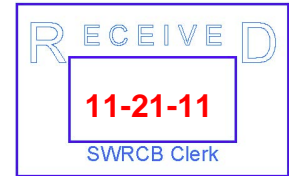


November 19, 2011

Gaylon Lee
Division of Water Quality
State Water Resources Control Board
1001 I Street, 15th Floor
Sacramento, CA 95814



Dear Mr. Lee:

My name is Erik Holst. I retired from the USDA Forest Service as Fisheries Biologist in 2009 after 33 years of service. I am providing you comments on the revised Waiver, the USDA Forest Service Water Quality Management Plan (WQMP), and the USDA Forest Service Best Management Practices (BMPs).

I am a resident of Pollock Pines, California having lived there since 1980. I regularly kayak, fish, hike, and snowshoe on lands administered by the Lake Tahoe Basin Management Unit and the Eldorado National Forest. As such, even though I have retired from the Forest Service, I have had ample opportunity to observe the effects of their various land management practices.

During my employment with the Forest Service I worked in a variety of positions on four national forests; the Cleveland National Forest (southern California), the Siuslaw National Forest (coastal Oregon), the Lake Tahoe Basin Management Unit (central Sierra Nevada Mountains, California), and the Eldorado National Forest (central Sierra Nevada Mountains, California). While on the Lake Tahoe Basin Management Unit from 1998 to 2004 as a wildlife biologist, I worked on the Lake Tahoe Basin Watershed Assessment, was a member of the Sierran Provinces Assessment and Monitoring Team, and assisted in the development and initial effectiveness assessment of a proposed regional multi-species inventory and monitoring program.

While subsequently employed as a fisheries biologist on the Eldorado National Forest for 4 years, I served as a member on a number of interdisciplinary teams (ID Teams) including the forest's travel management plan environmental impact statement team. My role in several timber related ID Teams included the selection of Best Management Practices (BMPs) to be included in NEPA documents.

I have reviewed the revised Waiver and the monitoring section, Attachment C. My largest concern is that the monitoring requirements do not require monitoring to evaluate the effectiveness of BMPs on Forest Service projects in sensitive areas such as Riparian Conservation Areas or steep slopes with soils that have a high erosion hazard (e.g. volcanic or granitic soils that are common in parts of the Sierra Nevada). Additionally, the monitoring primarily relies on the Forest Service's BMP Evaluation Program, which is random, samples a small subset of projects, and, which in my experience, is inadequate to ensure that water quality problems resulting from project implementation are immediately detected and the necessary corrective actions implemented.

Furthermore, I noted that the revised Waiver relies on a checklist form as part of the Forest Service's Implementation Monitoring/Audit program to determine that BMPs have been implemented. However, the program only mandates that Implementation Monitoring – which is the primary systematic means for early detection of potential water-quality problems – be conducted "...early enough to allow corrective actions to be taken, if needed, prior to the release of contractors or the onset of the first winter after initiating project implementation." Thus, projects that appear to be in good shape in the fall may sustain damage (e.g., slope failure, rilling, gulling, etc.) during the winter and spring runoff season that adversely affect water quality and riparian habitats. In such cases, the Implementation Monitoring/Audit program proposed by the Forest Service would indicate the BMPs that were implemented, and if the project was selected as part of the Best Management Practice Evaluation Program, the BMPs would appear effective when in reality over the course of a year or two, they were not. Additionally, if such projects were

selected as part of the retrospective hillslope monitoring effort, the failure of the BMPs would not be noted for 3-5 years and even then, no corrective actions are mandated. In my opinion, the revised Waiver monitoring provisions do not adequately address these problems.

During my tenure as a fisheries biologist, post-project effectiveness monitoring was limited to occasional visits to a small number of easy-to-get-to portions of only a few of the projects I worked on; a comprehensive post-project monitoring plan was not a formal part of my program of work despite all the monitoring verbiage in the various NEPA documents; to the best of my knowledge that was also true of the forest hydrologists and my supervisor, the forest fisheries biologist. While working on the Eldorado National Forest, my post-project monitoring was essentially limited to impromptu visits to various timber projects. During visits to projects such as Prospect Rock (Amador Ranger District, Eldorado National Forest), I noted that the aquatic and riparian protection measures that were included in the NEPA document were not always adhered to and that the BMPs that were supposedly implemented didn't fully protect several seasonal stream channels. Similarly, during the field review of the proposed Misfire Project (Pacific Ranger District, Eldorado National Forest) I visited a unit located just north of the White Meadows Road that had been entered only a few years before, but was scheduled for re-entry under the Misfire Project. I observed a severely degraded seasonal stream channel and noted that a portion of the Riparian Conservation Area (RCA) had been greatly disturbed by heavy equipment during the previous entry resulting in additional channel and water quality degradation issues. Presumably, as is usual for all Forest Service timber harvest activities, the appropriate BMPs were implemented; however, it was obvious that if they were indeed implemented, they were not effective.

Adding to the monitoring problem of all projects is the apparent lack of triggers and mandates for corrective actions. Granted, if a road fails, the appropriate agencies are notified and corrective action is planned and taken. However, if a stream channel starts downcutting or widening due to timber harvest activities within the Riparian Conservation Area – if headcuts start developing in a meadow due to grazing – or if road runoff from a project fills an adjacent streambed with fine-grained sediment, it often goes unnoticed due to the lack of monitoring. Furthermore if such issues are noted, there are no triggers – nothing is mandated in terms of corrective action. In my opinion, any changes to the revised Waiver need to include a mandate that USDA Forest Service aquatic and hydrologic specialists conduct the BMP effectiveness monitoring and that “triggers” and specific mandated corrective actions be established (e.g., “erosion will be reduced by 50 percent” as opposed to the often heard and meaningless standard of “erosion will be reduced”).

Another concern I have with respect to monitoring is the lack of adequate funding. Although I am not familiar with the Forest Service funding process, I can say that it was extremely rare that as a fisheries biologist, that a project funded me for more time than it took to perform a field reconnaissance and prepare the appropriate NEPA documents. This lack of funding combined with the extensive workload I carried, made any comprehensive post-implementation monitoring infeasible. Hence, the impromptu field visits described above. Additionally, because of this lack of funding and the alleged narrow margin of profit when it came to timber harvest activities, any proactive watershed restoration efforts proposed by the project hydrologist or aquatic specialist were more often than not, rejected. A case in point is the View 88 Project on the Amador District of the Eldorado National Forest. It was acknowledged that high-energy flows from Highway 88 discharge culverts were degrading a number of stream channels in the project units. The project hydrologist suggested placing riprap below the culverts to dissipate the energy in these flows; that proposal was rejected.

As a fisheries biologist, using the Eldorado National Forest Riparian Conservation Objective Checklist that is completed prior to project implementation to help determine riparian protection measures, I concluded that approximately 60+ percent of the stream channels surveyed were degraded (e.g., had issues with downcutting, channel widening, streambank instability, etc.) prior to project implementation. Degraded stream channels were noted during the aquatics/hydrology field review and the appropriate protection measures were incorporated into the NEPA document. However, as previously mentioned, post-project monitoring by aquatics specialists and hydrologists of the protection measures was minimal to non-existent. And, not once as an aquatic specialist was I asked to perform a post-project review of BMP effectiveness. I am also not aware of any of the forest hydrologists incorporating an on-the-ground

BMP effectiveness review into their regular recurring program of work. Rather, to the best of my knowledge, the people who implemented the BMPs were the people who evaluated their effectiveness – people who were generally not aquatic or hydrologic specialists, but rather forestry technicians, recreation technicians, foresters, etc. It is my experience and opinion that Forest Service post-project monitoring of riparian and aquatic resources by aquatic and hydrologic specialists is generally lacking, particularly on the Eldorado National Forest. Thus, I do not believe that the effectiveness of either the RCA Protection Measures under the Sierra Nevada Forest Plan Amendment or Best Management Practices can be adequately assessed in an objective scientific manner. I feel strongly that any changes to the revised Waiver include a mandate that aquatic and hydrologic specialists do the BMP effectiveness monitoring. Allowing the individual who implemented the BMPs – a person who has a vested interest in ensuring their effectiveness – is not the way to protect aquatic resources and water quality.

With reference to the revised Waiver/Attachment C section on Baseline In-Channel Monitoring, it should be noted that on the Eldorado National Forest only a small number of stream channels have been monitored according to the Stream Condition Inventory (SCI) protocol and of those, only a small sub-set have had repeated follow-up monitoring. Additionally, most of the SCI monitoring sites I am familiar with were selected by and monitored by Forest Service personnel, do not necessarily represent “large landscapes” within the forest. It should also be mentioned that alternative channel monitoring protocols (e.g. cross-sections) to evaluate BMPs and riparian protection measures are generally not included in individual project plans, even if degraded stream channel conditions are noted.

Confounding the whole issue of baseline in-channel monitoring to determine the effectiveness of BMPs for a specific project (i.e., cause and effect monitoring) is the fact that in any given watershed, there are numerous activities taking place; such activities could include OHV use, timber harvest on private lands, mining, grazing, etc. Thus, unless the monitoring effort is immediately adjacent to the activity where the BMP effectiveness is to be monitored and is monitored over time in a consistent manner is the results are, in my opinion, meaningless.

In conclusion, it is my opinion that the parameters of the of the revised Waiver need to be strengthened, not weakened, and more State oversight needs to occur. Furthermore, I believe that to ensure that the quality and beneficial uses of water are maintained where they are in good condition, consistent with the Federal and State anti-degradation/non-degradation policies, and the principles of conservation biology, the revised Waiver needs to mandate a comprehensive monitoring program to be accomplished by aquatic specialists and hydrologists.

Sincerely,



Erik M Holst