

**Oral Comments of PacifiCorp to the North Coast Regional Water
Quality Control Board Regarding the *Action Plan for the Klamath
River Total Maximum Daily Loads Addressing Temperature, Dissolved
Oxygen, Nutrient, and Microcystin Impairments in the Klamath River
in California and the Lower Lost River Implementation Plan***

March 24, 2010

Remarks of Tim Hemstreet, PacifiCorp Energy

Before I begin my prepared remarks, I want to first recognize the Regional Board and EPA staff and the tremendous effort they have expended to complete the TMDL staff report and respond to the many comments from all stakeholders. While PacifiCorp continues to disagree with many aspects of the TMDL, the Regional Board and EPA staff have shown professionalism throughout this process.

Introduction

PacifiCorp again appreciates the opportunity to comment before the Regional Board on the Klamath River TMDL. As you are aware, PacifiCorp has reviewed the TMDL drafts in considerable detail – a level of effort warranted for such a significant and important water quality regulatory program. Indeed, PacifiCorp’s written comments on the two draft TMDL documents have totaled more than 250 pages of detailed, specific comments. My comments today are not intended to be comprehensive and will only highlight some of the significant concerns PacifiCorp has with the proposed TMDL. I would refer the Board to PacifiCorp’s written comments to capture PacifiCorp’s suite of concerns regarding the TMDL.

In reviewing the responses to PacifiCorp’s comments, it is clear that those responses are, by and large, narrowly-focused, selective, and perfunctory. Most responses to PacifiCorp’s comments lack substance, especially those related to the most critical, bigger-picture concerns with the TMDL, such as its attainability, practicality, and underlying technical soundness.

For example, PacifiCorp commented that the TMDL is unachievable because both the nutrient and temperature objectives established by the TMDL cannot feasibly be obtained [see A25; K53; Comment 4; Comment 21; Comment 205]. The response to comments document re-characterized this point as contending that the Regional Board should conduct a use attainability analysis because the dams preclude the attainment of the use (see Introduction – 4; response to K53). This characterization misses PacifiCorp’s point, and is misleading. PacifiCorp’s concern and point is that naturally occurring conditions and upstream pollutant loadings cause the targets and allocations established by the TMDL to be unachievable – regardless of the presence or absence of the dams. Thus, the response to comments document did not respond to this important point and focused on an issue that was not raised in PacifiCorp’s comments.

As PacifiCorp stated in its written comments, the Clean Water Act anticipated situations where water quality standards or a TMDL would not be achievable, by providing several processes to address this circumstance. These processes include:

- revising relevant water quality objectives (if the revisions would protect beneficial uses)
- *OR* conducting a use attainability analysis to remove uses or subcategories of uses that cannot be attained,
- *OR* establishing new, more refined, and site-specific subcategories that are more reflective of the system.

PacifiCorp recommended that any one of these would be a more appropriate course of action than establishing an unachievable TMDL, which is inconsistent with the Clean Water Act and EPA's implementing regulations.

Despite PacifiCorp's well documented concerns with the TMDL, PacifiCorp remains firmly committed to working with the Regional Board and other stakeholders to enhance the water quality conditions in the Klamath River. Pursuant to the Klamath Hydroelectric Settlement Agreement, PacifiCorp will submit a TMDL Implementation Plan to the Regional Board and will work with Regional Board staff to plan and implement water quality related interim measures that will improve water quality conditions in the Klamath River.

PacifiCorp's primary concerns with the TMDL are the CEQA document, remaining modeling issues, and unattainable and unrealistic load reductions.

CEQA

PacifiCorp commented that the Substitute Environmental Document (SED) lacked analysis of the reasonably foreseeable environmental impacts associated with dam removal. In its revised SED, the Regional Board added a discussion of dam removal and PacifiCorp appreciates that additional detail. However, the CEQA analysis still omits critical information necessary for adequate environmental review and should be recirculated. Even a "tier one" SED must analyze reasonably foreseeable environmental impacts, alternatives and mitigation measures of dam removal and other potential compliance methods. The SED incorrectly interprets the requirement to analyze the environmental impacts of reasonably foreseeable methods of compliance to include only those actions which the Regional Board controls.

The SED does not adequately discuss reasonably foreseeable alternative means of compliance with the TMDL. Staff's response that selection of compliance methods is largely in the responsible party's control, while accurate, does not address the requirement that "reasonably foreseeable alternative means of compliance" must be analyzed at the time of adoption of the SED.

Additionally, the responses to comments state that because the Regional Board cannot control discharges in Oregon it need not discuss an alternative that load allocations will not be met at Stateline. CEQA analysis is intended to provide the public with information to understand the agency's decisions. It does not matter whether the Regional Board cannot control enforcement of standards in Oregon. PacifiCorp's comment was that CEQA

requires a discussion of reasonably foreseeable environmental impacts associated with the TMDL and proposed implementation plan, as well as reasonably foreseeable potential environmental impacts associated with alternative means of compliance. The SED does not comply with these fundamental CEQA requirements.

Further, the resolution certifying the SED and adopting the amendment does not include findings required by CEQA to show that the Regional Board considered alternatives and mitigation measures and to set forth the Board's rationale for concluding these alternatives and mitigation measures are feasible and will substantially lessen significant adverse impacts of the amendment.

Modeling Issues

PacifiCorp's comments highlighted several substantial issues associated with the modeling performed to support the Draft TMDL's analyses and recommended allocations.

- One issue was the twenty percent solar reduction in the river models. PacifiCorp submitted extensive comments, supported by model simulations, using the TMDL model, that illustrated clear bias resulting from applying a 20 percent solar reduction throughout the riverine reaches, but not the reservoir reaches of the model. This bias results in an under-prediction of temperature of over 1°C during summer for the natural conditions (no dams) scenario – and a corresponding increase in the temperature reductions required of the Klamath Hydroelectric Project. The response to PacifiCorp's comments state that the models are used only for comparative purposes. However, use of the models for even comparative purposes breaks down when differing assumptions are used in comparative scenarios to represent the same river reach.
- Another issue is the boundary conditions at Link River Dam. PacifiCorp identified limitations in formulating the Link River Dam water quality boundary conditions based on the Upper Klamath Lake TMDL. Specifically, the inordinate reduction of organic matter (and concomitant nutrient load) during summer months when organic matter would naturally be higher. The analytical basis and assumptions for this transfer of information from the UKL model to the Klamath River models is problematic.
- Finally, there have been late changes to the model. Several model parameters were significantly changed between the June 2009 draft and the December 2009 draft. There was no discussion of recalibration, rather the parameters were simply changed and new graphs inserted into the modeling appendix (Appendix 6). These late changes have not been peer reviewed and have direct implications on simulated water quality conditions, particularly in the upper basin above Stateline. Here, the TMDL model predicts water quality conditions that are unattainable given the upper basin hydrology and geohydrology, geology, meteorology, and natural aquatic chemistry.

Unattainable Load Reductions

As indicated in PacifiCorp's written comments, the Draft TMDL's dissolved oxygen (DO) and nutrient-related allocations and targets are based on management decisions that would require shifting the upper Klamath River system to an unnaturally lower trophic state. Achieving this unnatural trophic state would require very large nutrient reductions on the order of 90 to 98 percent of total phosphorus and 65 to 75 percent of total nitrogen. Nutrient

reductions on this order are not achievable, and thus the TMDL is not achievable. PacifiCorp commented that there have been no documented cases in which nutrient load reductions on such a large scale have been achieved elsewhere, or even concluded as feasible and achievable for planning and implementation purposes. Indeed, no examples have been provided for a basin of comparable size that is similarly dominated by non-point sources of nutrients.

In response, the responses to comment document admits that “Reducing nutrient and organic matter loads (current levels exceed background by several times) to UKL and the Klamath River presents a difficult and complex management challenge”, and there is a cursory mention of other nutrient reduction programs in large basins. On this important PacifiCorp comment, the responses-to-comments completely sidesteps the issue. While there are examples of restoration projects based on nutrient management programs, PacifiCorp’s point is that there has been a failure to provide any documented cases in which nutrient load reductions on the scale required in the upper Klamath River by this TMDL have been achieved elsewhere, or even considered feasible for planning purposes. Without such actual cases, this TMDL suffers from a lack of credibility because of the enormous and unprecedented reductions required. This lack of realism creates unsupportable expectations regarding water quality conditions that can be achieved in the Klamath River in the future, or even in the absence of any human influences whatsoever.

Negative Allocations

The TMDL assigns nutrient load reductions to Copco and Iron Gate reservoirs of 74,569 pounds total phosphorus annually and 1,091,654 pounds total nitrogen annually despite the fact that the reservoirs are not a source, or load, of nutrients and actually reduce nutrients in the river. These nutrient reductions are to be achieved at a location *upstream* of Copco reservoir. These negative allocations are inappropriate, particularly given that the reservoirs are a net sink of nutrients, as acknowledged in the TMDL. Despite annual nutrient reductions estimated at 8 percent of total phosphorus and 15 percent of total nitrogen, the TMDL and the responses-to-comments document characterizes these nutrient reductions, due to reservoir retention, as “minimal”, “minor”, and “not significant”. In a river with severely impaired water quality due to substantial natural and human derived nutrient loading, total nutrient reductions of up to 15 percent are highly significant.

Conclusion

Overall, the responses to PacifiCorp’s comments resulted in very few substantive revisions or modifications to the TMDL, and did not adequately address PacifiCorp’s legitimate concerns. The Regional Board Staff did add some language to allow “flexible” implementation of the reservoir compliance lens allocation and the above-Copco nutrient load allocations, but these allocations themselves remain unchanged. This is disappointing given the substantial effort by PacifiCorp to provide detailed comments on the TMDL drafts.