

RESPONSE TO COMMENTS
on
Draft Order No. R1-2013-0005

General Waste Discharge Requirements
For Timber Operations on
Non-Industrial Timber Management Plans (NTMP)
in the
North Coast Region

Prepared by:
North Coast Regional Water Quality Control Board
May 2, 2013

Background

In June 2009, the Regional Water Board renewed the Timber Categorical Waiver, which included new, specific conditions for Non-Industrial Timber Management Plans (NTMPs). In response to concerns of landowners, foresters and the Department of Forestry and Fire Protection (CAL FIRE) that these conditions would impose unreasonable burdens on NTMP owners as well as CAL FIRE, the Regional Water Board adopted limited term amendments to the Waiver to temporarily suspend the provisions for NTMPs (Order Numbers R1-2011-0038, R1-2012-0010, R1-2012-0085 and R1-2013-0013). This was to allow time for Regional Water Board staff to work with NTMP landowners, CAL FIRE and other interested parties to evaluate the adequacy of protective measures designed into NTMPs included in the Forest Practice Rules (FPR) to achieve compliance with Total Maximum Daily Loads (TMDLs), Basin Plan standards, and rules for protecting water quality.

Since March 2011, Regional Water Board staff has undertaken a variety of investigations and conducted outreach to interested parties to improve mutual understanding as well as to identify solutions to controlling discharges from NTMPs. Based on these efforts, Regional Water Board staff developed a tiered approach that allows NTMP landowners two options for coverage: those options consist of either a) identifying and treating all sites within an area covered by a Notice of Timber Operations (NTO) that have the potential to adversely impact the beneficial uses of water, concurrent with operations under the NTO, or b) preparing an Erosion Control Plan (ECP) for the entire NTMP area and treating sites according to an implementation schedule proposed by the landowner and subject to review and approval by the Regional Water Board.

On January 24, 2013, the Regional Water Board conducted a public workshop on a draft NTMP Waiver. The draft was publicly noticed on January 8, 2013 and the comment period ended on February 11, 2013. The Regional Water Board received 18 comment letters on draft Order No. R1-2013-0005 between January 8, 2013 and February 11, 2013 as well as verbal comments made in person during the January 24, 2013 workshop in Santa Rosa. Comments generally fell into two categories as follows:

- Comments by landowners and Registered Professional Foresters (RPF) who assert that several of the conditions related to inspections and reporting are too stringent, requiring additional cost and effort on paperwork with no additional on-the-ground water quality benefits, and unnecessarily duplicate requirements of the FPR; and

- Comments by members of environmental groups asserting that the draft is not sufficiently stringent to protect water quality by overly relying on the FPRs and does not comply with the requirements of CEQA and the Anti-Degradation Policy.

Substantive comments received during the comment period are summarized below, followed by Regional Water Board Staff response.

Comments received during the January 8 – February 11, 2013 Comment Period

Chuck Ciancio	January 10, 2013
Alan Levine, Coast Action Group	January 16, 2013
Christopher Blencowe	January 19, 2013
Lisa Weger	January 19, 2013
Craig Blencowe	January 19, 2013
Chris Carroll	January 22, 2013
Dana Miller Blencowe	January 22, 2013
Eugenia Herr	January 23, 2013
Linwood Gil	January 23, 2013
Gwendolyn P. Dhesi	January 29, 2013
Peter Bradford	January 25, 2013
Peter Parker	February 7, 2013
Claire McAdams	February 11, 2013
Matt Greene	February 11, 2013
Michael Braught	February 11, 2013
Andrew Orahoske, EPIC	February 11, 2013
Jack Rice	February 11, 2013
Jason Poburko	February 11, 2013

Comment #1 - Waiver vs. WDR

Three commenters state that there is almost no difference between the draft Waiver and a Waste Discharge Requirement (WDR) Order and if the Board wants to issue a WDR, that is what this Order should be.

Response: At the January 24 workshop, the Board directed staff to solicit further input from landowners, foresters, focus groups, and CAL FIRE and revise the draft Waiver as necessary and appropriate. On March 13, 2013, Regional Water Board staff held a focus group meeting consisting of representatives of CAL FIRE, RPFs, landowners, and environmental groups to discuss and provide input on proposed revised waiver conditions. Focus group participants concluded that establishing general WDRs for NTMPs, which unlike waivers of WDRs, do not require renewal within 5 years, would be more consistent with the long term planning horizon inherent in NTMPs and associated ECPs. Accordingly, proposed Order R1-2013-0005 establishes WDRs, rather than waives WDRs. The proposed Order (the *NTMP WDR*) retains the substantive elements of the January 8, 2013 draft NTMP Waiver, particularly the two tiered structure, and establishes specific and general requirements for discharge that are equivalent to what were specific and general conditions of the draft Waiver.

Comment #2 - Inspections - sections A(3)f) and A(4)(a)(iii)

Many commenters said that requiring two inspections per year of the entire NTMP area throughout the erosion control maintenance period (typically 3 years) for NTMPs waived under Tier B is overly burdensome and that the FPRs already provide adequate rules for inspection and maintenance of erosion control, including identification and correction of new sediment discharge sources. Many NTMP landowners have stated that they routinely inspect their properties with sufficient frequency to identify and correct small problems in a timely manner. In addition, many commenters urged the Regional Water Board to accept the completion notice filed by the landowner within one month after completion of work under an NTO pursuant to PRC 4585 as satisfying the inspection report requirement under Tier A.

Response: Regional Water Board staff recognize the value of improving efficiencies in the regulation of timber harvesting between state agencies and revised the draft conditions to further align inspection schedules with CAL FIRE to the extent possible. Regional Water Board staff recognizes that reliance on FPRs can work, but must include mechanisms to ensure that measures are functioning as expected and provide processes for correction if necessary. Changes in the proposed Order reflect these considerations.

Regional Water Board staff met with CAL FIRE to explore ways to align the agencies' procedures to the extent possible. Accordingly, revised conditions recognize FPR requirements that landowners/RPFs evaluate NTMP areas prior to submitting an NTO, and must maintain and inspect the NTO area throughout the subsequent erosion control maintenance period. Revised conditions require annual inspections during the NTO period and specify that inspections conducted pursuant to FPRs requirements, including CAL FIRE completion and maintenance inspections, can satisfy the WDR inspection conditions.

In addition, ECP requirements under Tier B have been clarified to ensure that ECPs are updated and maintained as needed to function as long term tools to control sediment discharge from NTMPs in accordance with the Basin Plan and Porter-Cologne Water Quality Control Act. Please refer to revised inspection requirements under Section A(4) of the proposed Order. Inspection requirement under specific condition (A(4)), applicable to all NTOs (both Tiers) requires inspection of the NTO area prior to completion of the NTO and at least once annually during the erosion control maintenance period.

In addition to the inspection by the landowner, PRC 4586 requires that CAL FIRE must inspect the NTO area within six months of receipt of the completion notice to ensure that all required work has been conducted. Regional Water Board staff receive completion notices submitted by landowners, as well as CAL FIRE completion inspection reports from CAL FIRE. Regional Water Board staff continues to work with CAL FIRE staff to improve ways to ensure all applicable FPR water quality protection measures are implemented through the entire NTO process.

The following site inspections of the NTO area or NTMP area are required by the FPRs and satisfy revised inspection requirements of the proposed Order:

- FPR §1090.7(i)) require that RPF's evaluate the entire NTMP area prior to submitting each NTO. Section A(6)(a) of the proposed Order requires that ECPs be updated as necessary during these evaluations;

- FPR Section 1050(c), the Licensed Timber Operator (LTO) is responsible for proper construction, inspection and maintenance of erosion control during the prescribed maintenance period until the work completion report is approved by the Director and the landowner is responsible for inspection and any needed repair and maintenance of erosion controls during the remainder of the prescribed maintenance period. Section A(4) of the proposed Order requires the landowner, RPF, or supervised designee conduct an inspection of the NTO area prior to completion of the NTO and at least once annually during the erosion control maintenance period.
- PRC 4586 requires that CAL FIRE must inspect the NTO area within six months of receipt of the completion notice to ensure that all required work has been conducted. Regional Water Board staff receive completion notices submitted by landowners as well as CAL FIRE completion inspection reports from CAL FIRE.

There is no reporting requirement associated with these inspections in the proposed Order, but NTMP landowners (including the RPF) must maintain a record of inspections, and shall provide the information to the Regional Water Board upon request. An inspection of the NTO area conducted by the Regional Water Board or CAL FIRE staff following completion of operations or during the prescribed erosion control maintenance period satisfies the requirement for one annual inspection.

Comment #3 - Discharge Notifications - section C(5)

Many commenters objected to the draft Order requiring landowners to notify the Regional Water Board by telephone or email within 48 hours of discovering a discharge of waste in violation of water quality standards, followed by a written report within 14 days. Most of these commenters asserted that this was an unnecessary and burdensome reporting requirement that did not contribute to correcting the discharge; that NTMP landowners generally maintain their properties and identify and correct discharges in a timely manner without the additional reporting requirement, i.e. "Repair not report".

Further, the commenters noted that when reporting discharges in violation of water quality standards, the information provided to the Regional Water Board would be a matter of public record and potentially expose landowners to lawsuits.

Response: Please see Section A(6)(f) of the proposed Order. The general condition that landowners notify the Regional Water Board within 48 hours of discovering a discharge in violation of water quality standards followed by a written report has been omitted.

Staff agrees that it is preferable that corrective action at newly identified controllable sideiment discharge sources (CSDS) be promptly implemented. Therefore, revised Section A(6)(f) provides landowners of NTMPs enrolled in Tier B with flexibility to implement corrective action at the site within 30 days following identification of a CSDS not included in the ECP inventory. In this case, no notification or report to the Regional Water Board is required. If corrective action of the newly identified site cannot be implemented within 30 days, the NTMP landowner shall revise the ECP inventory to include the newly identified site and shall notify

the Regional Water Board of the revision within 60 days after identification of the site. This condition applies regardless of whether the site is located in an active NTO area.

Comment #4 - Erosion Control Plans – section A(4)(a)

Commenters state the substance of an ECP is already required by the FPRs and that requiring a separate ECP document imposes the need for additional effort and expense on landowners and provides no additional benefits to water quality.

Response:

Please refer to revised section A(6)(a). The two key components of the strategy to control sediment discharge from NTMPs are 1) the inventory, to identify and correct controllable sediment discharge sources (CSDS), and 2) an inspection plan, to maintain and update the inventory, to ensure that measures to control sediment discharge are functioning, and identify and correct sites where sediment control measures are not functioning properly in a timely manner.

Since 2004, Regional Water Board’s WDRs and waivers of WDRs for discharges from timber operations have utilized ECPs as one of the primary tools for identification and correction of CSDS and serve as a long term planning tool that is updated and maintained over time. Regional Water Board WDRs and waivers define CSDS as sites or locations within the logging area that meet all the following conditions:

1. is discharging or has the potential to discharge sediment to waters of the state in violation of water quality requirements or other provisions of this Waiver;
2. was caused or affected by human activity; and
3. may feasibly and reasonably respond to prevention and minimization management measures.

The FPRs rule sections cited below are roughly equivalent to the inventory requirement of the ECP, in that they should result in identification and proposed corrective action of CSDS:

“[FPR §916.4(a)(1)] The RPF ... shall ...evaluate areas near, and areas with the potential to directly impact, watercourses and lakes for sensitive conditions including, but not limited to, existing and proposed roads, skidtrails and landings, unstable and erodible watercourse banks, unstable upslope areas, debris, jam potential, inadequate flow capacity, changeable channels, overflow channels, flood prone areas, and riparian zones wherein the values set forth in 14 CCR §§ 916.4(b) [936.4(b), 956.4(b)] are impaired. ... The plan shall identify such conditions, including where they may interact with proposed timber operations, that individually or cumulatively significantly and adversely affect the beneficial uses of water, and shall describe measures to protect and restore to the extent feasible, the beneficial uses of water. In proposing, reviewing, and approving such measures, preference shall be given to measures that are on-site, or to offsite measures where sites are located to maximize the benefits to the impacted portion of a watercourse or lake.”

“[FPR §916.9(o)] As part of the plan, the RPF shall identify active erosion sites in the logging area, assess them to determine which sites pose significant risks to the beneficial uses of water, assess them to determine whether feasible remedies exist, and address in the plan feasible remediation for all sites that pose significant risk to the beneficial uses of water.”

FPR §916.9(o) applies to plans operating under the Threatened and Impaired (T&I) or Anadromous Salmonid Protection (ASP) rules. FPR §914.4 is a standard rule that applies to all NTMPs. Regional Water Board staff's expectation is that RPFs conduct the evaluation of NTMP areas pursuant to the above during their initial preparation of the plan prior to submittal to CAL FIRE (FPR 1032.7). Sites identified in the evaluation, as well as feasible corrective actions, are described in the plan, which are reviewed by CAL FIRE and other review team agencies, including the Regional Water Board, under the CEQA functional equivalent process (FPR 1090.19). Corrective actions described in the NTMP following approval of the plan by CAL FIRE become enforceable provisions under Article 8 of the Forest Practice Act. In addition, FPRs and mitigation measures identified and required pursuant to the CAL FIRE CEQA process that are intended to protect the beneficial uses of water on NTMPs covered under the Waiver are enforceable conditions under section A(2) of the proposed Order.

Concurrent with the development of the draft Order, a working group consisting of RPFs and staff from CAL FIRE, California Department of Fish and Wildlife, California Geological Survey and the Regional Water Board, developed a table that can be used by RPFs to disclose sites that need corrective action. The purpose of the table is to have a standardized format for disclosing information in THPs or NTMPs, and easily updated for NTOs, to satisfy the multiple regulatory agencies. Use of the table format would be voluntary, but it is designed for ease of use and to avoid the need for RPFs to present the same information in multiple format and different sections of their plans.

ECPs must also include a schedule designed to ensure that corrective action is implemented at each site in a timely manner. The implementation schedule for each site should be based on the potential impacts of discharges, and sensitivity of beneficial uses of water in receiving streams. An implementation schedule can provide landowners with flexibility to coordinate corrective action with their long term management objectives, including deferring treatment when warranted at sites that do not pose a high or imminent risk to water quality. Corrective actions for individual CSDS are typically implemented during the first NTO in the area that includes the site. However, because there is no specified timeframe for submittal of NTOs, and many landowners with approved NTMP have never submitted one, section A(6)(a) of the proposed Order requires that the inventory be periodically updated, regardless of whether an NTO is filed. In addition, in the absence of an NTO, some high risk sites must be monitored or the implementation of corrective action accelerated, as warranted.

Comment #5 - Level of detail required for ECPs - Section A(4)(a)(i)

The draft Order states, "The description of corrective action shall provide sufficient design and construction specifications, including diagrams, minimum rock size, or performance standards as needed, to allow on site personnel to implement corrective measures as intended." Commenters assert that it is unnecessary to have diagrams and construction specifications for each site. Commenter's contend that this could amount to over 100 potential sites on a large NTMP. Generic diagrams and/or general specifications should be adequate.

Response: Staff agrees that the majority of sites included in an ECP are fairly routine and can be addressed by accepted performance standards or generic diagrams. Some sites are sufficiently unique and/or complex, however, as to require detailed site-specific instructions. The proposed Order does not require such site specific information for every

site, but only “as needed”, based on the RPFs professional judgment or site specific agency recommendations, which is consistent with current accepted standards of practice for timber operations in the North Coast. The ECP requirement has not been modified from the January 8, 2013 draft Order, but are now included in revised section A(6)(a) of the proposed Order.

Comment #6 - FPR water quality protection

Three commenters noted that findings in the draft Order appear to acknowledge that the FPRs are adequate to protect water quality, raising the question of why specific waiver conditions are necessary. Another commenter raised the concern that FPRs are not protective of water quality now or may become weakened in the future.

Response: When the Regional Water Board temporarily suspended NTMP conditions of the 2009 Waiver in March, 2011, the purpose was to provide staff time to conduct a thorough review of water quality protections provided on NTMPs by the FPRs, including working with NTMP landowners, CAL FIRE and other interested parties to review the effectiveness and implementation of the existing FPRs and finding ways to improve efficiencies in protecting and restoring the beneficial uses of water within the current regulations.

The FPRs prescribe measures to protect the beneficial uses of water that generally address each of these components listed above. FPR §898.2 requires disapproval of an NTMP that does not comply with the Basin Plan. Timber operations on NTMPs conducted in accordance with the FPRs can largely be effective in minimizing sediment and temperature impacts by use of uneven aged management methods and implementation of current management practices to prevent or minimize sediment discharge sources in active harvest areas, as described below. Requirements of the proposed Order can generally be satisfied by application of FPRs where they are sufficient to protect water quality, but include provisions designed to reinforce and bolster the rules as needed to fully implement water quality requirements.

Findings 10 through 23 of the proposed Order summarize the results of the review of FPR water quality protection on NTMPs, which are described in greater detail in this document. Subsequent findings discuss the adequacy of FPR water quality protection, including the following [*italics added*]:

Finding 17 states that NTMPs can and have generally complied with the Basin Plan Temperature objective through utilization of uneven aged forestry, compliance with or exceedence of the applicable rules for watercourse protection and consideration by RPFs of potential temperature impacts when harvesting trees providing shade to watercourses.

Finding 22 states that water quality requirements related to sediment discharge from NTMP lands can *largely* be implemented through full and proper implementation of the FPRs, with *additional protection measures incorporated into NTMPs for site-specific conditions when recommended by the Regional Water Board.*

Finding 27 states that when fully and properly implemented, these management measures can contribute to achieving TMDL load allocations for sediment and temperature from NTMPs.

Finding 24 states that it is appropriate to rely in large part on the FPRs to implement Basin Plan water quality standards in the most efficient manner while retaining the Regional Water Board's statutory authority pursuant to California Water Code and the Basin Plan.

Regional Water Board staff have consistently maintained that the FPRs cannot be solely relied upon to ensure adequate protection of water quality in all cases. Site specific input for individual NTMPs from Regional Water Board staff and a permitting mechanism that makes those provisions related to protection of water quality enforceable under the Regional Water Board's authority is essential to ensure implementation of water quality standards. This is explicitly acknowledged by the legislature in maintaining Regional Water Board's authority to regulate discharges from timber operations under Porter-Cologne and the CWA, and is implicitly acknowledged throughout the FPRs, such as the following examples:

FPR §897(d) "Due to the variety of individual circumstances of timber harvesting in California and the subsequent inability to adopt site-specific standards and regulations, these rules use judgmental terms in describing the standards that will apply in certain situations."

FPR §898 "The Director's evaluation of such [cumulative] impacts and mitigation measures will be done in consultation with the appropriate RWQCB.

FPR §1090.19, which establishes interdisciplinary review teams that include the Regional Water Board to review plans and assist the Director in the evaluation of proposed timber operations and their impacts on the environment.

The Regional Water Board staff has made all reasonable efforts to be responsive to concerns of NTMP landowners and foresters and have crafted specific conditions of the proposed Order that can largely be satisfied by full and proper implementation of applicable FPRs. The Regional Water Board continues to work with CAL FIRE, RPFs, and landowners to identify and improve efficiencies and increase the effectiveness of implementation of rules and management practice designed to protect water quality. The Regional Water Board will continue to participate as a Review Team member to review NTMPs, including conducting field inspections prior to, and during all phases of harvesting. Regarding the comment about possible changes to the FPRs, the Regional Water Board retains authority to review, amend or revoke the order if water quality FPR are changed in a way so that they no longer provide adequate water quality protection relied upon in this Order.

Comment #7 - Consistency of water quality standards

One commenter stated that in 2003, their family received awards from the EPA and Congressman Mike Thompson for their environmental efforts on their NTMP and recognition of those efforts from Regional Water Board members during a tour of their ranch. The commenter states that since 2009, Regional Water Board permits for NTMPs impose onerous rules on NTMP landowners, and asks if our standards have increased to such an extent that no one on the ground meets them, or whether the policies of the Board are inconsistent.

Response: Water quality standards have remained consistent. Regional Water Board staff continue to seek ways to regulate discharges in an efficient and effective manner in order to protect and restore North Coast watersheds and have crafted a general Order for NTMPs that provides landowners with options for coverage that are compatible with long term goals of the NTMP. Under the proposed Order, existing NTMPs that are in compliance with applicable FPRs addressing identification and feasible treatment of sites with the potential to impact beneficial uses of water can receive coverage on a NTO-by-NTO basis under Tier A, or long term coverage for the entire NTMP under Tier B.

Comment #8 - Termination of permit coverage – section C(6)(c)

Three commenters were concerned with section C(6)(c) which states that the Executive Officer shall terminate the applicability of the Waiver if, “the NTMP or NTO is reasonably likely to result or has resulted in a violation or exceedence of any water quality requirements.”

Commenters allege that this provision could be expensive for NTMP landowners, especially if natural sources of sediment are included as violations, that in some situations corrective action may not be possible, and that violations beyond the control of the landowner should not be cause for termination. Commenters also suggest that the language should be revised to omit the words, “is reasonably likely to result or” from section C(6)(c), as landowners should not be found guilty of a violation that is likely to occur.

Response: See response to comment #4 (above). Landowners are expected to identify and implement corrective action at sites that:

- are discharging or has the potential to discharge sediment to waters of the state in violation of water quality requirements or other provisions of this Waiver;
- were caused or affected by human activity; and
- may feasibly and reasonably respond to prevention and minimization management measures.

Landowners are not expected to address sites beyond their control. Natural sediment sources do not violate water quality requirements. However, the Basin Plan regulates discharges as well as *potential* discharges of waste as is reflected in the phrase, “is reasonably likely to result” in a violation.

Comment #9 - Consideration of cost

One commenter inquired how the Regional Water Board will the work with NTMP landowners to ensure that management measures that are required for compliance with this draft Order are cost affective? What is the process if recommendations are not cost affective?

Response: The Order has been structured to capture efficiencies by relying on FPRs to the extent possible and eliminating redundant inspections and reporting. Enrollment in Tier B (Section A(6)) of the proposed Order requires that landowners submit inventories of controllable sediment discharge sources (CSDS), which are defined as sites or locations within the logging area that meet all the following conditions:

1. is discharging or has the potential to discharge sediment to waters of the state in violation of water quality requirements or other provisions of this Waiver;

2. was caused or affected by human activity; and
3. may feasibly and reasonably respond to prevention and minimization management measures.

In general, it is considered reasonable and feasible to maintain and upgrade roads in the logging area of NTMPs to current standards necessary to protect beneficial uses of water. Regional Water Board staff recognize that restoration of many so called “legacy” sites require substantial labor, material and equipment. The above definition of a CSDS has been included in most Regional Water Board permits for discharges from timber operations in the North Coast since 2004. The landowner (as represented by their RPF) is expected to use professional judgment to evaluate which sites meet the definition of a CSDS, including what is feasible and reasonable. Landowners (or RPF) routinely evaluate sites and determine whether it is not reasonable or feasible to restore. Regional Water Board staff evaluate and review ECPs and the determination on feasibility on a case by case basis.

Comment #10 - Pesticide Notifications - section C(4)

Many commenters maintain that pesticide regulation is under the statutory authority of the California Department of Pesticide Regulation. It is also regulated by each County Agricultural Commissioner’s office. The use of pesticides is already highly regulated; it is burdensome and unnecessary to require the NTMP landowner to also notify the Regional Water Board of intended applications.

Response: The pesticide notification has been a general condition of the Categorical Waiver since 2004. It is the policy of this Regional Water Board to determine safe limits for the discharge of pollutants, including herbicides. However, there has been no evidence that herbicide application associated with timber operations on NTMP is widely used or has resulted in discharges that have adversely impacted beneficial uses of water.

At this time, it is consistent with the Action Plan for Control of Discharges of Herbicide Wastes from Silvicultural Applications (Basin Plan Section 4-33.00) to not include pesticide notification as a condition of the NTMP waiver.

This requirement has been omitted from the proposed Order.

Comment #11 - Retention of shade canopy on watercourses and attainment of water quality standards

One person commented that NTMPs approved prior to July 1, 2000 (217 plans - approx. 180,000 acres/or more) are not subject to new Forest Practice Rules changes (Threatened and Impaired Rules or Anadromous Salmonid Protection Rules). Under the proposed Order there is no way, and no monitoring program, to assure necessary compliance with the Basin Plan.

Response

The first NTMPs were approved in 1991. In 2000, the FPRs were revised to include sections 916.9 /936.9 (*Protection and Restoration in Watersheds with Threatened and Impaired Values*) and 923.9 and 943.9 (*Roads and Landings in Watersheds with Threatened and Impaired Values*). The T&I rules did not apply to the 217 NTMPs, representing 112,734 acres in the North Coast Region, that were approved prior to July 1, 2001. These rules, collectively referred to as the “T&I” rules, were based in part on recommendations from a

1999 report by a scientific review panel on FPRs and salmonid habitat, as well as on a proposal by staff from the Lahontan, Central Valley, and North Coast Regional Water Boards and the State Water Board. In particular, Regional Water Board staff have continued to maintain that the FPRs minimum retention standards of 50% overstory canopy on Class I watercourses and 50% total canopy on Class II streams was not adequate to meet the Basin Plan Temperature objective. The T&I rules were designed to enhance sediment control, riparian shade canopy retention, and recruitment of large wood for protection of listed anadromous salmonids and apply to NTMPs in planning watersheds where populations of threatened or endangered anadromous salmonids are present that were approved after July 1, 2000.

Protection for Class I watercourses under the T&I rules are generally considered adequate to meet the Temperature objective. The T&I rules did not increase canopy retention on Class II watercourses from the standard rules. The T&I rules (FPR §916.9 and 923.9) were revised in 2010 and renamed the Anadromous Salmonid Protection (ASP) Rules. The ASP rules created a new category for Class II watercourses, the Class II-L (large), with increased shade canopy protection and expanded the geographic extent to apply to planning watersheds with listed anadromous salmonids as well as planning watersheds immediately upstream and contiguous.

In general, NTMPs must comply with either the standard FPRs (pre-T&I), T&I, and ASP rules based on the date of approval and location of the NTMP with respect to anadromy. A significant majority of the North Coast Region (83%), and nearly all of the NTMPs within it, are in the coastal anadromy zone.

Section 1090.7(h) of the FPRs, which requires landowners to disclose whether listed species have been discovered in the cumulative impacts assessment area since approval of the NTMP, is somewhat ambiguous. In May 2010, CAL FIRE sent a letter to all NTMP landowners and RPFs, advising them of the notification requirements for changes in the status of listed species.

The letter states, *"If your NTMP is affected [by a change in the listing status of species in the assessment area], your RPF must address this in the NTMP prior to submitting an NTO, so that upon NTO submission he can make the following statement pursuant to 14 CCR § 1090.7(h): "...no listed species has been discovered in the cumulative impacts assessment area since the approval of the NTMP."*

The California Department of Forestry and Fire Protection recommends that prior to submittal of your NTO(s), you and your RPF consult with your local California Department of Fish and Game (DFG) and/or conduct other research to insure there have been no listed species discovered in your cumulative impacts assessment area since approval of your NTMP (including any previous amendment which addressed a listed species)."

While the language of the letter quoted above does not require that older NTMPs be amended to meet the current rules applicable to watersheds with anadromous salmonids, landowners must disclose a change in the listing status. A survey of NTMPs files that were approved before 2000 show that the requirement to address changes in listing status was not widely known or observed. NTOs for the majority of NTMPs in watersheds where the

listing status of anadromous salmonids had changed since approval of the plan routinely answered “No” to the question for several years after 2005.

Rules section 1090.7 regulating the contents of an NTO *may* result in older NTMPs being brought into conformance with current rules, particularly 916.9 where applicable. Once a landowner discloses a change in listing status of species of anadromous salmonids in the assessment area, they have the following options to adequately address the species:

1. Amend the plan to comply with 916.9;
2. Consult with DFG, who will submit recommendations for modifications of the plan or a statement that the plan is not expected to impact listed species;
3. The RPF can certify that the plan will not result in significant degradation of the beneficial uses of water, soil stability, forest productivity, or wildlife or be in violation of applicable legal requirements.

If a RPF certifies the third option, CAL FIRE does not have the discretionary authority to disapprove of operations, unless it can be demonstrated that operations are likely to result in violations of the rules. In and of itself, such certification by an RPF is not adequate to ensure protection of the beneficial uses of water. However, RPFs have commented that such a certification is only made after careful consideration and should be given appropriate weight as the opinion of a State certified professional.

Regional Water Board staff reviewed the files of approved NTMPs as well as CAL FIRE NTMP data to better understand how NTMPs approved before the T&I rules became effective are updated to stay in compliance with current FPR rules, changes to endangered species listings status, and Basin plan requirements, standards, and policies. The review focused on whether riparian canopy and shade retention levels as specified in the plan were updated to address changes in Endangered Species Act (ESA) listings for anadromous salmonids since the first NTMPs were approved in 1991.

Of the 217 NTMPs approved prior to the T&I rules, 67 either never submitted an NTO or have not done so since before the T&I rules were in effect. Between the time that the T&I rules came in effect in 2000 and approximately 2008, NTMPs approved prior to implementation of the T&I rules continued to operate under canopy retention standards included in the plan when approved and were not amended. No NTMPs were amended to address additional protection for anadromous salmonids prior to 2008. However, many of the NTMPs approved prior to July 1, 2000 included canopy retention levels that exceeded the FPR minimum. Beginning in 2008, approximately coinciding with the new rules for protection in watersheds with coho salmon, many of the pre-T&I NTMPs were amended to include additional protection measures. Seventy one NTMPs approved prior to implementation of the T&I rules have submitted NTOs since 2008. Of those 71, 40 were amended to address protection of coho salmon. These amendments typically included one of the following: a consultation with DFG, amending the coho mitigation measures from FPR section 916.9.1, or updates to the plan to comply with the T&I or ASP rules. Thirty one pre-T&I NTMPs were not amended.

Monitoring inspections conducted by CAL FIRE of over 580 THPs between 1996 and 2004 found post-harvest canopy levels in Class I and II Watercourse and Lake Protection Zones (WLPZ) to average at least 80%¹. In addition, during the joint field evaluations of NTMPs described in Finding 19, CAL FIRE staff measured post-harvest WLPZ canopy on 19 randomly selected 200 foot long Class I and II WLPZ segments. Average post-harvest riparian shade canopy levels were found to exceed 80% on plans that complied with the standard FPRs as well as those that met the standards of the T&I and ASP rules. The Regional Water Board has consistently maintained that minimum shade canopy retention on streams allowed under the FPRs as low as 50% following harvest may not be adequate to ensure compliance with the Temperature objective. However, average post-harvest riparian canopy levels measured in these inspections (~80%) are generally adequate to meet the Basin Plan Temperature objective. NTMPs can and have generally complied with the temperature objective through utilization of uneven aged forestry, compliance with or exceedence of the applicable rules for watercourse protection and consideration by RPFs of potential temperature impacts when harvesting trees providing shade to watercourses.

NTMPs approved prior to the implementation of rules for protection of watersheds with anadromous salmonids, or NTMPs, located in watersheds outside of the zone of anadromy, could allow reduction of riparian canopy to as low as 50% canopy on many streams. Regional Water Board staff maintain that harvesting to the minimum allowable canopy level may not ensure adequate shade on watercourses to comply with the Basin Plan's Temperature objective. However, based on review of NTMP files and CAL FIRE canopy measurements, Regional Water Board staff have found that NTMPs are generally addressing retention of shade canopy adequately through one or more of the following options:

- Many NTMPs were originally approved with canopy retention levels exceeding the minimum allowed under the FPRs (70% was typical beginning in 1997) ;
- Many NTMPs have been amended to comply with canopy retention levels consistent with the rules for protection of anadromous salmonids;
- CAL FIRE monitoring inspections that measures canopy in watercourse protection zones have found average post-harvest canopy levels that are generally considered adequate to meet the Basin Plan Temperature objective.

In general, Regional Water Board staff have found that timber operations on NTMPs generally result in post-harvest canopy levels that provide adequate shade on watercourses to meet the Basin Plan Temperature objective. Revisions to FPRs since the legislation creating NTMPs was enacted have resulted in more stringent rules and increased watercourse protection and as such, the NTMP Order relies in large part on these rules.

¹ Brandow, C.A., P.H. Cafferata, and J.R. Munn. 2006. Modified completion report monitoring program: monitoring results from 2001 through 2004. Monitoring Study Group Final Report prepared for the California State Board of Forestry and Fire Protection. Sacramento, CA. 85 p. Available at:

¹ http://www.fire.ca.gov/CDFBOFDB/pdfs/MCRFinal_Report_2006_07_7B.pdf

Cafferata, P.H., and J.R. Munn. 2002. Hillslope monitoring program: monitoring results from 1996 through 2001. Monitoring Study Group Final Report prepared for the California State Board of Forestry and Fire Protection. Sacramento, CA. 114 p. Found at:

http://www.bof.fire.ca.gov/pdfs/ComboDocument_8_.pdf

This is contingent on the rules remaining adequate. In the event that FPRs for watercourse protection are revised at some point in the future so that they no longer provide adequate water quality protection, Regional Water Board permits would no longer be able to rely on them to ensure protection of water quality standards.

Comment #11 - NTMP field evaluations – findings 19 and 21

Two commenters sought for clarification and elaboration regarding the NTMP field evaluations, such as: When comparing the 141 crossings on 23 NTMPs with and without ECPs, what was the actual difference that quantified “fewer features with the potential to discharge sediment and what was the total number of field evaluation that lead to the conclusion that ECPs can enhance the FPRs related to sediment control?” A commenter also suggested that the field evaluation is biased by evaluating watercourse crossing located outside of NTO areas, suggesting that there would be no difference between NTMP with and without ECPs if Regional Water Board staff had just evaluated watercourse crossings in completed NTO areas.

Response: In 2011, Regional Water Board and CAL FIRE staff conducted joint field evaluations of 23 NTMPs to assess the effectiveness of FPR implementation and the extent to which ECPs and/or Road Plans are necessary for NTMPs to meet water quality standards. The objective of the Regional Water Board staff was to collect information on the frequency of sediment discharge and the frequency of potential sediment discharge from stream crossings and logging roads. The method of evaluation was strictly observational with use of data collection forms and scoring by trained staff. Recorded notes and photos were added to the collected data. Stream crossings and road segments were not randomly selected within the NTMPs. Inspectors focused on suspected problem areas. The evaluation of skid trails was not included in the study. Because the site selection was not random, results from these inspections do not necessarily apply to the entire population of stream crossings on NTMPs.

A total of 141 watercourse crossings were evaluated as part of the joint field evaluations. Information was documented on the two-page Stream Crossing Form. Table 1 shows the categories and instances of problems evaluated at each watercourse crossing. “Crossing fill slopes” and “Road draining to crossing” were evaluated for all types of watercourse crossings. “Culvert design and configuration”, “Non-culvert crossings”, and “Removed, abandoned or catastrophic failure” were evaluated for the applicable watercourse crossing type.

At watercourse crossings in general, a significant number of problems were observed in regards to cutoff drainage structures, where 58 (42%) of observations were identified as minor or major. Slope failure or perched fill at crossing fill slopes was another area of importance, with 44 (32%) of observations displaying minor or major problems.

At culverted watercourse crossings, the outlet gradient was the most frequently observed issue, with 35 (40%) instances of minor or major problems. Problems with scour at the outlets and diversion potential were also notable. At non-culverted watercourse crossings, there were many instances of minor problems with armoring (17 or 35%) and scour at the outlet (19 or 40%).

Removed, abandoned, or catastrophic failure watercourse crossing sites revealed the largest percentages of major problems for any one crossing type, although only 8 such sites were evaluated. 75% of these sites had major problems with slope failure or perched fill.

Table 1 – Field Evaluation - Watercourse Crossing Results

	Total	ECP	No ECP	Recent Activities	No Recent Activities
Number of NTMPs	23	7 (30%)	16 (70%)	n/a	n/a
Number of Watercourse Crossings	141	27 (19%)	114 (81%)	48 (34%)	93 (66%)
At least one major problem	68	13 (19%)	55 (81%)	19 (28%)	49 (72%)
At least one minor problem	119	22 (18%)	97 (82%)	36 (30%)	83 (70%)
Multiple major problems	40	7 (18%)	33 (82%)	9 (23%)	31 (78%)
Multiple minor problems	83	17 (20%)	66 (80%)	24 (29%)	59 (71%)
Identified as a CSDS	82	19 (23%)	63 (77%)	23 (28%)	59 (72%)

Table 1 shows a breakdown of watercourse crossings where there was an ECP or not and where there were recent activities or not. Recent activity is defined as stream crossings that were repaired or used for timber operations after 2007. Generally, recently active crossing fell within the NTO areas, but not all stream crossings within the NTO were automatically considered recently active.

Sixteen (70%) NTMPs evaluated had ECPs. This number corresponds to NTMPs approved after 2004 and subject to the 2004 Waiver, plus one NTMP approved in 1997 subject to the requirements of the Garcia River TMDL Action Plan. Of the 141 watercourse crossings evaluated, 27 (19%) were identified in an ECP, while 48 (34%) of them had been subject to recent activities.

Where there was no ECP, 55 (81%) of the 141 observed watercourse crossings had at least one major problem and 97 (82%) had at least one minor problem. Where there were no recent activities, 49 (72%) had at least one major problem and 83 (70%) had at least one minor problem.

At 140 watercourse crossings, the observer identified whether or not the site classified as a controllable sediment discharge source (CSDS). A total of 82 (59%) of these watercourse crossings observed were identified as CSDSs. In 63 (77%) of these instances, the site was not identified in an ECP. In 59 (72%) of these instances, the site had not been subject to recent activities.

The results of the field evaluations indicate that watercourse crossings where there was either no ECP or no recent operations more often had problems and were more often identified by Regional Water Board staff as controllable sediment discharge sources.

Comment #12 CEQA and Anti-degradation Findings

Coast Action Group and EPIC submitted comments on the draft NTMP Order, in essence arguing the Order does not comply with CEQA or the Anti-degradation policy because it relaxes standards from the 2009 Waiver. EPIC says activities permitted under the Order would have significant environmental impacts and that the Regional Water Board should either reinstate the 2009 Waiver or prepare an EIR. He states that there is a “fair argument” in favor of preparing an EIR.

Response: Staff does not agree. The 2009 Waiver was accompanied by adequate CEQA documentation in the form of a mitigated negative declaration. While the 2009 Order increased water quality requirements for previously grandfathered NTMPs, the baseline for identifying potentially significant environmental effects was the existing condition of grandfathered NTMPs. The NTMP provisions were stayed before any change could have occurred in the existing condition baseline, and therefore the baseline is the same as that in 2009. No additional CEQA documentation is required.

Moreover, substantial evidence in the record supports the conclusion that water quality will improve under the proposed Order. The 2004 Waiver had grandfathered in NTMPs previously approved by CAL FIRE without any additional water quality requirements. The proposed Order contemplates authorizing discharges of waste only if the discharger complies with water quality requirements. Under Tier A, only the NTO portion of the NTMP has Water Board coverage. The Order contains requirements for the identification of CSDS and requires that such sites be addressed in the NTO and maintenance period. Discharges of waste in the remaining portion of the NTMP is no longer waived, and is subject to all requirements of the Water Code and Basin Plan, including relevant enforcement authorities, just like any other land in the North Coast Region.

The proposed Order offers real, on the ground improvements to water quality, by streamlining the CAL FIRE and Water Board processes, leading to the strengthening of FPRs. The collaborative process between the agencies and stakeholders has fostered a greater understanding and respect for each other’s positions. For Water Board staffs’ perspective, this is evidenced by CAL FIRE’s recent guidance documents to RPFs and CAL FIRE inspectors clarifying the extent of NTMPs evaluations required prior to submitting NTOs and that NTOs must include current maps and information regarding sites where corrective action will be implemented. CAL FIRE has begun posting notices of completion online so that Regional Water Board staff receive them in a timely manner and have opportunities to participate in inspections of completed NTOs. In addition, CAL FIRE, in collaboration with Regional Water Board staff and RPFs, has developed a table that can be included in NTMPs as enforceable provisions that would include all the information required in ECPs in a consistent format.

Comment #13 Consistency with TMDLs and Water Quality Standards

Coast Action Group commented that inappropriate forest practices were the major cause of water quality impairment, and because an NTMP is no different from a THP, NTMPs should be subject to consistent requirements.

Response: The majority of water bodies in the North Coast region are impaired by excess sediment and water temperature caused by land management, with historic timber harvesting being one of the primary contributing factors.

The Basin Plan is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, which in the judgment of the Regional Water Board will ensure the reasonable protection of beneficial uses of water. The Basin Plan includes implementation programs for achieving those objectives, including a description of the nature of actions that are necessary to achieve the objectives, time schedules for the actions to be taken, and a description of monitoring to be undertaken to determine compliance with objectives. Water quality requirements include water quality objectives (narrative or numeric), prohibition, TMDL implementation plan, policy, and all other applicable plans or policies adopted by the Regional Board or State Water Board, including, the State and Federal anti-degradation policy and nonpoint-source control policy.

Federal regulations require that a total maximum daily load (TMDL) be established for 303(d) listed water bodies for each pollutant of concern. TMDLs quantify the natural and anthropogenic sources causing impairment, assess the loading capacity of the watershed, and allocate the amount of a pollutant that can be discharged in a specific watershed without impairing beneficial uses of water.

In 2004, the Regional Water Board adopted a Sediment TMDL Implementation Policy (Resolution R1-2004-0087), which states that Regional Water Board staff shall control sediment pollution by using existing permitting and enforcement tools. The goals of the 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 impaired by sediment.

In 2012, the Regional Water Board also adopted a Temperature Policy statement, which encourages a combination of TMDL requirements with region-wide nonpoint source programs for efficiency and to avoid duplicative regulation. Often, the same management measures can address nonpoint source water quality concerns regardless of whether or not the waterbody is impaired. Sediment conditions interact with water in many ways that can affect water temperatures. Therefore, practices implemented to prevent and minimize elevated sediment discharges may also help control elevated water temperatures.

For the most part water quality requirements are narrative standards, which describe a desired result or outcome but do not specify how that result must be achieved. Such narrative requirements differ considerably from regulations such as the FPRs, which require compliance with specific prescriptions that are designed to achieve an intended result. Regional Water Board staff have developed an approach that synthesizes applicable water quality requirements and have provided landowners with guidance to help them understand how the requirements can be implemented for nonpoint source pollution from timber harvesting activities. In general, the Regional Water Board's strategy to implementing water quality standards and protecting the beneficial uses of water include at a minimum the following components:

- Measures to prevent or minimize creation of new sources of sediment discharge;
- Measures to identify and correct existing sediment discharge;
- A plan to monitor the effectiveness of prevention and minimization measures to ensure that inadequately functioning measures will be identified and corrected in a timely manner.

- Measures to adequate shade canopy on watercourses.

The proposed Order relies in large part on existing regulations in the FPRs for implementation of management measures for the control of temperature impacts and sediment discharges from NTMPs. These management measures include:

- Long term uneven age management;
- The establishment of riparian protection zones;
- Retention of riparian canopy;
- Identification and treatment of existing sediment discharge sources; and
- Measures designed to prevent new discharge sources.

When fully and properly implemented, these management measures can contribute to achieving TMDL load allocations for sediment and temperature from NTMPs. While an NTO may be the same size as a THP, the investigation into NTMPs shows support for the approach outlined in the proposed Order.