



UTILITIES DIVISION  
N. Bruce Rawls, P.E., Utilities Director

A DIVISION OF THE PUBLIC WORKS DEPARTMENT

June 24, 2008

David Moore  
Washington State Department of Ecology  
4601 N. Monroe Street  
Spokane, WA 99205-1295

SUBJECT: SPOKANE RIVER AND LAKE SPOKANE DISSOLVED OXYGEN  
TOTAL MAXIMUM DAILY LOAD-MAY 2008 DRAFT

Dear Mr. Moore:

Spokane County appreciates the opportunity to submit the following comments on the May 2008 draft Spokane River and Lake Spokane Dissolved Oxygen TMDL. Spokane County commends Ecology for its continued hard work on this watershed-based TMDL. The TMDL addresses both point and non-point sources of pollution, provides compliance schedules for implementation, a monitoring program, and ongoing oversight. The adaptive management component of the TMDL allows for refinement of the TMDL's assumptions and the dischargers' actions, based on data gathered and the actions performed. The TMDL is also consistent with EPA's guidance that emphasizes a watershed-based approach for improving water quality.<sup>1</sup>

We believe that, because the TMDL is designed to improve water quality in the watershed, it is important to allow and provide incentives for dischargers to reduce non-point source loading in the tributaries as part of the Spokane River DO TMDL. As currently drafted, the TMDL is less than clear on this point, which we believe is essential in order to achieve the maximum reduction of phosphorous in the watershed. A number of our comments are focused on this aspect of the TMDL.

As a signatory to the Memorandum of Agreement to implement the Foundational Concepts, the County has demonstrated its commitment to do its part to improve the water quality in the Spokane River. We appreciate that the TMDL now also

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<sup>1</sup> See, e.g., *Watershed Approach Framework* (USEPA 1996a) (recognizing three basic components of a watershed approach: geographic focus, sound management techniques, and partnerships/stakeholder involvement); *Water Quality Trading Toolkit for Permit Writers* (USEPA 2007); *Watershed-Based NPDES Permitting Technical Guidance* (USEPA August 2007).

requires Avista to achieve the DO standard through the actions required in the Section 401 Water Quality Certification. While the County continues to believe that it is not a "new source" or a "new discharger," it will not repeat those comments in detail here, but instead incorporates by reference its comments on that topic as contained in its comment letter to Ecology dated November 11, 2007.

Attached are more specific comments, which are focused on providing additional clarity to the TMDL in a few areas. Again, thank you for your continued efforts to improve the TMDL and for the opportunity to submit these comments to you.

1. Because Ecology has now issued the 401 Certification for the Avista's Spokane River Hydroelectric Project, the TMDL should specifically reference the 401 Certification-Order No. 5492, FERC License No. 2545 dated June 10, 2008.
2. Page 4: While Avista Utilities may have the primary responsibility for reservoir aeration, and may take the lead, dischargers may also participate in this effort and the TMDL should reflect that dischargers may accrue appropriate delta elimination credits as a result of their participation.
3. The County notes that Ecology has reduced the WLA's for the dischargers from 10 ug/L, as agreed to in the Foundational Concepts for the Spokane River TMDL Managed Implementation Plan and Memorandum of Agreement. This adjustment in the WLA's is not well explained and is not necessary or reasonable because it implies a level of accuracy in the TMDL model that does not exist.
4. Page 6: Should this figure be labeled as Figure 1?
5. As the next phase of watershed management, we believe that it makes sense for Ecology to develop TMDLs for the tributaries instead of developing management plans. Absent TMDLs, it appears that the tributaries are allocated the entire loading capacity in the watershed without a linkage to the Spokane River TMDL. While the Spokane River DO TMDL can and should be finalized now, it makes sense as the next step to develop TMDLs for the tributaries that are consistent with the Spokane River TMDL's approach. The loadings in the tributaries are not well defined at this time and completing a TMDL will provide a more complete loading analysis in the tributaries to support a wasteload allocation for point sources and a load allocation for nonpoint sources. **Reductions in tributary loadings may be needed to meet the mainstem**

TMDL and it is possible that they may be more cost-effective to accomplish than other load reductions. If the water quality in the mainstem has not met the standards by the 10-year review, we request that tributary TMDL's be prepared to be consistent with the Spokane River DO TMDL.

6. The discussion of load allocations is based on the one potential load allocation of nonpoint sources from three key tributaries; Hangman Creek, Coulee Creek, and the Little Spokane River. This load allocation assigns 2.5X natural background loadings to these tributaries. The loading analysis omits nonpoint source load reductions outside of Hangman Creek, Coulee Creek, and the Little Spokane River, including mainstem Spokane River nonpoint source loadings, aquifer loadings, etc. The 10-year review should consider other reasonable combinations of nonpoint source load allocations and point source wasteload allocations that might be equally capable of meeting the TMDL requirements for the Spokane River.
7. TMDL Analysis Page 22 Results of the 2007 Analysis: The text states that the 2004 modeling analysis is affirmed by the 2007 modeling, and that the dissolved phosphorus capacity of the river is 2.5 times the baseline found to cause 0.2 mg/l dissolved oxygen depletion in Lake Spokane. This is the basis for the TMDL, and other loadings and flows are maintained at 2001 levels. Then the available capacity is all assigned to the tributaries and this is 16 percent lower than the April through October loadings in 2001. There is no explanation why the *entire* loading capacity is assigned to the nonpoint sources in the three tributaries. No consideration appears to be given to any other potentially more balanced loading scenarios that require more than 16 percent reduction in the three tributaries combined with something less than 99 percent removal of the point sources and 100 of the nonpoint sources to the mainstem. We request that the 10-year review include several more balanced loading scenarios between point sources and non-point sources.
8. Page 27 Figure 5 Estimated loading reductions... This figure is misleading because it combines both natural phosphorus loadings with the "allowable loading" from tributaries ("Natural + allowable phosphorus load"). The "allowable loading" is the nonpoint source loading from the tributaries. Characterizing "allowable loading" this way in the TMDL implies that this loading is part of the natural background and cannot be managed. In fact, this "allowable loading" is the entire loading capacity of the watershed which has been assigned to the three tributaries. The "allowable loading -

i.e., nonpoint source tributary loading" should be available to Dischargers to reduce the loading and to reallocate this loading in the future. Please consider this for the Implementation Strategy.

9. Page 28 Load and Wasteload Allocations: Ecology acknowledges that TMDLs for the tributaries may help better differentiate nutrient loadings in the tributaries, indicating a preference for conducting full TMDLs: "*TMDLs for the Little Spokane River and Hangman Creek remain under development. They may better differentiate the amount of nutrient loading in these tributaries that is naturally-occurring from that which is human-caused.*" We request that TMDL's be prepared for these tributaries, if the mainstem has not met the water quality standards by the 10-year review.
10. Page 42 Nonpoint Sources: It is important that nonpoint sources to the mainstem be quantified and distinguished from natural background in order for nutrient loadings to be effectively managed to improve water quality. "*Nonpoint sources are assigned load allocations. For this TMDL, load allocations are assigned to the tributaries, but not the mainstem of the Spokane River. However, Dischargers may participate in actions to reduce phosphorus from any nonpoint sources to the tributaries or mainstem to lower their delta.*" We request that Ecology account for mainstem nonpoint source loads so they can be accounted for in future load reduction efforts.
11. TMDL Analysis Page 21 states "*Significant nonpoint sources of nutrient pollution are not specifically identified in this TMDL. However, the broad effects of nonpoint source pollution are accounted for (CURRENT vs. NATURAL CONDITIONS scenarios, see Appendix C) and will hopefully be better distinguished upon implementation of the TMDL.*" We request that appropriate data be collected prior to the 10-year review, so that this broad statement can be replaced with more specific information with regard to non-point sources.
12. Page 30 Wasteload Allocations: The discussion on effluent permit limits runs counter to the many discussions with Ecology about appropriate effluent limits for treatment facilities with extremely low nutrient requirements. "*Wasteload allocations for this TMDL are expressed as seasonal averages based on the cumulative impacts during the critical period for Lake Spokane (April – October), and account for the seasonal variation described in the Seasonal Variation in Lake Spokane section. These average values will be converted to appropriate monthly and running averages and daily maximum limits for Discharger NPDES permits, and will ensure that water quality is not impacted by variations in*

*effluent quality.*" Maximum weekly and maximum daily limits are inappropriate and the watershed itself is not responsive to daily variations in nutrient discharges. Seasonal averages are the appropriate structure for the permits on the Spokane River. We request that the TMDL establish a clear basis for appropriate seasonal effluent permit limits for the extremely low concentrations of P, CBOD, and ammonia to guide NPDES permit writers.

13. Page 30 Table 5 Wasteload Allocations. The concentration limits for CBOD (at 1.1 mg/l) are below the detection limit for the BOD analytical method. For this reason, the wasteload allocation for CBOD cannot be complied with unless there is an agreement that non-detect measurements in the analytical process will be reported as zero and used in the seasonal average calculation. This was discussed in detail with Ecology in August of 2007 and reference was made to an EPA Region 10 internal guidance memorandum. This is very important to Spokane County and we ask that it be stated explicitly in the TMDL.
14. Page 31 Wasteload Allocations: In the discussion about other surface water discharges, including stormwater, the document could be read to mean that the same concentration limits for phosphorus, CBOD, and ammonia that apply to the wastewater discharges would be applied to stormwater discharges. *"All other surface water discharges, including stormwater, should receive the concentrations representing the area at the point of discharge or an average of these concentrations. There are many small direct and indirect discharges to the Spokane River that may result from rainfall and snowmelt events. These stormwater discharges are considered both point and nonpoint sources (diffuse pollution that is collected and conveyed to a discharge location) and are addressed in the Managed Implementation Plan."* The County does not believe that Ecology intended to apply wastewater concentration limits to urban runoff (i.e., municipal stormwater) because the concentration limits for wastewater discharges are so low and stormwater management Best Management Practices typically accomplish far less pollutant removal by comparison. We request that the language be revised to avoid an unintended interpretation.
15. Page 34-35: The Spokane arm of Lake Roosevelt is outside the point of compliance for the TMDL and, therefore, the language requiring actions of the dischargers with regard to tribal water quality standards should be deleted. The existing language obligates dischargers to take actions that

are not consistent with the Foundational Concepts and the Memorandum of Agreement.

16. Page 43 Nonpoint Sources: The discussion in the TMDL is not reflective of the level of work that has been accomplished on the Septic Tank Elimination Program, and with the amount of review conducted by Ecology. *"Pending Ecology's expeditious review and decision regarding the information and calculations the county may, if Ecology approves, use the pounds of phosphorus prevented from reaching the river and Lake Spokane through septic tank elimination as part of any needed offsets for the county's new treatment plant. Similarly, any of the Dischargers can pursue opportunities to demonstrate positive phosphorus removal impacts from eliminating septic tanks to reduce their deltas."* It is the understanding of Spokane County that Ecology has reviewed and approved the analysis as a part of the 2006 Wastewater Facilities Plan Amendment review and this should be stated in the TMDL.
17. Page 44: WSDOT should be required to eliminate all untreated stormwater from entering the Spokane River and its tributaries.
18. Pages 44-45: The stormwater requirements are new obligations that appear to be inconsistent with the Foundational Concepts and the Memorandum of Agreement. The Phase II Municipal Separate Storm Sewer System Permit ("Phase II MS4 Permit) already requires Spokane County to develop and implement a stormwater management program to protect water quality. Therefore, it unnecessary to require additional stormwater obligations in this TMDL. In any event, the stormwater obligations identified on page 45 should be limited to the municipal separate storm sewer system. Language must also be included to make clear that any actions or BMPs that the County voluntarily takes, beyond those required by the Phase II MS4 Permit, which result in reducing nutrient pollution, will be credited to the WLA through the use of offset, trading, or as a delta elimination measure.
19. Page 48 Table 7 indicates that stormwater dischargers shall prevent sources. As discussed in the previous comment, the County asks that the TMDL state that the TMDL requires the County to implement the source control requirements of Phase II Municipal Stormwater Permit. Any additional actions that the County voluntarily takes, beyond those required by the Phase II Permit, will be credited towards the County's delta.
20. Page 52: The County asks Ecology to clarify why the TMDL will give particular attention to monitoring the hypolimnion during early monitoring

especially when DO levels will be least likely to be significantly improved by upstream phosphorus reductions.

21. Page G-164, item 26 response: The document states: "*Dischargers will not be given credit toward nonpoint pollution source reductions in the Hangman Creek and the Little Spokane River per the Delta Elimination Plans until the load allocations have been met in those tributaries.*" Ecology is developing phosphorus management plans for Hangman Creek and the Little Spokane River. Early results indicate that both tributaries violate the load allocations set for "natural conditions" due largely to nonpoint source pollution. Which load allocations must the tributaries meet before they can be used for Delta offsets? Are they the load allocations in the present draft DO TMDL, or in a load allocation developed in the Hangmen Creek and Little Spokane River TMDL efforts? Without the incentive of Delta Elimination, who will direct and fund nonpoint source pollution reductions in those tributary watersheds prior to them meeting their load allocations?
22. The modelers agree the algae assumptions including stoichiometry need refinement yet low DO conditions are dominated by algae growth which is dominated by nutrient availability. The dominate algae species may shift with the implemented reductions in nutrients. For this reason, the County suggests that this information be targeted as part of the monitoring plan and actions for the 10-year review.
23. The page number references for at least some of the revisions made as part of the second comment period appear to be incorrect, which makes it difficult to review the document.

Sincerely,



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Spokane County Utilities Director