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Lahontan Regional Water Quality Control Board

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Pete Wilson
Governor

March 6, 1997

Ex B5

Mary Wagner, District Ranger
Carson Ranger District
1536 So. Carson Street
Carson City, NV 89701

Dear Ms. Wagner:

WOODFORDS TIMBER SALE, ALPINE COUNTY, WEST FORK CARSON RIVER HYDROLOGIC UNIT

This letter is a follow-up to our phone conversation on March 5, 1997, regarding the above-referenced project. As you know, State law assigns responsibility for protection of water quality within the Lahontan watershed basin to the Regional Water Quality Control Board, Lahontan Region (RWQCB). The RWQCB implements and enforces the Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) and the *Water Quality Control Plan for the Lahontan Region.* Our review of U.S. Forest Service (USFS) projects is pursuant to the Management Agency Agreement (MAA) executed between the USFS and the California State Water Resources Control Board. Briefly, that MAA provides for streamlined review and regulation of USFS projects by the RWQCB on the condition that the USFS conscientiously implements Best Management Practices (BMPs) to fully comply with State water quality standards.

During our conversation on March 5, we discussed several issues of concern regarding the timber harvest activities that occurred recently along the West Fork Carson River. I will summarize each issue as well as my understanding of how the issue will be resolved.

Issue #1: Watercourse crossings. It was our understanding throughout the planning process for this project that the timber harvest activities would be conducted during the summer/fall when soils were dry. Therefore, mitigation measures discussed by our respective staffs, and ultimately incorporated into your environmental document, were intended to accommodate a "dry-ground" operation. Specifically, it was expected that watercourse crossings (such as the crossing along the road to landing #3) would be dry fords, and that clean rock would be placed over such crossings either before or immediately after hauling operations in order to prevent transport of sediments detached by vehicular use of the crossing site and approaches. In contrast, the harvest/hauling operations were conducted in February and early March, when soils were very wet, and the rock applied at the landing #3 watercourse crossing was rapidly pushed into the roadbed, leaving exposed soil to become suspended and carried away by the flowing water. Pulses of sediment-laden water resulted with each passage of vehicles through the watercourse. Furthermore, due to the soil moisture conditions, this access road has become rutted and poses a potential threat to water quality if

it is not adequately "put to bed" prior to the next runoff event. I note that our scoping letter dated June 16, 1995, specifically recommended full implementation of BMP #2.24 (Traffic Control During Wet Periods).

Resolution: It was agreed during our conversation that the Carson Ranger District would take immediate corrective measures to assure proper implementation of BMPs at watercourse crossings, and that the roads used during this timber harvest operation will be adequately stabilized (drained, outsloped, mulched, etc., as needed) before the next runoff event. Future wet-season use of roads (both for commercial timber sales, as well as subsequent public fuelwood sales) will be properly controlled.

Issue #2: Log landings in close proximity to the Carson River. Issues related to the landings are similar to those described above for watercourse crossings. Specifically, there are at least two landings within approximately 30 to 50 feet of the Carson River (in places only several feet from the high water line). Mr. Tom Suk of my staff concurred with the proposal to use these landings because these areas were already disturbed, and because he was led to believe that the logging operation would be of very short duration and would occur under dry soil moisture conditions. However, it was agreed by our respective staffs during project planning that these areas would not be "bladed" by heavy equipment, in order to minimize soil disturbance. In contrast, use of these areas during the winter period apparently necessitated blading in order to remove snow for log truck access. Blading, coupled with additional compaction and disturbance resulting from use of the landings under wet soil conditions, has caused soil disturbance which poses a threat to water quality.

Resolution: It was agreed during our conversation that these landings would be stabilized at once, by "smoothing out" rutted and bermed areas and mulching all exposed areas with effective ground cover. It is critical that this work occur prior to the next storm event. I note that Mr. Suk of my staff, and Mr. Jack Marshall of your staff, also discussed locations where the USFS would place cull logs in order to discourage future vehicular access to sensitive areas.

Issue #3: Removal of trees within streamside protection zones. According to Mr. Suk, a substantial number of trees were felled within the streamside protection zone of the West Fork Carson River. This is a concern because tree-related variables in the riparian zone are known to be vitally important to numerous hydrologic, biogeochemical, and habitat functions of forested riparian systems in the western United States. The state-of-knowledge regarding hydrogeomorphic (HGM) assessment in riverine systems establishes tree basal area, tree density, and coarse woody debris as critical variables of vegetative roughness (Brinson et al. 1995). All three of these tree-based variables are significant in relation to dynamic surface water storage during overbank and upland flow. The amount of coarse woody debris (usually > 10 cm in diameter and > 1 meter in length) and tree density are critical in flood energy dissipation. Tree basal area is significant in removal of flow-imported elements and compounds, and all three variables are significant in the retention of particulates, such as sediment, from upland and overbank flows. These three variables are also critical to the

maintenance of habitat functions in riparian areas. The habitat functions rely also on other significant tree-related variables such as canopy cover, species composition, and contiguous vegetation cover. Reductions in these and other variables compared to the potential natural condition (i.e., "reference" or "desired" condition within type) are considered to be a degradation of function. Thus, the removal of numerous large trees in the riparian zone poses the potential to affect stream temperature, bank stability, recruitment of large woody debris, and other parameters, and is likely to result in adverse impacts to fisheries habitat and other beneficial uses of water.

The environmental document prepared for this project provided for removal of live trees within the streamside protection zone only when such trees *"pose a threat to an improvement"* such as a road, trail, structure, powerline, etc. (EA at page 19). It appears that a significant number of trees were felled within the stream zone that do not meet this definition.

Resolution: During our conversation on March 5, we discussed the water quality implications of tree removal within riparian areas, and the need to more carefully balance hazard reduction objectives with the protection of riparian values. You informed me that no live trees were or would be removed from within the streamside protection zone of Horsethief Creek. It was also agreed that trees proposed for harvest within streamside protection zones during future projects on the Carson Ranger District would be marked and reviewed by my staff prior to felling, in order for your staff to receive our input regarding the adequacy of proposed protection measures to achieve sufficient stream shading (temperature control), bank stability, recruitment of large woody debris for fisheries habitat, and other variables related to water quality protection. You also agreed to transmit for our review a copy of your protocols for identification of hazard trees, so that we may hold more objective discussions related to balancing the goals of hazard reduction and riparian protection. Finally, Mr. Suk confirmed during his field visit that all trees felled to date within the stream zone are to be yarded via helicopter. This will minimize further ground disturbance as the trees already felled are yarded to the landing(s).

Issue #4: Trees felled into watercourse. Several trees were felled directly into the West Fork Carson River. It is standard practice to fall trees away from watercourses, in order to reduce bank and channel disturbances. A letter to me from former District Ranger Guy Pence, dated January 18, 1995, specifically listed "Directional Felling" as a BMP to be required during this project. In contrast, representatives of both the USFS and the logging contractor admitted to Mr. Suk of my staff that trees were intentionally felled across the river to provide convenient access for timber fallers to the north side of the River. This does not seem necessary when a bridge is located nearby.

Resolution: It was agreed during our conversation that BMPs for directional felling would be more conscientiously followed during future projects on the Carson Ranger District.

In summary, it is our conclusion that the failure of the USFS to fully implement BMPs for this project has resulted in violations of State water quality standards. As we discussed, it is imperative that BMPs be properly implemented for this and all future projects, in accordance with the MAA described above. Any future failures to adequately implement BMPs could result in enforcement action and/or formal regulation of USFS projects by the RWQCB.

I appreciate your expressed willingness to work closely with me and my staff during future projects in order to achieve our mutual desire to protect water quality. Please call me at (916) 542-5400, or Tom Suk of my staff at (916) 542-5419, if you have any questions regarding this letter.

Sincerely,

Ranjit S. Gill

Ranjit S. Gill, Ph.D., Chief
Planning and Toxics Unit

cc: Eric Jung, Chair, Board of Supervisors, Alpine County
Jane Freeman, U.S. Environmental Protection Agency, Region IX

REFERENCES

Brinson, M.M., F.R. Hauer, L.C. Lee, W.L. Nutter, R.D. Rheinhardt, R.D. Smith, and D. Whigham. 1995. *A Guidebook for Application of Hydrogeomorphic Assessments to Riverine Wetlands.* Wetlands Research Program Technical Report WRP-DE-11, November 1995. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS. 113 pp. (plus appendices).

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