Cal/EPA

Lahontan Regional Water Quality Control Board

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May 1, 1998

Ex B2

G. Lynn Sprague, Regional Forester
USDA Forest Service
630 Sansome Street
San Francisco, CA 94111

Pete Wilson
Governor

Dear Mr. Sprague:

APPEAL OF FINAL ENVIRONMENTAL IMPACT STATEMENT AND RECORD OF DECISION FOR LIBERTY FOREST HEALTH IMPROVEMENT PROJECT

Enclosed is a formal appeal of the Final Environmental Impact Statement and Record of Decision (FEIS/ROD) for the Liberty Forest Health Improvement Project. The project is located within the Sierraville Ranger District of the Tahoe National Forest (Little Truckee River Hydrologic Unit, Sierra County), and includes approximately 2600 acres of timber harvesting, six miles of new road construction, 3100 acres of prescribed fire, and other actions intended to decrease the risk of wildfire.

While I support the overall project goal of reducing wildfire hazards, I conclude that the project, as currently proposed, fails to respond to concerns raised by staff of the Regional Water Quality Control Board (RWQCB), and may result in violations of State water quality standards. We have therefore determined that this project does not comply with the Management Agency Agreement between the California State Water Resources Control Board and the U.S. Forest Service.

The appeal contains the reasons why the FEIS/ROD is flawed, and recommendations for supplementing the document in order to achieve compliance with State standards. It is my hope that you will remand the decision to the Forest Supervisor with instructions to resolve the outstanding water quality issues. Working together, I believe that we can resolve the outstanding issues without the need for formal regulation of the timber harvesting elements of this project by our agency.

Please call me at (530) 542-5412 if you would like to discuss this matter.

Sincerely,

Harold J. Singer

HAROLD J. SINGER
EXECUTIVE OFFICER

cc: Regional Board Members
Walt Pettit, SWRCB

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[USFS - General]

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California Regional Water Quality Control Board
Lahontan Region

Appellant,

Before the Regional Forester, G. LYNN SPRAGUE
USDA Forest Service, Pacific Southwest Region

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NOTICE OF APPEAL
STATEMENT OF REASONS
REQUEST FOR STAY

Staff of the California Regional Water Quality Control Board, Lahontan Region (RWQCB) hereby appeal, pursuant to 36 CFR Part 215, the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the Liberty Forest Health Improvement Project (located on the Sierraville Ranger District of the Tahoe National Forest), signed by Judie L. Tartaglia, Acting Forest Supervisor of the Tahoe National Forest (TNF), on March 9, 1998. This Notice of Appeal incorporates by reference the administrative record on file at offices of the Tahoe National Forest.

State law assigns responsibility for protection of water quality within the Lahontan watershed basin to the RWQCB. The RWQCB implements and enforces the Porter-Cologne Water Quality Control Act ("Porter-Cologne Act," California Water Code §13000 et seq.) and the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). All forest management projects conducted within the Lahontan watershed basin must comply with all substantive and procedural requirements of the Porter-Cologne Act and the Basin Plan, including narrative and numerical water quality objectives and waste discharge prohibitions.

The Basin Plan states (in part) that:

"The discharge, attributable to human activities, of solid or liquid waste materials, including but not limited to soil, silt, clay, sand, or other organic or earthen material, to surface waters of the Little Truckee River HU is prohibited," and:

"The discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials including soil, silt, clay, sand, and other organic and earthen materials to lands within the 100-year floodplain of the Little Truckee River or any tributary to the Little Truckee River is prohibited."

In 1981, the U.S. Forest Service (USFS) and the State Water Resources Control Board (SWRCB) signed a Management Agency Agreement (MAA) that recognizes the role of the USFS as a water quality management agency for USFS lands within California. In signing the MAA, the SWRCB "contemplated" that the RWQCBs would forego formal regulation of USFS activities with the potential to result in nonpoint discharges, provided that the USFS implements certified Best Management Practices (BMPs) sufficient to meet all State water quality standards. Where proposed BMPs are insufficient to remove the threat of violating State water quality standards, additional BMPs and/or mitigation measures must be prescribed and implemented as necessary to remove the threat of a violation.

The Liberty Forest Health Improvement Project is located within the Little Truckee River Hydrologic Unit, which is tributary to the Truckee River, an interstate water that flows from its headwaters in the State of California to its terminus in the State of Nevada. The water quality of the Truckee River has been adversely affected from a variety of sources, and the River is currently listed as an "impaired" water body pursuant to the federal Clean Water Act, Sections 304(l) and 303(d). The primary constituent of concern is sediment. Several tributaries (including Bear Creek, Squaw Creek, Bronco Creek, Gray Creek, Donner Lake, Boca Reservoir, and Stampede Reservoir) are also on the Section 303(d) list for pesticides, PCBs, and/or sediment. Recent Toxic Substances Monitoring Program information may warrant future 303(d) listing of other tributaries to the Truckee River, including the Little Truckee River, Prosser Reservoir, and Trout Creek.

For all water bodies on the federal 303(d) list, the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed to address the causes of impairment. The RWQCB has identified the Truckee River watershed (including the Little Truckee River) as one of its highest priority water bodies for TMDL development, and the RWQCB has begun the TMDL development process. The State of California has also recently embarked upon a "Watershed Management Initiative" (WMI). Under this initiative, the RWQCB considers all available water quality and land use data to identify "priority watersheds" to assist in its resource allocation and regulatory decision-making. The Truckee River (including the Little Truckee River) has been identified as one of the RWQCB's highest priority watersheds, and the RWQCB has dedicated substantial resources (both in terms of staffing and grant funding) to address needs in this watershed. In 1996, the RWQCB's consultant completed a "Truckee River Loading Study" that identified forest management activities as a significant contributor of sediment within the Truckee River watershed (CH2M HILL 1996). For all of the above-stated reasons, the RWQCB has a keen interest in forest management activities within the Little Truckee River Hydrologic Unit.

Reasons for Appeal [36 CFR § 215.14(5)]

The RWQCB is appealing this decision because the decision threatens to violate State water quality standards, including water quality objectives and waste discharge prohibitions adopted for the protection of water quality and beneficial uses of water. If the proposed action is implemented as described in the FEIS/ROD, there is a substantial likelihood that State water quality standards would be violated. The RWQCB is also appealing this decision because the FEIS/ROD fails to take a hard look at, and provide reasoned responses to, issues and concerns raised by RWQCB staff during the planning process.

Cumulative watershed effects (CWE). The FEIS documents a high potential for the Liberty project to cause significant adverse cumulative effects to water quality. Cumulative effects include adverse channel responses to peak flows (i.e., erosion caused by infrequent "flood-driven" or catastrophic effects), as well as chronic sedimentation due to more frequent

"storm-driven" effects (Reid 1993). While changes in peak flows are difficult to predict, the USFS's CWE model is also valuable in that it quantifies cumulative disturbance levels within a watershed. In summarizing the potential for adverse cumulative effects, the EIS states that:

> "As a result of this proposal and past activities in the area (National Forest and private lands), three of the eight sub-watersheds within the analysis area would have cumulative disturbance levels that are higher than desired. Because of this, there is a higher than normal potential of incurring a significant effect on water quality" and:
>
> "Recovery of those watersheds that still exceed the Threshold of Concern after the short-term impact period is displayed in Table 3.5.5.....Longer recovery times reflect the level of existing watershed impacts and those due to the proposal. The potential for impacts would remain high on those watersheds with the longer recovery times."

In response to the high potential for adverse water quality effects, the original project proposal was modified to reduce ground-disturbing activities in sub-watersheds that would exceed the Threshold of Concern (TOC). However, despite the modifications incorporated into the project, cumulative disturbance levels after project implementation would still significantly exceed the TOC in those three sub-watersheds. Specifically, the ERA/TOC ratios presented in the FEIS for those sub-watersheds (e.g., 1.21, 1.33, 1.35) exceed the TOC by 21 to 35 percent, and the ERA/TOC ratio for the Little Truckee River immediately below the project area would be raised from 0.61 to 0.93.

RWQCB staff recognize that the CWE methodology used by the USFS is not an exact science. However, the current methodology (proposed and developed by the USFS) has to date been accepted by the RWQCB and others as the most current state-of-the-art for predicting adverse CWE in California. The levels of disturbance presented in the CWE analysis for the Liberty project clearly indicate a significant risk of adverse cumulative watershed effects (Reid 1993, USFS 1988). The current policy direction to USFS field units regarding CWE evaluations states that "susceptibility of CWE generally increases from low to high as the level of land disturbing activities increase towards or past the TOC" (USFS 1988).

The FEIS/ROD is deficient because the high level of ground disturbance caused by the project may result in the discharge of earthen materials to surface waters tributary to the Little Truckee River, which would violate waste discharge prohibitions contained in the Basin Plan, and which would threaten to violate water quality objectives contained in the Basin Plan. Despite the "high potential" for adverse CWE documented in the FEIS, the FEIS/ROD fails to incorporate mandatory, specific mitigation measures sufficient to offset those potential effects, or a detailed monitoring program sufficient to detect and/or document and ultimately correct the occurrence of adverse CWE or violations of State water quality standards. Instead, the FEIS justifies the high risk of adverse CWE with statements such as:

> "Field observations by the hydrologist of actions that have occurred in other areas with similar characteristics, and that closely parallel those proposed for Liberty indicate that the generation and transport of sediment to a stream can be sufficiently controlled on-site when required Best Management Practices (BMPs) and other special mitigations are effectively implemented in watersheds at or over the TOC."

The cited "field observations" are not documented in the FEIS, nor has the TNF at any time presented objective documentation to staff of the RWQCB to indicate that violations of water quality standards can be avoided when the TOC is significantly exceeded, as will occur for the Liberty project. In contrast, the current state-of-knowledge indicates that adverse effects to water quality are likely to occur when watersheds are disturbed to the point that the TOC is approached or exceeded, such as would occur for the Liberty project (Reid 1993, USFS 1988).

The USFS, Pacific Southwest Region, has adopted and is implementing a statewide "Best Management Practices Evaluation Program" (BMPEP) in order to measure and demonstrate the effectiveness of BMPs. From 1992-1996, the BMPEP has gathered and compiled nearly two thousand randomly selected observations of BMP implementation and effectiveness. While the observations gathered by the BMPEP indicate that BMPs are often effective, the BMPEP has also documented significant failures of BMPs to fully meet the objective of meeting State water quality standards. For example, the available data indicate that BMPs were improperly applied and/or judged as being ineffective in nearly 20 percent of all observations. Thus, the undocumented "observations" of one TNF hydrologist cannot justify or rationalize actions that

will cause land disturbance to significantly exceed the TOC simply because BMPs may be applied.

The FEIS states that "special mitigations" have been incorporated into the project in addition to BMPs. However, the benefits of these measures (tilling of an unspecified acreage of log landings, skid trails, existing roads, and "patch cut" areas) are not quantified in the FEIS, and therefore cannot be relied upon to offset the high potential for water quality impacts. For example, the FEIS states that compacted areas will not be tilled if they exceed 20% slope, are "too rocky," or exhibit unspecified "other undesirable characteristics for tilling." The draft environmental impact statement (DEIS) stated that additional tilling "may be identified in watersheds at or over the threshold of concern (TOC)," and that "all openings generated by group cuts will be evaluated for compaction and appropriateness of subsoiling." The RWQCB staff comments on the DEIS requested that the DEIS be supplemented to specify both: (1) the method(s) that would be used to evaluate soil compaction, and (2) the criteria or threshold(s) that would be used to decide when compaction was significant enough to require tilling. The brief USFS response in the FEIS failed to specify the method(s) for evaluating the level of soil compaction or the threshold that would trigger remedial treatment (i.e., tilling). Other potential "special mitigation" measures including mulching, revegetation, implementation of watershed improvement projects, etc., which have the potential of lowering the ERA/TOC ratio, were not fully evaluated. For all of the above reasons, the "special mitigations" identified in the FEIS cannot be relied on to mitigate the high risk of water quality impacts. The FEIS should be supplemented to clearly specify the level of tilling (and any other "special mitigation") that will be required in order to offset or mitigate the potential for adverse cumulative effects.

RWQCB staff recommended in written comments on the DEIS that the TNF fully evaluate the feasibility of using alternative log yarding methods in those sub-watersheds that would exceed the TOC. The RWQCB staff comments pointed out that alternative log yarding methods, such as a "cut-to-length" (CTL) yarding system, could potentially be used in areas exceeding the TOC to achieve the fire hazard reduction goals of the project while resulting in significantly lower rates of soil compaction and surface soil disturbance. The DEIS rejected any use of a CTL system based upon four reasons, all of which were questioned in the RWQCB staff

comments on the DEIS. (See 11/17/97 letter from Dr. Ranjit S. Gill to Phil Horning, "General Comments," p. 2-3.) The TNF's response contained in the FEIS failed to provide a reasoned response to those four issues. Instead, the FEIS/ROD pose (in general terms) two entirely new reasons for rejecting any use of low-impact yarding systems such as CTL. Specifically, the TNF responded in the FEIS that the CTL yarding system "offered small improvement to water quality concerns." However, no reasoned analysis is provided to support that contention. In contrast, RWQCB staff believe that there would be significant water quality benefits from using a CTL system in those watersheds that exceed the TOC, as evidenced by the coefficients of disturbance listed in the FEIS (at page F-6). The disturbance coefficients show that a CTL system would produce approximately one-half the ground disturbance of the proposed yarding method.

The second reason given in the FEIS for rejecting any use of lower-impact yarding techniques (such as the CTL system) is that TNF staff "felt that adding the additional restriction of requiring cut-to-length equipment could likely make the project non-viable." Again, no supporting documentation or economic information is provided to demonstrate the infeasibility of this potential mitigation measure. RWQCB staff question this conclusion due to the fact that the CTL equipment has been used successfully on many other USFS timber sales in California. Furthermore, RWQCB staff have (through conversations with USFS staff and local logging contractors) verified that persons who own CTL equipment would be interested in bidding on timber sales within the Liberty project area. In summary, TNF staff have posed at least six reasons why they believe that CTL technology is infeasible for this project, but have not provided objective evidence to substantiate any of the six reasons. RWQCB staff maintain that this mitigation measure should be more fully evaluated, and incorporated into the project to mitigate potentially significant CWE wherever feasible.

Monitoring. Any project that would deliberately cause sub-watersheds to exceed the Threshold of Concern for cumulative watershed effects, and cause the larger watershed to closely approach the TOC, must be accompanied by a detailed monitoring plan that is adequate to demonstrate compliance with State water quality standards. The Liberty project, as proposed in the FEIS/ROD, clearly poses a threat of adverse cumulative watershed effects, indicating the need for rigorous monitoring. In contrast, the water quality monitoring elements contained in the

FEIS/ROD are limited in scope, vaguely described, and unlikely to produce information needed to assess whether adverse effects to water quality have occurred as a result of this proposal in concert with past activities in the area.

The FEIS states that the USFS Pacific Southwest Region's BMPEP will be used as a key monitoring tool for this project. While the observational component of the BMPEP has substantial utility for identifying individual practices that are in need of improvement, the BMPEP is not currently capable of evaluating cumulative watershed effects or demonstrating compliance with the Basin Plan's waste discharge prohibitions (cited above) in watersheds that exceed the Threshold of Concern. Furthermore, while the BMPEP evaluations may provide some "after-the-fact" information to improve BMPs for future projects, the sites are selected randomly, and there is no assurance that any of the BMPEP monitoring sites will be located within the subwatersheds that will exceed the TOC under this project. The FEIS calls for additional water quality monitoring as follows:

> "The effectiveness of management requirements will be assessed by monitoring the extent and level of soil compaction, the clarity of water and the evidence of sediment movement from road crossings and treated SMZs. Stream conditions will be monitored visually, assessing bank stability, substrate composition and the presence of aquatic species. Soil properties would be monitored at randomly selected harvest units throughout the project area. Water quality and stream condition would be assessed in Independence Creek and its tributaries."

The proposed "visual" monitoring of stream conditions is not specified, and is unlikely to provide objective information capable of detecting violations of State water quality standards. (For example, significant increases in turbidity and suspended sediment are not always detectable by the human eye.) Likewise, the water quality and stream condition parameters to be assessed are not specified. At a minimum, the monitoring plan needs to be supplemented to specify sampling locations; detail the timing, frequency, and methods of sample collection and analyses; and list the specific criteria that will be used to judge whether the project has met its objectives. We note that the USFS's own regulations regarding the evaluation of CWE directs USFS field units to conduct monitoring (including implementation, effectiveness, and validation monitoring) adequate to determine the effectiveness of its CWE evaluations (USFS 1988). This is especially

critical in watersheds where a deliberate decision is being made to approach and exceed the Threshold of Concern.

Specific changes in the decision sought by Appellant [36 CFR § 215.14(4)]

The Appellant requests that the decision be remanded to the Tahoe National Forest, with direction to supplement the FEIS/ROD as follows:

Cumulative Watershed Effects (CWE). The TNF should evaluate in detail the feasibility of specifying lower-impact log yarding methods in the three sub-watersheds that would exceed the Threshold of Concern for CWE, and specify lower-impact yarding equipment where feasible. In its analysis, the TNF should respond to the points raised in this appeal and in the RWQCB staff comments on the DEIS. (That is, the TNF should provide objective evidence to support its conclusions regarding each of the six issues related to the feasibility of cut-to-length yarding equipment.) Potential alternatives include specifying lower-impact yarding equipment for the over-threshold watersheds either as part of the larger timber sale, or as separate, smaller timber sales or "service contracts."

The TNF should more clearly specify where and when "special mitigations" will be applied, and should quantify the benefits afforded by those measures. Without such analysis, the conclusion in the FEIS/ROD that the special mitigations will be capable of offsetting CWE remains unsubstantiated by reasoned analysis. This is crucial since the TNF proposes to take deliberate actions that would cause the Threshold of Concern to be exceeded for three sub-watersheds.

If the ERA's cannot be feasibly reduced by specification of lower-impact logging methods, the TNF should develop and specify a detailed monitoring and reporting program for this project in order to demonstrate compliance with State water quality standards. A much more rigorous monitoring program is needed for this project if the TNF proposes to take deliberate actions that would cause the Threshold of Concern to be exceeded for sub-watersheds in the Little Truckee River watershed.

Request for Stay of Decision [36 CFR § 215.10(b)]

Pursuant to 36 CFR § 215.10(b), the RWQCB hereby requests a stay of implementation of the decision under appeal.

References

CH2M HILL. 1996. Truckee River Loading Study, 205(j) Program. Final Report prepared for the Lahontan Regional Water Quality Control Board. CH2M HILL, Sacramento, CA. June, 1996.

Reid, Leslie M. 1993. Research and Cumulative Watershed Effects. General Technical Report PSW-GTR-141. USDA Forest Service, Pacific Southwest Research Station, Albany, CA.

USFS. 1988. Cumulative Off-Site Watershed Effects Analysis. Forest Service Handbook, R-5 Soil and Water Conservation Handbook, Chapter 20. USDA Forest Service, San Francisco, CA.