

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 Nonpoint Source Discharges Related to Certain 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 Order 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 Sections I, II, VI, and X apply to those agencies. Please refer to Order Finding B.3 and Condition 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 Best Management Practices (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.

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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

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Reporting Intervals: O – Ongoing, A – Annual Report, 5-yr – Five-Year Report, SR – Submit 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 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 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

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- 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 (Attachment D), 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 if a discharge of earthen material, petrochemicals, or other waste from an anthropogenic source (such as a road-related failure or streambank erosion on grazing allotments) 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. Administrative Units must submit a Discharge Notification to the North Coast Water Board following a naturally occurring discharge event¹ (e.g., large hillslope or streamside landslides) that has significantly impacted or threatens to cause significant impacts to water quality.
 - c. 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

¹Although federal agencies may not be responsible for these naturally occurring discharges, the Discharge Notification will provide Federal Agency and North Coast Water Board staff with opportunity to contemplate timely and potential response actions, including notifying or coordinating with any impacted communities or other agencies.

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- 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;

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- 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 April 15, 2025.
 - 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

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- 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. The WARP establishes regulatory requirements for the USFS, BLM, and NPS to advance the treatment of controllable sediment discharge sources (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. 8-18, 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

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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; and
 - 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 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 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

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- 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, following ground-disturbing activities, and prior to the start of the period when Wet Weather Operation standards and guidelines are in effect. The Normal Operating Season and Wet Weather Operation

- 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

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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 height² monitoring³ 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.
 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 20 percent of the active Category B grazing allotments (up to a maximum of 4 evaluations) annually and either:
 - i. Conduct a CRAM⁴ 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 AOIs authorized stocking rates, seasons of use, allotment boundaries, and maintenance of structural range improvement terms are within the terms and conditions of grazing permits.

² BLM TR 1737 23, Multiple Indicator Monitoring,

³ Greenline stubble height monitoring adjacent to streams would satisfy this requirement.

⁴ [California Rapid Assessment Method \(CRAM\) | San Francisco Estuary Institute \(sfei.org\)](https://www.sfei.org/projects/california-rapid-assessment-method-cram)
<https://www.sfei.org/projects/california-rapid-assessment-method-cram>

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- 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. If issues are identified and not addressed through modifications to AOIs or through the implementation of management measures, the National Forest shall describe those conditions in the Annual Report.

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 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 of apparent water quality impacts, supported by complaints from communities of interest, and/or conflicting assessments regarding sufficient grazing management practices. Indicator Bacteria Monitoring will be utilized 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 Executive Officer may require it on a case-by-case basis.
- b. The 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 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:

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- 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 North Coast Water Board.
 2. A location at least 200 meters upstream of the location identified in Section VII. D.2.b.i.1.
 3. A location at least 200 meters downstream of the location identified in Section VII. D.2.b.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.
- c. If the identified monitoring location is along the border of a waterbody:
- i. The Administrative Unit must consult with North Coast 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.D.2.b.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;

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- ii. identification of the methods used to evaluate E.coli concentrations, pursuant to 40 CFR 136.3⁵;
- iii. receipt of submission of results to CIWQS or the United States Environmental Protection Agency’s (U.S. EPA’s) 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 Plan⁶; and
- 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.

⁵ [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)
[https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136/section-136.3.](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136/section-136.3)

⁶ [2019 ISWEBE Bacteria Provisions \(ca.gov\)](https://www.waterboards.ca.gov/bacterialobjectives/docs/bacteria.pdf#page=3)
[https://www.waterboards.ca.gov/bacterialobjectives/docs/bacteria.pdf#page=3.](https://www.waterboards.ca.gov/bacterialobjectives/docs/bacteria.pdf#page=3)

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) are currently involved in ongoing in-channel monitoring activities that may satisfy the requirements of the Federal Lands Permit as described in Attachment C1, Section II.A-C.
2. Any new or supplemental in-channel monitoring program should be developed to meet the goals and objectives identified in Attachment C1. If supplemental monitoring protocols are being developed for the purpose of informing waterbody impairment listing or delisting decisions, the Administrative Unit or Federal Agency should develop the program to conform with the State Water Resources Control Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy), which was amended in February 2015.
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.

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4. Following procedures established by the Listing 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 303(d) 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. Monitoring protocols such as the U.S. EPA's National Rivers and Stream Assessment (NRSA)⁷, California's Surface Water Ambient Monitoring Program (SWAMP)⁸, or the U.S. Forest Service's Aquatic and Riparian Effectiveness Monitoring Program (AREMP)⁹, are compatible with the state's California Environmental Data Exchange Network (CEDEN) and are prioritized protocols for Clean Water Act Section 303(d) listing and delisting purposes. Other monitoring protocols can also be conducted to provide supporting lines of evidence for 303(d) List decision making but are not data compatible with CEDEN. Examples of non-compatible monitoring data includes that generated through the California Rapid Assessment Method (CRAM), Stream Condition Index (SCI), or individual monitoring programs developed through a Quality Assurance Project Plan pursuant to the requirements of 40 CFR 31.45.
6. New proposed in-channel monitoring programs 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. New proposed monitoring programs shall describe the spatial extent and frequency of monitoring events and must be developed in conjunction with North Coast Water Board staff for final review and approval by the Executive Officer.
7. 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.

⁷ USEPA, National Rivers and Streams Assessment: <https://www.epa.gov/national-aquatic-resource-surveys/nrsa>.

⁸ Surface Water Ambient Monitoring program (SWAMP) https://www.waterboards.ca.gov/water_issues/programs/swamp/bioassessment/.

⁹ Aquatic and Riparian Effectiveness Monitoring Plan (AREMP) <https://www.fs.usda.gov/r6/reo/monitoring/watersheds.php>.

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8. Based on changed watershed conditions or other unforeseen factors, the Executive Officer may require additional in-channel monitoring requirements.
9. Monitoring
 - a. The USFS, BLM, and NPS, and/or their contractors must continue to implement or support activities associated with the existing in-channel monitoring programs described in Attachment C1.
 - b. The USFS Regional Office can be responsible for managing the activities associated with the approved in-channel monitoring program on behalf of the National Forests.
10. Reporting (Five-Year Report)
 - 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). Summary reports prepared for purposes other than Federal Lands Permit compliance that include similar types of information (e.g., AREMP Five-Year Monitoring Reports and NRSA reporting) may be submitted to meet this requirement.
 - c. Five-Year Reports may include trend analyses (if applicable).
 - d. Each federal agency must routinely submit their data from the monitoring programs described in Attachment C1 for each 5 year reporting interval to a publicly accessible database such as the California Environmental Data Exchange Network (CEDEN) or the U.S. 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 six months following permit adoption.
 - b. The description of the temperature monitoring must contain at least:

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- i. a description of the methods utilized;
 - ii. a map or maps showing the locations of all sampling sites; and
 - 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 within six 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 U.S. EPA Temperature Water Quality Standards¹⁰.

X. CEQA MITIGATION MONITORING AND REPORTING PROGRAM COMPLIANCE

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)

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

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- 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.