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Timber Harvesting and Water Quality

Forest Practice Rules Fail to Adequately Address Water Quality and Endangered Species

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*A generation ago, California enacted a forest-protection law widely heralded as the toughest in the nation. The law was supposed to guarantee a continuous supply of “high-quality timber” while protecting hillsides, watersheds and wildlife. Today, it is widely regarded as a failure on both accounts. – **Los Angeles Times, February 28, 1999***

Introduction

The practice of timber harvesting on state and private lands in California is, in most cases, failing to adequately protect water quality and endangered and threatened species. California forestry practices have been criticized in a number of state and federal government and scientific and academic reports as insufficient to protect public trust resources such as fisheries and water quality.¹ These documented concerns are the subject of this paper.

Water quality and threatened and endangered species regulation is in the purview of the state Board of Forestry and the California Department of Forestry and Fire Protection. However, these two state agencies, by state law, do not see water quality and species protection as their primary responsibility. Rather, as the Z’Berg-Nejedly Forest Practices Act of 1973 states, their responsibility is to “encourage prudent and responsible forest resource management calculated to serve the public’s need for timber and other forest products, while giving *consideration* [italics added] to the public’s need for watershed protection, fisheries and wildlife and recreational opportunities alike in this and future generations.”

Water Quality and Species Protection

¹ See Endnotes for a list of these reports.

Under Section 208 of the federal Clean Water Act of 1973, states are required to develop waste treatment management plans or water quality control plans. These plans are required to include “agriculturally and siculturally (timber-harvest) related nonpoint sources of pollution” in their management strategies. California uses the basin plans developed by the state’s regional water quality control boards as the equivalent of the federal water quality control plans.

The state’s Porter-Cologne Water Quality Act of 1969 is the mechanism by which the state regulates water quality. Through the state board’s nine regional water boards, the state adopts basin plans, issues permit and waste discharge requirements, and enforces water quality laws.

Historically, the regional water boards have always had the authority to issue waste discharge requirements to persons who harvest timber on private or state lands. However, very few were ever issued because they were labor intensive and other state agencies, such as the Board of Forestry and the Department of Forestry, were regulating timber harvesting. Many regional boards have addressed the issue by adopting general waivers of waste discharge requirements for timber harvesting.

In 1988, the Board of Forestry and the State Water Resources Control Board entered into a Management Agency Agreement (MAA) in which the Board of Forestry assumed the management of water quality issues associated with timber harvesting and the regional water boards “cease(d) issuance of waste discharge requirements for timber operations on nonfederal lands.” The MAA did not drastically change the process of water quality review – it only formalized it.

Both the federal and state Endangered Species acts regulate species protection. Under the California Environmental Quality Act (CEQA), a lead agency is required to consult with the Department of Fish and Game if there is a take (killing) of an endangered species. The Department of Forestry is considered a lead agency under CEQA; however, timber harvest plans have been designated as a functional equivalent of CEQA and the development of an environmental review document is not required. If, in the timber harvest review process, the Department of Fish and Game disagrees with the Department of Forestry on the protections for endangered species, it can file a letter of nonconcurrence, which the Department of Forestry can accept or ignore. The only other avenue would be for the director of the Department of Fish and Game to file a Head of Agency Appeal, but no such appeal has ever been filed.

History of Water Quality and Timber Harvesting in California

Porter-Cologne Water Quality Act

In 1969, four years before the federal Clean Water Act, the Legislature passed the Porter-Cologne Water Quality Act to create the State Water Resources Control Board and the nine regional boards to “formulate and adopt state policy for water quality.” The act provided for regional water quality plans and stated that “state policy for water shall be periodically reviewed and may be revised.”

The act also required that “(a)ny person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the state ... shall file with the regional board ... a report of the discharge, containing such information as may be required by the board.”²

Finally, the Legislature stated that “it is the intent of the Legislature that the state board and each regional board shall be the principal state agencies with primary responsibility for the coordination and control of water quality.”³

Federal Clean Water Act

The federal Clean Water Act of 1973 codified the objectives of “restor[ing], and maintain[ing] the chemical, physical, and biological integrity of the nation’s waters.” To meet this objective, Congress established a “national goal that the discharge of pollutants into navigable waters be eliminated by 1985.” Congress also instituted a “national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals [of the Clean Water Act] to be met.”

As discussed above, Section 208 required “the development and implementation of waste treatment management plans and practices which will achieve the goals of [the Clean Water Act].” Specifically, the Clean Water Act requires, “Any plan prepared under such process shall include, but not be limited to ... a process to (i) identify, if appropriate, agriculturally and siviculturally related nonpoint sources of pollution ... and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources.”⁴

Forest Practices Act of 1973

The Forest Practices Act of 1973 came about because the state’s 1945 Forest Practices Act, which was primarily the product of the timber industry lobby, was ruled unconstitutional in 1971.

² Section 13260(a), Water Code.

³ Section 13000, Water Code.

⁴ Section 1288 (b)(F), Clean Water Act.

Leaving logging practices unregulated was never seriously considered after the Court of Appeals decision. A number of legislative hearings were held,⁵ and the Assembly Natural Resources Committee requested a study from the Institute of Ecology at UC Davis.⁶ A 1975 Boalt Hall law journal article that analyzed the 1945 and 1973 acts concluded, “While the 1973 act does improve on many of the weaknesses of the former act, the improvements are modest.”

The 1973 act created the state Board of Forestry, which was required to adopt forest practice rules (FPRs) that regulate the harvest of timber on private and state lands in California. As previously mentioned, these rules were to “encourage prudent and responsible forest resource management calculated to serve the public’s need for timber and other forest products, while giving consideration to the public’s need for watershed protection, fisheries and wildlife and recreational opportunities alike in this and future generations.”

California forestry practices have for years been criticized as insufficient to adequately protect public trust resources such as fisheries and water quality. In addition, the timber industry feels burdened by a set of forest practice rules that began in 1973 and have been amended and enlarged over the last 29 years.

Over the years, the number of rules have increased. During a July 17, 2002, workshop held by the State Water Resources Control Board, a representative of the Department of Forestry testified that since 1988 the Board of Forestry had passed 135 rule packages. Comparing the thick book of rules to an earlier version, he told the board: “Actually, here is what our rule book was in 1985, and here is what our rule book is today. So there has been quite a change in the amount of regulations to the timber industry.” He was followed by Joe Blum of the National Oceanic and Atmospheric Administration (NOAA) Fisheries Agency, who responded: “I don’t really care how thick the book is. What I care about ... and what we are obligated to care about ... is ... what is in that rule book doing the job. And, candidly, it’s not doing the job.”

Best Management Practices and the Forest Practices Act

Methods to control nonpoint sources of pollution are generally known as best management practices (BMPs). Under federal regulation, BMPs are defined as “methods, measures or practices selected by an agency to meet its nonpoint source control needs. BMPs include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.”⁷

⁵ Assembly Select Committee on North Coast Timber Economy, Fort Bragg, 1973; Assembly Committee on Natural Resources, Yosemite National Park, 1972 and Lake Tahoe, 1972.

⁶ Public Policy for California Forest Land, 1972.

⁷ 40CFR 130.2(m).

In 1977, the Board of Forestry received funds from the federal Environmental Protection Agency (EPA) to develop BMPs as part of its forest practice rules and deliver them to the state water board and the EPA for approval by August 1978. The Board of Forestry finally submitted a draft portion of the BMP report in August 1979. However, both the state water board and the EPA identified deficiencies with the forest practice rules. The following year, the EPA notified the Board of Forestry that major reforms were necessary before the EPA could certify the forest practice rules as BMPs.

The Board of Forestry made some revisions to the rules relating to water quality and in 1984 requested they be certified as BMPs. While the State Water Resources Control Board still found significant problems with the forest practice rules, it decided it would certify them as BMPs on a temporary four-year basis with conditions.

In the state board resolution that certified the rules as BMPs,⁸ it was noted: "State board staff reviewed the revised Board of Forestry rules and expressed several concerns regarding the adequacy of the rules in protecting water quality..." The resolution went on to say that "if regional boards are not adequately involved in regulation of timber harvest operations through the issuance of waste discharge requirements ... water quality concerns ... will not be addressed."

In 1987, the state water board conducted public hearings to consider recertifying the forest practice rules as BMPs. The following year, the state board did recertify, but again made its determination contingent on the Board of Forestry making adequate reforms to the rules and their implementation. The EPA felt that significant deficiencies still existed with the rules. In a July 29, 1988, letter to the chair of the State Water Resources Control Board, Daniel W. McGovern, regional administrator for the EPA, stated: "It is my understanding that the MAA provides for improvements to the rules certified by the state as BMPs and to the procedures to implement these improvements. Given that these intended improvements are essential to the integrity of the Water Quality Management Plan, I am taking no action on the plan at this time. ...EPA intends to work closely with the state board in evaluating the BOF/CDF's progress towards making the agreed-on revisions...."

In 1979, the Forest Practices Act was amended to exempt timber operations conducted under the forest practice rules from the regional water boards' requirements to obtain a waste discharge permit if the federal EPA certified the forest practice rules as BMPs. To date, the EPA has declined to so certify. This 1979 revision is of continuing concern to state and regional water board staff, who worry they could further surrender water quality authority to the Department of Forestry if the EPA was ever to certify the forest practice rules as BMPs.

⁸ Resolution 84 45.

In a petition filed by 23 environmental, sport and commercial fishing organizations with the State Water Resources Control Board in June 2002, the petitioners stated that the “intended improvements” to the 1988 MAA “have never been implemented....” In a recent telephone conversation with Region IX of the EPA,⁹ it was confirmed that the EPA also believes that the required improvements have not been made, and that it has never certified the state’s forest practice rules as BMPs.

The Management Agency Agreement of 1988

Under the Clean Water Act, states may delegate to a separate agency the responsibilities for carrying out portions of a water quality management plan by designating the agency as a “management agency” under the federal act. Such “(m)anagement agencies must demonstrate the legal, institutional, managerial and financial capability and specific activities necessary to carry out their responsibilities in accordance with Section 208 ...” of the Clean Water Act.

The State Water Resources Control Board began to develop water quality management plans in 1976 and identified the Board of Forestry and the Department of Forestry as potential water quality management agencies for the purpose of developing and implementing BMPs for timber harvesting. In 1984, the state water board designated the Board of Forestry and the Department of Forestry as management agencies for a four-year period, while expressing concerns over the water quality portions of the forest practice rules.

In February 1988, the state water board entered into a Management Agency Agreement with the Board of Forestry and the Department of Forestry. The MAA formally:

- ♦ Designated the Board of Forestry and the Department of Forestry as management agencies under the Clean Water Act.
- ♦ Transferred primary responsibility for water quality management for timber operations on state or private lands from the state and regional water boards to the Board of Forestry and the Department of Forestry.
- ♦ Required the State Water Resources Control Board to direct the regional water boards to cease the issuance of waste discharge requirements for timber operators.
- ♦ Required the Board of Forestry and the Department of Forestry to undertake a number of specific actions aimed at developing and implementing effective BMPs.

⁹ Phone conversation between the author and EPA Region IX, Water Division, August 2002.

It has been almost 15 years since the MAA has been signed, and there is some disagreement over how many of the specific actions that were called for in the agreement have been accomplished. In the petition to the state water board signed by 23 environmental and fishing organizations and filed in June, the petitioners alleged that there has been a failure “to actualize any of the substantive reforms the state board required.” Others familiar with the interactions between the parties say that between 60 percent and 70 percent of the issues were addressed adequately; however, water quality and endangered species concerns are still an issue. In its February 2000 proposal to list steelhead as a threatened species in Northern California, the National Marine Fisheries Service stated:

(A)lthough the FPRs [forest practice rules] mandate protection of sensitive resources such as anadromous salmonids, the FPRs and their implementation and enforcement do not accomplish this objective. Specific problems with the FPRs include: (1) protective provisions that are not supported by scientific literature; (2) provisions that are scientifically inadequate to protect salmonids including steelhead; (3) inadequate and ineffective cumulative effects analysis; (4) dependence upon registered professional foresters that may not possess the necessary level of multi-disciplinary technical expertise to develop timber harvest plans (THPs) protective of salmonids; (5) dependence by CDF on other state agencies to review and comment on THPs; (6) failure of CDF to incorporate recommendations from other agencies; (7) inadequate enforcement due to staffing limitations.

In addition, a number of scientific and government reports over the last eight years have pointed out that the forest practice rules are failing to protect water quality, wildlife and their habitat. Examples include:

- ♦ In 1994, the Little Hoover Commission reported: *Despite the hoops that timber operators must jump through and the barriers erected by the planning process, the environment is not being effectively protected because ... of the flawed concept that the Timber Harvest Plan process is based on -- namely that ecology can be addressed on a parcel-by-parcel basis. In addition, the state's focus is almost entirely on procedural steps rather than on the eventual outcome.*¹⁰
- ♦ In 1998, the federal EPA reported: *California waters currently experience significant impacts from forestry. ... (S)ilviculture is the leading source of impairment to water quality in the North Coast of California. California has a number of species, in particular salmon, that are endangered, threatened*

¹⁰ Timber Harvest Plans: A Flawed Effort to Balance Economic and Environmental Needs, Little Hoover Commission, June 1994, p. 2
(<http://www.lhc.ca.gov/lhcdir/126rp.html>).

*or otherwise seriously at risk, due in very significant part to forestry activities that impair their spawning, breeding and rearing habitat.*¹¹

- ♦ In March 1998, the Department of Forestry and the National Marine Fisheries Service entered into a memorandum of agreement in which the state pledged to review and make changes to the forest practice rules. The state also pledged to make recommendations to the Board of Forestry for rule changes to protect salmon species in order to try to avoid the Endangered Species Act listing of the steelhead trout. In 1999, the state Scientific Review Panel concluded that the current forest practice rules were failing to adequately protect salmon habitat. The Scientific Review Panel made numerous recommendations to change the forest practice rules; however, the Board of Forestry has failed to adopt a majority of those recommendations.
- ♦ In 1999, the National Marine Fisheries Service (NMFS) determined that the existing forest practice rules were inadequate. In its June 7, 2000, decision to list steelhead trout as threatened, the National Marine Fisheries Service said that “the NMFS/California MOA [memorandum of agreement] contained several provisions calling for the review and revisions of California’s forest practice rules ... by January 2000.” Since these “critical conservation measures were not being implemented by the state of California,” NMFS felt it necessary to formally list the steelhead trout because the state “was not reducing threats” to this species.¹²
- ♦ In 2001, the University of California Committee on Cumulative Watershed Effects published a report that said that, while the state requires timber harvest plans to include an analysis of the potential for cumulative watershed effects (CWE), “denials of the likelihood of CWEs are repeated regularly by applicants and reviewers, despite the widespread recognition among environmental scientists that, in the aggregate, timber harvest in coastal California has resulted and continues to result in radical alterations of water quality, habitat conditions, and perhaps flood risk.”¹³
- ♦ In April 2002, the Department of Fish and Game reported to the state Fish and Game Commission on the “Status Review of California Coho Salmon North of San Francisco.” The review concluded that “timber harvest activities, especially past and present road construction, have had *deleterious effects* [italics added] on Coho salmon habitat. The department recommends that the commission add Coho salmon (from Humboldt County to the Oregon border) to the list of threatened species.”

¹¹ California Nonpoint Source Program Findings and Conditions: Findings for the California Coastal Nonpoint Program, U.S. Environmental Protection Agency, June 1998. (<http://www.epa.gov/Region9/water/nonpoint/cal/finding.html>.)

¹² Federal Register, Vol. 65, No. 29, February 11, 2000, p. 6960.

¹³ A Scientific Basis for the Prediction of Cumulative Watershed Effects, UC Berkeley – June 2001, p. 6.

The North Coast Regional Water Quality Control Board, county governments and local communities have also raised water quality concerns. Sonoma County has sued the Department of Forestry for approving a timber-harvest plan that the local water agency and the regional water board say would adversely affect domestic water supplies. Several community groups are appealing timber harvest plans that they and the regional water board believe threatened domestic and agricultural water supplies.

In a State Water Resources Control Board workshop in July 2002, a board representative said that “the state and regional boards provided packages of rule amendments to the Board of Forestry” in 1997 and 1999. “In particular, the 1999 package was an integrated package that covered the full spectrum of the forest rules in an integrated way to provide what we thought was necessary for good water quality protection. The Board of Forestry has yet to act on that package, although they have incorporated pieces of it into other rule packages that they have adopted.”¹⁴

Board of Forestry’s Interim Rule Packages -- 2000

The BOF has attempted to address endangered species and water-quality issues in the last two last years by adopting two interim rule packages. Regarding endangered species, the Interim Threatened and Impaired Watershed Addendum was adopted, initially for 12 months, in 2000. This rule package was comprised of a small percentage of the changes recommended by the Scientific Review Panel as necessary to protect endangered species. After considerable urging by the Legislature, the board extended these rules for another 12 months in 2001 and extended them again in 2002. They are due to expire in December 2003.

The second rule package, the Interim Watershed Mitigation Addendum, sought to address water quality issues. It was a timber industry-sponsored package that allowed landowners to self-characterize the condition of the watersheds they own. It also permitted them to propose mitigation measures to timber harvest plans that replace existing regulations and do not need to be as strong as existing rules. The Interim Watershed Mitigation Addendum rules were disapproved by the Office of Administrative Law on December 7, 2001, but the BOF readopted them in May 2002. It has been claimed by environmentalists that this rule package not only could lower the minimum standards that apply to streams with salmon in them, but also eliminates the requirement that alternative practices will provide “equal or better protection.”

From the transcript from the BOF hearing on the rule package:

Bob Heald, board member: ... *I think what we’ve heard in the committee meetings that there was concern that the 916.6 section required equal or better*

¹⁴ Gaylon Lee at the Workshop on the Implementation of the Provisions of SB 390 as They Pertain to the Discharges of Waste From Silvicultural Activities, State Water Resources Control Board, July 17, 2002.

protection and that this made it unlikely the department would be able to approve an alternative practice.

Ross Johnson, deputy director of the Department of Forestry: *I believe that is true and that is one of the reasons why I believe that this package came before the board was because we couldn't get past that – the issue of, OK, now it's got to be equal and better than the interim rule itself. And there was a need, industry felt that there was a need, landowners felt there was a need to come in with something that didn't have that particular provision.*

SB 390, Statutes of 2000 – Legislative Review of Waste Discharge Waivers

Section 13269 of the Water Code authorized regional water boards to waive reports of waste discharge and waste discharge requirements. In 1999, the Legislature passed and Governor Davis signed Senate Bill 390 (Alpert), which amended that code section to do the following:

- ♦ Require regional water boards to review their waiver policies at public hearings.
- ♦ Require renewal of waiver policies by January 1, 2003. Failure to renew a waiver automatically results in its expiration. The duration of a new waiver may not exceed five years.
- ♦ Require a public hearing prior to renewing waiver policies to determine whether the discharge for which the waiver policy was established should be subject to a general or individual waste discharge requirement.
- ♦ Direct regional water boards to require compliance with the conditions pursuant to the waivers granted.

The nine regional water boards are now reviewing all existing waivers, and public hearings are being held. The North Coast Regional Water Board staff seems to be leaning toward adopting another categorical waiver for timber harvesting and has drafted a preliminary categorical waiver for timber harvesting that will be presented at a hearing in the near future.

Petition to the State Water Resources Control Board to Take Back Water Quality Responsibility – 2002

As previously noted, on June 20, 2002, 23 environmental, sport fishing and commercial fishing organizations filed a petition with the State Water Resources Control Board requesting the state water board take back water quality responsibilities from the Board of Forestry and the Department of Forestry.

In their request to the board, the petitioners alleged the Board of Forestry and the Department of Forestry:

- ♦ Used flawed cumulative impact analysis;
- ♦ Did not require adequate monitoring;
- ♦ Allowed inadequate standards for forest practice rules to be lowered with the interim rule packages; and contended that
- ♦ The forest practice rules were deficient.

The petitioners have requested the State Water Resources Control Board to revoke the Management Agency Agreement and carry out its responsibilities under the federal Clean Water Act and the state's Porter-Cologne Act.

Options and Actions

There are a number of proposals being discussed regarding ways to protect water quality and ensure species protection and continue to harvest timber. At the state water board's July 2002 workshop, a board representative suggested:

- ♦ CDF should seek to achieve compliance with applicable water quality goals and requirements as interpreted by regional boards, not just accept the least damaging alternatives pursuant to CEQA.
- ♦ The state and regional water boards should be authorized to advise the CDF director regarding compliance with basin plans – something that is not allowed under current rules.
- ♦ CDF should give great deference to any regional board findings that a timber operation has violated, or threatens to violate, water quality requirements.
- ♦ CDF should more consistently honor regional board requests for additional information from the project proponent, address regional board concerns and questions during preharvest inspection, and incorporate or address regional board recommendations in a complete and timely manner in its review-team chair's report to the CDF director.
- ♦ An intermediate conflict-resolution process should be developed – something that falls between nonconcurrence, which the regional boards find ineffective because the Department of Forestry can ignore it, and head-of-agency appeal, which never occurs.

Almost everyone concerned, except the Department of Forestry, suggests that the current Management Agency Agreement should be updated or revoked. The state water board staff has been working with the Department of

Forestry and Board of Forestry staff to develop a memorandum of understanding on amending the MAA.

Three main issues are being discussed:

- ◆ Do the regional water boards' basin-plan requirements apply to timber harvest plans?
- ◆ Do the basin-plan requirements apply to timber harvest plans as interpreted by the regional boards?
- ◆ When there is a range of disagreement, does water quality or species protection receive deference unless there are facts clearly to the contrary?

Finally, there is the issue of differing cultures between the state and regional water boards, and the Board of Forestry and the Department of Forestry. It seems that the Board of Forestry and the Department of Forestry view the issues they face through the lenses of the forest practice rules and the California Environmental Quality Act. That is to say, they strive not to make things worse. On the other hand, the Clean Water Act and the Porter-Cologne Act, which govern the actions of the water boards, seek to protect and recover resources as rapidly as possible. In addition, the Department of Forestry sees itself as the arbiter of water quality issues. It believes it has the right to interpret and apply regional water board basin-plan requirements.

Prepared by Kip Wiley

Glossary

Beneficial Use of Water – Water used for homes, human consumption, irrigation, livestock, hydroelectric power, municipal water supplies, mining, industrial and commerce practices, fish and wildlife preservation, recreation, water quality, groundwater recharge, etc.

Best Management Practices – A practice determined by the state to be the most effective and practicable method of preventing or reducing the amount of pollution generated by polluting sources. Determination is made after public participation and review of all other alternatives. This comes from the Federal Water Pollution Control Act.

Cleanup and Abatement Order – An order adopted by a regional board requiring the cleanup of a discharge or the abatement of an activity creating, or threatening to create, pollution or a nuisance.

Clean Water Act of 1972 – This federal legislation requires every state to submit a biennial report to the EPA, describing the quality of its surface, ground and marine waters.

Porter-Cologne Water Quality Control Act – Enacted by the California Legislature in 1970, it contains a complete framework for the regulation of waste discharges to both surface and ground waters of the state. It further requires adoption of water-quality control plans and the implementation of these plans by adopting waste discharge requirements for each discharger of waste that could impact the waters of the state.

Report of Waste Discharge – A regional board order to file such a report requires that a discharge into the state's waters be ceased for 120 days or until a permit to discharge is issued.

Waste Discharge Requirement – An order by a regional board regulating discharges of waste into the state's waters.

Endnotes

“Department of Fish and Game’s Evaluation of the Implementation and Effectiveness of the Watercourse and Lake Protection Zones,” Department of Fish and Game. Sacramento. July 6, 1995.

“Regulation of Logging on Private Lands in California Under Governor Gray Davis,” Law Review, Golden Gate University. Spring 2001.

“Regulation of Private Logging in California,” Ecology Law Quarterly, Vol. 5 1975.

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