.

2. Monitoring

    a. Each Administrative Unit that implements Green-Yellow-Red or equivalent monitoring must monitor red and yellow-designated Off Highway Vehicle trail segments annually until the condition of the Off Highway Vehicle trail segment is reclassified as green. Green, or stable, Off Highway Vehicle trails must be monitored at least once every three years.

3. Reporting (Annual)

    a. Each Administrative Unit that implements Green-Yellow-Red or equivalent monitoring must submit Green-Yellow-Red summary reports

as part of the annual report. Green-Yellow-Red summary reports must detail actions related to Off Highway Vehicle trail monitoring, construction, and maintenance.

IV. WATERSHED ASSESSMENT AND RECOVERY PROGRAM

A. WARP Reporting

The Watershed Assessment and Recovery Program (Program), or WARP, is an iterative regulatory approach designed to support the implementation of water quality improvement projects on federal lands. WARP establishes regulatory requirements for the USFS, BLM, and NPS to advance the treatment of CSDS across federal lands over time. The Program relies on a performance-based credit system that obligates treatment credit requirements for each Administrative Unit based on the water quality conditions and land management activities unique to these lands. WARP-specific findings and conditions are located in the Order (Findings E. 8-17, Conditions D.1-6) and Attachment F.

1. Reporting (Annual)

    a. Administrative Units must use and annually submit to the North Coast Water Board the WARP Tracking Form (Attachment C2) to account for activities conducted for annual conformance with the WARP.

    b. Administrative Units must submit maps depicting the locations of treatments completed pursuant to WARP requirements to support each annual submission of the WARP Tracking Form. These maps may be existing project maps that identify WARP-specific treatments as opposed to the creation of new maps.

2. Reporting (Five-Year Retrospective)

    a. The Five-Year retrospective is intended to provide the North Coast Water Board with a periodic update on the progress of WARP implementation across all Federal Agency Administrative Units. The Five-Year Retrospective is due by April 15, concurrent with the annual report, every five years following adoption of the Federal Lands Permit.

    b. Each Administrative Unit must include these components in their Five-Year retrospective:

        i. the base annual WARP treatment credit obligation for the Administrative Unit;

        ii. a summary of the annual WARP credits accrued during the previous 5 years;

        iii. a summary of all completed CSDS treatments to date, including the total number of treated sites and/or footage of roads treated, area or length of aquatic habitat(s) restored, or other WARP activities.

V. FEDERAL BMP MONITORING (USFS)

A. Best Management Practices Monitoring Program

The USFS currently utilizes a nationwide BMP program to assess BMP implementation and effectiveness. BMP monitoring is performed on activities conducted by the USFS, including Category A and Category B activities as defined under this Order.

The BLM finalized its BMPs for water quality on September 29, 2022, but those BMPs do not currently have a formal effectiveness monitoring program. Future revisions of this MRP may result in BMP evaluation monitoring requirements for the BLM The BLM is subject to Section VI, Monitoring for Category B Projects, below.

1. General Requirements (USFS)

    a. The USFS must implement the National Core BMP Monitoring Protocols, and any statewide or USFS region-wide BMP monitoring protocols, as required by the USFS Pacific Southwest and Northwest Regions and/or USFS Washington Office.

2. Monitoring (USFS)

    a. Each National Forest must implement Federal BMP monitoring protocols.

3. Reporting (Annual)

    a. Each National Forest must submit a summary of all BMP effectiveness evaluations conducted during the previous reporting period, including both National BMP evaluations and region-specific BMP evaluations.

    b. If any National BMP Effectiveness evaluations rate a particular BMP as marginally effective or not effective in any reporting year, that National Forest must include a summary of the BMP evaluation and describe any corrective actions taken in the following Annual Report.

4. Reporting (Five-Year)

    a. Each National Forest must summarize the year, BMP category, condition, and any follow-up on all BMP Effectiveness evaluations conducted.

VI. MONITORING FOR CATEGORY B PROJECTS

Project implementation monitoring is required for all Category B projects. The purpose of implementation and effectiveness monitoring is to assess whether the project specific management measures were fully and properly identified, implemented, and are effective after the project is completed. Implementation and effectiveness monitoring may leverage existing federal processes where

appropriate (Section VI.A), or in some situations utilize a checklist approach (Section VI.B).

A. Federal Contract Submission (All Federal Agencies)
Many Federal Agency projects result in the issuance of one or more contracts to accomplish some or all of the required actions contained in the project National Environmental Policy Act (NEPA) documents. Administrative Unit staff prepare those contracts, which contain or reference the relevant BMPs, Project Design Features, or on-the-ground prescriptions, and perform internal implementation and effectiveness monitoring in order to verify conformance with contract provisions.

1. Monitoring

    a. Each Federal Agency must conduct contract reviews, inspections, and document conformance with contract provisions.

    b. If water quality discharges are identified during contract administration, Federal Agencies must submit a Discharge Notification (Section II).

    c. Effectiveness monitoring must be completed for all project contract areas after BMPs and on-the-ground prescription have gone through at least one winter period to ensure that BMPs are properly functioning.

2. Reporting (Ongoing)

    a. Each Federal Agency must submit copies of contracts to the North Coast Water Board within 30 days of contract award.

        i. Federal Agencies must include any supplemental contract information, such as contract maps, road construction contract drawings and “green cards” or other contract administration materials; and

        ii. This notification must be delivered electronically to the North Coast Water Board (MRP Condition I.B.3.a)

3. Reporting (Submitted Upon Request)

    a. North Coast Water Board staff may request contract administration materials, such as timber sale administrator diaries, throughout the contract period.

B. Implementation and Effectiveness Monitoring Checklists (All Federal Agencies)
For those Category B projects that are not implemented using contracts that meet the requirements in Section V.A above, each Administrative Unit must develop Implementation and Effectiveness Monitoring Checklists.

1. General Requirements

   a. Implementation and Effectiveness Monitoring Checklists must be developed by Federal Agency project staff.

   b. Implementation and Effectiveness Monitoring Checklists must be developed for all water quality related BMPs and on-the-ground prescriptions.

   c. Implementation and Effectiveness Monitoring Checklists must be submitted with the Category B project enrollment package for North Coast Water Board staff review.

   d. Implementation and Effectiveness Monitoring Checklists must be used by Federal Agency staff during field evaluations of project activities and prior to completion of the contract.

   e. Federal Agencies may propose an alternative Implementation and Effectiveness Monitoring Program subject to review and approval by the Executive Officer.

   f. For all Category B projects that result in the issuance of contracts, the implementation and effectiveness checklist requirements of MRP Section V.B are waived.

2. Monitoring

   a. Implementation Monitoring must occur during the Normal Operating Season (NOS), following ground-disturbing activities, and prior to the start of the period when Wet Weather Operation (WWO) standards and guidelines are in effect. The NOS and WWO periods are defined by the Federal Agency on a project-by-project basis.

   b. Effectiveness Monitoring must be completed after BMPs or on-the-ground prescriptions have gone through at least one winter period to ensure that BMPs are properly functioning.

3. Reporting (Submitted Upon Request)

   a. Field data sheets, including completed Implementation and Effectiveness Monitoring Checklists, and any other relevant information related to monitoring such as, but not limited to, any water quality sample results will be made available to the North Coast Water Board upon request.

VII. GRAZING ALLOTMENT MONITORING

Grazing allotments on federal lands cover approximately 18 percent of the North Coast Region. Federal Agencies currently assess grazing management compliance at a variety of timeframes. Administrative Unit staff evaluate seasonal grazing disturbance levels prior to and after grazing and monitor long-term ecological grazing effects. This monitoring is conducted to inform the ecological conditions on allotments, which in turn informs the future management conditions on that allotment. If discharges, threatened discharges, or potential violations of livestock conditions on grazing allotments are identified by Administrative Unit or North Coast Water Board staff and are not addressed, the Executive Officer may require additional monitoring (See Order Condition F.4)

A. Routine Grazing Allotment Evaluations (USFS/BLM)
Administrative Unit staff conduct routine range monitoring to evaluate conditions and establish ecological trend information. USFS range management staff conduct range readiness evaluations on a subset of allotments prior to grazing each year and evaluate utilization near the end of grazing season to evaluate performance of the grazing allotment and inform future management actions. Many grazed areas on BLM lands in the North Coast Region are small, isolated parcels, and those areas may be inspected on a five- or ten- year rotation.

1. Monitoring (USFS)

    a. At least ten percent of active allotments on each National Forest must be inspected annually for overall permit compliance. USFS must follow its standard monitoring protocols and schedules for active grazing allotments, as outlined below.

    b. Allotment inspections must be performed to ensure permittee compliance with Annual Operating Instructions (AOIs), authorized stocking rates, seasons of use, allotment boundaries, and maintenance of structural range improvement terms within the terms and conditions of grazing permits.

    c. Forage utilization and residual greenline stubble height[1] monitoring must be performed at the end of the grazing season, at a minimum, to ensure compliance with authorized grazing standards and other requirements included in the terms and conditions of the grazing permit.

2. Monitoring (BLM)

    a. BLM must conduct range monitoring as required through its grazing permit process.

[1] BLM TR 1737 23, Multiple Indicator Monitoring,

3. Reporting (Submitted Upon Request)

    a. Annual grazing monitoring data must be submitted to North Coast Water Board staff upon request.

B. Grazing Allotment Condition Evaluations (USFS)
The National BMP monitoring program includes a range management module that provides a robust evaluation of either range management BMP implementation or BMP effectiveness. Key Areas are locations within grazing allotments where BMP effectiveness monitoring will occur (see definition of Key Areas in Attachment H).

1. Monitoring

    a. Each National Forest must select four Category B grazing allotments annually and either:

        i. Conduct a CRAM[2] evaluation of a Key Area, or

        ii. Conduct a National BMP monitoring program effectiveness evaluation of a Key Area.

    b. Allotment inspections described in Section VII above must be performed to ensure permittee compliance with annual operating instructions (AOI) authorized stocking rates, seasons of use, allotment boundaries, and maintenance of structural range improvement terms are within the terms and conditions of grazing permits.

    c. Alternative monitoring may be proposed to reflect unique characteristics of the National Forest, or the allotment/site being considered, subject to Executive Officer concurrence.

2. Reporting (Annual)

    a. Each National Forest must include all CRAM or National BMP Effectiveness evaluation information as part of the Annual Report.

    b. Each National Forest must identify whether any of the required inspections led to corrective actions, such as modifications to AOIs or installation of management measures.

    c. Each National Forest must include a description of any discrete stream side features (see section VI.B.1.b above) observed during monitoring and report on the conditions at those locations every three to five years until the site is no longer contributing sediment to a watercourse.

[2] California Rapid Assessment Method (CRAM) | San Francisco Estuary Institute (sfei.org) https://www.sfei.org/projects/california-rapid-assessment-method-cram

C. Annual Operating Instructions (USFS)
The USFS and grazing permittees use AOIs to summarize range monitoring conducted on allotments by USFS personnel and document any modifications to grazing practices required as a result of prior monitoring results.

1. Monitoring

   a. Each National Forest must issue AOIs to all applicable permittees.

   b. Each National Forest must revise AOIs if water quality impacts are observed in the prior years' monitoring, including the monitoring prescribed in section VII.A and VII.B.

2. Reporting (Annual)

   a. Each National Forest must provide copies of the prior year's AOIs for allotments within or partially within the North Coast Region in each Annual Report (see Section VII.C.1).

   b. Each National Forest must develop an analysis of the prior year's AOIs. The analysis must include the following information:

      i. an identification of all allotments monitored for range readiness and post-grazing condition;

      ii. a summary of the results of any Multiple Indicator Monitoring, Properly Functioning Condition, National BMP Effectiveness evaluations, CRAM evaluations, or other monitoring conducted in key grazing areas; and

      iii. any corrective actions documented in revised/updated AOIs where monitoring or USFS staff observations led to a change in grazing management practices for any portion of that allotment in the following year.

D. Indicator Bacteria Monitoring (USFS/BLM)
North Coast Water Board staff may require USFS/BLM Administrative Units to conduct the following suite of indicator bacteria monitoring in order to evaluate the potential for in-channel impacts resulting from grazing activities on federal lands. The requirement for indicator bacteria monitoring may be the result of North Coast Water Board staff observations, complaints from communities of interest, or conflicting assessments regarding sufficient grazing management practices, and will be utilized in order to assist with the detection of potential or existing water quality impacts.

1. General Conditions

    a. Indicator Bacteria monitoring is not required on a set monitoring schedule; the North Coast Water Board Executive Officer may require on a case-by-case basis.

    b. The North Coast Water Board Executive Officer must provide the subject Administrative Unit notice by December 15, when indicator bacteria monitoring, in accordance with this section, is required for the following calendar year.

    c. When indicator bacteria monitoring is required, North Coast Water Board staff will identify the Global Positioning System (GPS) coordinates that identify where indicator bacteria monitoring must be conducted.

2. Monitoring

    a. If applicable, Administrative Units must develop a monitoring plan to evaluate indicator bacteria conditions in watercourses and/or waterbodies. The monitoring plan must be submitted to the North Coast Water Board Executive Officer for approval and must include:

        i. Water Quality or Regulatory Criteria;

        ii. Site Selection;

        iii. Sample Collection;

        iv. Analysis;

        v. Field Measures;

        vi. Quality Assurance;

        vii. Data Management ; and

        viii. Schedule and Reporting

    b. If the identified monitoring location is within a watercourse:

        i. The Administrative Unit must identify a minimum of three monitoring locations:

            1. A location close to the impacts identified in the GPS point provided by the Regional Water Board

            2. A location at least 200 meters upstream of the location identified in Section VI.B.2.b.i.1.

            3. A location at least 200 meters downstream of the location identified in Section VII.B.2.b.2.

ii. Each identified monitoring location must be sampled for Escherichia coli (E. coli) bacterium a minimum of six times during a six-week period during each grazing season.

c. If the identified monitoring location is along the border of a waterbody:

i. The Administrative Unit must consult with Regional Water Board staff to identify the minimum number of monitoring locations. At a minimum, monitoring must be conducted:

1. At an agreed-to location close to the impacts identified in the GPS point provided by the Regional Water Board

2. Two locations along the border of the waterbody between 200 and 500 meters on either side of the location identified in Section VII.B.2.c.i.1.

ii. Each identified monitoring location must be sampled for Escherichia coli (E. coli) bacterium a minimum of six times during a six-week period during each grazing season.

d. If required by the Executive Officer, bacteria speciation monitoring, such as bacteroides sampling, may be incorporated into the indicator bacteria monitoring program.

e. If the selected grazing allotment is not grazed during the grazing season slated for Indicator Bacteria Monitoring, the Administrative Unit must conduct this monitoring during the next actively grazed season.

3. Reporting (Annual, as required)

a. Each Administrative Unit must provide the results of Indicator Bacteria Monitoring to the North Coast Water Board in the following year's Annual Report. The report must contain, at a minimum:

i. Copies of relevant laboratory reports;

ii. identification of the methods used to evaluate E.coli concentrations, pursuant to 40 CFR 136.3[3];

iii. receipt of submission of results to CIWQS or the USEPA Water Quality Xchange (WQX)

iv. a summary of monitoring results, along with a comparison of those results to the standards contained in Part 3 of the Inland Surface Waters, Enclosed Bays and Estuaries Plan[4] (ISWEBE); and

[3] eCFR :: 40 CFR 136.3 -- Identification of test procedures. https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136/section-136.3

[4] 2019 ISWEBE Bacteria Provisions (ca.gov) https://www.waterboards.ca.gov/bacterialobjectives/docs/bacteria.pdf#page=3

v. A description of any management changes made in the monitored allotment within the past five years.

E. Order Submission (USFS/BLM)

1. Reporting (Annual)

a. Each Federal Agency that administers grazing allotments must provide copies of the Order and attachments to all grazing permittees and provide certification of this requirement by one year from the adoption date of this permit. This requirement only needs to be completed once in the life of a grazing permit.

VIII. POST-FIRE MONITORING (USFS/BLM)

Burned Area Emergency Response (BAER) is a USFS and BLM program initiated after a wildfire to determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property. Another goal of BAER assessments is to stabilize and avoid or minimize unacceptable degradation to natural and cultural resources resulting from the effects of wildfire. Such treatments are identified in an approved BAER report and funded under the BAER funding authority.

A. Monitoring

a. Each Administrative Unit must conduct BAER evaluations, as required by Federal Agency policy.

B. Reporting (Submitted Upon Request)

a. Each Federal Agency must include an appendix or link upon request from the North Coast Water Board to any BAER reports generated.

IX. IN-CHANNEL MONITORING

Administrative Unit Monitoring Programs

The North Coast Water Board staff supports the implementation of in-channel monitoring programs that are developed to meet the needs of Administrative Units, the Water Boards, and communities of interest. These goals can be achieved through state and federal partnerships, coordination with technical monitoring experts, and through development of tailored water quality monitoring program designed to meet specific goals and answer specific questions.

This MRP includes requirements for each Administrative Unit to monitor conditions within the lands being managed, including aquatic habitat conditions through in-channel monitoring. These requirements may be met through existing, ongoing in channel-monitoring programs, or alternatively through initiation of new programs.

The USFS, BLM, and NPS each have different monitoring objectives that reflect the unique landscapes, resources, and land use activities that they manage. Layered on top of the existing monitoring that Administrative Units implement, the

North Coast Water Board also has its own monitoring objectives and regulatory requirements for land use activities across the North Coast Region, including those conducted on federal lands.

A. In-Channel Water Quality Monitoring

1. The USFS, BLM, and NPS (either through individual Administrative Units or Regional Offices) must work with the North Coast Water Board to identify how the Federal Agencies intend to conduct in-channel water quality monitoring on their lands over time.

2. The in-channel monitoring program should be developed to meet the goals and objectives identified in Attachment C1.

3. Whenever possible, in-channel monitoring programs should prioritize monitoring within watersheds that are currently identified as sediment, temperature, or turbidity impaired on Section 303(d) of the federal Clean Water Act and have an adopted Total Maximum Daily Load. One of the North Coast Water Board's objectives is to remove waterbodies from Section 303(d) of the Clean Water Act, whenever appropriate.

4. In September 2004, the State Water Resources Control Board developed a Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, which was amended in February 2015. Following procedures established by the Policy, a waterbody can be removed from Section 303(d) of the Clean Water Act for different reasons, including but not limited to: (1) a waterbody meets water quality standards in the North Coast Water Board Basin Plan and sufficient water quality data or other information supporting that the waterbody is no longer impaired, or (2) demonstration that the impairment designation does not apply. In most cases, the removal of a waterbody from Section 303d list must be supported by sufficient CSDS treatments and in-channel sediment data for sediment impairments, and demonstration of effective riparian shade protections and supporting temperature monitoring data for temperature impairments.

5. Within 6 months of permit adoption, the USFS, BLM, and NPS must submit a plan for conducting in-channel monitoring, or participating in an existing program, to the North Coast Water Board Executive Officer for review and comment.

6. Monitoring protocols such as the U.S. EPA's National Rivers and Stream Assessment[5], or California's Surface Water Ambient Monitoring Program (SWAMP)[6] combined with CRAM, the U.S. Forest Service's Aquatic and

[5] USEPA, National Rivers and Streams Assessment: https://www.epa.gov/national-aquatic-resource-surveys/nrsa.
[6] Surface Water Ambient Monitoring program (SWAMP) https://www.waterboards.ca.gov/water_issues/programs/swamp/bioassessment/.

Riparian Effectiveness Monitoring Plan (AREMP)[7], or monitoring protocols of a similar design and function such as Stream Condition Index (SCI), must be used to assess watershed conditions on the National Forests.

7. The draft in-channel monitoring program must describe various elements of a long-term monitoring strategy, including but not necessarily limited to monitoring objectives, questions/hypotheses to be tested, monitoring design elements, proposed frequency and distribution of monitoring reaches, data quality assurance, and data analysis.
8. The North Coast Water Board will review and respond in writing to the draft in-channel monitoring program. Within 12 months of permit adoption, the USFS BLM, and NPS must submit modifications to the draft in-channel monitoring program, as necessary, for final review and approval by the Executive Officer.
9. In-channel monitoring may be conducted by USFS, BLM, or NPS staff, other decentralized monitoring programs, or through an established contract with a professional monitoring entity or organization.
10. Those protocols, and the spatial extent and frequency of monitoring events, must be developed in conjunction with North Coast Water Board staff for final review and approval by the North Coast Water Board Executive Officer.
11. Based on changed watershed conditions or other unforeseen factors, the North Coast Water Board Executive Officer may require additional in-channel monitoring requirements.
12. Monitoring
    a. Within 18 months following permit adoption, the USFS, BLM, and NPS, and/or their contractors must initiate or continue to implement or support activities associated with the approved in-channel monitoring program.
    b. The USFS Regional Office must be responsible for managing the activities associated with the approved in-channel monitoring program on behalf of the National Forests.
    c. Significant modifications to the approved in-channel monitoring program, such as changes to the sampling period, quantity, locations, or protocols, must be submitted for review and concurrence by the North Coast Water Board Executive Officer.
13. Reporting (Five-Year Report)

[7] Aquatic and Riparian Effectiveness Monitoring Plan (AREMP) https://www.fs.usda.gov/r6/reo/monitoring/watersheds.php.

a. Every five years following permit adoption, the USFS, BLM, and NPS, or their contractors or responsible agents, must submit a report detailing the in-channel monitoring accomplishments for the previous five years. See MRP section I.B.2 for reporting deadlines.

b. Five-Year reports must include summary analyses of the conditions of monitoring reaches surveyed during the previous five years. Summary analyses may include but are not necessarily limited to evaluations of aquatic habitat conditions based on numeric targets, parameter thresholds, or indices of aquatic health (e.g., biological, chemical, physical).

c. Five-Year reports may include trend analyses (if applicable).

d. Each federal agency must routinely submit their data for each 5 year reporting interval to a publicly accessible database such as the California Environmental Data Exchange Network (CEDEN) or the US EPA's Water Quality eXchange (WQX).

B. Temperature Monitoring

Each Federal Agency currently conducts some form of water temperature monitoring at locations across its administered lands.

1. General Conditions

a. Each Administrative Unit must provide the North Coast Water Board with a report of its current active temperature monitoring locations within 6 months following permit adoption.

b. The description of the temperature monitoring must contain at least:

i. A description of the methods utilized;

ii. a map or maps showing the locations of all sampling sites;

iii. a description of existing temperature monitoring data of those sampling locations.

2. Monitoring

a. Each Administrative Unit must continue to monitor temperature conditions, utilizing its respective monitoring protocols.

3. Reporting (Annual)

a. Each Administrative Unit must submit a table of XY coordinates and datum for all temperature monitoring stations with 6 months following permit adoption.

b. Each Administrative Unit must submit raw continuous temperature data in a Comma Separated Values (CSV) format.

c. Each Administrative Unit must calculate and provide the Maximum Daily Maximum Temperature (MDMT), Maximum Weekly Maximum Temperature (MWMT) and Maximum Weekly Average Temperature (MWAT) for each monitored location.

4. Reporting (Five-Year)

a. Each Administrative Unit must provide an analysis of Maximum Weekly Maximum Temperature (MWMT) and Maximum Weekly Average Temperature (MWAT) values from all monitored locations during the previous five years. This analysis must contain a comparison of reported values to the appropriate United States Environmental Protection Agency (USEPA) Temperature Water Quality Standards[8].

X. CEQA MITIGATION MONITORING AND REPORTING PROGRAM COMPLIANCE

A. The Order requires the Federal Agencies to implement the mitigation measures identified in the Mitigation Monitoring and Reporting Program (MMRP) (Appendix C of the EIR) and monitor and report on implementation.

1. Monitoring

a. Each Federal Agency must monitor implementation of the mitigation measures identified in the MMRP, where applicable, in accordance with the monitoring schedule identified in the MMRP.

2. Reporting (Annual)

a. Each Federal Agency must report its implementation of the mitigation measures identified in the MMRP, where applicable, in a summary report to be included with the Annual Report.

Ordered by: _____

Valerie Quinto

Executive Officer

Date:

[8] USEPA, 2003, EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards

Federal Lands Permit

Attachment C1
Supplemental Monitoring and Reporting Program Findings

This attachment contains Supplemental Monitoring and Reporting Findings pertaining to 1) Federal Best Management Practices Monitoring, and 2) In-Channel Monitoring Objectives, Goals, Questions.

I. FEDERAL BMP MONITORING

The USFS currently utilizes a nationwide BMP program to assess BMP implementation and effectiveness. The BLM is currently developing California-specific BMPs for some activities covered under this Order. BMP monitoring is performed on activities conducted by the USFS, including Category A and Category B activities as defined under this Order.

The BLM finalized its BMPs for water quality on September 29, 2022, but those BMPs do not currently have set effectiveness monitoring requirements. Future revisions of this MRP may result in additional BMP evaluation requirements for the BLM.

In 2012, the USFS published the National Best Management Practices for Water Quality Management on Forest System Lands Volume 1: National Core BMP Technical Guide, FS-990a (National BMPs). The National BMPs superseded the existing USFS Pacific Southwest Region's BMPs and include a series of planning-level BMPs for water quality protection nationwide. Volume 1 of the National BMPs did not include an associated BMP effectiveness monitoring program.

In 2015, the USFS released a draft of the National Best Management Practices for Water Quality Management on National Forest System Lands Volume 2: National Core BMP Monitoring Technical Guide, FS-990b (National BMP monitoring program). The National BMP monitoring program was functionally complete in 2015, and National Forests in the North Coast Region have used this draft document to complete National BMP evaluations since its 2015 release.

II. SUMMARY OF EXISTING FEDERAL AGENCY IN-CHANNEL MONITORING PROGRAMS

A. United States Forest Service – In Channel Monitoring

On some National Forests, USFS staff periodically conduct in-channel monitoring at both the region-wide (USFS Pacific Southwest Region and Northwest Forest Plan) and at the National Forest scales. In-channel monitoring protocols utilized

by the USFS may include the Stream Condition Inventory (SCI) and methods incorporated into the Aquatic and Riparian Effectiveness Monitoring Plan (AREMP). The AREMP is intended to characterize the ecological condition of watersheds and aquatic ecosystems and has been implemented extensively across many of the National Forests, as well as on portions of the BLM, in the North Coast Region.

As described above, some of the National Forests in the North Coast Region currently conduct in-channel monitoring in accordance with USFS protocols or to comply with aspects of the 2015 Federal Waiver. However, the current in-channel monitoring work that is being conducted varies across the different National Forests, does not provide sufficient spatial and temporal data to evaluate aquatic conditions across many watersheds, or is not currently compatible with the California Water Board's data management and analysis requirements. As such, this MRP includes new conditions for the USFS to comply with that will satisfy the Water Board's in-channel monitoring needs and can be utilized to track watershed conditions and trends over time.

B. Bureau of Land Management – In Channel Monitoring

BLM staff conduct in-channel monitoring within their respective field offices in the North Coast Region. An existing protocol that is utilized by the BLM is the Assessment, Inventory, and Monitoring Strategy (AIMS)[1]. AIMS has three distinct standardized methods including terrestrial, riparian and wetland, and lotic habitats, and utilizes tailored sample designs at different spatial scales to match the agency's monitoring objectives. The objective of the AIMS is to provide a standardized monitoring strategy for assessing natural resource condition and trend on BLM public lands.

Additionally, the AREMP monitoring protocol has been conducted on portions of the BLM lands in the North Coast Region over the past 15 years.

C. National Park Service – In Channel Monitoring

The NPS oversees three different Administrative Units within the North Coast Region: Redwood National Park, Lava Beds National Monument, and Tulelake National Monument[2]. Lava Beds and Tulelake National Monuments do not conduct in-channel monitoring due to lack of perennial streams. NPS staff conduct in-channel monitoring within Redwood National Park (as well as Oregon Caves National Monument and Crater Lake National Park) through the Klamath Inventory and Monitoring Network. Ongoing in channel monitoring protocols utilized by NPS include methods derived from the U.S. EPA's NRSA to evaluate the physical, chemical and biological conditions of various waterbodies within the

[1] Assessment, Inventory, and Monitoring Strategy | Bureau of Land Management (blm.gov): https://www.blm.gov/aim/strategy

[2] The Berryessa Snow Mountain National Monument is also located in the North Coast Region but is administered partially by the USFS and partially by the BLM.

federal park boundaries. First implemented in 2012, the NPS has been implementing these monitoring activities within Redwood Creek on a 3-year cycle (i.e., 2012, 2015, 2018, 2022). The protocol measures the ecological condition at a probabilistic sample (random-based) of wadeable stream across the park landscape that are: perennial, accessible, and can be safely sampled. Sampling consists of physical habitat measurements, water quality, water chemistry, riparian measures, and both invertebrate and vertebrate stream communities. Additionally, the NPS has been conducting a range of long-standing geomorphic and sedimentation studies for over four decades.

III. GOALS AND MONITORING QUESTIONS

The North Coast Regional Water Quality Control Board supports the implementation of in-channel monitoring activities designed to evaluate whether the physical, chemical, and biological conditions of a waterbody are supporting beneficial uses, and whether land use activities are sufficiently protective of water quality. Robust and sustained water quality monitoring programs can also provide insights into watershed impairments and whether a waterbody is suitable for listing or delisting under Section 303(d) of the Clean Water Act[3]. To succeed with these objectives, in-channel monitoring programs must be conducted by trained individuals utilizing standardized and precise monitoring parameters, at a sufficient scale, frequency, and duration.

The overall health and function of a waterbody is dependent upon the interplay of its physical, chemical, and biological conditions. Natural and anthropogenic stressors can affect the function and integrity of an aquatic ecosystem in diverse ways across these three attributes. Therefore, in-channel monitoring programs that include parameters to assess different aspects of the physical, chemical, and biological conditions are preferred.

At times, well-intended monitoring programs fail to achieve their intended objectives due to a range of vulnerabilities, including but not necessarily limited to funding constraints, imprecise monitoring parameters, data collection and processing issues, staff turnover, lack of statistical power, and insufficient spatial and temporal scales. These vulnerabilities present significant challenges, and to be successful, in-channel monitoring programs must be carefully designed and sufficiently supported with sustained resource investments and technical expertise.

Complicating data analyses are the confounding effects of both anthropogenic and natural stressors, the signal from which can manifest over different time scales or in varying ways. Differentiating contemporary impacts from legacy impairments can

[3] Clean Water Action Section 303(d): Impaired Waters and Total Maximum Daily Loads (TMDLs): https://www.epa.gov/tmdl.

also be challenging for those attempting to isolate and adaptively manage around modern land use activities.

A. In-Channel Monitoring Protocols

Water quality monitoring programs designed to evaluate aquatic habitat conditions of streams and wetlands come in many different forms, and are sometimes grouped into different classification "levels", or categories, as described below:

- Level 1, "landscape assessment" relies on coarse, landscape scale inventory information, typically gathered through remote sensing and preferably stored in, or convertible to, a geographic information system (GIS) format.

- Level 2, "rapid assessments" includes data, indicators, and methods for rapid field assessments of wetlands and streams. Rapid assessments typically require less than a day to apply at least once, and do not rely on the collection of field materials or any laboratory analysis. Most Level 2 methods are qualitative or semi-quantitative.

- Level 3, "intensive site assessment" are typically quantitative, research-derived, and more precise monitoring programs that require experienced practitioners. Level 3 includes field data to quantify one or more aspects of aquatic resource condition or stress, relative to other aspects, or per unit time or space. Level 3 data may include any measures of specific ecosystem parameters, including physical, chemical, and biological data.

Monitoring costs, data precision, depth of information, and technical needs each generally increase with the level of monitoring. Therefore, it is essential to explore how these different monitoring categories can be used to address the data needs, achieve monitoring objectives, and answer specific questions. To comprehensively characterize the health of a waterbody, some monitoring programs are able to collect a mix of both precise quantitative data and rapid qualitative information about a stream or wetland condition to characterize waterbody health, provide insights into changes over time, and to help direct land management and restoration decisions.

The Water Boards utilize specific monitoring protocols to evaluate the health of waterbodies throughout the state. Often these protocols are linked to regional or statewide targets (thresholds) to identify whether a waterbody is properly functioning, sub-optimally functioning, or impaired. Some examples of monitoring protocols used to evaluate waterbody health include California's Surface Water Ambient Monitoring Program (SWAMP), the California Rapid Assessment Method (CRAM), the U.S. EPA's National River and Stream Assessment (NRSA), and the U.S. Forest Service's Aquatic and Riparian Effectiveness Monitoring Plan (AREMP).

SWAMP (Level 3 assessment) and CRAM (Level 2 assessment) monitoring are often done in conjunction to provide additional level of insights into waterbody conditions.

California also relies on the use of monitoring protocols that are compatible with its own standards for data collection and reporting, so that the Water Boards can make important decisions regarding a waterbody's impairment status on the Section 303(d) of the Clean Water Act. Information regarding the Water Board's Water Quality Control Policy for developing California's Clean Water Act Section 303(d) List can be found here[4]. The California Environmental Data Exchange Network (CEDEN) only allows some types of water quality monitoring data to be entered, and therefore limits what can be used for waterbody listing and delisting decisions. Data not compatible with CEDEN (e.g., continuous data) is submitted to the Integrated Report Upload Portal. Whether the data type or information should be submitted through the CEDEN or the Integrated Report Upload Portal, the data and information must meet the Integrated Report submission requirements, including the minimum data elements[5]. Information can also be uploaded into the U.S. EPA's Water Quality

[4] Water Board's Water Quality Control Policy for developing California's Clean Water Act Section 303(d) List: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/020315_8_amendment_clean_version.pdf.

[5] Data and information submittal requirements for CEDEN can be found here: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/data_requirements.html.

Exchange (WQX), which provides a mechanism for data partners to submit water monitoring data to the agency.

The table below loosely categorizes the type and function of monitoring programs used in California:

Protocol	Level	Attributes	CEDEN Compatible
U.S. EPA National River and Stream Assessment (NRSA)	2 and 3	Quantitative, semi-quantitative, and qualitative measures of physical, chemical, and biological conditions	Yes
CA Surface Water Ambient Monitoring Program (SWAMP)	2 and 3	Quantitative, semi-quantitative, and qualitative measures of physical, chemical, and biological conditions	Yes
California Rapid Assessment Method (CRAM)	2	Rapid assessments of the overall condition or function of wetlands/steams	No
U.S. Forest Service Stream Condition Inventory (SCI)	3	Quantitative and semi-quantitative measures of physical, chemical, and biological conditions	No

B. In-Channel Water Quality Monitoring Goals

In-channel water quality monitoring programs should be developed to meet specific, pre-defined goals and to be able to answer certain questions and/or test hypotheses. The following general monitoring goals are described below for the Federal Lands Permit's in-channel water quality monitoring program:

1. Monitoring parameters and collection protocols should include enough sampling precision to support collection of high-quality data capable of identifying water quality conditions.
2. Monitoring programs should be as cost-effective, staff efficient, and repeatable, as possible.
3. Monitoring protocols that collect information regarding the physical, chemical, and biological conditions of a waterbody are preferred.
4. Federal lands monitoring programs should promote the use of existing, well-established monitoring programs as opposed to the creation of new protocols.
5. Monitoring programs that include parameters with established conditions thresholds or numeric targets should be prioritized over programs that lack them.
6. In-channel monitoring programs should be sufficiently robust to support ambient conditions assessments, and possibly trend assessments, within a reasonable timeframe (i.e., 5-10 years).
7. Monitoring programs should be able to support Clean Water Act Section 303(d) listing and delisting decisions[6].
8. Where monitoring occurs within a TMDL watershed, monitoring parameters should consider the numeric targets identified in the Action Plan or EPA established TMDL.
9. Monitoring programs should collect data that is compatible with the California Water Board's monitoring requirements, including the ability to have monitoring information entered into portals such as the CEDEN, the Surface Water Ambient Monitoring Program (SWAMP) database, and/or the U.S. EPA

[6] State Water Board Section 303(d) Listing Policy: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/020315_8_amendment_clean_version.pdf.

Water Quality Exchange (WQX). Data not compatible with these portals must be submitted directly via the Integrated Report Upload Portal.

C. In-Channel Water Quality Monitoring Questions

The following general monitoring questions can provide the basis for an in-channel monitoring program and hypotheses to be tested:

1. Are waterbody conditions meeting identified targets to fully support beneficial uses (e.g., domestic water supply, recreational contact, cold-water fisheries, wildlife, etc.)?
2. Are physical habitat conditions (e.g., thalweg profiles, residual pool depths, pool frequency, large woody material, width-to-depth ratios, relative bed stability, etc.) showing an improving trend over time?
3. Are waterbody conditions meeting sediment particle size objectives based on comparable regional references or other identified numeric targets?
4. Is median particle size diameter (d50) showing an increasing trend over time?
5. Are waterbody conditions relative to instream channel cover and large woody material meeting recovery targets as identified in State and/or Federal Recovery Plans for listed anadromous salmonids?
6. Are waterbody riparian conditions relative to canopy cover and structure improving over time?
7. Are waterbody temperatures meeting specified maximum weekly maximum temperature (MWMT) and maximum weekly average temperature (MWAT) targets for optimal salmonid rearing conditions?
8. Are benthic macroinvertebrate populations meeting the “likely intact” condition identified in the California Stream Conditions Index (CSCI) or other similar measure of biological assemblages?
9. Are waterbody conditions suitable for waterbody delisting under Section 303(d) of the Clean Water Act?
10. Are riparian- and in-channel conditions supported by the current suite of Federal Agency BMPs?

Federal Lands Permit
Attachment D
Notice of Intent

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1. PROJECT INFORMATION

Project Title:	Click here to enter text.
Primary Contact (Name, Title):	Click here to enter text.
Telephone:	Click here to enter text.
E-mail:	Click here to enter text.

2. FEDERAL AGENCY INFORMATION

Federal Agency:	Click here to enter text.
Administrative Unit:	Click here to enter text.
Ranger District (If applicable):	Click here to enter text.
Street Address:	Click here to enter text.
City, County, State, Zip:	Click here to enter text.

3. PROJECT LOCATION

Sixth-Field Watershed(s):	Click here to enter text.
Receiving Waterbody Name(s):	Click here to enter text.
Check box to verify that a map of at least 1:24000 (1” = 2000’) detail of the proposed project area is enclosed:	☐ Project Map Enclosed

4. PROJECT NEPA INFORMATION

NEPA Document ID(s):	Click here to enter text.
NEPA document type(s):	☐ EIS ☐ EA ☐ CE ☐ DNA
NEPA Decision Date (If applicable):	Click here to enter text.
Check box to verify that project NEPA document(s) in PDF format is/are enclosed:	☐ Project NEPA Document Enclosed ☐ Project NEPA Decision Enclosed (if applicable)

5. PROJECT SIZE AND SCHEDULE

Size (acres):	Click here to enter text.
Estimated start date (month/year):	Click here to enter text.
Estimated end date (month/year):	Click here to enter text.
Estimated total number of workdays:	Click here to enter text.
Is this a phased project?	☐ Yes ☐ No
If answered "yes" above, please identify the project phase number:	Click here to enter text.

6. PROJECT DESCRIPTION

Project Activities (*check one or more boxes below*)
Category B Activities ☐ Timber Harvesting ☐ Vegetation/Fuels Management ☐ Tribal Cultural/Understory/Pile Burning in Riparian ☐ Non-Emergency Burned Area Rehabilitation/Fire Recovery ☐ Road/Watercourse Crossing Work ☐ Controllable Sediment Discharge Source Treatment ☐ Livestock Grazing ☐ CCR § 15269[1] ☐ Other: Click here to enter text.
Describe the proposed project purpose, goals, and activities. Reference to specific NEPA document sections is acceptable. Please indicate the page number(s) within the appropriate NEPA document where pertinent information may be found.
Click here to enter text.

[1] Activities conducted pursuant to CCR section 15269 must complete the last question of Section 6, Project Description.

Check box to verify that document(s) containing Best Management Practices and Project Design Features (or equivalent) are enclosed:	☐ Project Best Management Practices and Project Design Features (or equivalent) Enclosed
Please indicate the page number(s) within the enclosed document(s) where project Best Management Practices and Project Design Features (or equivalent) are located:	Click here to enter text.
Are these Project activities intended to support accrual of treatment credits as required by the WARP?	☐ Yes ☐ No
If answered "yes" above, please provide a brief description of the type of activities, and estimate the total number of WARP treatment credits anticipated to be generated:	Click here to enter text.
Will project activities result in the reduction of net potential effective shade (i.e., riparian canopy cover)[2]?	☐ Yes ☐ No
If answered "yes" above, please provide a justification including the following information: - the proposed canopy reduction and expected recovery time; - an estimate of the pre- and post-project shade or solar impacts; and - how such an exception will result in a net long-term benefit to water quality and stream temperatures.	Click here to enter text.
Will project activities result in the removal of mature streambank trees that contribute to bank stability?[3] If so, please provide explanation below.	☐ Yes ☐ No

[2] Order Condition E.2. states, "Activities on federal lands shall be protective of site-specific potential effective shade conditions as described in the Temperature Policy, Resolution No. R1-2014-0006." Order Condition E.3. allows exemptions to Condition E.2. to be considered if they protect or enhance site-specific potential effective shade conditions.

[3] Order Condition E.4. States, "Federal Agencies shall retain mature stream bank trees and their roots that provide or contribute to stream bank stability for ephemeral, intermittent, and perennial watercourses." Order Condition E.5. allows for exceptions to Condition E.4. to be considered on a case-by-case basis.

If answered “yes” above, please describe the nature of and a justification for removal of streambank trees:	Click here to enter text.
Please answer the questions below if emergency response activities were conducted pursuant to CCR § 15269: a. How the project meets the description under CCR § 15269. b. Measures implemented to minimize disturbance in riparian reserves, including roads and landings. c. Discharge avoidance measures (e.g., road treatment BMPs, soil stabilization measures, seasonal operation restrictions, etc.) d. Any additional water quality protection measures.	Click here to enter text.

7. MONITORING AND REPORTING PLAN COMPLIANCE

The Federal Lands Permit contains an attached Monitoring and Reporting Program, No. R1-2024-0012, that all Federal Agencies must review and comply with.
☐ The Category B project requirements in the Monitoring and Reporting Program, including, but not limited to, the ongoing submission of project contracts will be reviewed, and a copy of the Federal Lands Permit and Monitoring Reporting Program will be provided to contractors and grazing permittees (as applicable), and complied with.

11. SIGNATURE / CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel property gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that all provisions of the Order and Monitoring and Reporting Program will be complied with.

_____ _____

Applicant Signature Date

_____

Printed Name

Please submit this signed, complete NOI to **northcoast@waterboards.ca.gov** *and copy the appropriate Administrative Unit's North Coast Water Board Federal Lands Permit liaison.*

For North Coast Water Board Staff Use Only

Date NOI Received:	*Date Review Needed By:*	*Cat. B Activities:*	*WARP Activities (Y/N):*	*CWIQS ID:*

Federal Lands Permit
Attachment E
Notice of Termination

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1. PROJECT INFORMATION

Project Title:	Click here to enter text.
Project Completion Date:	Click here to enter text.
Project Sixth-Field Watershed:	Click here to enter text.

2. FEDERAL AGENCY CONTACT INFORMATION

Primary Contact (Name, Title):	Click here to enter text.
Telephone:	Click here to enter text.
E-mail:	Click here to enter text.
Federal Agency:	Click here to enter text.
Administrative Unit:	Click here to enter text.
Ranger District (If applicable):	Click here to enter text.
Street Address:	Click here to enter text.
City, County, State, Zip:	Click here to enter text.

3. SIGNATURE / CERTIFICATION

I hereby certify that the above Project was conducted in conformance with all applicable provisions of Order No. R1-2024-0012. Additionally, I certify that discharges resulting from the above Project complied or are expected to comply with all requirements of applicable water quality control plans.

_____ _____

Authorized Representative Signature Date

_____

Printed Name

Please submit this signed, complete NOT to **northcoast@waterboards.ca.gov** *and copy the appropriate Administrative Unit's North Coast Water Board Federal Lands Permit liaison.*

For North Coast Water Board Use Only

Date NOT Received:	*Date Review Needed By:*	*Project CWIQS ID:*

Federal Lands Permit

Attachment F
Watershed Assessment and Recovery Program No. R1-2024-0012

This attachment describes the North Coast Regional Water Quality Control Board's (North Coast Water Board) Watershed Assessment and Recovery Program (WARP). This attachment includes details regarding the methodology for establishing treatment credit obligations, assignment of treatment credit obligations for each Administrative Unit of the United States Forest Service (USFS), Bureau of Land Management (BLM), and National Park Service (NPS) in the North Coast Region, creditable pollutant source treatment activities, alternative credit generating activities, prioritized waterbody planning, and reducing credit obligations.

The North Coast Water Board has delegated its authority to the North Coast Water Board Executive Officer (Executive Officer) to revise, modify, and reissue this attachment as appropriate and without reopening the Federal Lands Permit.

I. WARP OBJECTIVES

North Coast Water Board staff developed the WARP to establish an iterative approach for advancing water quality improvement projects on federal lands while also conforming with the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act.

The WARP establishes regulatory requirements designed to steadily advance the treatment of CSDS over time. The WARP relies on a performance-based credit system developed for each Administrative Unit and tailored to the specific water quality conditions and land management activities on their respective lands. Assigned treatment credits are required to be implemented annually, but compliance will be assessed by averaging treatment credits over a 5-year period. The WARP also provides compliance flexibility by allowing implementation of some alternative actions that protect or improve water quality, including but not limited to aquatic habitat restoration activities, forest resilience and climate adaptation treatments, comprehensive planning strategies, and certain monitoring and adaptive management actions. Compliance requirements are intended to be adjusted over time, as treatments are applied, impairment conditions change, and management activities evolve.

Comments from the USFS and BLM staff indicate that the existing Federal Waiver inhibits agencies from implementing priority projects, such as forest resilience and community protection, due largely to the costs and staff time required to satisfy project-level CSDS treatment obligations. The USFS, BLM, and NPS all face significant resource limitations, budgetary constraints resulting from decisions in the

US Congress, and frequently changing federal administrations. All these factors slow the pace of CSDS treatments on federal lands.

II. OVERVIEW OF THE WARP ANNUAL TREATMENT CREDIT OBLIGATIONS

This section describes the methodology for establishing the annual WARP treatment credit obligations for each of the Administrative Units of the USFS, BLM, and NPS in the North Coast Region. The intent of this methodology is to quantify annual treatment obligations to be conducted by federal agencies to improve water quality conditions over time. The WARP treatment credit obligations are calculations based on the waterbody conditions and management activities for each Administrative Unit's Hydrologic Unit Code (HUC) 12 watersheds. The target size for a HUC 12 watershed is between 10,000 to 40,000 acres.

Attachment F1 provides additional technical information regarding North Coast Water Board staff's methodology and process for conducting the WARP analysis.

A. FACTORS IN THE ANALYSIS

The WARP utilizes characteristics of each Administrative Unit's HUC 12 watersheds, such as water quality conditions and land management activities, to calculate a starting point for treatment credit obligations under the Federal Lands Permit. Each Administrative Unit's credit obligations are expected to be adjusted over time as treatments are applied, impairment conditions change, and management activities evolve.

The WARP assigns credit obligations for portions of each HUC 12 watershed that are under federal land management. The WARP analysis assigns a maximum of 1 credit obligation per HUC 12 watershed and a minimum of 0. The sum of all individual HUC 12 watershed credit obligations within an Administrative Unit then determines the total annual obligation, summarized in Table 2 below.

The specific factors analyzed to determine treatment credit obligations in the WARP fall into the following three categories which are described in greater detail below: Wilderness or Roadless Designations, Clean Water Act Section 303(d) impairments, and status of past and present land management activities. The total acres of each of these factors within all the federally managed HUC 12 watersheds was calculated via a Geographic Information Systems (GIS) analysis.

Each of the three factors is assigned a coefficient that weights their relative potential impacts to water quality, and the GIS-derived areas are multiplied by these coefficients, summed together, and then divided by the total area of the HUC 12 watershed to isolate impacts from federal lands. For more detailed technical descriptions of the GIS analysis and subsequent calculations, please review Attachment F1. These three factors are added together in the WARP obligation analysis calculation, and form the bases for the crediting system:

Wilderness or Roadless Designations

Some federal lands are designated as wilderness or roadless areas and are subject to little, if any, land management activities. Wilderness and roadless areas are anticipated to have fewer impacts associated with anthropogenic sources of pollution than those that occur in managed landscapes. However, some wilderness or roadless areas do support some limited management or land uses, primarily in the form of recreation (e.g., hiking, hunting, backcountry camping) or livestock grazing. For the purposes of the WARP, areas designated wilderness or roadless that include livestock grazing allotments are assigned a different credit obligation value compared to those that do not.

The WARP calculates credit obligations for those portions of federally-managed HUC 12 watersheds that are designated Wilderness/Roadless by multiplying those portions of land by a coefficient of zero (effectively removing them from the obligation calculation), or by 0.15 if they support federally permitted livestock grazing.

Clean Water Act Section 303(d) Impairments

Most of the North Coast Region, including lands within federal ownership, is listed under Section 303(d) of the Clean Water Act as impaired for sediment, turbidity, and/or temperature. These areas warrant additional focus to address the pollutant(s) of concern that is driving the impairment of a waterbody and its associated beneficial uses. The Total Maximum Daily Loads (TMDLs) developed to address the waterbody impairments typically cite historic and ongoing land management activities as the cause of the impairments, including roads, forestry, and legacy mining impacts. Livestock grazing is also identified in some of the TMDLs as a source of sediment and nutrient impact.

The WARP calculates credit obligations for those portions of federally-managed HUC 12 watersheds that are 303(d) listed for sediment, turbidity, nutrients, or temperature, by multiplying those listed land areas by a coefficient of 0.25.

Status of Past and Present Management

The WARP focuses on the suite of nonpoint source activities conducted on federal lands that pose a risk to water quality. These include impacts from roads, logging, fuels management, mining, livestock grazing, and other activities. For the purposes of the WARP, these land use activities collectively fall under the category of “managed”, as opposed to Roadless/Wilderness areas described above. The WARP calculates credit obligations for those portions of federally-managed HUC 12 watersheds that are “managed”, as described above, by multiplying those portions of land by a coefficient of 0.75.

Administrative Units that have completed an assessment that can demonstrate the successful treatment of 75% of the CSDS in a HUC 12 watershed will have their treatment credit obligation coefficient changed from 0.75 for a “managed” watershed,

to 0.25 for a “treated” watershed. See Section VIII below for additional information on the CSDS treatment credit obligation reduction.

B. SAMPLE WARP CREDIT OBLIGATION CALCULATIONS

The diagram below shows four separate HUC 12 watersheds (01, 02, 03, and 04) that comprise the entire area under the responsibility of an Administrative Unit.

Watershed 01 is considered a “managed” watershed that is also identified as “impaired” under Section 303(d) of the Clean Water Act. Those portions of a HUC 12 that are considered “managed” are assigned a credit obligation of 0.75, and those portions that are designated as “impaired” are assigned a credit obligation of 0.25. Therefore, the WARP treatment credit obligation for Watershed 01 would be a total of 1.

Watersheds 02, 03, and 04 are designated as Wilderness/Roadless areas. Watershed 02 is listed as “impaired” and is assigned a credit obligation of 0.25. Watersheds 03 and 04 are not listed as “impaired”. However, Watershed 04 includes federally permitting grazing activities (active/inactive or closed) and is therefore assigned a credit obligation of 0.15. Therefore, the WARP treatment credit obligation for Watershed 02 would be 0.25, Watershed 03 would be zero, and Watershed 04 would be 0.15.

As depicted in Table 1 below, the total credit treatment obligation assigned to the Administrative Unit for the four separate watersheds would be 1.40.

Table 1: Sample WARP Credit Obligation Summary

Watershed Name	Wilderness and Roadless	Grazed Wilderness and Roadless	Impaired	Managed	Subtotal Credit Obligations
01	N/A	N/A	0.25	0.75	1
02	0	N/A	0.25	N/A	0.25
03	0	N/A	N/A	N/A	0
04	0	0.15	N/A	N/A	0.15
				TOTAL	1.40

Note: This example assumes that 100% of each of the four watersheds are administered by an Administrative Unit. The WARP analysis assigns credit treatment responsibilities for those portions (percentages) of a watershed that are under the control of an Administrative Unit. For example, if 75% of Watershed 01 was under

the control of an Administrative Unit and 25% of the watershed was privately owned, the total treatment credit obligation for the watershed would be 0.75.

III. ANNUAL WARP TREATMENT OBLIGATIONS PER ADMINISTRATIVE UNIT

Under the WARP, each USFS, BLM, and NPS Administrative Unit is required to complete annual projects to earn "treatment credits" based on the water quality conditions and land management activities, as described in the treatment credit obligation methodology in Section IV of this memorandum. The WARP analysis calculates each Administrative Unit's treatment credit obligations over time. A thorough description of the WARP treatment credit analysis, including the various factors and calculations used to determine the credit obligations, is found in Attachment F1.

Table 2 below summarizes the total treatment credit obligations for each Administrative Unit, as well as overall size (based on acreage) for general comparison purposes. WARP establishes the baseline credit treatment obligations that each Administrative Unit is expected to satisfy through the planning, designing, and implementation of creditable projects. Each Administrative Unit will be required to complete creditable activities and report accomplishments to the North Coast Water Board annually, but compliance will be assessed by averaging treatment credits over a 5-year period.

Table 2: Annual WARP Treatment Credits per Administrative Unit

Agency	Administrative Unit	Acreage	Credits
U.S. Forest Service Pacific Southwest Region	Klamath National Forest	1,474,503	54
	Shasta-Trinity National Forest	1,258,693	41
	Six Rivers National Forest	1,163,006	28
	Mendocino National Forest	467,491	32
Bureau of Land Management	Arcata Field Office	204,215	6
	Redding Field Office	98,719	6
	Ukiah Field Office	37,532	4
National Park Service	Redwood National and State Parks	131,983	3

Each Administrative Unit's WARP credit obligation may change over time because of alterations in land management activities (e.g., grazing in Wilderness allotments), incorporation or removal of land areas from an Administrative Unit, extensive CSDS treatments across a HUC 12 watershed, and/or changes in waterbody impairment statuses.

Note: The Butte Valley Creek and Lost River Watersheds are both identified as part of the Klamath River Watershed, but due to natural and anthropogenic causes, neither directly discharge into the Klamath River. The entirety of Modoc National Forest within the North Coast Region, portions of eastern Klamath National Forest, Lava Beds and Tule Lake National Monuments, and small isolated tracts of land administered by the Applegate Field Office of the BLM, comprise the federal ownership in these two watersheds. These areas are generally dry and flat lying compared to the rest of the Region and are overlain primarily by volcanic rocks that contribute to relatively little surface water drainage. Most of the hydrologic systems discharge into influent basins rather than deliver to larger river systems. There is some commercial timber production occurring in the Butte Valley Creek Watershed, but very little in the Lost River Watershed. Livestock grazing is the primary land management activity. Based on the information above, the Butte Valley and Lost River Watersheds are proposed to be excluded from the WARP analysis due to their lack of 303(d)-listed impairments and site-specific conditions. This CSDS treatments in these Administrative Units would rely on existing road maintenance, restoration, and sediment reduction efforts.

IV. CREDITABLE POLLUTANT SOURCE TREATMENT ACTIVITIES

The WARP establishes regulatory requirements to advance the treatment of controllable sediment discharges sources (CSDS) over time. Sediment pollution prevention projects are often associated with roads, landings, trails, and associated watercourse crossings. However, other CSDS can also be found across the federal landscape, including those areas associated with mines, unstable features, in-channel deposits, and stream diversions.

Table 2 below identifies creditable CSDS treatment activities associated with roads and watercourse crossings:

Table 3: Creditable CSDS Treatment Activities

ROAD SURFACE TREATMENTS	Description	General Performance Targets	Treatment Increments	Credit Value
Road surfaces disconnected from streams	Road surfaces, inboard drainage ditches, and road drainage features (e.g., ditch relief culverts, rolling dips, outsloping) are hydrologically disconnected from streams.	No more than 100 feet of road surface or inboard ditch connected to a stream. Road drainage features frequent enough to limit hillslope erosion, discharge onto stable ground, and do not connect to a stream.	1 mile	**0.5**
Road surface hardening	Road surfaces near streams are rocked or hardened to minimize erosion and sediment delivery.	Road surfaces sufficiently hardened to allow for year-round use without significant discharges to streams (e.g., no road surface rutting, turbid discharges, etc.)	1 mile	**0.25**
Diversion potential addressed	Watercourse diversion potential addressed.	All watercourse crossings shall have backup road drainage features (e.g., critical dips) to ensure that streams will remain in their original channel should diversion occur.	1 mile	**0.1**
WATERCOURSE CROSSING TREATMENTS	**Description**	**General Performance Targets**	**Treatment Increments**	**Credit Value**
Watercourse Crossing Upgrades	Small Crossing (0-100 cubic yards)	Watercourse crossing upgraded to current standards (e.g., sized to 100-year storm event, crossings hydrologically disconnected, installed at grade and in-line with stream, plugging/diversion threat minimized, fill prisms compacted, erosion risk minimized	1 crossing upgrade	**0.1**
	Medium Crossing (100-500 cubic yards)			**0.15**
	Large Crossing (>500 cubic yards)			**0.2**
	Complete barrier removal	Volitional fish passage available at all life stages.	1 crossing upgrade	**0.5**
STORM-PROOFING ROADS	Roads and watercourse crossings "Storm-Proofed" when all road surface and watercourse crossing treatments described above are completed	Segments of road meet the "Characteristics of Storm-Proofed Roads" standards described in the Pacific Watershed Associates' 2015 *Handbook for Forest, Ranch and Rural Roads*	1 mile	**1.5**
ROAD DECOMMISSIONING	Road decommissioning is the proactive closure to traffic and treatment to reduce its potential environmental impact	A decommissioned road is considered "put to bed" or "vacated" when all stream crossing drainage structures and fills have been excavated and removed, road and landing surfaces are permanently drained, and unstable fill slopes stabilized or removed (excavated).	1 mile	**2**

Road surface treatments (e.g., road surfacing, ditch relief culvert installation, outsloping) and watercourse crossing treatments (e.g., culvert replacement, rocked ford construction, bridge installation) are often conducted independently of timber harvest or other nonpoint source projects, unlike the private timber harvest process. Federal Agencies typically conduct road surface and watercourse crossing treatments through road improvement projects or through routine maintenance activities. Road treatments are also conducted after certain post-wildfire emergency actions conducted through post fire suppression repair efforts and the Burned Area Emergency Response (BAER) process, or after floods with funding from the Federal Highway Administration. Road surfacing and watercourse crossing treatments must be consistent with the standards described in the Pacific Watershed Associates (PWA) Handbook for Forest, Ranch and Rural Roads (PWA Handbook), or equivalent erosion and sediment control standards. Certain treatments in the PWA Handbook, such as road outsloping, may be infeasible in some locations since most federal roads are open to the public and subject to federal road safety standards.

Although independent project activities provide benefits to water quality, comprehensive road segment treatments that address all aspects of a road segment, and are sometimes referred to as “stormproofing”, provide the best benefit for water quality. Stormproofing roads is the comprehensive treatment of all road surfaces and watercourse crossings along a segment of road and is described in the PWA Handbook.

Therefore, stormproofed roads are provided with a minimum of 1.5 credits per mile. If the individual road surface and watercourse treatments exceed 1.5 credits per mile, then the greater value shall apply.

V. ALTERNATIVE CREDIT GENERATING ACTIVITIES

As an alternative to the annual CSDS pollution treatment requirements, the WARP also provides compliance flexibility for up to 30% of an Administrative Unit’s total credit obligations through alternative actions that protect or improve water quality, including but not limited to aquatic habitat restoration activities, forest resilience and climate adaption strategies, comprehensive planning strategies to address impaired waterbodies, and certain monitoring and adaptive management actions.

The North Coast Water Board recognizes that many of the federal land management Administrative Units and their partners are implementing aquatic habitat restoration[1] actions. These restoration actions, combined with CSDS treatments, are important for recovering watersheds and protecting beneficial uses, and are consistent with the

[1] Although the WARP considers aquatic habitat restoration as an accreditable activity, it should be noted that this Order does not itself permit those activities as they are more appropriately authorized through other existing permitting pathways (See Findings D.5.a of the Order for guidance).

North Coast Water Board's Policy in Support of Restoration in the North Coast Region, Resolution No. R1-2015-0001.

Project activities that promote forest resilience and reduce the potential for high-severity wildfire activity, which can result in extreme impacts to waterbodies, are also recognized as a high priority for water quality protection. These forest management activities also support the objectives of California's Wildfire and Forest Resilience Action Plan.

Routine monitoring of grazing supports adaptive management and changes in annual operating instructions. The Federal Lands Permit requires the USFS to conduct National BMP Effectiveness Monitoring at least four times per year. Considering the value of this type of monitoring, and the expectation that changes to annual operating instructions may result from observed environmental impacts, the WARP includes additional monitoring as an acceptable alternative credit generating activity.

The following activities support the protection and recovery of water quality conditions and are therefore provided as an alternative to satisfy a limited percentage of the CSDS treatment credit obligations in the Order. Use of these actions to satisfy a portion of CSDS treatment credit obligations is optional and at the discretion of the Administrative Unit with review and concurrence by the North Coast Water Board's Executive Officer. Each year, a maximum of 30% of the total WARP credit obligation for an Administrative Unit can be accrued annually based on the alternative credit generating activities. The rationale for establishing a 30% maximum allowance for alternative credit generating activities is to ensure that CSDS treatments are the priority and that treatment of CSDS continually advances across the Administrative Units, especially those associated with existing road and trail infrastructure.

Table 4 below includes information about alternative activities that can be considered to satisfy the CSDS treatment credit obligations:

Table 4: Alternative Credit Generating Activities

ALTERNATE CREDIT GENERATING ACTIVITIES	Description	General Performance Targets	Increments	Credit Value	Credit Cap
Aquatic Habitat Restoration (by Acreage)	Examples of aquatic habitat restoration projects based on acreage may include but are not necessarily limited to: riparian zone planting, off-channel and side-channel habitats, beaver dam analogues, and removal of non-native vegetation in the riparian zone.	Projects must be designed and implemented in a manner that conforms with current resource agency standards, such as: the CDFW Stream Habitat Restoration Manual, NOAA-Fisheries Design and Fish Passage Criteria, CDFW/NOAA Recovery Plans or Strategies, Beaver Restoration Manual, etc. All regulatory requirements must be met.	1 acre	1	Up to **30%** of current WARP credit obligation*
Aquatic Habitat Restoration (by linear feet)	Examples of aquatic habitat restoration projects based on linear feet may include but are not necessarily limited to: reintroduction of large woody material along a given stream reach	Projects must be designed and implemented in a manner that conforms with current resource agency standards, such as: the CDFW Stream Habitat Restoration Manual, NOAA-Fisheries Design and Fish Passage Criteria, CDFW/NOAA Recovery Plans or Strategies, Beaver Restoration Manual, etc. All regulatory requirements must be met.	1 mile (5280 linear feet)	1	Up to **30%** of current WARP credit obligation*
Fuels treatments	Fuels treatments (e.g., timber harvest, mechanical fuels reduction, prescribed fire, prescribed herbivory, and other activities designed to improve landscape health and resilience).	Fuels treatments must be implemented for the purpose of meeting an Administrative Unit's goals and/or agency standards to achieve a "resilient" landscape condition.	1,000 acres	1	Up to **10%** of current WARP credit obligation
National BMP Effectiveness Monitoring - Livestock Grazing	Monitoring of grazing allotments to evaluate conditions for adaptive management and resource protection.	Monitoring shall evaluate conformance with Federal Guidance, such as the Aquatic Conservation Strategy (ACS) standards. Where deviations from ACS standards exist, changes to Annual Operating Instructions must be documented	1 monitoring event above those already required in the Monitoring and Reporting Program, see Section VI.B.1	0.5	Up to **5%** of current WARP credit obligation

**Please note that all alternative credit generating activities combined cannot add up to more than 30 percent of an annual credit obligation. 70 percent of annual obligations must be met from the activities in Table 2*

VI. PRIORITIZED WATERSHED PLANNING AND IMPLEMENTATION PROJECTS

The North Coast Water Board supports the development and implementation of priority planning efforts. Each of the federal agencies implement watershed-based planning programs that prioritize landscape and water quality assessments, implement pollution prevention activities, restore aquatic habitats, and conduct instream monitoring. Examples of these efforts include but are not limited to the following: the USFS's implementation of Watershed Restoration Action Plans through the Watershed Conditions Framework; the BLM's strategic NEPA planning documents in watersheds such as Lack's Creek and the Headwaters Forest Preserve; and the National Park Service's Redwoods Rising program.

As an example, the North Coast Water Board considers the following steps in the USFS's Watershed Restoration Action Plan development as a qualifying "priority planning effort":

1. **Step A**: Executive Summary
    a. Watershed name, general location, watershed area, general physiography, land use, key problems, restoration opportunities/priorities
2. **Step B:** Watershed Characteristics and Conditions
    a. Geral context/overview (climate, hydrology, geomorphology, fisheries, etc.)
    b. Watershed conditions (upland, hillslope, riparian, in-channel)
3. **Step C**: Restoration Goals, Objectives, and Opportunities
4. **Step D**: Project Monitoring and Evaluation

To promote the utilization of these watershed-based planning efforts, all projects that include treatment of CSDS as well as other alternative credit generating activities (e.g., aquatic habitat restoration, fuels management, etc.) that are being conducted as part of these strategic planning efforts will qualify for WARP treatment credits 1.2 times the normal credit value.

VII. REDUCING CREDIT OBLIGATIONS OVER TIME

The North Coast Water Board's WARP was developed to establish a regulatory framework for advancing pollution control on federal lands, while including adaptive alternatives that provide water quality benefits. The WARP also includes an iterative approach to treatment credit obligations as waterbody conditions, treatment actions, and management activities change over time.

A. WATERBODY CALCULATION FACTORS: FROM "MANAGED" TO "TREATED"

North Coast Water Board staff have designed the WARP to incentivize holistic treatments for HUC 12 watersheds that are identified as impaired for sediment, nutrients, and/or temperature. The beneficial uses of these waterbodies are

impacted, primarily associated with past land use activities, but also attributed to the persistent pollution that is generated from poorly functioning road networks on federal lands.

Like the North Coast Water Board, Federal Agencies endeavor to address the sources of impairments that impact water quality. A major objective of the WARP is to support Administrative Units to successfully prioritize and implement projects at a scale that will support waterbody improvements. In recognition of these efforts, WARP provides an iterative approach by reducing the treatment credit obligations once an Administrative Unit has successfully implemented holistic watershed treatments.

As described earlier, the WARP identifies these portions of federal ownerships as "managed" in the context of the credit obligation methodology and assigns a factor (coefficient) of 0.75 for those portions of a HUC 12 watershed that they control. Administrative Units that demonstrate the successful treatment of 75% of the CSDS in a HUC 12 Watershed will have their treatment credit obligation changed from 0.75 for a "managed" watershed, to 0.25 for a "treated" watershed.

Treated waterbody accomplishments will require detailed descriptions of all work completed compared to assessments of conditions across the subwatershed. Field-based reviews by Federal Lands Permit liaisons will be integral to evaluating proposed WARP treatment credit reductions.

B. WATERBODY DELISTING

In September 2004, the State Water Resources Control Board developed a Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, which was amended in February 2015. Following procedures established by the Policy, a waterbody can be removed from Section 303(d) of the Clean Water Act for different reasons, including but not limited to: (1) a waterbody meets water quality standards in the North Coast Water Board Basin Plan and sufficient water quality data or other information supporting that the waterbody is no longer impaired, or (2) demonstration that the impairment designation does not apply. In most cases, the removal of a waterbody from Section 303d list must be supported by sufficient CSDS treatments and in-channel sediment data for sediment impairments, and demonstration of effective riparian shade protections and supporting temperature monitoring data for temperature impairments. One of the North Coast Water Board's objectives is to remove waterbodies from Section 303(d) of the Clean Water Act, whenever appropriate.

Once a waterbody has been removed from Section 303(d) of the Clean Water Act in accordance with the State Water Board Policy, the WARP treatment credit obligations will be changed to reflect those adjustments, therefore reducing the treatment credit obligations for that portion of a waterbody under federal land management control.

VIII. WARP REPORTING

Under the proposed WARP, Administrative Units will be required to provide information each year documenting progress implementing projects that qualify for annual treatment credits. Beginning one year after the adoption of the Federal Lands Permit, each Administrative Unit will submit information to the North Coast Water Board using the form included as Attachment C2 detailing the treatments implemented during the previous year and describe and account for their accomplished treatment credits. Administrative Units will also be required to submit a five-year retrospective every five years, which is intended to provide the North Coast Water Board with a periodic update on the progress of WARP implementation across all Federal Agency Administrative Units. North Coast Water Board staff will endeavor to develop an online WARP reporting form for the federal agencies to use.

Ordered by: _____

Valerie Quinto

Executive Officer

Date:

Federal Lands Permit

Attachment F1
WARP Technical Analysis

I.INTRODUCTION

The purpose of this document is to describe the methodology for establishing the Watershed Assessment and Recovery Plan (WARP) annual treatment obligations per Administrative Unit. The intent of this methodology is to provide a fair accounting of relative treatment obligations across the various Administrative Units (AUs) of the three federal agencies regulated by the Federal Lands Permit (FLP), the United States Forest Service (USFS), Bureau of Land Management (BLM), and the National Parks Service (NPS). This methodology assists in quantifying treatment obligations, aggregated across Hydrologic Use Code (HUC) 12 watersheds, to provide a yearly expectation of work conducted across federal agencies to improve water quality conditions. The factors considered in this analysis fall into three broad categories: status of past and present management, current 303(d) listings for sediment/temperature/turbidity, and wilderness or roadless designations.

II.WARP INPUTS

The analysis proposes to calculate, from information sourced from geographic information systems (GIS) data, for each AU and for each HUC 12 watershed with some federal ownership, the following information:

1. Total Acres of AU Ownership
2. Total Acres of Roadless/Wilderness[1] area
3. Calculation (AU ownership minus Roadless/Wilderness area), to derive Acres of AU Managed Lands
    a. If the Roadless/Wilderness area is greater than the AU Ownership, then the Managed Lands value is set to zero.
4. Acres of Grazing Allotments within Roadless/Wilderness areas, and those allotments' current status (Active/Inactive or Closed)
5. Acres of AU ownership within 303(d)-listed waterbodies for sediment, turbidity, and/or temperature.

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[1] Roadless/Wilderness areas refer to federally-administered Wilderness Areas designed by the 1964 Wilderness Act (https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd645666.pdf), and USFS lands included in the 2001 Roadless Rule (*https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5057689.pdf*).

III. WARP CALCULATION

With these data aggregated by administrative unit and by HU, the analysis results in the following calculation:

$$\omega = \frac{\beta_M(A_U - A_W) + \beta_L A_L + \beta_G A_G}{A_{HU}} = \frac{\beta_M A_M + \beta_L A_L + \beta_G A_G}{A_{HU}}$$

where:

ω	=	dimensionaless obligation metric (omega); $\omega \in [0,1]$
A_{HU}	=	$\mathrm{HUC}\ 12$ watershed area
A_U	=	Area of Administrative Unit ownership
A_W	=	Wilderness or Roadless Area within AU ownership
A_M	=	$A_U - A_W$; AU ownership minus wildeness/roadless area
A_L	=	303(d) listed watershed area within AU ownership; $A_L \leq A_U$
A_G	=	grazing allotment within Wilderness/Roadless areas ; $A_G \leq A_W$
β_M	=	coefficient/weight for managed lands area
β_L	=	coefficient/weight for 303(d) listed area
β_G	=	coefficient/weight for grazing allotments

In other words, the obligation metric ω (omega) is a weighted sum of federal land use within a given HUC 12 watershed normalized by the total HUC 12 watershed area. The values of the three coefficients are:

- Managed coefficient $\beta_M = 0.75$
- 303(d) listing coefficient $\beta_L = 0.25$
- Grazing allotment coefficient $\beta_G = 0.15$

A. Example Calculation

Etna Creek is an approximately 17,245 acre (A_{HU}) HUC 12 watershed in the Scott River Watershed. The USFS Klamath National Forest AU is the sole federal agency with any ownership in this watershed. Here are some details about this watershed:

1. Klamath National Forest administers approximately 9,582 acres in Etna Creek
   a. Approximately 9,061 acres of the AU ownership is Wilderness or Roadless Area
   b. Grazing Allotments within the Wilderness/Roadless Area comprise 8,585 acres
   c. Within the AU ownership, approximately 9,571 acres are impaired for sedimentation/siltation and/or temperature
   d. Coefficient values for β_M, β_L, β_G are 0.75, 0.25, and 0.15, respectively.

Variable	Area Description	Acres
A_{HU}	HU12 Watershed	17,245
A_U	AU Ownership	9,582
A_W	Roadless/Wilderness	9,061
$A_M = A_U - A_W$	AU Managed Lands	521
A_G	Grazing Allotment	8,585
A_L	303(d) Listed	9,571

Given this information, the calculation for Etna Creek would be:

$$\omega = \frac{\beta_M A_M + \beta_L A_L + \beta_G A_G}{A_{HU}}$$

$$\omega = \frac{(0.75 \times 521) + (0.25 \times 9{,}571) + (0.15 \times 8{,}585)}{17{,}245}$$

$$\omega \approx 0.236 \text{ obligation}$$

IV. WARP RESULTS

The WARP calculation was then run across each HUC 12 watershed in the North Coast Region using ArcGIS Pro and R. Each Administrative Unit's WARP credit obligation may change over time because of alterations in land management activities (e.g., grazing in Wilderness allotments), incorporation or removal of land areas from an Administrative Unit, extensive CSDS treatments across a HUC 12 watershed, and/or changes in waterbody impairment statuses. Table 1 below summarizes the WARP credit obligation allocation and total acreages of the inputs by AU.

Table 1: Summary of WARP Results by Administrative Unit

	ADMINISTRATIVE UNIT	HUC 12 (#)	Σ Ω	TOTAL OWNERSHIP (AC)	MANAGED AREA (AC)	WILDERNESS / ROADLESS AREA (AC)	GRAZED WILDERNESS AND ROADLESS AREA (AC)	303(D) LISTED AREA (AC)
BLM	Arcata Field Office	65	**6**	202,238	109,373	92,865	68	164,149
BLM	Redding Field Office	55	**6**	96,591	96,560	31	0	89,835
BLM	Ukiah Field Office	25	**4**	36,990	36,990	0	0	35,977
NPS	Redwood National Park	15	**3**	95,095	95,095	0	0	81,285
USFS	Klamath National Forest	131	**54**	1,663,527	1,008,962	654,565	169,688	1,200,457
USFS	Mendocino National Forest	52	**32**	480,101	271,164	208,937	102,357	480,080
USFS	Rogue-Siskiyou National Forest	13	**7**	83,632	43,962	39,670	31,274	36
USFS	Shasta-Trinity National Forest	100	**41**	1,267,671	632,928	634,744	88,978	965,479
USFS	Six Rivers National Forest	71	**28**	978,250	649,605	328,646	75,765	653,932

Note that the AUs in the "dry quarter" of the North Coast Region, Modoc National Forest, the BLM Applegate Field Office, and Lava Beds and Tulelake National Monuments are all excluded from the WARP analysis. See Attachment F for additional details.

There may be slight variations in acreages across AUs, many of which are the result of "edge" cases. There is a small amount of "edge" cases that are removed from the analysis. "Edge" cases are defined as AU-HUC12 combinations where the AU ownership within a HUC12 is less than 1 percent of the HUC12's area. Whiskeytown-Shasta-Trinity National Recreation Area and Fremont National Forest will be removed as their AU-HUC12 pairs can be considered "edge" cases and the overall area within

the North Coast Water Board is either very small or are a result of minute differences in the source dataset's boundaries leading to "slivers" of these AUs being appended to the North Coast Water Board boundary.

V. WARP ANALYSIS TECHNICAL DOCUMENTATION

The WARP analysis and calculation of the obligation metric ω is implemented in *R*, a computer programming language for statistics that has been widely adopted in the sciences, technology engineering, and mathematics disciplines. A detailed description of the analysis is available upon request from North Coast Water Board staff.

Federal Lands Permit

Attachment G
Supplemental Order Findings

This attachment contains supplemental Order findings pertaining to 1) the legal and regulatory framework and basis of the Federal Lands Permit, 2) tribal consultations and outreach and engagement with the public and disadvantaged communities during Federal Lands Permit development, and 3) Federal Agency-specific information for the United States Forest Service (USFS), Bureau of Land Management (BLM), and National Park Service (NPS).

I. Legal and Regulatory Framework Findings

A. Clean Water Act

1. Section 313 of the Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act)[1] provides for state regulation of federal facilities. (33 U.S.C. § 1323.)

2. Numerous streams in the North Coast Region are listed as impaired for sediment and temperature pursuant to Clean Water Act section 303(d). The Clean Water Act requires states to address impaired waters by developing a total maximum daily load (TMDL) or by implementing water quality programs that result in the attainment of water quality standards.

3. TMDLs have been developed for most of the sediment and temperature-impaired waters in the North Coast Region. While the actual load allocations and targets may vary from one sediment or temperature TMDL to another, all address the basic issues of reducing and preventing excess sediment inputs or decreasing water temperature by protecting and restoring natural shade, respectively.

B. Porter-Cologne Water Quality Control Act

1. The Porter-Cologne Water Quality Control Act, also known as Division 7 of the California Water Code[2] or simply Porter-Cologne, is California's comprehensive water quality control statute, which implements portions of the Clean Water Act. Under Porter-Cologne, water quality objectives are established to ensure the reasonable protection of beneficial uses and the

[1] The Clean Water Act: https://www.govinfo.gov/content/pkg/USCODE-2018-title33/pdf/USCODE-2018-title33-chap26.pdf.
[2] Water Code, section 13000 et seq.

prevention of nuisance, in consideration of various factors including past, present, and probable future beneficial uses of water[3].

2. California Water Code (Water Code) section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the state, other than into a community sewer system, must file with the appropriate regional water quality control board a report of waste discharge containing such information and data as may be required.

3. Water Code section 13263 authorizes the regional water quality control boards to "prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of section 13241." A regional water board may prescribe requirements although no discharge report has been filed (Water Code section 13263, subdivision (d)).

4. Pursuant to Water Code section 13263, the North Coast Regional Water Quality Control Board (North Coast Water Board) determined that discharges from activities covered by the Order, except for those addressed in the WARP, are appropriately permitted by waste discharge requirements. The North Coast Water Board, in establishing the requirements contained within the Order, has considered the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, and the factors within section 13241.

5. Water Code section 13304 states, in part, the following: A person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall, upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. As further detailed in Attachment F, the WARP requires the federal agencies to steadily and systematically advance the treatment of controllable sediment discharges sites over time to prevent

[3] Water Code, section 13241.

further sediment pollution and ecosystem impairment to 303(d) listed waters and maintain high quality, unimpaired waterbodies that are threatened by controllable sediment discharges.

6. This Order and any enrollment under this Order: 1) is conditional; 2) may be terminated at any time; 3) does not permit any illegal activity; 4) does not preclude the need for permits which may be required by other federal, state, or local governmental agencies; and 5) does not preclude the North Coast Water Board from administering enforcement remedies pursuant to the Water Code.

7. This Order, including enrollments under this Order, does not create a vested right; discharges of waste are privileges, not rights, as provided for in Water Code section 13263, subdivision (g).

8. This Order and its attachments may be modified, revoked, reissued, or terminated. If unforeseen circumstances resulting from the Order have the effect of unreasonably constraining Federal Agency activities, Federal Agencies may seek consideration for modifications to the Order by written request to the North Coast Water Board.

C. State and Federal Endangered Species Act

1. The USFS, BLM, and NPS, as the Federal agencies responsible for oversight and management of federal lands, are required under the federal Endangered Species Act (ESA) to protect, assess, and restore the critical habitats upon which federally listed threatened and endangered species depend, and to take actions that will foster recovery of listed species. The Basin Plan identifies numerous beneficial uses of water to be protected and restored, including several related to California's native anadromous salmonids that are identified as either threatened or endangered under the ESA. The implementation of federally mandated actions under the ESA complements the goals of the North Coast Water Board, to protect and restore the beneficial uses of waters in the North Coast Region.

2. In 2012, the USFS adopted a new National Forest System Land Management Planning Rule that established a process for the development of national procedures, as well as individual plans for national forests and grassland, to protect and restore land and water ecosystems and to take actions to recover species listed on the ESA. Federal Rules and Regulations §36 CFR Part 219.9 (a and b) include requirements for, and definitions of, plan-related actions required to maintain or restore ecosystem integrity and ecosystem diversity, as well as species specific plan components. As provided by the accompanying Biological Assessment for conformance with the statutory requirements of the ESA, "the intent of the final [National Forest System Land Management] Planning Rule provisions is to provide broad ecosystem level and species-specific ecological conditions necessary to contribute to the

recovery of federally listed species. Plan components designed to meet these requirements are expected to maintain or restore the ecological conditions on which threatened and endangered species depend, including designated critical habitat."

3. The BLM has also developed a Threatened and Endangered Species Program[4] and a Special Status Species Management Manual[5], which specify actions to plan and implement measures to recover threatened and endangered species, and to establish policy for management of species listed or proposed for listing pursuant to the ESA and Bureau sensitive species which found on BLM-administered lands. As identified in the BLM's Special Status Species Management manual, the objectives of these programs are identified below.

    a. Conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for the species.

    b. Initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA.

4. The NPS has developed a program for At-Risk Species Program[6], which coordinates and collaborates with partners on actions to sustain biodiversity and ecological systems that support at-risk species on NPS lands.

5. The NOAA-National Marine Fisheries Service (NOAA Fisheries) is the federal agency responsible for the protection and recovery of certain threatened and endangered species through the ESA. The NOAA Fisheries has adopted several recovery plans for threatened and endangered salmonids, including several populations of Chinook salmon (*Oncorhynchus tshawytscha),* coho salmon (*Oncorhynchus kisutch*), and steelhead trout *(Oncorhynchus mykiss*). The purpose of these recovery plans is to provide a road map that focuses and prioritizes threat abatement and restoration actions necessary to recover, and eventually delist, a species.

[4] The BLM's Threatened and Endangered Species Program can be found at the following location: https://www.blm.gov/programs/fish-and-wildlife/threatened-and-endangered/tedefined.
[5] The BLM Special Status Species Manual can be found at the following location: https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual6840.pdf.
[6] The NPS's At-Risk Species Program can be found at the following location: https://www.nps.gov/subjects/rareandendangered/index.html.

6. The NOAA Fisheries' Final Recovery Plan for Central California Coast Coho Salmon[7] (2012), and the Final Recovery Plan for the Southern Oregon/Northern California Coast Coho Salmon[8] (2014), Multi-Species Recovery Plan[9] (2016), each promote a range of different restoration actions to support the recovery of these species, including but not limited to projects that improve the structure and complexity of riparian areas, erosion and sediment controls to prevent discharges to fish-bearing streams, reestablishment of off-channel habitats, removal of migration barriers, and the reintroduction of large woody material. Similarly, the California Department of Fish and Wildlife has adopted state-level recovery plans for anadromous salmonids protected through the California Endangered Species Act.

7. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act or the Federal Endangered Species Act. Federal Agencies are responsible for meeting all requirements of the applicable Endangered Species Act. Federal Agencies must obtain as necessary, and comply with, all other applicable local, state, and federal regulations and/or required permits. Additionally, this Order requires compliance with the Mitigation Monitoring and Reporting Program, which includes a mitigation measure to address potential impacts to sensitive biological resources.

D. Water Quality Control Plan for the North Coast Region

1. The Water Quality Control Plan for the North Coast Region (Basin Plan) contains the regulations adopted by the North Coast Water Board to control the discharge of waste and other controllable factors affecting the quality of waters of the state[10] within the boundaries of the North Coast Region. The Basin Plan, as amended periodically, establishes:

    a. beneficial uses of water within the region;

[7] The Recovery Plan for the Evolutionarily Significant Unit of Central California Coast Coho Salmon can be found at the following location: https://www.fisheries.noaa.gov/resource/document/recovery-plan-evolutionarily-significant-unit-central-california-coast-coho.

[8] The Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon can be found at the following location: https://www.fisheries.noaa.gov/resource/document/final-recovery-plan-southern-oregon-northern-california-coast-evolutionarily.

[9] The Final Coastal Multispecies Recovery Plan for California Coastal Chinook Salmon, Northern California Steelhead and Central California Coast Steelhead can be found here: https://www.fisheries.noaa.gov/resource/document/final-coastal-multispecies-recovery-plan-california-coastal-chinook-salmon.

[10] Porter-Cologne defines "waters of the state" to mean any surface water or groundwater, including saline waters, within the boundaries of the state.

b. water quality objectives necessary to protect those beneficial uses;

c. prohibitions, policies, and action plans to achieve water quality objectives;

d. monitoring to ensure attainment of water quality standards; and

e. statewide plans and policies.

2. The existing and potential beneficial uses of waters in the North Coast Region include:

a. Municipal and Domestic Supply (MUN)

b. Agricultural Supply (AGR)

c. Industrial Service Supply (IND)

d. Industrial Process Supply (PRO)

e. Groundwater Recharge (GWR)

f. Freshwater Replenishment (FRSH)

g. Navigation (NAV)

h. Hydropower Generation (POW)

i. Water Contact Recreation (REC-1)

j. Non-Contact Water Recreation (REC-2)

k. Commercial and Sport Fishing (COMM)

l. Cold Freshwater Habitat (COLD)

m. Warm Freshwater Habitat (WARM)

n. Wildlife Habitat (WILD)

o. Preservation of Areas of Special Biological Significance (ASBS)

p. Preservation of Areas of Special Rare, Threatened, or Endangered Species (RARE)

q. Marine Habitat (MAR)

r. Migration of Aquatic Organisms (MIGR)

s. Spawning, Reproduction, and/or Early Development (SPWN)

t. Shellfish Harvesting (SHELL)

u. Estuarine Habitat (EST)

v. Aquaculture (AQUA)

w. Native American Culture (CUL)

x. Flood Peak Attenuation/Flood Water Storage (FLD)

y. Wetland Habitat (WET)

z. Water Quality Enhancement (WQE)

aa. Subsistence Fishing (FISH)

bb. Inland Saline Water Habitat (SAL)

3. Compliance with the conditions in the Order will protect the beneficial uses listed above and promote attainment of water quality objectives.

4. The Basin Plan was duly adopted by the North Coast Water Board and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law, and U.S. EPA, where required.

5. The North Coast Water Board has reviewed the contents of the Order, the supporting Environmental Impact Report, written public comments and testimony provided after notice and hearing, and hereby finds that the adoption of the Order is consistent with the Basin Plan and is in the public interest.

E. Policy for Implementation and Enforcement of Nonpoint Source Pollution Control Program

1. In 2004, the State Water Board adopted the Policy for Implementation and Enforcement of Nonpoint Source Pollution Control Program[11] (Nonpoint Source Policy). The Nonpoint Source Policy requires nonpoint source discharges of waste to be regulated by waste discharge requirements, waivers of waste discharge requirements, or Basin Plan prohibitions to ensure compliance with North Coast Water Board water quality control plans.

[11] The Nonpoint Source Policy: https://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/nps_iepolicy.pdf.

2. The Nonpoint Source Policy states that implementation programs for nonpoint source pollution control must include five key elements:

    a. Key Element 1: A nonpoint source control implementation program's ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address nonpoint source pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.

    b. Key Element 2: A nonpoint source control implementation program shall include a description of management practices and other program elements that are expected to be implemented to ensure attainment of the implementation program's stated purpose(s), the process to be used to select or develop management practices, and the process to be used to ensure and verify proper management practice implementation. The Regional Water Quality Control Board must be able to determine that there is a high likelihood that the program will attain water quality requirements. This will include consideration of the management practices to be used and the process for ensuring their proper implementation.

    c. Key Element 3: Where the Regional Water Quality Control Board determines it is necessary to allow time to achieve water quality requirements the nonpoint source control implementation program shall include a specific time schedule and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.

    d. Key Element 4: A nonpoint source control implementation program shall include sufficient feedback mechanisms so that the Regional Water Quality Control Board, dischargers, and the public can determine whether the program is achieving its stated purpose(s) or whether additional or different management practices or other actions are required.

    e. Key Element 5: Each Regional Water Quality Control Board shall make clear, in advance, the potential consequences for failure to achieve a nonpoint source control implementation program's stated purpose.

3. As stated in the Order, the purpose of the Order is to address discharges of waste to waters of the state from certain activities on federal lands to ensure conformance with California's water quality laws and regulations and the applicable federal requirements. The Order implements the Key Elements of the Nonpoint Source Policy, where applicable, by requiring:

a. control and treatment of sediment sources across federal lands by ensuring implementation of effective management measures, a monitoring program that provides critical information to both federal agencies and to the North Coast Water Board, and effective implementation of Federal Guidance Documents;

b. a Monitoring and Reporting Program that is intended to provide the North Coast Water Board, communities of interest, and Federal Agencies information on the varied activities covered under the Order and establishes feedback mechanisms—such as BMP implementation monitoring, effectiveness monitoring, in-channel monitoring, and reporting—to ensure that protective measures are implemented and successful; and

c. Order and Monitoring and Reporting conditions using clear language that outline the enforceability of the requirements and the regulatory and enforcement capability of the North Coast Water Board.

F. Statement of Policy with Respect to Maintaining High Quality of Waters in California

1. In 1968, the State Water Board adopted[12] the Statement of Policy with Respect to Maintaining High Quality of Waters in California, Resolution No. 68-16 (Antidegradation Policy)[13]. The Antidegradation Policy requires whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality must be maintained. The Antidegradation Policy only allows change in existing high-quality water if it has been demonstrated to the North Coast Water Board that the change is consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial uses of such water, and will not result in water quality less than that prescribed in the policies. The Antidegradation Policy further requires that discharges comply with waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and that the highest water quality,

[12] Section 131.12 of the U.S. EPA's Water Quality Standards regulations includes the "federal antidegradation policy" which emphasizes protection of instream beneficial uses, especially protection of aquatic organisms, and required each state's water quality standards to include a policy consistent with the federal antidegradation policy. The State Antidegradation Policy is deemed to incorporate the Federal Antidegradation Policy where the federal policy applies under federal law. (State Water Board Order WQ 86-17.)

[13] The Antidegradation Policy: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf.

consistent with the maximum benefit to the people of the state, will be maintained.

2. High quality waters are those surface waters or areas of groundwater that have a baseline water quality better than required by water quality control plans and policies. This determination is made on a waterbody-by-waterbody and constituent-by-constituent basis. In the context of diffuse discharges regulated by a general order, the State Water Board provided the following guidance on determinations of whether a discharge impacts high quality waters:

   > *When assessing baseline water quality for a general order, we find a general review and analysis of readily available data is sufficient. . . . Regional Water Boards should not delay the implementation of a regulatory program in order to conduct a comprehensive baseline assessment and analysis—especially where, as here, the general order imposes essentially the same iterative approach for management practices and other requirements regardless of whether or not the receiving water is high quality*[14].

3. The Order is consistent with the Antidegradation Policy because implementing the conditions of the Order will result in a net benefit to water quality. The Order contains conditions that require Federal Agencies to implement best management practices and on-the-ground prescriptions for new activities, provide riparian and shade protections and enhancements, address controllable sediment discharge sources, and supports the implementation of beneficial aquatic habitat restoration projects. Effective implementation of best management practices and on-the-ground prescriptions coupled with monitoring of their effectiveness will result in the best practicable treatment or control of the discharge, assure that pollution or nuisance will not occur, and that the highest water quality, consistent with maximum benefit to the people of the state, is maintained.

4. This Order requires that discharges of waste from federal lands shall not cause surface water to be degraded, exceed water quality objectives, unreasonably affect beneficial uses of water, or cause a condition of pollution or nuisance. The attached Monitoring and Reporting Program requires surface water monitoring to evaluate whether the physical, chemical, and biological conditions of a waterbody are supporting beneficial uses and land use activities are sufficiently protective of water quality. Robust and sustained

[14] *In the Matter of Review of Waste Discharge Requirements General Order No. R5- 2012-0116 for Growers Within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group*, SWRCB Order No 2018-0002 (2018): https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2018/wqo2018_0002_with_data_fig1_2_appendix_a.pdf.

water quality monitoring programs can also provide insights into watershed impairments and whether a waterbody is suitable for listing or delisting under Section 303(d) of the Clean Water Act. The effectiveness of management measures will be evaluated through required monitoring and reporting. Management measures and monitoring may be modified as data are assessed and reported and whenever site evaluations show that measures need to be improved to meet water quality standards.

G. Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region

1. In 2004, as part of its efforts to control sediment waste discharges and restore sediment impaired water bodies, the North Coast Water Board adopted *the Total Maximum Daily Load Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region,* Resolution R1-2004-0087 (Sediment TMDL Implementation Policy)[15]. The Sediment TMDL Implementation Policy states that North Coast Water Board staff shall control sediment pollution by using existing permitting and enforcement tools. The goals of the Sediment TMDL Implementation Policy are to control sediment waste discharges to impaired water bodies so that the TMDLs are met, sediment water quality objectives are attained, and beneficial uses are no longer adversely affected by sediment.

2. The Sediment TMDL Implementation Policy directed staff to develop: 1) the Work Plan, which describes how and when permitting and enforcement tools are to be used; 2) the Guidance Document on Sediment Waste Discharge Control; 3) the Sediment TMDL Implementation Monitoring Strategy; and 4) the Desired Conditions Report.

3. This Order implements the Sediment TMDL Implementation Policy directives by requiring Federal Agencies to 1) protect and maintain designated riparian zones; 2) implement site-specific on-the-ground prescriptions to prevent and minimize sediment discharges to watercourses; and 3) systematically treat all controllable sediment discharge sources within each Administrative Unit through the implementation of a Sediment Source Treatment Plan.

4. The goals and requirements of the Sediment TMDL Implementation Policy apply region-wide, regardless of whether a project is located in a 303(d) listed watershed or not.

[15] Information about the Sediment TMDL Implementation Policy can be found at the following web address: https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/sediment_tmdl_implementation/.

H. Policy for the Implementation of the Water Quality Objective for Temperature

1. In 2014, the North Coast Water Board adopted the *Policy for the Implementation of the Water Quality Objective for Temperature* (Temperature Policy)[16], Resolution R1-2014-0006. The Temperature Policy directs the North Coast Water Board and its staff to develop and implement permits that prevent, minimize, and mitigate temperature alterations associated with activities that have the potential to reduce riparian shading of waterbodies, increase sediment delivery, alter stream channel geometry, and reduce instream flows or sources of cold water and cold water refugia.

2. Page 28 of the Staff Report[17] for the Temperature Policy contains the following passage:

   Short-term reduction of effective shade associated with fuels reduction projects in riparian areas may be appropriate when the long-term benefits are considered. In such cases, the impacts of vegetation thinning are weighed against the long-term benefits of a riparian ecosystem that is resilient against fire impacts. Similarly, the short-term reduction of shade associated with thinning projects designed to increase the growth rate of retained trees or replace suppressed trees with vigorous saplings may represent an acceptable tradeoff if the project results in increased shade levels in a shorter timeframe. Likewise, a short-term reduction of effective shade associated with efforts to increase deciduous hardwood species in a riparian zone may be appropriate where it can be demonstrated that natural primary productivity levels are suppressed due to a lack of nutrients, leading to a reduced capacity to support beneficial uses, or actions proposed to improve conifer site occupancy in forest stands currently dominated by evergreen hardwoods.

   In each of the situations described above, the North Coast Water Board considers the short-term impacts of the proposed action in light of the site-specific conditions in the affected area. Factors taken into consideration include existing water temperatures relative to biological thresholds, the level of solar radiation increase associated with the project, likely temperature impacts associated with the project, the current capacity for support of beneficial uses, condition of riparian vegetation in adjacent reaches, and the expected amount of time for necessary for riparian recovery.

[16] Information about the Temperature Policy can be found at the following web address: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/temperature_amendment/.

[17] The Temperature Policy Staff Report: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/140516_temp/140327_Temp_Policy_Staff_Report_ADOPTED.pdf.

3. This Order implements the Temperature Policy directives by requiring Federal Agencies to protect and maintain designated riparian zones (Order Condition E.1), describe and justify riparian shade removal activities in Section 6 of the Notice of Intent, and implement site-specific on-the-ground prescriptions to prevent and minimize sediment discharges to watercourses.

4. The Temperature Policy states, "Where non-Water Board programs provide riparian shade that result in attainment of water quality standards, the North Coast Water Board will rely on and incorporate those programs." Refer to Section K of the Order, Federal Guidance, for further information on applicable Federal Agency guidance documents and programs, such as the Northwest Forest Plan's Aquatic Conservation Strategy.

I. Policy in Support of Restoration in the North Coast Region

1. In 2015, the North Coast Water Board adopted the Policy in Support of Restoration in the North Coast Region (Restoration Policy)[18]. The Restoration Policy describes in detail 1) the importance of restoration projects for the protection, enhancement, and recovery of beneficial uses, 2) the obstacles that slow or preclude restoration actions, 3) the legal and procedural requirements for permitting restoration projects, 4) the ongoing North Coast Water Board effort to provide support towards the implementation of restoration projects, and 5) direction to staff to continue to support restoration in the future.

2. This Order supports the goals of the Restoration Policy by promoting the implementation of beneficial aquatic habitat restoration projects, identifying the appropriate permitting pathways for aquatic habitat restoration projects (See Order Finding D.5.a.) and allowing for the implementation of these projects for conformance with the Watershed Assessment and Recovery Program (WARP).

3. This Order promotes the goals of the Restoration Policy through its stated support for the USFS Watershed Conditions Framework, through which national forests develop priority watershed-based strategies to address sources of pollution and conduct aquatic habitat restoration activities.

J. State Water Board Resolution No. 92-49

1. State Water Board Resolution 92-49 sets forth the policies and procedures to be used for investigation and cleanup and abatement activities subject to Water Code section 13304. Resolution 92-49, among other provisions, requires that cleanup and abatement be consistent with State Water Board

[18] Information about the North Coast Water Board's Restoration Program and Policy can be found at the following web address: https://www.waterboards.ca.gov/northcoast/water_issues/programs/Restoration/.

Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality Waters in California (Resolution 68-16) and that dischargers clean up and abate the effects of discharges in a manner that promotes attainment of background water quality or the best water quality that is reasonable if background levels of water quality cannot be restored. To the extent practical and unless regional board oversight is unnecessary, Resolution 92-49 directs regional board oversight of cleanup and abatement activities and appropriate reporting.

2. This Order is consistent with Resolution No. 92-49. Addressing controllable sediment discharges sources is necessary to address both sediment pollution and ecosystem impairment and maintain high quality, unimpaired waterbodies. While past Waivers required CSDS treatment within a given project area, this Order replaces project-level treatment with the WARP. The WARP establishes regulatory requirements to advance the systematic treatment of CSDS across federal lands. WARP requirements will ensure appropriate CSDS treatment that promotes attainment of water quality standards and protection of beneficial uses. Additionally, effective implementation of best management practices and on-the-ground prescriptions coupled with monitoring of their effectiveness will result in the best practicable treatment or control of the discharge, assure that pollution or nuisance will not occur, and that the highest water quality, consistent with maximum benefit to the people of the state, is restored and maintained. The Federal Agencies are required to annually report on CSDS treatment obligations, in addition to other monitoring and reporting requirements under the MRP. Treatment obligations are anticipated to be adjusted over time, as treatments are applied, watershed conditions change, and management activities evolve.

K. California Environmental Quality Act

1. The North Coast Water Board, acting as the lead agency under the California Environmental Quality Act[19] (CEQA), adopted an environmental impact report as part of the development of this Order. Two categorical exemptions are also applicable under title 14, California Code of Regulations sections 15307 and 15308, for certain actions by regulatory agencies to maintain, restore, or enhance natural resources and to protect the environment. Mitigation measures necessary to reduce or eliminate significant impacts on the environment and monitoring and reporting are incorporated as conditions in this Order.

2. The Order may authorize projects that temporarily exceed water quality objectives and/or result in temporary significant impacts. However, the net outcome of the Order requirements (e.g., implementation of best management practices, controllable sediment discharge source treatments,

[19] Public Resources Code, sections 21000-21777.

riparian/shade protections, etc.) are designed to avoid, minimize, or mitigate for any potential environmental impacts.

L. Other State or North Coast Water Board Orders

1. Certain federal land management activities not covered by this Order (Finding D.5) may require a Federal Agency to obtain a separate State or North Coast Water Board permit. Federal Agencies must contact the North Coast Water Board if they are unsure whether certain land management activities require enrollment under other State or North Coast Water Board permits.

2. Discharges covered under this Order may be superseded if the State Water Board adopts specific WDRs or general WDRs to cover specific types of discharge.

3. Federal Agencies must obtain coverage under the statewide Construction Stormwater General Permit for construction projects unrelated to silvicultural activities on federal lands that disturb one or more acres of soil or less than one acre but are part of a larger common plan of development that in total disturbs one or more acres[20].

II. Tribal Consultations and Community Outreach and Engagement

A. Tribal Consultations

1. On July 1, 2022, tribal consultation invitation letters pursuant to Assembly Bill 52 and Executive Order B-10-11 were issued to 58 California Native American Tribes in the North Coast Region (Tribes). The purpose of the consultation invitation letters was to notify Tribes of the development of the Federal Lands Permit and supporting Environmental Impact Report and of opportunity to consult with North Coast Water Board staff on the project.

2. North Coast Water Board staff engaged in government-to-government consultations with seven Tribes and considered recommendations from Tribal representatives in the Federal Lands Permit and supporting Environmental Impact Report development process.

B. Community Outreach and Engagement

1. Water Code section 189.7 requires the Water Boards to conduct equitable, culturally relevant outreach when considering proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged or tribal communities. Water Code section 13149.2 requires the Water Boards to make findings on anticipated water quality impacts in disadvantaged or tribal

[20] Construction Storm Water program information and eligibility requirements may be accessed at the following webpage: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html.

communities as a result of a permitted activity or facility, any environmental justice concerns within a Water Board's authority that are raised by interested persons regarding those water quality impacts, and available measures within the Water Board's authority to address those water quality impacts when adopting water quality control plans; policies for water quality control; regional or statewide waste discharge requirements or waivers; or certain individual waste discharge requirements or waivers.

2. The Federal Lands Permit authorizes federal land management activities that have the potential to discharge waste to waters of the state, and as such, North Coast Water Board staff conducted actions consistent with Water Code sections 189.73 and 13149.2 requirements as part of the development of the Order. All activities undertaken by Federal Agencies must comply with Federal Guidance and applicable federal best management practices (BMPs) for water quality protection identified in Conditions C.2-10 of this Order, which are designed to minimize potential water quality impacts at a given project location and in downstream receiving waterbodies. In some circumstances, however, a Federal Agency's land management activities could cause a significant discharge of waste, such as a landslide or hazardous materials spill, which may have the potential to result in a disproportionate impact to a disadvantaged community or tribal community.

3. North Coast Water Board staff conducted several actions to provide meaningful outreach to disadvantaged communities and tribal governments that could be affected because of the adoption and implementation of this Order, including the following:

    a. Conducted outreach to 57 Tribes in the North Coast Region to provide an opportunity to conduct government-to-government consultations regarding the scope and purpose of the Federal Lands Permit and its supporting CEQA analysis.

    b. Held government-to-government consultations with seven Tribes over a six-month period to receive input on the overall structure of the Order, listen to any concerns regarding the activities covered through the permit, and modify its requirements as necessary.

    c. Conducted two CEQA public scoping meetings in Fall 2022 with facilitation assistance from the State Water Board's Office of Public Participation.

    d. Held a public workshop in April 2024, during the extended public review period, to provide an opportunity for communities of interest to learn about the draft Order and allow for written or verbal comments.

    e. Held a public hearing in August 2024, including an opportunity for members of the public to provide written and oral statements to the North Coast Water Board as its members consider adoption of the Order.

4. Following Order adoption, all projects proposed to be enrolled under the Federal Lands Permit – except for some emergency actions taken through a categorical exclusion – will go through a public review and comment process administered by the federal agency conducting the activity. Additionally, North Coast Water Board staff will consider, on a project-by-project basis, whether additional outreach is appropriate. If North Coast Water Board staff determine that a land management activity poses an elevated risk to a community based on project characteristics (e.g., size, activity type, landscape condition, or beneficial use sensitivity), they will engage with and seek input from those potentially affected communities in advance of enrollment under the Federal Lands Permit.

III. Federal Agency-Specific Findings

A. United States Forest Service

1. In 1981, the State Water Board signed a Management Agency Agreement with the USFS Pacific Southwest Region. In the Management Agency Agreement, the USFS proposed a BMP manual and the accompanying BMP Effectiveness Program to control nonpoint source discharges on National Forest lands. The State Water Board reviewed and accepted the BMP manual and BMP Effectiveness Program and designated the USFS as a Water Quality Management Agency[21], pursuant to CWA Section 208. From 1981 until the adoption of the 2004 Nonpoint Source Policy nonpoint source discharges on National Forest lands were addressed through the administration of the Management Agency Agreement. Implementation of the North Coast Water Board nonpoint source permitting program on Federal lands in 2004 largely superseded the Management Agency Agreement as the primary federal nonpoint source pollution control program in the North Coast Region.

B. Bureau of Land Management

1. With the passage of the Federal Land Policy and Management Act in 1976, Congress directed the BLM to retain most remaining public lands in the United States. These lands included many undesirable Homestead Act tracts, which are noncontiguous, scattered, and isolated tracts that are difficult or uneconomic to manage. Many of the BLM lands in the North Coast Region follow this land area and distribution pattern. The Order and Monitoring and Reporting Program acknowledge the unique land management challenges

[21] Background information on the designation of the USFS as a Water Quality Management Agency may be accessed at the following webpage: https://www.fs.usda.gov/detail/r5/landmanagement/resourcemanagement?cid=stelprdb5352594 .

presented to the BLM by the nature of these lands and aims to help facilitate productive water quality protection and monitoring as feasible.

C. National Park Service

1. The NPS and California Department of Parks and Recreation, in partnership with the Save the Redwoods League, collectively called the Redwoods Rising Collaborative, initiated two projects in Redwood National and State Parks – the Greater Prairie Creek Ecosystem Restoration and Greater Mill Creek Ecosystem Restoration Projects – to rehabilitate the Prairie and Mill Creek Watersheds and restore ecosystem processes that have been degraded by historical land use. These projects intend to accelerate development of forest characteristics more typical of late-seral forests, prevent and minimize further chronic and catastrophic sediment inputs to watercourses, and enhance aquatic species habitat. These projects commenced in 2020 and will be implemented over 30 to 35 years.

2. The Greater Prairie Creek Ecosystem Restoration and Greater Mill Creek Ecosystem Restoration Projects contain both federal and state lands within Redwood National and State Parks. State lands within the project areas are eligible for coverage under the Federal Lands Permit due to the 1994 Memorandum of Understanding between the NPS and California Department of Parks and Recreation, which established the cooperative management of the state and federal lands within Redwood National and State Parks[22].

D. Federal Guidance

1. The following Federal Guidance documents apply to all Federal Agencies.

   a. National Environmental Policy Act (1969) – requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.

   b. Administrative Procedures Act (1946) – provides a framework for how federal agencies develop and issue projects and regulations.

   c. Clean Water Act (1972) – establishes the basic structure for regulating discharges of pollutants into waters of the United States and regulating quality standards for surface waters. The Clean Water Act delegates implementation authority to individual states.

[22] Appendix C of the Redwood National and State Parks General Plan – 1994 National Park Service and California Department of Parks and Recreation Memorandum of Understanding for the Cooperative Management of Redwood National and State Parks: https://www.parks.ca.gov/pages/21299/files/GMP.pdf.

d. Federal Land Policy and Management Act (1976) – establishes public land policy and establishes guidelines for its administration.

e. Wilderness Act (1964) – established to preserve and protect certain federal lands "in their national condition" and thus "secure for present and future generations the benefits of wilderness."

2. The USFS and BLM must comply with the policy and associated documents identified below as Federal Guidance documents.

3. The Northwest Forest Plan, including the Aquatic Conservation Strategy and its management objectives, (1994) – requires the USFS and BLM to "Meet or exceed State water quality standards and protect designated beneficial uses[23]."

4. The USFS must comply with the policies and documents identified below as Federal Guidance documents.

   a. National Forest Land and Resource Management Plans – guide natural resource management activities and decision-making and establish standards/guidelines for each National Forest.

   b. USFS Pacific Southwest Region Forest Service Handbook 2509.22 – Soil and Water Conservation Handbook (2011) – provides guidance for protection and improvement of water quality on National Forest System lands in California.

   c. USFS publication FS-977, Watershed Condition Framework (2011) – a comprehensive approach for proactively implementing integrated restoration on priority watersheds on National Forests and grasslands.

   d. USFS Manual, Chapter 2020 (2008) – provides a policy for using ecological restoration in the management of NFS lands, further supporting watershed analysis and restoration, and the ACS.

   e. USFS 2012 Planning Rule for National Forest System Lands (2012) – requires all National Forest Land and Resource Management Plans to include components to maintain or restore the structure, function, composition, and connectivity of aquatic ecosystems and watersheds in the Plan area, considering potential stressors, including climate change, how they might affect ecosystem, and watershed health and resilience.

   f. USFS National Best Management Practices for Water Quality Management on National Forest System Lands, Volume 1, FS-990a (2012) – a nonpoint source pollution control program aimed at restoring

[23] Northwest Forest Plan Final Supplemental EIS, Appendix B, page B-12.

and maintaining the chemical, physical, and biological integrity of the Nation's waters located within or near the National Forests and grasslands.

5. The BLM must comply with the policies and documents identified below as Federal Guidance documents.

    a. Field Office or Joint Field Office Resource Management Plans – establish goals and objectives to guide future land and resource management actions implemented by the BLM.

    b. Best Management Practices for Water Quality, BLM California (2022) – incorporates Best Management Practices for BML Field and District Offices in California to aid in compliance with the federal Clean Water Act and Porter-Cologne Water Quality Control Act.

6. The NPS must comply with the policies and documents identified below as Federal Guidance documents.

    a. General Management Plans – ensure that each NPS area has a defined direction for resource preservation and visitor use, focuses on why the area was established, and what resource conditions and visitor experiences should be achieved and maintained over time.

7. The USFS and BLM must implement and comply with the Aquatic Conservation Strategy, Aquatic Management Strategy, and the Riparian Reserve program[24] to prevent, minimize, and mitigate sediment discharges by following the appropriate BMPs and standard erosion control techniques for activities adjacent to streams and drainages or other locations or situations where potential for discharge exists.

[24] The Aquatic Conservation Strategy, Aquatic Management Strategy, and Riparian Reserve program are included in the Northwest Forest Plan, which only applies to the USFS and BLM.

Federal Lands Permit

Attachment H
Glossary of Terms and Acronyms

This document contains definitions of terms and acronyms commonly used in the Federal Lands Permit Order and Monitoring and Reporting Program. Underlined words identify terms that are defined elsewhere in this document. Footnotes identify where legal definitions or further discussion of terms may be found and/or other additional information.

I. TERMS

1. **Activities** – Types of actions conducted by Federal Agencies that are covered by the Order. Activities include fuel management, timber harvest, road construction, livestock grazing, and other actions conducted by Federal Agencies or contractors on federal lands. A Federal Agency project may include one or many different activities. This Order covers discharges of waste from Category A activities that may pose a low risk to water quality and Category B activities that may pose a moderate risk to water quality[1].

2. **Adaptive Management** – A management approach that involves implementing a management strategy, closely monitoring its effects, and then adapting future actions based on the observed results. The goal of adaptive management is to apply management measures, learn from the implementation of those management measures, and revise them as necessary to achieve management objectives.

3. **Administrative Unit** – A subdivision of a larger Federal Agency, such as an individual National Forest, a Bureau of Land Management Field Office, or a National Park or National Monument.

4. **Aquatic Habitat Restoration** – Activities generally associated with stream channel and floodplain habitat improvements, large wood augmentation, fish-migration barrier removal, treatment of invasive plant species, wetland enhancement, and forest rehabilitation. These activities are restorative in nature and are designed to enhance the structure and function of aquatic habitat conditions, improve the riparian zone, and reduce long-term erosion and

[1] See Findings D. 1-7 on pages 7-11 in the Order for further discussion of *activities* eligible for Federal Lands Permit coverage.

sedimentation[2]. The State Water Resources Control Board and North Coast Water Board maintain separate general permits to authorize aquatic habitat restoration projects, including the (1) General Water Quality Certification for Small Habitat Restoration Projects and (2) the Statewide Restoration General Order. Administrative Units should contact the North Coast Water Board for guidance regarding which permit is best suited for a given aquatic habitat restoration project.

5. **Authorized Representative** – A person that is authorized by the appropriate Federal Agency to sign reports, monitoring forms, or other documents required by the Order and Monitoring and Reporting Program for submittal to the North Coast Water Board.

6. **Beneficial Uses** – Uses of water that benefit humans, aquatic ecosystems, and/or the environment. The North Coast Water Board identifies the specific beneficial uses of water that apply to each watershed and develops approaches to ensure those beneficial uses of water are protected against degradation of quality. Examples of beneficial uses include, but are not limited to, domestic, municipal, agricultural, and industrial supply; recreation; aesthetic enjoyments; navigation; Native American cultural use, subsistence fishing, and preservation and enhancement of fish, wildlife, and other aquatic resources and preserves. Beneficial uses of waters of the state within the North Coast Region are listed in the Water Quality Control Plan for the North Coast Region[3].

7. **Best Management Practices (BMPs)** –Tools or a combination of tools to control water pollution by managing the sources from which pollutants are released and/or treating pathways that have become polluted through the implementation of physical structures, land management techniques, or natural processes.

8. **California Environmental Quality Act (CEQA)** – A California law that requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects and to reduce those environmental impacts to the extent feasible. The Federal Lands Permit is supported by an environmental analysis referred to as an Environmental Impact Report to comply with the requirements of the California Environmental Quality Act.

[2] See Order Finding D.5.a on page 9 of the Order for guidance on aquatic habitat restoration permitting.
[3] See Chapter 2 of the Water Quality Control Plan for the North Coast Region, *Beneficial Uses*, for additional discussion: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/083105-bp/03_bu.pdf.

9. **Category A Activities** – A set of activities determined by the North Coast Water Board to pose a low risk to water quality, such as Christmas tree harvest, routine road maintenance, etc.[4]

10. **Category B Activities** – A set of activities determined by the North Coast Water Board to pose a moderate risk to water quality, such as most commercial timber harvest, vegetation treatments within riparian reserves, etc.[5]

11. **Controllable Sediment Discharge Source (CSDS)** – Any location that meets all the following conditions:

    a. is discharging or has the potential to discharge sediment to waters of the state in violation of applicable water quality requirements;

    b. was caused or affected by human activity; and

    c. may feasibly and reasonably respond to prevention and minimization management activities.

    The term "controllable sediment discharge source" replaces the term "legacy sediment site" which was previously used in the 2010 and 2015 Waivers. The criteria for what constitute a legacy sediment site and controllable sediment discharge source is identical. The purpose of this administrative change is to eliminate the word "legacy" from the term, since non-legacy sources (i.e., those caused by recent activities) can also meet the controllable sediment discharge source criteria[6].

12. **Corrective Actions** – Actions taken to address existing or threatened discharges of waste. Includes, but is not limited to, actions to address:

    a. deficient or improperly installed BMPs;

    b. impacts to water quality resulting from operations; and

    c. sites identified during monitoring and/or by North Coast Water Board staff that pose an existing or potential threat to water quality.

13. **Determination of National Environmental Policy Act (NEPA) Adequacy** – A Federal Agency determination that a proposed action is adequately analyzed in an existing NEPA document. A Determination of NEPA Adequacy is a means by which an existing NEPA analysis is used to cover a proposed action without doing any additional NEPA.

[4] See Attachment A for the list of Category A activities.
[5] See Attachment B for the list of Category B activities.
[6] See Findings E.2-7 on page 11-13 in the Order for further discussion of *controllable sediment discharge sources.*

14. **Discharge of Waste** – Waste that is currently entering, or as determined based upon visible physical conditions may immediately enter, surface waters in quantities that violate Water Quality Objectives or result in significant individual or cumulative adverse impacts to the beneficial uses of waters of the state.

15. **Discrete Stream Side Features** – Erosion features in grazing allotments that exceed 1 cubic yard of sediment delivery and appear to be related to large ungulate activity.

16. **Emergency** – A situation on federally managed lands for which an immediate action is necessary to protect human life or property. Includes wildfires, floods, debris flows, etc.

17. **Federal Agencies** – Federal land management agencies in the North Coast Region that the Order and Monitoring and Reporting Program applies to, primarily including the United States Forest Service, Bureau of Land Management, and National Park Service. The Bureau of Reclamation, Army Corps of Engineers, U.S. Fish and Wildlife Service, and the U.S. Coast Guard also manage land in the North Coast Region, but the types of activities conducted on these federally managed lands differ from those conducted by the USFS, BLM, and NPS, and therefore are not specifically described in this Order[7].

18. **Federal Guidance Documents** – Federal policies, planning frameworks, and other documents that guide project and program planning, development, and implementation to manage natural resources on federal lands. Federal Guidance Documents may apply to one or more Federal Agencies (e.g., the Northwest Forest Plan) or may be Federal Agency-specific (e.g., individual National Forest Plans or Bureau of Land Management Field Office Resource Management Plans). The Order requires Federal Agencies to comply with applicable Federal Guidance Documents as identified and described in Attachment G Section III.D.

19. **Forage Utilization** – The proportion or degree of current year's forage production that is consumed or destroyed by grazing animals (including insects). Utilization is determined by comparing the amount of forage left with the amount of forage produced during the year.

20. **Grazing Permit** – A grazing permit is a written permit authorization by a Federal Agency that allows the private parties to graze their livestock and conduct incidental activities (e.g., camps, water troughs, temporary corrals, herding, livestock loading and unloading) on federal lands.

[7] These other agencies can apply for coverage as needed when conducting activities covered by this Order. Please see Findings B.3 on page 4 in the Order for additional information.

21. **Key Area –** A key area is a portion(s) of the range, which, because of its location, grazing or browsing value, and/or use serves as an indicative sample of range conditions, trend, or degree of use seasonally. A key area guides the general management of the entire area of which it is part. General criteria for identifying a key area include the following:
    a. Is located in suitable range and is permanently marked.
    b. Is representative of the primary range and sensitive to changes in livestock management.
    c. Guide the manager in determining if standards and guidelines are being met and/or desired conditions are being met.
    d. Is a critical area where use must be closely monitored because of forest plan requirements, such as riparian areas or areas where threatened, endangered, or sensitive species may occur.
    e. May be a reference point that is sensitive to management changes. These include small areas where long-term trend studies are installed and maintained so that the manager can assess the resource impacts from management.

22. **Management Measure** – Refers to best management practices, project design features, on-the-ground prescriptions, or any other protection measures taken for the prevention or minimization of discharges of waste to waters of the state or other environmental impacts.

    a. Best management practices are management measures that are general and must be considered in NEPA project planning.
    b. Project design features are management measures applied at the NEPA project-scale to comply with or implement a best management practice.
    c. On-the-ground prescriptions are project design features that are specific to the condition and treatment requirements of individual sites within a project.

23. **Manual Treatment** – The use of only hand tools (mechanical or gas-powered) to implement project activities, such as the manual treatment of fuels (i.e., hand thinning).

24. **Mature Stream Bank Trees** – Any tree located on a streambank that contributes to streambank stabilization and its removal may result in discharge of sediment

and/or streambank destabilization[8].

25. **National Environmental Policy Act (NEPA)** – Requires Federal Agencies to assess the environmental effects of proposed major federal actions prior to making decisions.

26. **Nonpoint Source Pollution** – Pollution that occurs when rain, snowmelt, or other sources of runoff moves over or through the land picking up and carrying natural or human-made pollutants and discharges them to surface waters.

27. **On-The-Ground Prescription** – Protection measures taken to implement what a Project Design Feature or Best Management Practice sets out as a requirement. On-The-Ground Prescriptions are rarely included in a project NEPA document; these prescriptions are typically written at the sale or contract phase of project implementation.

28. **Operations** – Project implementation involving ground disturbing activities requiring permit coverage. A variety of operations may occur to achieve the objectives of a single management activity (e.g., vegetation management activities may include timber harvesting operations, thinning operations, manual fuel treatments, prescribed burning operations, etc.).

29. **Porter-Cologne Water Quality Control Act** – The principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. It applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution[9].

30. **Pesticide** – Any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever, spray adjuvant, or breakdown products of these material that threaten beneficial uses.

31. **Pollutant** – Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

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[8] See the "Staff Report Supporting the Policy for the Implementation of the Water Quality Objectives for Temperature…" for additional discussion of mature streambank trees: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/140516_temp/140327_Temp_Policy_Staff_Report_ADOPTED.pdf.

[9] The Porter-Cologne Water Quality Control Act may be reviewed here: https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf.

32. **Project** – An entire NEPA planning area in which certain land management activities are proposed to occur. There may be multiple "sub-projects" such as individual timber sales within the NEPA planning area but under this Order the entire NEPA planning area is considered as an individual project. Eligible activities analyzed and conducted by tiering from an existing NEPA document, such as a Determination of NEPA Adequacy, are also considered a project and must comply with the conditions of this Order and Monitoring and Reporting Program[10].

33. **Project Design Features** – Resource protection measures developed by resource specialists to minimize or prevent any adverse environmental effects from project implementation and are incorporated into project documents (including NEPA) that guide project implementation. Project Design Features are incorporated into sale contracts and typically articulate the general, Federal Agency standard best management practices into more project-specific conditions.

34. **Properly Functioning Condition** – Proper functioning condition (PFC) is a qualitative method developed by the U.S. Bureau of Land Management and U.S. Forest Service to assess the condition of riparian-wetland areas based on hydrology, vegetation, and erosion/deposition (soils) attributes.

35. **Riparian Zone and Riparian Area** – Lands along the edges of waterbodies where soils, vegetation, and ecosystems are influenced and supported by the presence of water. Riparian zones (and areas) benefit water quality and ecosystems by supplying shade, habitat, shelter, and food to aquatic and terrestrial species, regulating water temperatures, filtering sediment and other pollutants from runoff, contributing to stream bank stabilization, and more.

36. **TMDL Implementation Strategy** – may include, but is not necessarily limited to, an existing TMDL Action Plan, waste discharge requirements, and waivers of waste discharge requirements that have been adopted by the North Coast Water Board.

37. **Site-Specific Potential Effective Shade** – The shade equivalent to that provided by topography and potential vegetation conditions at a site[11].

[10] See Findings D.2-9 and Conditions A.1-B.10 for project planning and enrollment requirements.

[11] For further discussion of site-specific potential effective shade, see the "Staff Report Supporting the Policy for the Implementation of the Water Quality Objectives for Temperature…": https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/140516_temp/140327_Temp_Policy_Staff_Report_ADOPTED.pdf.

38. **Waste** – Products or materials that enter or threaten to enter waters of the state that may adversely affect the condition of water quality or impact beneficial uses of the receiving waters. Waste is further defined in California Water Code section 13050[12] as "Sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal."

39. **Waste Discharge Requirements** – Regulatory requirements imposed by the State Water Resources Control Board or a Regional Water Quality Control Board to regulate the discharge of waste from anthropogenic activities to waters of the state[13].

40. **Watercourse** – Any location with a defined bed, bank, and channel where water naturally flows, such as rivers or streams. Under the Order there are three watercourse classifications as defined below:

    a. **Perennial Watercourse** – A watercourse that has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

    b. **Intermittent Watercourse** – A watercourse that has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent watercourses may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

    c. **Ephemeral Watercourse** – A watercourse that has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall or snowmelt are the primary sources of water for stream flow.

41. **Watershed Assessment and Recovery Program (WARP)** – The WARP is a program that establishes regulatory requirements in the Order and Monitoring and Reporting Program for the USFS, BLM, and NPS to advance the treatment

[12] Water Code section 13050 may be reviewed here: https://casetext.com/statute/california-codes/california-water-code/division-7-water-quality/chapter-2-definitions/section-13050-definitions#:~:text=(d)%20%22Waste%22%20includes,nature%20prior%20to%2C%20and%20for.

[13] Please see page 82 of the Porter-Cologne Water Quality Control Act for further discussion of Waste Discharge Requirements: https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf.

of controllable sediment discharges sources over time. The WARP relies on a performance-based credit system developed for each Administrative Unit based on the water quality conditions and land management activities of its lands.

42. **Waters of the State** – Any surface water or groundwater, including saline waters, within the boundaries of the State of California. Broadly includes all waters within California's boundaries, whether private or public, including waters in both natural and artificial channels. Waters of the state encompass all Waters of the United States and more.

43. **Waters of the United States** – Oceans, rivers, streams, lakes, creeks, marshes, and wetlands considered "jurisdictional" under the Clean Water Act and are within the regulatory jurisdiction of the United States Army Corps of Engineers.

44. **Water Quality** – The chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its beneficial uses.

45. **Water Quality Control Plan for the North Coast Region (Basin Plan)** – The North Coast Regional Water Quality Control Board's primary regulatory and planning document, which designates or establishes all the following for the waters within a specified area:

    a. beneficial uses of water to be protected;
    b. water quality objectives to protect beneficial uses; and
    c. implementation programs to achieve water quality objectives.

46. **Water Quality Objectives** – The limits or levels of water quality constituents or characteristics (e.g., sediment, turbidity, temperature, bacteria, etc.) which are established and required to reasonably protect beneficial uses of water, or the prevention of nuisance within a specific area, as described in the Basin Plan for the North Coast Region.

47. **Wetlands** – An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation. Wetlands generally include swamps, marshes, bogs, fens, and wet meadows, although the Water Boards also include streams, river, and lakes under the state wetland definition.

48. **Winter Period** – The period when prolonged or regular precipitation occurs and when saturated road conditions normally exist, or roads become inaccessible

due to wet weather or snow. There is no definitive date associated with the winter period as the timing may fluctuate depending on the geographic location, but in the North Coast Region, the winter period generally occurs from mid-October through mid-April.

II. ACRONYMS

1. **AOI** – Annual Operating Instructions
2. **BAER** – Burned Area Emergency Response
3. **BLM** – Bureau of Land Management
4. **BMP** – Best management practice
5. **CEQA** – California Environmental Quality Act
6. **CFR** – Code of Federal Regulations
7. **CSDS** – Controllable sediment discharge source
8. **CWA** – Federal Clean Water Act
9. **EA** – Environmental Assessment
10. **EIR** – Environmental Impact Report
11. **FERC** – Federal Energy Regulatory Commission
12. **FO** – Bureau of Land Management Field Office
13. **HUC** – Hydrologic Unit Code
14. **MRP** – Monitoring and Reporting Program
15. **NEPA** – National Environmental Policy Act
16. **NF** – National Forest
17. **NM** – National Monument
18. **NOI** – Notice of Intent
19. **NOT** – Notice of Termination
20. **NP** – National Park
21. **NPDES** – National Pollutant Discharge Elimination System
22. **NPS** – National Park Service
23. **USFS** – United States Forest Service
24. **WARP** – Watershed Assessment and Recovery Program