

February 4, 2008

Traeumer response to Ecology comments
SB 6776 and HB 3193
Whistleblower Protection Bills

Spokane River and Long Lake (a reservoir on the river downstream from the City of Spokane) suffer from poor water quality, including low dissolved oxygen, that has adverse affects on fish and wildlife, recreation, and other uses of the waters. The primary cause of the poor water quality is high levels of nutrients (including phosphorous) from human activities.

The river is currently violating water quality standards for dissolved oxygen. To bring the river into immediate compliance with the standard would have required us to say that no one, including the city of Spokane, could discharge wastewater into the river. This would have precipitated a huge economic hardship on the community and would have taken needed flows out of the river. We chose, instead, to work with local governments, industries, tribes and the Environmental Protection Agency to develop a realistic, phased approach.

Traeumer response: The results of the 2004 TMDL showed that the dischargers would have to treat their effluent to very low concentrations of phosphorus (10 micrograms/liter) to meet the water quality standard. Immediate compliance was not expected nor required, as a TMDL includes an implementation plan to meet the water quality standard and existing dischargers are allowed a compliance schedule in their wastewater permits to meet the water quality standard. Both of these approaches allow for time to implement and affect change.

Regarding claims of a realistic approach, this next section will be lengthy but is necessary to show how Ecology's policy decision: 1) effectively lowered the water quality standard that was used in the TMDL; 2) effectively drove the technical analysis to significantly different conclusions; and 3) resulted in a revised TMDL that is no longer based on the reality of the actual water quality standard.

The water quality standard for dissolved oxygen in Long Lake is "no measurable (0.20 mg/L) decrease from natural conditions". Washington water quality standards (WAC 173-201A-020) define "natural conditions" or "natural background levels" as "surface water quality that was present before any human-caused pollution". The original Draft TMDL 2004 was developed using the water quality at the outlet of Lake Coeur d'Alene to establish the natural condition. While not completely free of human-caused pollution, it was a reasonable approximation of the natural condition for the Spokane River and Long Lake. Using this approximation for the natural condition, the results of the 2004 TMDL showed that the dischargers would have to treat their effluent to very low concentrations of phosphorus (10 micrograms/liter) in order to meet the water quality standard for dissolved oxygen in Long Lake.

The dischargers claimed this was cost-prohibitive and would create economic hardship. There is a formal approach in these types of circumstances, which requires the development of a Use Attainability Analysis (including an economic analysis) and formal Rule Making to change the water quality standard. The dischargers developed a flawed Use Attainability Analysis, which did not include an adequate economic analysis. It was at this point Ecology and the dischargers backed away from the original TMDL and potential rule making, and chose instead to undertake the negotiations known as the Spokane River Collaboration.

Of significance is the fact that the proper approach to change the water quality standard (Use Attainability Analysis and Rule Making) was abandoned; however, the water quality standard was effectively changed through two significant policy decisions. The first was EPA's policy decision to abandon their watershed-based approach, and instead split the watershed at the political boundary. As a result of this policy decision, EPA developed permit limits for the Idaho dischargers through computer simulation modeling that ignores all impacts from Washington and allows the Idaho dischargers to take the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake. While Ecology continues to state internally and publicly that the impacts of the Idaho discharges are negligible in Washington, the fact is that the Idaho permit limits were developed specifically through simulations that would just take the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake. This is of course is a significant impact, as it means Idaho has used up the entire allocation in Long Lake and there is no longer any allocation left for Washington

The work around for this was the second significant policy decision, which was made by Mr. Dave Peeler of Ecology to abandon the use of the water quality at the outlet of Lake Coeur d'Alene for the natural condition. The "new" natural conditions is now the quality of the water as it crosses the state line, which includes discharges from Idaho that take up the entire allocation for dissolved oxygen in Long Lake. This in effect lowered the water quality standard in Washington, as the "natural condition" is no longer "natural" but is a degraded water quality condition that includes point sources of pollution from three Idaho wastewater treatment plants. To compound matters, Ecology then re-did the TMDL analysis using this "lowered" water quality standard as the new baseline for the TMDL and, Washington also too the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake. Or more simply put, this new approach, couched in policy decisions, effectively lowered the water quality standard in Long Lake and allowed both Washington and Idaho to each take the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake.

It's not a quick fix, but over the life of the plan we will see vast improvements in the water quality of the Spokane River. If monitoring shows in five or ten years that we aren't seeing the kinds of improvements we expect, we will be back to the drawing board to make changes to be certain we get to where we want to be in 20 years.

Traeumer response: The goal of a TMDL is to meet the water quality standard (as opposed to seeing vast improvements in water quality). The mantra for this new approach is now adaptive management, "wait and see", and dissenters have been, and will continue to be, publicly accused of delaying improvements to the river. Please understand dissenters recognize this plan is smoke and mirrors brought on by policy decisions, and they simply want to see a legally and scientifically defensible plan developed for the river that is based on reality and will meet the water quality standard.

This is not the first attempt by Ecology to restore Long Lake. The first, begun in the late 80's, failed because it was a non-conservative approach. Thus, this second effort has been undertaken. How many flawed 20-year plans will it take before Ecology addresses the problem realistically in order to resolve it?

The former employee, Drea Traeumer, was hired in May 2006. She resigned her position in July 2007, with no prior discussion with her supervisor about her resignation. Her resignation cited unspecified professional conflicts with the direction of the project, but stated she would complete work on the project. She had been employed as Ecology's project manager on an ambitious water quality improvement plan for the Spokane River and Long Lake, and as part of the project development process voiced her professional opinions.

Traeumer response: My decision to resign was based on several factors. Most significant was the fact my formal recommendations on how to proceed defensibly (Attachment 1) were completely ignored by management. I receive no response, either verbal or written (with the exception of a face-to-face with Mr. Jim Bellatty where I was instructed not to put that kind of information into email as it would be used against Ecology, but that I was not being issued a gag order). The second factor was the development of a Watershed Oversight Committee that would implement the clean up plan. This committee is comprised of County officials and dischargers, and one non-voting member from Ecology (Mr. Grant Pfeifer). I repeatedly requested to be included in this Committee, as my position was the Lead for the Spokane River TMDL and I wished to participate meaningfully, but I was told this would not be possible. I would be relegated to a technical workgroup, which would effectively remove me from meaningful participation as the Project Lead. This was unacceptable to me, and at this point it became obvious I was simply a "token" Lead to be disregarded, my sole purpose was to get the TMDL approved, and with that accomplished I would then be effectively removed from meaningful participation as the Lead during its implementation.

Regarding my resignation, I provided written notice (Attachment 2) which includes reference to the policy decision and precipitated an immediate meeting with Mr. Grant Pfeifer (Regional Director), Mr. Jim Bellatty (Water Quality Manager) and Mr. Dave Knight (Water Quality Supervisor). During this meeting I further explained my issue with Ecology's policy decision, which effectively lowers the water quality standard and, in my opinion, renders the TMDL technically and legally indefensible. I was offered re-organization in order to stay on with Ecology, which I declined as I'd lost faith in the agency. During this meeting I made it clear I would not deliver the plan to the public because I could neither deceive the public nor answer their poignant questions honestly. I was informed during the meeting that I would not have to go before the public again.

Soon thereafter I was informed the schedule was being accelerated to ensure that the public meeting and public hearing occurred prior to my resignation date, and that I would be leading both. Given this new development, in direct contrast to what I had been told earlier, I decided to withdraw completely from the Spokane River TMDL in an effort to preserve my professional and scientific integrity (Attachment 3). In response to my decision, I was asked to move my resignation date up. I declined, saying I wanted to continue working on the TMDL if it could be done defensibly. I was allowed to work on other projects through my resignation date.

Building on work initiated in 1998, Ecology developed an early draft of the water quality improvement plan. This plan was developed following Ecology's and EPA's standard approach. However, once we reviewed public comments Ecology management determined that this plan was clearly not suitable for the complex situation that exists today in the Spokane area, nor would it adequately address technical and economic issues or future population growth.

Traeumer response: These conclusions are to be drawn through a Use Attainability Analysis and Rule Making, not by management.

Ken Merrill, author of the original draft plan, requested and was granted reassignment to another position because he did not agree that a new approach was warranted. He is still an Ecology employee.

Traeumer response: Mr. Ken Merrill requested reassignment as a last resort because he had been effectively removed from his duties as the TMDL Lead, he did not agree with the new approach, and it was his perception he would eventually be fired if he continued to insist on using good science with the TMDL to ensure legal defensibility.

The formation of the Spokane River Collaboration involved a unilaterally-negotiated list of questions that would be addressed in the "collaborative process". Mr. Merrill believed this process was compromised to the point that it limited the scientific and legal discussions essential for consideration by Ecology and the group. Consultants were hired to facilitate the negotiations, and Mr. Merrill was relegated to a technical workgroup that, in effect, forced him out of participating in his Lead capacities. This situation is analogous to the one I considered unacceptable with the Watershed Oversight Committee taking over the implementation and my responsibilities effectively reduced.

Also significant to Mr. Merrill's decision to request reassignment was his perception that he would be fired for his dissent with the new approach. His perception was supported by the ex-Regional Director, Mr. Renee-Marc Maqnin, who it is generally understood was forced to resign in part because he too had dissented with the new approach.

Mr. Merrill had spent 25 years studying Spokane River pollution issues and the last thing he wanted to do was transfer out of his position; however, he felt he had no choice if he wanted to retain employment at Ecology and preserve his professional integrity.

To develop a new plan, Ecology made a decision to work collaboratively with the following groups:

- EPA
- State of Idaho
- Environmental and other citizen groups
- Spokane Tribe
- Wastewater dischargers including the City of Spokane, Spokane County, City of Spokane Valley, Liberty Lake Water & Sewer District, Kaiser Aluminum, and Inland Empire Paper as well as dischargers upstream in Idaho

The objective of the collaboration was to develop a water quality improvement plan, or total daily maximum load (TMDL), under the federal Clean Water Act that would protect the river's resources, meet water quality standards, and address the technical and economic concerns of the communities.

Traeumer response: As stated previously, the goal of a TMDL is to meet the water quality standard. Technical and economic concerns are to be addressed through a Use Attainability Analysis and Rule Making.

Ecology devoted considerable staff and technical resources to this project, and contracted with Portland State University to provide computer modeling expertise. In addition, EPA staff modeled the Idaho portion of the river. Results from the EPA model are used as input to the Washington State model. The models are used to analyze current conditions and to estimate pollutant reductions that will be necessary in order to meet water quality standards in both Washington and Idaho. The models also provide the capability of running “what if” scenarios, to test different combinations of pollutant loading and reductions.

Traeumer response: EPA modeled the impacts of Idaho discharges downstream to Long Lake to determine the permit limits that will just take the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake. This effectively leaves no capacity for Washington. The work around for this was Ecology’s policy decision to consider the slate “clean” where the water flows across the state line by including the Idaho dischargers in the natural condition, thereby allowing Washington to also take the allowable 0.20 mg/L decrease in dissolved oxygen in Long Lake.

Participants in this collaborative effort contributed countless hours and energy to several workgroups to evaluate factors that had not been taken into account in the earlier work. These included potential water conservation and reclaimed wastewater, the availability and cost of treatment technology to remove phosphorus from wastewater, nonpoint pollution sources that might be reduced, computer model improvements, and other factors.

Based on all of this work, Ecology issued a second draft of the water quality improvement plan in 2006, along with draft wastewater discharge permits incorporating the findings and requirements of the plan. Without question this plan is one of the most technically and economically challenging efforts ever undertaken in the State of Washington. The treatment levels required of the dischargers to remove nutrients will be the most stringent in the country, and will be costly. Nonpoint sources will also need to be reduced to very low levels. Because of these challenges, the plan establishes pollution targets to be achieved but gives the dischargers options on how to meet those targets. A 10-year review and adjustment period is included in the draft plan, along with biennial public reviews of progress.

The plan is designed to meet water quality standards over a phased period of 10 – 20 years, with safety valves to allow adjustments to the plan if any of the assumptions or projections need to be modified as more information is obtained during implementation. These features make it an unusual plan, and Ecology worked very closely with EPA and the State Attorney General’s Office to ensure that it would meet state and federal requirements. It’s legal and it will be effective.

Many comments were received during the recent public review period, and Ecology is revising the plan and the draft permits to respond to those comments. Due to the unusual nature of the plan, Ecology held many internal and external meetings to discuss

these issues, gather different perspectives on how to go about this work in a way that would satisfy legal requirements, meet the communities' needs, and clean up the river. In the end, Ecology management, with the advice of staff and the Attorney General's Office, made policy and technical decisions about how to structure the plan and the nature of its requirements. Not all ideas could be included. It was a deliberate departure from the approach outlined in the 2004 plan that Ms. Treaumer referenced in her testimony.

Treaumer response: As stated before, the departure hinged upon Ecology's policy decision to effectively lower the water quality standard outside of proper channels. Lowering the water quality standard also served to significantly shift the results of the technical analysis in such a way that it now appears possible for the dischargers to create capacity through pollutant trading of nonpoint sources of phosphorus. These shifts, based on science driven by the policy decision, are presented in Attachment .

Information about the cleanup plan and the collaboration can be found at Ecology's Spokane River website:

http://www.ecy.wa.gov/programs/wq/tmdl/spokaneriver/dissolved_oxygen/index.html

In summary, Ecology relied upon the expertise and advice from its own staff as well as outside experts, and legal advice from EPA and the State Attorney General's Office. At no time did Ecology request or require staff to make decisions or write documents that would not be legal or would violate professional integrity.

Additional technical information:

1. Phosphorous background level:

The Environmental Protection Agency (EPA) made the decision to allow the "background" phosphorous level to be at the Idaho-Washington border. Questions should be addressed to the EPA. However, in case an explanation is needed, the following is a recent write up from EPA's Don Martin (who works out of Coeur d'Alene) about the reasoning behind that decision.

"The model predicted that, on average, the Idaho dischargers to the Spokane River will not increase phosphorus concentrations at the Idaho-Washington state line from April through September. Therefore, during much of the critical period, the impact of Idaho dischargers is too small to measure anywhere in Washington. EPA has never said that the levels at the state line are naturally occurring, or that the Washington Department of Ecology should assume the levels are naturally occurring. EPA has informed the Department of Ecology, that Ecology can assume that they have no control over the water crossing the state line for the purpose of developing the dissolved oxygen TMDL and therefore, it should serve as the boundary condition for the TMDL."

2. Compliance Schedule:

Ecology expects the dischargers to be in compliance with the requirements of the dissolved oxygen water-quality improvement plan (also called a TMDL) in 10 years. However, due to the fact that these are major equipment installations and new, untested technologies, we built in a system to work with the dischargers in case of unexpected

glitches. We will meet with the dischargers in five years and again in 10 years to evaluate progress and tailor new permits based on what we find.

This does not mean the dischargers are not being held accountable. In fact, if Ecology finds that a discharger is not working in good faith to get the best and newest technology installed and working, we can issue penalties.

Our goal is to clean up the water. The managed implementation plan developed during our collaborative process will do that. The financial toll this will take on these municipalities and industries is high. We intend to work in partnership until water quality standards are fully met.

Attachment 1

-----Original Message-----

From: Traeumer, Drea (ECY)

Sent: Thursday, June 07, 2007 4:38 PM

To: Erickson, Karol (ECY); Bramble, Lenox (ECY); Knight, David T. (ERO) (ECY); Bellatty, James (ECY); Cusimano, Bob (ECY)

Subject: RE: FW: Request for EPA model runs

Hello,

I'm working to get answers to Dave's questions re: funding, timing, implications, etc.

Considering we are at a critical point and recommendations are being asked of me on how to proceed, I suggest we revert back to using natural conditions as stated in our water quality criteria and defined per our WAC. I realize it's a recent policy decision to include the Idaho point source dischargers in our estimate of natural conditions, and that this will result in lower nonpoint source load allocations for the tributaries (resulting in increased potential for pollutant trading). However, continuing with this approach can only be problematic to Ecology because: it is inconsistent with our water quality criteria and our definition of natural conditions per our WAC; is not likely to be scientifically defensible; it will not change the reality of the amount of nonpoint source reduction that is necessary to meet the target in the lake; and it will damage Ecology's credibility.

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Attachment 2

----- Forwarded message -----

From: "Traeumer, Drea (ECY)" <DTRA461@ECY.WA.GOV>
To: "Knight, David T. (ERO) (ECY)" <DKNI461@ECY.WA.GOV>
Date: Thu, 5 Jul 2007 11:50:16 -0700
Subject: Resignation

Hello,

Please accept this as my resignation notice. My last day with Ecology will be August 31, 2007. This should allow me the time necessary to: incorporate PSU's updated modeling into the draft TMDL; complete the draft TMDL; and distribute the draft TMDL for Ecology, EPA, and advisory group review. The updated TMDL schedule is attached.

Thank you for the opportunity to work on such a technically and politically challenging project. I regret not being able to see the TMDL through to its completion as I had planned to. Unfortunately, I have developed a professional conflict with our approach and policy decisions, which renders it necessary for me to excuse myself from the remainder of the process for this TMDL.

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Attachment 3

----- Forwarded message -----

From: "Traeumer, Drea (ECY)" <DTRA461@ECY.WA.GOV>
To: "Knight, David T. (ERO) (ECY)" <DKNI461@ECY.WA.GOV>
Date: Thu, 9 Aug 2007 16:18:44 -0700
Subject: Documentation of SR DO TMDL Issue

Hi Dave-

I just want to document the primary reason we discussed by telephone today re: why I can't write the current Spokane River Dissolved Oxygen TMDL. The goal of a TMDL is to ensure that water quality standards are attained. As the water quality standard (i.e. natural condition) is not being applied to this TMDL, it does not appear to be a legally or scientifically defensible TMDL. This has resulted in a professional conflict that prevents me from authoring the TMDL.

Thank you for understanding my decision.

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Attachment 4: Comparison of Phosphorus Loadings and Load Reductions for Draft TMDLs v. 2004 and v. 2007

Apr - May	Natural Condition (lbs) (v. 2004)	Natural Condition (lbs) (v. 2007)	% Reduction NPS^a (v.2004)	% Reduction NPS (v.2007)
Stateline	297.1	337.9	71.5	99.9
Hangman Creek	12.2	19.0	96.3	50.3
Coulee Creek	3.2	3.2	96.4	50.6
Little Spokane River	80.6	59.3	83.6	23.3

Jun - Oct	Natural Condition (lbs) (v. 2004)	Natural Condition (lbs) (v. 2007)	% Reduction NPS (v.2004)	% Reduction NPS (v.2007)
Stateline	48.0	59.4	76.5	100.0
Hangman Creek	1.3	1.3	94.0	31.8
Coulee Creek	0.3	0.3	93.7	29.6
Little Spokane River	38.9	36.0	73.6	11.1

Apr - Oct	Natural Condition (lbs) (v. 2004)	Natural Condition (lbs) (v. 2007)	% Reduction NPS (v.2004)	% Reduction NPS (v.2007)
Stateline	119.1	139.0	73.2	100.0
Hangman Creek	4.4	6.4	96.0	48.4
Coulee Creek	1.2	1.2	96.1	47.8
Little Spokane River	50.8	42.7	78.7	18.0

^aPercentage of nonpoint source phosphorus to be reduced before pollutant trading opportunity exists