

**IMPLEMENTATION, FORENSIC AND EFFECTIVENESS  
MONITORING AND REPORTING PROGRAM FOR INDIVIDUAL DISCHARGERS  
UNDER  
WAIVER OF WASTE DISCHARGE REQUIREMENTS  
FOR DISCHARGES RELATED TO TIMBER HARVEST ACTIVITIES**

The Water Board in this Monitoring and Reporting Program (MRP) Order requires visual field monitoring pursuant to Water Code Sections 13267 and 13269(a)(2). All dischargers conducting timber harvest activities enrolled under Waiver Categories 2 through 5 shall comply with this MRP Order unless the Executive Officer imposes an individual Monitoring and Reporting Program. Projects enrolled under Waiver Category 5, United States Forest Service (USFS) projects may rely on the Best Management Practice Evaluation Program (BMPEP) to satisfy portions of this MRP. **Unless specifically ordered in writing by the Executive Officer, persons conducting timber harvest activities enrolled under Waiver Category 1a, or conducting harvest of individual hazard trees, do not have any monitoring requirements. Projects enrolled in Waiver Categories 1b and 1c need only submit a final project certification that confirms that the project met the criteria contained in the project submittal.**

This Monitoring and Reporting Program has been developed to assure compliance with the requirements of the Water Quality Control Plan for the Lahontan Region (Basin Plan) and to verify the adequacy and effectiveness of the Waiver's conditions.

**I. APPLICABILITY AND DEFINITION OF TERMS**

Each discharger enrolled in Waiver Categories 2 through 5 must develop an inspection plan (specific water quality protection measures and points of inspection may be identified in a THP or environmental document) and conduct the type of monitoring as described below. All monitoring must be conducted by qualified professionals<sup>1</sup>.

**A. Implementation Monitoring** - Dischargers shall conduct Implementation Monitoring for all activities enrolled in Categories 2 through 5.

**B. Effectiveness and Forensic Monitoring** – Dischargers shall conduct Forensic and Effectiveness Monitoring, **in addition to Implementation Monitoring**, for the following: (1) Waiver Category 2; (2) Waiver Category 3 and 4 THPs, NTMPs and plans; and (3) Waiver Category 5 timber sales or projects. The USFS will collaborate with Water Board staff to determine which projects may use the BMPEP to satisfy effectiveness and forensic monitoring requirements.

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<sup>1</sup> "Qualified professional" means a person with the appropriate training and/or licensing to prepare technical reports designed to prevent or minimize the discharge of waste to waters and to conduct site inspections.

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Dischargers conducting timber harvest activities under Waiver Categories 2, 3, 4, and 5, that meet **all** the following criteria will **not** be required to conduct Effectiveness and Forensic Monitoring:

- No constructed or re-constructed Class I, II or Class IV (with domestic use) watercourse crossings are used.
- No ground based equipment operations are carried out within Class I, II or IV (with domestic use) watercourse protection zones including stream environment zones (SEZs) within the Lake Tahoe hydrologic unit.
- No winter operations are done within any Class I, II or IV (with domestic use) watercourse protection zones or on areas classified high or extreme erosion hazard rating.
- No road construction or re-construction is done within 500 feet of a Class I, II or IV (with domestic use) watercourse including SEZs within the Lake Tahoe hydrologic unit.
- No landing construction or re-construction is done within Class I, II, III, or IV (with domestic use) watercourse protection zones including SEZs within the Lake Tahoe hydrologic unit.
- No heavy equipment operations are carried out in areas classified High or Extreme Erosion Hazard Rating for potential to impact water quality.
- No "in-lieu" or "alternative" practices are carried out that have potential to impact water quality.
- No ground-based equipment is used on slopes over 65 percent or slopes over 50 percent classified as High or Extreme Erosion Hazard Rating;
- No ground-based equipment is used on slopes over 30 percent in the Lake Tahoe basin.

Note: Federal projects (Waiver Category 5) must meet the above criteria as defined in the California Forest Practice Rules (14 CCR 895.1) to be excluded from the Forensic and Effectiveness Monitoring requirements.

## II. INSPECTION PLAN

All dischargers enrolled under Waiver Categories 2-5 shall prepare and implement an Inspection Plan for conducting implementation, forensic, and effectiveness monitoring. This Inspection Plan must be submitted with the Waiver application. Approved THPs and USFS project documents that describe specific water quality protection measures and locations do not need to submit an inspection plan with the Waiver application.

The Inspection Plan shall be designed to ensure that the management measures are installed and functioning prior to precipitation events (Implementation monitoring), that the measures were effective in controlling sediment discharge sources throughout the winter period (Effectiveness monitoring), and that no new sediment sources occur as a result of project implementation (Forensic monitoring).

The Inspection Plan shall include a monitoring point site map, with all visual and photo monitoring points labeled. Monitoring points are described as follows:

- *Visual Monitoring Points* - Visual monitoring points are locations where observations are made regarding water quality protection and prevention of sediment transport. These locations include roads, watercourse crossings, landings, skid trails, water diversions, known or suspected landslides, sediment sources, and all accessible watercourse confluences.
- *Photo-Point Monitoring Points* – Photo-point monitoring points shall be labeled on the monitoring point site map and shall be identified in the field by use of rebar, flagging or other method that will last throughout the active discharge period of the proposed project. Forensic photo-point monitoring shall include photos of sediment sources and streambed conditions immediately downstream of areas where sediment discharge occurred. Monitoring points for Category 3 (nonfederal lands) or Category 5 (federal lands) may be determined during the pre-harvest inspection when Water Board staff is present. Authorized individuals other than the RPF may conduct photo monitoring (i.e. the landowner, a forestry technician, a fire safe council agent, etc.).

Inspection Plans shall be maintained and updated as needed by the discharger and/or agents thereof. Updated Inspection Plans shall be submitted to the Water Board upon request, in writing, by Water Board staff. Materials submitted to the Water Board are available to the public for review.

### III. SITE INSPECTION SCHEDULE

**The Lahontan Regional Water Board has created an inspection form (attached) for a discharger's use** in conducting Implementation, Forensic, and Effectiveness monitoring. This form is a pdf file, and is available at the following internet URL:

[http://www.waterboards.ca.gov/lahontan/WDRs/Timber\\_WDR\\_Index.htm](http://www.waterboards.ca.gov/lahontan/WDRs/Timber_WDR_Index.htm)

This form is also available through the Water Board office. Dischargers must use this form or an equivalent report that contains the information required by this MRP.

#### **Implementation Monitoring**

For those sites that have been identified as photo monitoring points prior to project startup, pre-project photos shall be taken to facilitate comparison of pre- and post-project site conditions.

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Implementation monitoring (visual observations and photo monitoring) shall be conducted concurrent with the startup of timber harvest activities and shall continue throughout the project area until timber harvest activities cease.

Implementation monitoring shall be conducted as follows:

- *Prior to Commencement of Timber Harvest Activities* - Conduct pre-project photo point monitoring.
- *Where Timber Harvest Activities Have Commenced and No Winter Operations Are Planned* - A pre-winter Implementation inspection shall be completed **after August 15 but not later than November 15 of each year** to assure that management measures are in place and secure prior to the winter period.
- *Where Timber Harvest Activities Have Commenced and Winter Operations are Planned* - A pre-winter implementation inspection shall be completed **after October 1 but not later than November 15 of each year** to assure that management measures for areas not subject to winter operations are in place and secure prior to the winter period. An Implementation inspection shall be completed **immediately following cessation of winter period operations**, in areas where winter operations have occurred, to assure management measures are in place and secure.

If implementation monitoring reveals that management measures were not installed, or were installed but are determined to be ineffective, the discharger shall document the problem and any corrective actions to ensure that the project is in compliance with the applicable Waiver criteria and conditions.

A "final compliance report" or "work completion report" inspection, conducted by CDF prior to the winter period and after cessation of active harvesting and road construction, and submitted to the Water Board by January 15, may be substituted for the required pre-winter inspection if the inspection covers the entire plan area.

### **Forensic Monitoring**

Forensic monitoring inspections shall be conducted during the winter period (November 1—May 1). Sites shall be inspected and photographs shall be taken as outlined in the Inspection Plan that was submitted with the Waiver application. The goal of winter forensic monitoring is to locate sources of sediment delivery (or potential delivery) in a timely manner so that rapid corrective action may be taken where feasible and appropriate. Winter forensic monitoring may also assist in determining cause and effect relationships between hillslope activities (harvesting, road construction etc.), hydrologic triggers and instream conditions.

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Where access allows, at least two Forensic monitoring inspections shall be conducted during the winter period to determine the condition of installed management measures and to detect sediment discharges resulting from failed management measures and general timber harvest activities. **If significant environmental impacts would result from road system use related to Forensic monitoring this requirement may be waived. The discharger shall submit written notification that winter period monitoring cannot be conducted because of access issues.** Forensic monitoring shall take place in accordance with the following conditions:

- **Once, within 36 hours following a storm event of at least 2 inches (of rainfall) and after an accumulation of 5 inches (of total precipitation for the Water Year) after October 15.** Inspections that cannot be conducted during or within 36 hours of such a storm event (due to worker safety, access or other uncontrollable factors) shall be conducted as soon as possible thereafter, **and** written notice to the Water Board shall explain the reasoning for not conducting the monitoring within the prescribed time periods.
- **Once, within 36 hours following a storm event of at least 2 inches (of rainfall) and after an accumulation of 10 inches (of total precipitation for the Water Year).** Inspections that cannot be conducted during or within 36 hours of such a storm event (due to worker safety, access or other uncontrollable factors) shall be conducted as soon as possible thereafter, **and** written notice to the Water Board shall explain the reasoning for not conducting the monitoring within the prescribed time periods.
- **Once, within 36 hours following a 24-hour storm event of at least 2 inches (of rainfall) and after an accumulation of 30 inches (of total precipitation for the Water Year) after October 15.** Inspections that cannot be conducted during or within 36 hours of such a storm event (due to worker safety, access or other uncontrollable factors) shall be conducted as soon as possible thereafter, **and** written notice to the Water Board shall explain the reasoning for not conducting the monitoring within the prescribed time periods.
- Additional Forensic Monitoring inspections shall be conducted if significant discharge of sediment is observed at any time in any watercourse. Photo-point monitoring shall be conducted when such discharge is the result of failed water quality protection management measure(s) or lack of implementation of such measure(s).

**Photos are required at locations when a significant discharge of sediment is detected or when failed management measures cause or may cause the release of 3 cubic yards (or more) of sediment to watercourses. Photos of the stream and sediment source are also required where visible sediment deposits in a streambed are observed.**

**Follow-up forensic monitoring inspections and photo-point monitoring shall be conducted weekly until corrective action is completed to repair or replace failed management measures and/or significant sediment discharges have ceased.** The weekly follow-up monitoring may be waived by the Executive Officer if he/she determines that an appropriate plan and timetable for corrective action have been submitted to the Water Board staff by the discharger. Sites that are determined to be sediment sources during forensic monitoring shall be photographed prior to and following corrective action being implemented at the site.

### **Effectiveness Monitoring**

Effectiveness monitoring inspections shall be conducted as soon as possible following the winter period and shall be designed to determine the effectiveness of management measures in controlling discharges of sediment and in protecting water quality. Effectiveness monitoring results shall help to determine whether Waiver criteria and conditions, on a programmatic scale, are adequately protecting water quality and instream beneficial uses. Effectiveness monitoring inspections shall take place as follows:

- **After March 15 and before June 15** every year after timber harvest activity ceases and 1) until the expiration of the California Department of Forestry road maintenance plan, **or** 2) until a Final Certification (described below in Item IV. Reporting) report has been submitted to the Water Board office. For those locations where saturated soils prevent access to the monitoring sites by June 15, the monitoring shall be conducted as soon as site conditions allow access.

The Effectiveness monitoring inspection shall include visual inspection and photo documentation of sites identified in the Inspection Plan. If the visual inspection reveals significant management measure failure(s), a visual inspection of instream components (bank composition and apparent bank stability, water clarity and instream sediment deposition) shall also be conducted and the conditions shall be documented.

## **IV. REPORTING**

**Semi-annual Reporting** - The discharger shall submit an Implementation Monitoring Report to the Water Board by **January 15** for inspections covering the period of activity from June 15 through November 15 of every year a timber harvest activity is enrolled in the Waiver. The discharger shall also submit an Implementation, Forensic, and Effectiveness Monitoring Report to the Water Board by **July 15** that details the monitoring results obtained from November 16 through June 14 for every year a timber harvest activity is enrolled in the Waiver. Once enrolled, if no activity has occurred, submit a report stating that or submit pre-project monitoring information.

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All Monitoring Reports shall, at a minimum, include the date and type of each inspection, the inspector's name and title, the location of each inspection point, the name and number of the plan, notice, sale or project, the title and name of the person submitting the report, the inspection findings (including description of weather, rainfall to date, any photographs taken with date and time clearly delineated), a written description and certification of how the discharger has complied with the waiver criteria and conditions, and a description of corrective actions that were undertaken to maintain project compliance. The discharger may submit a single Implementation, Forensic, and Effectiveness Monitoring Report for all timber harvest activities conducted for the year under a CDF approved Sustained Yield Plan. All Monitoring Reports must be signed by the discharger or a qualified representative who can certify under penalty of perjury that all information contained in the Monitoring Report is true, accurate, and complete.

**Violation Reporting** - The discharger shall report as soon as possible by telephone, but no later than 48 hours after detection, any violation or suspected violation of an applicable water quality control plan requirement, failure of a major management measure (large fill area, watercourse diversion, major road or skid trail failure within or adjacent to a watercourse protection zone), any new landslide activity that may discharge sediment to watercourses, and any violation of Eligibility Criteria or Conditions listed in the Waiver. A written report regarding such violation(s) or management measure failure(s) shall be submitted within **14 days following detection** and shall include the following:

- Date violation(s) or management measure failure(s) was discovered
- Name and title of person(s) discovering violation(s) or management measure failure(s)
- Map indicating location of violation(s) or failure(s)
- Nature and extent of violation(s) or failure(s)
- Photos of site characterizing violation(s) or failure(s)
- Corrective management measures implemented to date
- Implementation schedule for additional corrective actions
- Signature and title of person preparing report

**Final Certification (Waiver compliance reporting)** – All dischargers enrolled in Waiver Categories 1, 2, 3, 4, and 5 must sign and submit a “final certification” stating whether:

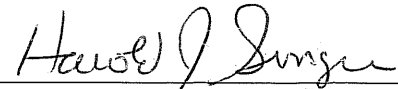
- Timber harvest activities were conducted in conformance with the approved plan or accepted notice (for private lands) and with all applicable provisions of the waiver.
- Discharges resulting from the timber harvesting activities and pesticide applications were in compliance or expected to be in compliance with all requirements of applicable water quality control plans.

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The Executive Officer may modify or rescind this MRP at any time, or may modify and issue an individual MRP to a specific discharger.

Ordered  
by



Harold Singer, Executive Officer

Feb 14, 2007

(Date)

Attachment: Inspection Form