

Appendix 2-C

History of Regional Water Board Regulatory and Non Regulatory Actions in the Upper Elk River Watershed

As described in the previous section, timber harvest operations in the Elk River watershed were significantly accelerated in 1986. Subsequent winter storms between 1995 and 1998 triggered discharge of landslide-generated sediment (discussed further in Chapter 3: Source and Linkage Analysis of the Staff Report). Complaints from Elk River residents, verified by Regional Water Board staff field inspections, identified these discharges as coinciding with channel filling, degraded beneficial uses, and increased frequency and magnitude of flooding. Increased extent and frequency of flooding has affected residents along the Elk River Valley and upstream of the confluence of North Fork and South Fork. Ingress and egress to residences on Humboldt Hill is restricted during flood events due to flooded roadways.

Due to water quality and beneficial use impairments, discussed in Chapter 2 of this Staff Report, the Regional Water Board Executive Officer and staff have taken a variety of regulatory and non-regulatory actions in Elk River to protect and restore beneficial uses of water.

On September 23, 1997, the Executive Officer issued Cleanup and Abatement Order No. R1-1997-115 for Scotia Pacific Holding Company, The Pacific Lumber Company, requiring cleanup and abatement of timber harvest related discharges in North Fork Elk River.

Due to beneficial use impairments, degraded water quality, and elevated flooding, residents presented both the Regional Water Board and the California Board of Forestry in 1997 and again in 1998 with emergency petitions asserting that timber harvest activities were causing landslides, partially due to winter logging, and describing the need for water quality monitoring. On December 16, 1997, representatives of California Department of Forestry and Fire Protection (CalFire), the California Department of Fish and Game (CDFG), California Division of Mines and Geology (now known as the California Geological Survey (CGS)), and Regional Water Board staff reached consensus that the Elk River watershed had significant adverse cumulative watershed impacts, and that timber harvesting was a contributing factor.

The Executive Officer issued Cleanup and Abatement Order No. R1-1998-100 on September 22, 1998, to the Scotia Pacific Holding Company and the Pacific Lumber Company in the North Fork Elk River, which required cleanup and abatement of timber harvest plan related discharges by restoring damaged domestic and agricultural water supplies. This Order addressed elements of the previous Order No. R1-1997-115. In 1998, removal of in-channel sediment was deemed to be too environmentally damaging. As a result, Order No. R1-1998-100 focused on the cleanup of sediment stored in lower-order (tributary) watercourses. Historically, numerous residents relied on surface water intakes in the river

for domestic and agricultural use supplies. Implementation of Order R1-1998-100 resulted in alternative supplies being provided to nine residences along North Fork Elk River. Numerous South Fork and Mainstem Elk River residents still do not have an alternative water supply source.

At the request and under the direction of licensed professionals on the Regional Water Board staff, scientists at the Forest Service Pacific Southwest Research Station's Redwood Sciences Laboratory (RSL) in Arcata, California, prepared an analysis of sediment data provided pursuant to Order R1-1997-100 (Reid 1998). These analyses highlighted the strong relationship between recent logging and increases in landslide-delivered sediment in this watershed. Furthermore, based on these relationships and the data available in sediment source inventory reports, the analyses offered simple empirical models that could be used to determine future rates of timber harvesting that would: 1) adequately protect the beneficial uses of water from future harvest-related landslides, 2) achieve water quality objectives, and 3) allow for watershed recovery from cumulative impacts. Specifically, the approach identifies the rate of sediment production expected on forested acres and the rates expected from harvested acres.

In March of 1999, Palco, the US Fish and Wildlife Service, National Marine Fisheries Service (NMFS, now called NOAA Fisheries Service or NOAA Fisheries), and the CDFG (collectively referred to as the Wildlife Agencies) entered into an agreement to implement a multi-species Habitat Conservation Plan (HCP) on the Palco's lands. The HCP was prepared to address the requirements of the federal Endangered Species Act (FESA) and the California Fish and Game Code with regard to listed and potentially listed species, including salmonids. The Implementation Agreement for the HCP states, in part, "notwithstanding any other provisions in this Agreement, all activities undertaken pursuant to this Agreement, the HCP, or the Federal or State Permits must be in compliance with all applicable Federal and state laws and regulations".

On December 21, 1999, CalFire sent a letter to Palco stating that prior to any new Timber Harvest Plan (THP) approvals in Elk River, they would require the submission of flood analyses and a high level of watershed analysis then had been preformed to date. A moratorium on new harvesting in Elk River followed.

The Regional Water Board was petitioned by the Humboldt Watershed Council and others on April 17, 2000 to require that waste discharge requirements (WDRs) be issued for Palco's logging activities in Elk River (and Freshwater Creek). Extensive Regional Water Board staff field investigation and deliberation had preceded the submission of the petition, and on April 27, 2000 staff presented enforcement and regulatory options to the Regional Water Board.

On September 9, 2000, Region Water Board staff released the *"Staff Report for Proposed Regional Water Board Actions in the North Fork Elk River, Bear Creek, Freshwater Creek, Jordan Creek and Stitz Creek Watersheds"*. This document described and annotated: a) the increased sediment deliveries to watercourses from harvested lands, b) increased flooding impacts, c) the accelerated rate of land-disturbing timber harvesting activities, and d) the

correlation of timber harvest with these impacts. The document also proposed alternative or combined courses of action to reduce these impacts including the issuance of: a) Monitoring and Reporting Programs, b) watershed-wide WDRs, c) Cleanup and Abatement Orders, d) Cease and Desist Orders, and e) Time Schedule Orders and Administrative Civil Liabilities. After a series of delays in the scheduled and noticed adjudicatory hearings, as well as submission of extensive testimony by various parties, the hearings were eventually vacated by the Regional Water Board Chairman on July 3, 2001.

The Humboldt Watershed Council petitioned the State Water Board on March 1, 2001 for lack of action by the Regional Water Board (Petition A-1361). On January 23, 2002 the State Water Board issued WQO-2002-0004 remanding the Humboldt Watershed Council petition back to the Regional Water Board. On May 3, 2002, the Humboldt Watershed Council again petitioned the State Water Board for inaction on WQ-2002-0004 (Petition A-1471). On October 17, 2002 the State Water Board responded to Petition A-1471 with WQO-2002-0019, finding that the Regional Board had made a reasonable effort to address the issues raised by Petitioners, but that further actions to protect water quality were needed, including requiring reports of waste discharge and issuance of waste discharge requirements pursuant to applicable provisions of the Basin Plan.

In the meantime, Regional Water Board staff participated in a multi-agency Aquatic Monitoring Group for Palco lands. Participants included staff of Palco, Regional Water Board, CGS, and HCP-signatory agencies CDFG, CalFire, NOAA Fisheries, and US Fish and Wildlife Service. This effort was largely focused on development and implementation of a trend monitoring and instream effectiveness monitoring program that would meet the needs of the HCP-signatory agencies as well as those of the Regional Water Board (not a signatory agency to the HCP).

The purpose of the group was to harmonize these programs, to the extent possible, in order to minimize duplicative monitoring requirements on Palco. However, the HCP did not stipulate clear consequences for delays in the monitoring. Since it is the responsibility of Regional Water Board staff to ensure that THP activities do not violate water quality objectives, Regional Water Board staff began exercising their own authority to accomplish monitoring to assess the impacts associated with timber harvest activities in Elk River.

On February 26, 2001, the Executive Office issued Monitoring and Reporting Program R 1-2001-0019 to Palco for a previously approved THP in South Fork Elk River. The Monitoring and Reporting Program (MRP) was designed to assess compliance of the project with the Basin Plan water quality objective for turbidity. Palco appealed to the State Water Board. The appeal resulted in the State Water Board replacing the MRP R1-2001-0019 with Order # WQ 2001-14. The case was taken through the Superior Court, 9th Circuit Court of Appeals and eventually was heard by the California Supreme Court, which ultimately upheld the Water Board's authority to regulate water quality protection on timber harvest activities.

As a means of resolving the ongoing issues in Elk River and other watersheds related to Palco's logging activities, the Regional Water Board sponsored mediation on April 6, 2002

between residents, environmental groups, non-industrial timberland owners, and Palco. The mediation hit an impasse over the concept of harvest rate limitations and identified a lack of agreement on the adequacy of the watershed science developed to date.

The Regional Water Board responded by sponsoring two phases of evaluations by an Independent Scientific Review Panel (ISRP), the members of which were mutually agreed upon by the participants of the mediation. The ISRP authored two reports (December 27, 2002 and August 12, 2003) and concluded first, that a rate of harvest aimed at reduction of harvest-related landslides could be determined with available landslide inventories and harvest history data, and second, that flooding and water quality standard impairment would continue as long as sediment loads remained elevated. They recommended that detailed sediment process data be collected to inform future analysis. They further found that the THP process defined by the Forest Practice Rules and the Habitat Conservation Plan/ Sustained Yield Plan (HCP/SYP) process was not sufficient to guarantee water quality protection and recovery.

The Regional Water Board then undertook a series of actions including issuance of Cleanup and Abatement Orders¹ for sediment discharge sites. These Cleanup and Abatement Orders provide a valuable foundation for the sediment source inventory necessary to conduct the source assessment as described in Chapter 3. Further, under the CAOs, Regional Water Board and Palco staff developed a site prioritization scheme, treatment schedule, and monitoring program. This program served as early implementation to reduce sediment loads. Additionally, WDRs were developed for timber harvesting operations conducted during the winter period².

On May 8, 2006, after a long period of development and input from representatives of the public, agencies, and landowners, the Regional Water Board adopted Order No. R1-2006-0039, *Watershed-wide WDRs (WWDRs) for lands owned by Pacific Lumber Company in Elk River*. The WWDRs set harvest rate limitations based on ensuring that: a) harvest-related

¹ December 17, 2002, Cleanup and Abatement Order No. R1-2002-0114 for Scotia Pacific Holding Company, The Pacific Lumber Company, North Fork Elk River (requires identification, prioritization, and cleanup of controllable sediment source sites identified in 1998 sediment source inventory);
April 2, 2004, Cleanup and Abatement Order No. R1-2004-0028 for Scotia Pacific Holding Company, The Pacific Lumber Company, South Fork and Mainstem Elk River (requires identification, prioritization, and cleanup of controllable sediment source sites)
May 5, 2006, Cleanup and Abatement Order No. R1-2006-0055 for Scotia Pacific Holding Company, The Pacific Lumber Company, North Fork Elk River (requires identification, prioritization, and cleanup of controllable sediment source sites; replaces Order No. R1-2002-0114).

² November 17, 2002, R1-2002-0105 Waste Discharge Requirements for the Pacific Lumber Company, Scotia Pacific Company LLC, and Salmon Creek Corporation, Elk River (Winter Period Operations WDRs)
January 24, 2003, Order No. R1-2003-0007 Waste Discharge Requirements for the Pacific Lumber Company, Scotia Pacific Company LLC, and Salmon Creek Corporation, Elk River (Winter Period Operations WDRs)
November 5, 2003, Order No. R1-2003-0118 Waste Discharge Requirements for the Pacific Lumber Company, Scotia Pacific Company LLC, and Salmon Creek Corporation, Elk River (Winter Period Operations WDRs), revising Order No. R1-2003-0007

landslides did not create landslide discharges that would, in total, exceed 125 percent of background landslide rates, and b) that peak flows resulting from canopy removal did not exceed a nuisance threshold defined by floodwaters limiting access and egress at one location on North Fork Elk River where the management induced increase in peak flows could easily be quantified and linked to flooding over a public roadway. A MRP associated with these WWDRs requires Palco to continue monitoring turbidity, suspended sediment, and stream flow throughout the basin, as well as maintain an updated landslide inventory and monitor stream channel conditions.

Additionally, on August 8, 2006 the Regional Water Board adopted WWDRs for Green Diamond Resource Company's timber harvesting operations in the South Fork Elk River watershed (Order No. R1-2006-0043). This Order incorporated elements of the process used in the Palco CAOs for identification, scheduling, treatment, and monitoring of sediment discharge sites. An MRP was issued in concert, requiring similar monitoring to that by Palco. The development of consistent approaches to redressing sediment sources, including monitoring protocols, across the Elk River watershed is resulting in a robust data set that will be extremely useful in making management decisions and documenting compliance with the TMDL.

On June 12, 2007, Green Diamond Resource Company signed their Aquatic Habitat Conservation Plan/Candidate Conservation Agreement with Assurances covering its timberland ownership in Del Norte and Humboldt counties in Northern California. The plan seeks to conserve habitat for, and mitigate impacts on, seven aquatic species: coho salmon; steelhead; Chinook salmon; coastal cutthroat trout; rainbow trout; the southern torrent salamander and the tailed frog. The plan was negotiated among Green Diamond Resource Company, the NOAA Fisheries Service, and the U.S. Fish and Wildlife Service.

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³ Order R1-2010-0044 Waste Discharge Requirements for Discharges Related to Road Management and Maintenance Activities Conducted Pursuant to the Green Diamond Resource Company Aquatic Habitat Conservation Plan in the North Coast Region.

⁴ Order R1-2012-0087 Waste Discharge Requirements for Discharges Related to Forest Management Activities Conducted Within the Areas Covered by Green Diamond Resource Company Aquatic Habitat Conservation Plan in the North Coast Region.

with the timber harvesting WDR, contains provisions specific to their Elk River ownership. Upon adoption of the Upper Elk TMDL, it is envisioned that the South Fork Elk River Management Plan will be revised to reflect the TMDL Summary and Implementation Framework.

On September 11, 2008, following the transfer of Palco assets to HRC, the Regional Water Board adopted Order No. R1-2008-0100. This Order transferred all of the standing Regional Water Board Orders from Palco to HRC. Since 2008, HRC has been implementing the HCP developed under Palco management, engaged in timber harvest activities under the WWDRs and conducted cleanup operations in response to the relevant CAOs.

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