

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**STATUS REPORT FOR REGULAR MEETING OF JULY 6, 2007**

Prepared on June 15, 2007

**ITEM NUMBER: 10**

**SUBJECT: REGULATION OF TIMBER HARVEST ACTIVITIES IN THE  
CENTRAL COAST REGION; SECOND ANNUAL UPDATE**

**SUMMARY**

Two years ago, on July 8, 2005 the Central Coast Regional Water Quality Control Board (Water Board) adopted Order Number R3-2005-0066, General Conditional Waiver of Waste Discharge Requirements – Timber Harvest Activities in the Central Coast Region (General Waiver), and its associated Monitoring and Reporting Program (MRP), MRP No. R3-2005-0066.

On July 7, 2006 staff member Julia Dyer presented the first annual update on the status of the timber harvest program. Since that time, Water Board staff or the Board's Executive Officer has:

- Actively managed a growing case load of 67 harvest plans in one of the following harvest stages: preharvest, active harvest, or postharvest, representing 8,752 acres of timberland.
- Enrolled ten Timber Harvest Plans (THPs) or Nonindustrial Timber Management Plans (NTMPs) under the General Waiver.
- Conducted thirty-one site inspections of approved or proposed timber plans covering 3,308 acres of timberland. During these inspections, Water Board staff observed conditions that are protective of water quality as well as conditions that pose a threat to water quality and its beneficial uses.
- Developed Standard Operating Procedures for Instream Turbidity Monitoring.
- Monitored all amendments or deviations filed with the California Department of Forestry and Fire Protection (CDF) for THPs or NTMPs.
- Issued three notices of violation.
- Conducted a preliminary analysis of turbidity and temperature data.

This status report will bring the Water Board members up to date on the progress of Timber Harvest regulation in the Central Coast Region.

## DISCUSSION

### APPROVED GENERAL WAIVERS

Since July 7, 2006, the Executive Officer has issued ten General Waivers for THPs or NTMPs, representing 649 acres of harvestable timberland. Of these ten plans, nine received a MRP with Tier III status and one received Tier I status. None were ranked Tier IV. As required by the Water Board, staff did not rank any plan in a lower tier ranking than determined by the Eligibility Criteria (Attachment 1).

The General Waiver requirements establish three different monitoring tiers (I, II, and III) based on the proposed timber harvest activities and site conditions. Water Board staff then uses the Eligibility Criteria to evaluate the plan based on three different categories; soil disturbance, cumulative effects, and drainage density. Based on the evaluation, Water Board staff then assigns the plan area a monitoring tier ranking of I, II, III, or IV. Plans ranked as Tier I, II, or III are eligible for a Conditional Waiver. Plans ranked as Tier IV must receive an Individual Conditional Waiver or Individual Waste Discharge Requirement.

The Water Board's Executive Officer may modify the monitoring requirements for an individual plan after it has been assigned a monitoring tier. Although, THPs and NTMPs categorized by the Eligibility Criteria as Tiers II, III, or IV cannot be downgraded to a lower category based on other criteria. The Water Board's Executive Officer may not change the monitoring requirements so they are less stringent than the requirements in the designated tier.

**Tier I:** applies when proposed timber harvest operations do not pose significant threat to water quality. This tier requires the discharger to conduct CDF Forest Practice Rules compliance monitoring, road inventory program, and forensic monitoring as necessary.

**Tier II:** applies when typical conditions of the proposed timber harvest operations include a low level of soil disturbance and a low drainage density index. This tier requires the discharger to conduct monitoring as described for Tier I plus visual and photo monitoring of timber harvest area infrastructure.

**Tier III:** applies when typical conditions of the proposed timber harvest operations include a medium to high level of soil disturbance and a high drainage density. This tier requires the discharger to conduct monitoring as described in Tier I and II plus storm-event based instream turbidity monitoring and continuous instream temperature monitoring throughout the summer.

When the Water Board members adopted the General Waiver, for the purposes of collecting additional turbidity and temperature data, they decided that all operations that fell under Tier II would be upgraded to Tier III until July 7, 2007. Over the past two years staff has automatically promoted all Tier II plans to Tier III status. However, starting this month, all plans requesting enrollment under the General Waiver that are ranked under Tier II monitoring will be enrolled under Tier II monitoring unless we are advised

otherwise. It is important to note that any plan ranked Tier I, II or III may be promoted to the next higher tier based on site-specific conditions or other circumstances that would merit such a promotion.

Since the adoption of the General Waiver, the Executive Officer has enrolled a total of twenty THPs or NTMPs representing 2,018 acres of harvestable timberland. Additionally, by the July 2007 Board Meeting, Water Board staff anticipates enrolling an additional nine plans under the General Waiver.

## **INSPECTIONS**

Over the past year, Water Board staff has conducted thirty-one inspections covering 3,308 acres of timberland. Of the thirty-one inspections, sixteen were conducted prior to harvest (nine of which were official CDF preharvest inspections), ten were post-harvest, and five were conducted in response to potential violations.

Over the past year, staff participated in nine official California Department of Forestry and Fire Protection (CDF) Preharvest Inspections (PHIs). In addition to the nine PHIs staff attended, staff was unable to attend three CDF PHIs. For these three missed inspections, staff inspected the proposed harvest with the discharger at a later date and prior to any regulatory action or other decision.

Since the Water Board first adopted the General Waiver in 2005, staff has conducted 64 inspections covering 8,911 acres of harvestable timberland.

Based on site inspections conducted by Water Board staff, characteristic conditions of timber harvest plans in the Central Coast Region include; well maintained landings, skid trails, roads, and crossings that show minimal to no signs of erosion. Dischargers treat a majority of the infrastructure with drain rock, water bars, slash packing, and / or grading to improve drainage, reduce concentrated flow, and minimize erosion.

Prior to preharvest inspections, the dischargers mark trees selected for harvest with a horizontal blue line. This is known as the mark. The mark allows Water Board staff to review the volume and location of trees proposed for removal. Should Water Board staff see any inappropriately marked trees (e.g. a tree leaning over a watercourse) staff can require that the discharger substitute the tree for one that, upon and after harvest, poses less of a risk to water quality.

A proposed mark indicative of a Central Coast Region plan area, selects trees less likely to negatively impact water during and after harvest. Commonly, areas above landslides, unstable areas, or closer to watercourses are more lightly marked or not marked at all. A lighter mark or harvest exclusion in these areas reduces the potential for unstable areas to discharge sediment to nearby watercourses or reduces excessive canopy opening above riparian corridors, which can lead to water temperatures rising above lethal limits for aquatic fauna.

Although the conditions described above are characteristic of plan areas in the Central Coast Region, Water Board staff regularly observes conditions that pose a threat to water quality and its beneficial uses. In these circumstances, staff includes additional site-specific requirements as a condition to the General Waiver. These additional requirements are directed at addressing the conditions of concern. Staff also conducts winter and postharvest inspections to ensure that installed management measures are functioning properly and that the discharger has complied with any additional requirements. When Water Board staff finds that management practices are failing or the discharger is not complying with additional requirements, staff prepares a Notice of Violation (NOV), conducts additional inspections, and if necessary pursues further enforcement action.

Over the past year, Water Board staff observed the following conditions on timber harvest plans areas that could potentially negatively impact water quality; poorly drained landings, roads, and skid trails, poorly functioning crossings, culvert outfalls that are high and above the natural streambed, stall spoils from an equestrian facility used to surface roads, plastic, metal, chemical container, and trash debris piles. The Executive Officer included additional conditions in the General Waivers requiring the discharger correct these conditions via the following methods respectively; improve infrastructure drainage with water bars, grading, and rocking, appropriately upgrade crossings by replacing or removing undersized culverts, minimizing inboard ditches, and / or installing trash racks, installing downspouts and / or energy dissipation, and disposing of soils and other debris properly.

During inspections, Water Board staff reviews proposed locations for photo, temperature, and turbidity monitoring. Occasionally, Water Board staff needs to adjust the proposed monitoring stations to ensure that they are placed appropriately. Proper placement of monitoring stations ensures that data accurately reflects the conditions in the field.

Finally, despite the discharger's concerted efforts to control them, there are several persistent conditions common to timberland, which may negatively impact water quality. This includes common-use roads in poor condition do to year-round traffic to access permanent residences, off-road vehicle and other types of trespassers, and soil disturbance from feral pigs.

### **TURBIDITY MONITORING**

Last summer, Water Board staff developed Standard Operating Procedures for In-stream Turbidity Monitoring (Turbidity SOP) (Attachment 2). In October 2006, the Executive Officer issued the Turbidity SOP to all dischargers with plans enrolled under either an Individual or General Waiver. All dischargers enrolled under an Individual or General Waiver must follow the Turbidity SOP when collecting samples for forensic or storm-event based turbidity monitoring. When followed correctly, the Turbidity SOP allows the discharger to collect turbidity samples representative of the site conditions at the time of collection.

The protocols require dischargers to:

- Calibrate all turbidity sampling equipment,
- Take samples in a relatively straight reach that is well mixed, with uniform hydraulics, and away from turbulence.
- Collect the sample without disturbing bottom sediment.
- Collect the sample with a clean, wide mouth, plastic bottle.
- Collect the sample by facing the bottle into the flowing current.

On May 7, 2007 Water Board staff received a request from several of the dischargers to modify the Turbidity SOP. Staff is in the process of evaluating and responding to this request.

The dischargers are required to conduct storm-event based turbidity monitoring on and after October 15 of each year. Therefore, the Executive Officer will provide a response to the dischargers prior to October 15. Staff anticipates completing an evaluation and providing a recommendation to the Executive Officer before the end of August. Staff will also provide the Board with a status report on this matter in the September Executive Officer's Report.

#### **AMENDMENTS / DEVIATIONS**

When the Water Board adopted the General Waiver, the Board Members expressed strong concern that the standard CDF amendment and deviation process could undermine General Waiver authority. The General Waiver process could be undermined when a plan is amended through the CDF process after it has been enrolled under the General Waiver. Such an amendment or deviation could contain modifications inconsistent with conditions in the General Waiver or Monitoring and Reporting Program.

Water Board staff continues to monitor the amendment and deviation process. Over the past year, foresters have filed twenty-nine different amendments for plans covered under the General Waiver. None of the modifications requested in these twenty-nine amendments or deviations resulted in the need to modify any of MRPs.

Staff will continue to monitor amendments and deviations. Should any amendment or deviation lead to additional threat to water quality or place the THP in a higher tier under the eligibility criteria, the Executive Officer will revise Monitoring and Reporting Program accordingly or staff will recommend that the Executive Officer revoke enrollment under the General Waiver and will recommend Board adoption of an Individual Waiver or Waste Discharge Requirement.

#### **NOTICES OF VIOLATION**

Over the past year, Water Board staff has issued three notices of violation (NOV). Staff issued the three NOVs in response to two separate incidents in two separate plan areas where cut trees slid, fell, or otherwise landed in a watercourse. The dischargers in both

incidents further violated conditions of the General Waiver and MRPs by not conducting forensic monitoring or photo-monitoring at the time of the discharge. Additionally, the dischargers in both cases did not notify Water Board staff within twenty-four hours to report the incidents nor did they submit a written report detailing the incidents, as required by the MRPs.

Staff has thoroughly inspected both plan areas. During each of the inspections, Water Board staff did observe, as a result of these failed management practices, evidence of discharge resulting in negative impacts to water quality.

In the first case, the enforcement activity ended with the issuance of the NOV. In the second case, Water Board staff suspected negligence on the part of the discharger which warranted further enforcement action. Staff wrote a draft complaint for the second case. At the time staff prepared this report, the complaint was being reviewed by the Santa Cruz County District Attorney.

### **MONITORING DATA**

A preliminary review of the first year of turbidity and temperature data submitted through the General Waiver program shows that some of the monitoring data is outside optimal ranges of acceptable conditions. Although some data is outside optimal range, it is too soon to determine if timber management is a primary source of the suboptimal conditions. These findings do warrant a more detailed analysis of the data.

Staff is actively mapping plan areas and monitoring sites using Geographic Information System (GIS) mapping software. This software allows staff to analyze the data in a more contextual and appropriate manner. Using GIS, monitoring results can be evaluated spatially, in the context of what is occurring upstream of the monitoring points and in context of monitoring results typical for similar watersheds.

### **OTHER**

#### *Monitoring and Reporting*

During review of the 2006 Annual Reports, staff encountered limitations in the ability to determine if dischargers are in compliance with visual inspection and data collection frequency. Since these requirements are triggered by two-inch rain events, staff needs a way to compare the timing of inspections and of data collection to these rain events. This is further complicated since the rain events that trigger such monitoring are measured from different rain gauges throughout the county, depending on a plan's proximity to a rain gauge. Therefore, the amount and duration of each rain event varies from watershed to watershed, within the same watershed, and from plan to plan.

Water Board staff tasked the Timber Harvest Program student assistant to find a way to easily verify compliance. The student developed an Excel spreadsheet to facilitate this task. The spreadsheet is populated with rain event data, reported inspections dates, and data collection events. The spreadsheet divides plans by rain gauge location and compares the two-inch events with reported inspections and data collection. This allows

staff to easily determine a discharger's compliance with the requirements with their respective MRPs.

Additionally, Water Board staff discovered that, prior to the adoption of the General Waiver, the Water Board requested that baseline photo documentation be included in the MRPs. Staff had not incorporated these requirements in the first set of waiver enrollments. Staff has since included this requirement in the template language and from now on all dischargers with new MRPs are required to conduct baseline photo documentation.

#### *Compliance with San Lorenzo River Sediment Total Maximum Daily Load*

Water Board TMDL staff recently completed the first compliance review for the San Lorenzo River Sediment Total Maximum Daily Load (TMDL). The report summarizing the results of the review includes a summary of the progress dischargers made toward meeting the goals of the implementation actions identified during TMDL development. Several of the regular activities conducted by Timber Harvest Program staff meet the goals set by the TMDL implementation actions.

The first of these timber harvest-related implementation actions identifies the importance of Water Board staff's participation in CDF preharvest inspections (PHI). The goal for Water Board staff is 100% attendance at CDF PHIs in the San Lorenzo Watershed. Since November 2005, Water Board staff participated in two of four (50%) official CDF preharvest inspections in the San Lorenzo River Watershed. As described before, Water Board staff made up for the two missed inspections at a later date and prior to any issuance of a waiver, permit, or other decision.

The second timber harvest-related action identifies the importance of post-harvest inspections. The goal set for Water Board staff is to conduct post-harvest inspections within three to five years after a completed harvest on all Timber Harvest Plans with Class I and Class II watercourse crossings. To date, Water Board staff has conducted 40% of such inspections. Water Board staff will continue to prioritize inspections to achieve 100% completion of this goal.

Finally, the TMDL sets the goal for Water Board staff to review evidence of Timber Harvest Plan Best Management Practices developed pursuant to Section 916.9 of the Forest Practice Rules. This section contains rules consistent with the protection and restoration of watersheds with threatened or impaired values including an identified TMDL. Water Board staff will continue to review plan areas for compliance with Section 916.9 and will issue Notices of Violation to any discharger found to be out of compliance with this section.

#### *Cal Poly Field Course*

Cal Poly-owned Swanton Ranch, located in Santa Cruz County, is host to a new, five-week field course offered to Forestry and Natural Resource Management students. The course, titled Sustainable Forestry and Environmental Practices, provides Cal Poly students an opportunity to live at Swanton Ranch and gain first-hand experience

developing Timber Harvest Plans. The course culminates with a mock preharvest inspection conducted by the CDF review team. During the mock preharvest inspection, the review team critiques the plans developed by the students.

Water Board staff participated in the mock preharvest inspection conducted for the course held July 2006. Such an inspection allows Water Board staff to gain valuable experience by sharing ideas and speaking with other review team members in a capacity that would be inappropriate on regular inspections.

This is an annual event and staff intends to participate as available.

#### *All Terrain Vehicle*

Many plan areas cannot be inspected safely or efficiently without an All Terrain Vehicle (ATV). When staff is unable inspect a plan area, staff's ability to appropriately evaluate the proposed harvest site is undermined. Staff has requested an ATV for the Timber Harvest Program to be stored at the San Luis Obispo regional office. The ATV will provide staff with the capability to inspect all proposed plan areas. Water Board administrative staff is in the process of processing this request.

#### **RECOMMENDATION**

This is an informational status report. Staff will periodically report to the Board on its timber harvest program and will provide a summary of the first two years of monitoring.

#### **ATTACHMENTS:**

1. Eligibility Criteria.
2. Standard Operating Procedures for Instream Turbidity Monitoring.