

# **Summary and Response to Comments** **Revised Snake River/Hells Canyon TMDL**

**May 4, 2004**

**Background:** On March 26, 2004, the Oregon Department of Environmental Quality placed on public notice an amended Order for the Snake River/Hells Canyon total maximum daily loads (TMDLs) that was originally issued on July 15, 2003. The amended TMDL Order was limited to two tables related to the total phosphorus/dissolved oxygen TMDL and one table concerning the sediment TMDL. The proposed amended Order is attached as Appendix B. The public notice limited public comment to these three tables. The public notice closed at the close of business of April 30, 2004.

The Department received 13 written responses by either e-mail, fax, or regular mail.

The following is a list of commenters in no specific order:

Jannine Jennings	Region X, U.S. Environmental Protection Agency
Marni Porath	Oregon State University
Lynn B. Jensen	Malheur County Extension Service
Patricia Phillips	Member of the public
LeRoy Cammack	Mayor, City of Ontario
Kathy Harrod	Representing Judge Russell Hursh and Commissioner Dan Joyce, Malheur County Court
Robbin Finch	City of Boise and representing Idaho Municipalities
Sara Arnero	Member of the public
Nicole A. Sullivan	Member of the public
Lindsey Smith	Member of the public
Joshua Neske	Student – Treasure Valley Community College
Jim Nakano, Chair and Kathy Pratt	Malheur Watershed Council
Tom Dupris	Facilitator, Lower Boise River WQ Plan Board

The following is a summary of the comments followed by the Department's response:

**Comment:** The TMDL document needs to recognize that total phosphorus load allocations for the tributaries are based upon achieving an in-stream total phosphorus concentration of 0.07 mg/l and actual, allowable loads under the TMDL will vary depending upon actual flow. This commenter suggested specific language to be inserted into the TMDL to make this fact explicit in the TMDL.

**Response:** The Department agrees with this comment and will insert language similar to that which was suggested as a footnote to Table 4.0.9. The footnote will read as follows:

**“The SR-HC TMDL target for total phosphorus for each tributary is a concentration of less than or equal to 0.07 mg/L total phosphorus as measured at the mouth of the tributary and applies from May through September. Because the total phosphorus target is concentration-based, actual allowable tributary load allocations under the TMDL are dependant on actual tributary flow and will fluctuate year to year. The total phosphorus load allocations listed in this table are based on averaged tributary flows measured in 1979, 1995 and 2000, which were average Snake River flow years, not necessarily average tributary flow years. Therefore they do not necessarily represent the calculated load allocations for any specific year or different series of years.”**

**Comment:** Natural loads of total phosphorus have not been determined or defined for the tributaries, but the total phosphorus TMDL defines a target concentration of 0.07 mg/l which may not be attainable because of high natural or background concentrations. One commenter suggested that text be inserted in to the TMDL document to recognize that this may be the case.

**Response:** The Department recognizes and accepts the fact that data collection and analyses may determine that, due to natural conditions or other factors, the target concentrations for the mouths of the tributaries cannot be practicably achieved. In Oregon’s case, ODEQ believes this will be determined at the time TMDLs are done for the Malheur and Owyhee Rivers, now projected for 2007 (Malheur) and 2009 (Owyhee). If subsequent TMDLs on tributaries indicate that the target concentration at the mouth is not practicably achievable, the Department will reopen the Snake River total phosphorus TMDL and revise it.

Because the scope of this TMDL revision was limited to the tables 4.0.7, 4.0.9, and 4.0.15b, the Department will not modify any other parts of the TMDL including the text. Instead, to better address the concern of the commenters, the Department will add a second footnote to Table 4.0.9. The footnote will read:

<sup>b</sup> Future data collection and analyses may determine that, due to natural conditions or other factors, the target concentrations for the mouths of the tributaries cannot be practicably achieved. This, in most cases, will occur when TMDLs are established for the tributaries. If subsequent tributary TMDLs indicate that the target concentration is not achievable, the Snake River/Hells Canyon TMDLs for total phosphorus will be reopened and appropriately revised.

**Comment:** P recycling is substantial and omitted from consideration in the total phosphorus TMDL, substantial P loading occurs at times other than the irrigation season.

**Response:** The DEQs (Oregon and Idaho) acknowledge that the Snake River is a dynamic system and that changes in the cycling of phosphorus within the system occur in response to climatological and precipitation events outside of the irrigation season. Phosphorus cycling is not omitted in the TMDL. It is incorporated in the correlation of total phosphorus, ortho-phosphate, chlorophyll *a* and sediment loading in the TMDL within both the Snake River and the Hells Canyon Complex. Phosphorus cycling was one of the primary considerations in the identification of the seasonal target for total phosphorus. The target is based on algae production and is applied during the period of the year when conditions are conducive to algae growth in the Snake River. The assessment of available data in the TMDL process showed that well over 70% of the total phosphorus loading to the Upstream Snake River segment (RM 409 to 335) in the SR-HC TMDL reach occurred during the irrigation season (May through September). Therefore, reductions in loading associated with the current TMDL targets and the extended implementation time frame will act to improve water quality within the SR-HC TMDL reach. A year round target could be applied, but would be more restrictive than currently warranted given our understanding of the system.

**Comment:** Geology and Ecology, dynamic and unique nature of the Malheur and Owyhee River systems do not lend themselves to a one-size-fits-all strategy.

**Response:** The DEQs agree with this comment. Specific loadings and strategies will be defined separately and specifically to these river systems when their respective TMDLs are done in the future.

**Comment:** Why are the Weiser, Boise and Powder Rivers not required to reduce sediment loading, while the Owyhee, Malheur Rivers are required to reduce their loads. On April 18, a plume of sediment from the Boise River was easily discernible in the Snake River, while no similar plume existing at the mouth of the Owyhee River.

**Response:** The sediment TMDL target for the Snake River is a monthly average concentration of less than 50 mg/L total suspended solids. High flows and other precipitation or runoff-induced events may result in short-term sediment concentrations that are greater than 50 mg/L without exceeding the monthly average target.

Applying the 50 mg/l monthly average sediment target to the Boise, Weiser and Powder Rivers would have allowed them to increase their loads from current levels, which was deemed inappropriate. Consequently, their allowable load allocations were adjusted downward to current levels.

**Comment:** The TMDL process does not lend itself to a more holistic approach to managing fisheries and water quality. A better approach would be to apply a more integrated process and consider the benefits of increased flow to improve water quality and protect beneficial uses. This commenter did endorse the adaptive management process and the recognition that water quality problems required a long term effort.

**Response:** The DEQs appreciate these comments and agree that a holistic, integrated approach would be desirable. The TMDLs, however, are a component of federal law and we are driven, in large part, by legal actions to accomplish them. While there are certainly some troubling components to TMDLs, we also think there are some positive aspects. The two DEQs would like to work with the citizens of the Snake River basin and its tributary basins to maximize the positive aspects.

**Comment:** There was a concern that the TMDL would require that all canals and ditches would need to be replaced by closed pipes.

**Response:** There is nothing in the existing TMDL that would require piping. Further, the DEQs have not been informed that anyone is proposing to pipe canals and ditches.

**Comment:** The DEQ's have not respected or adequately incorporated public comments into the TMDLs despite sincere and concerted efforts by the people of Malheur County to participate in the process.

**Response:** The DEQs understand the basis for this comment. Some of the suggestions and comments have not been incorporated into the TMDLs. Their exclusion is not because the input is not respected or appreciated, however. Our first obligation is to develop and submit TMDLs that are consistent with federal law, that can be approved by EPA and defended should they be legally challenged.

One of the foundations of a TMDL is that allocated loads will lead to attaining water quality standards. The phosphorus concentration target of 0.07 mg/l is a good example. Our analysis showed that phosphorus levels of 0.07 mg/l would reduce algal growth and allow the river to achieve dissolved oxygen standards. If, as suggested, natural background is higher than 0.07 mg/l, then all phosphorus loading would have to be allocated to natural sources leaving nothing to allocate to either point or nonpoint sources. Fortunately, we believe the natural load is less than 0.07 mg/l.

Another basis for this comment is our apparent or perceived refusal to consider natural phosphorus loads in the Malheur and Owyhee Rivers. This was not our desire, but a necessity considering the scope and limited

**resources and time available for the Snake River TMDL. Had we more time and resource, it would have been desirable to look at all the tributaries. Instead, our approach is to essentially set tentative or interim targets for the mouths of tributaries and return to the issue when TMDLs are established for the tributaries.**

**Finally, the DEQs are very impressed with the sincere and earnest commitment by the Malheur Watershed council to deal with the basin's water quality problems. While we obviously have difference's about how TMDLs should be done, we do hope that we can continue to work together to improve water quality and to comply with the federal Clean Water Act.**