

**Spokane River DO TMDL Implementation
Alternate Season Limits Sub Committee Meeting Minutes April 14, 2011**

Subcommittee Members or Alternates:

In Attendance: Dale Arnold, Galen Buterbaugh, Speed Fitzhugh, Paul Klatt, Doug Krapas, Steve Llewellyn, Meghan Lunney, Dave Moss, Mike Neher, Bruce Rawls, and Ken Windram

On Phone: Bob Anderson, Dave Clark, Ben Cope Dave Dilks, Laurie Mann, Joel Massman, Brian Nickel, and Sarah Hubbard-Gray

Ecology TMDL Staff: Dave Moore, Jim Bellatty, Richard Koch, and Pat Hallinan, **On Phone:** Tony Whiley, and Kelly Susewind

Spokane River Forum Staff: Tonilee Hanson

Welcome and Introductions: Dave Moore welcomed participants to the subcommittee meeting, each of whom introduced themselves.

All meeting materials, including those referenced in these minutes, can be found on-line at <http://www.spokaneriver.net/?p=4683>

BAP Sub Committee Meeting Summary - Kelly Susewind

Kelly Susewind summarized the BAP Sub Committee meeting discussion and the presentation by Dr Brett, UW. IEP presented the BAP data and studies which they believe are solid enough to move forward with modifying the IEP permit.

The BAP meeting concluded by looking for potential paths forward based on ortho-P and estimating a timeframe and determining what additional data might be required.

Doug Krapas, IEP, was given an opportunity to comment on Kelly's summary.

Notes and materials from this meeting are posted at <http://www.spokaneriver.net/?p=4618>

Ecology Proposal on Alternate Seasonal Limits & Discussion Kelly Susewind Dave Moore

Dave Moore and Kelly Susewind reported that recent developments from LimnoTech may expedite the process for applying alternate seasonal limits. Ecology proposed February to October seasonal average limits of 50 ppb total phosphorus for all dischargers except IEP which would have a limit of 70 ppbl. These limits would represent an increase from the TMDL with the exception of Kaiser which will be left at its current TMDL wasteload allocation

Questions were raised about how the alternate seasonal limits would impact Idaho and referenced Post Falls and the dispute resolution limit of 50 ppb. Ecology would propose to hold them at the current limit as proposed by the LimnoTech report.

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Kelly Susewind and David Dilks referenced a memo from LimnoTech in which they ran a simulation at 50 and it looked like Idaho dischargers came out as equivalent to the Spokane River / Lake Spokane DO TMDL (table 7). Post Falls was run at a higher flow. Ammonia & BOD were consistent with Dispute Resolution with 50 as seasonal average. The simulation passed all the equivalency criteria developed by Ecology and EPA (released after the meeting) and generally had a positive impact on DO relative to the TMDL. One step remaining is to validate the result and Kelly reported that there is confidence that it will meet the criteria for validation if the dischargers want to pursue alternate seasonal limits as proposed in the LimnoTech report.

The advisory committee requested access to the LimnoTech memo which had just been received by Ecology. It was agreed that if legal council approved its release, the LimnoTech memo would be posted on the SRF DOTMDL website.

Bruce Rawls referenced a previous discussion of an alternate seasonal limit that included January to October and asked if that was still being considered. January testing and its impact on Lake Spokane DO were discussed but Ecology preferred to start with February to October and take January off the table due to significant cost increase for dischargers for each month added to the season. Ecology is trying to get limits that people can live with which can happen by extending the season to February. If this extended seasonal limit doesn't work January to October can be considered at a later date.

Dale Arnold raised questions about how different this alternate season limit would be compared to the existing limits of either 42 or 36. How does a 50 seasonal average equate to permit TMDLs? Will it change permits? How much higher will the P removal be? It is estimated to cost \$4,000 per day or \$50-60K for additional months. How do we know we will get results? How does it change the waste load allocation?

A discussion started about what is the best number to use and turned into a question about how seasonal limits would relate to a monthly maximum. Some of the ideas, questions and concerns stated were as follows:

- Under TMDL the limit is now 36 and will raise to 50 or 42 will raise to 50, so the monthly maximum limit will slightly increased discharge.
- If it is a seasonal 50 but you will have a monthly max what is the monthly number?
- Permitting plans do not attempt converting seasonal average WLA to a monthly permit limit. Regulations may require it but if we can demonstrate that it is impractical to do so we may have to make too many assumptions and might end up with a limit that is overly or under restrictive.
- Permits would just have a seasonal not monthly limit.
- It was stated that March—November is now a monthly average max but that could not be confirmed by the Ecology staff in the room.
- Has this approach been used at other sites? No.

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A request was made for Ecology to put out a memo clarifying the relationship between seasonal limits and monthly maximums. Dave Moore told the group that Ecology would develop a comparison table showing how much more phosphorus could be discharged between a seasonal vs. monthly average of 50 ppb. Each discharger would have to determine other impacts such as additional costs of treatment and determine if they wanted to pursue alternate seasonal limits based on that information.

Discussion returned to the LimnoTech memo dated 4/6/2011 to Gary Allen. Kelly reminded everyone that they first had to decide if the information could be used. If Ecology can't use it then the model will have to be re-run. It was assumed that the information was run using the non optimized version of the model. Once the attorneys release the data Ecology will work with Portland State to validate LimnoTech's accuracy or re-run it if the dischargers wish to pursue alternate seasonal limits as proposed in the LimnoTech report

The spreadsheet attached to the report, used to validate equivalency with the TMDL had not been seen by most people in the room and was not currently available, was described as using as much of the TMDL model assumptions as it could. It used Avista responsibility and calculated equivalent differences between the LimnoTech run and the TMDL. It added the differences between the proposal and the TMDL Table 7 and added Avista responsibility. Limits are within 0.2 mg/L and require that the average hasn't gotten worse.

Changes to ammonia and BOD for ID (as input to the LimnoTech modeling effort) were discussed in relation to permits. By changing BOD and ammonia, Idaho may be causing a bigger sag than the TMDL. There is a potential that one state might get more or less in the TMDL.

Bruce Rawls stated that ammonia limits are important, not just phosphorus. Ammonia in March is an issue specifically for the County. In the County's permit they proposed equivalent offset to resolve ammonia. If the model is re-run will Ecology recognize that ammonia isn't low for cold months? Bruce indicated that there may be a need to bump up the February and March limits for ammonia and BOD. The reason is that for some dischargers ammonia is almost as big an issue as P. Ammonia is also a huge issue in CDA. When the dischargers discuss the level of interest, they want to get ammonia on the table so they know how to approach it. Ecology wants to keep simple by focusing on phosphorus but will consider adjustments to ammonia and BOD (with all the modeling and validation it entails) during the first permit cycle.

David Dilks was asked how LimnoTech handled the ammonia for WA. David stated that they did not change the TMDL wasteload allocations for ammonia, they only changed P. In Post Falls they did extend ammonia into February with the same DMR values have higher ammonia treatment and lower limits in February. Sid gets relief for ammonia in CDA and high P scenario run. Questions were raised about the relevance for Idaho with no TMDL and no extra limit on Washington to treat P to a higher limit in February. The

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model run was kept simple with nothing changing for TMDL but a higher P limit that is extended for a longer time.

Ecology restated that they wanted to get everyone to a limit they can live with and that they don't want to find the optimal, highest limit for each individual discharger ("getting out the last molecule of dissolved oxygen" in Kelly's words). Dischargers were again invited to come up with an alternate nutrient limits proposal if they didn't like the LimnoTech proposal

A spreadsheet of LimnoTech model results (described above) was discussed but not available for all members. Brian Nickel used it as a tool to compare two model runs and equivalency. David Dilks used the same spreadsheet to compare the model run under discussion. A request was made for everyone to have access to the spreadsheet.

Kelly reminded everyone that Ecology would like to keep simple. Regarding a change in P for February, dischargers can decide if they want an alternate seasonal limit or not. If a higher P in February works, let's get permits in place and then look at equivalency.

TMDL Model Equivalency Kelly Susewind Brian Nickel

Kelly opened the equivalency discussion by saying a bar is needed to determine if the alternate seasonal limit numbers are good enough and are equivalent to the TMDL or not. The impact cannot cause any changes to the DO responsibility calculated for Avista in Table 7 of the TMDL. The number of cells for Avista can't be increased. For precision, carry all digits forward and then round off to nearest tenth. Don't increase time or magnitude for Avista in Table 7.

Brian Nickel: When you do the model run for alternative limits and add in Avista's responsibility, you better meet Washington standards for DO. There is also a test to ensure rounding does not mask lower DO. Average DO number in shaded cells needs to be better or the same.

Kelly: We think the 2 rules are sufficient to establish equivalency. One where Avista has a responsibility and one where Avista does not have responsibility.

A technical discussion involved the following topic:

- Functionally there is no change in the equivalency rules first developed by EPA in November.
- Before there were three rules and now there are just two rules
- Is the average calculated cell by cell?
- Will rounding introduce arbitrary results? Some cells might trigger failure.
- Test one involves no averaging # DO run and adds Avista must meet was standards. No averaging just a rounding at the final step reported at nearest tenth test for individual results

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- Rule two does involve averaging, but not rounding, so we don't mask a small impact that does matter.
- In many places Avista has no responsibility and Avista's responsibility is fixed.
- Rule 1: No new cells and no new responsibility for Avista
- Dischargers need to meet their limits without Avista help.
- A lot of the reservoir will meet standards. If you have a cell where Avista doesn't have a responsibility and the alternate limits cause it to not meet the standard, that would be a failure.
- Dave Moore requested the EPA rules for the next advisory meeting or sooner. Brian was comfortable with sharing the rules although he thought they might need some clarification. If they are not ready to share now they could be made ready by next week when Ecology will submit and distribute a set of rules for review.

Level of Interest – Roundtable

Dave Moore asked the advisory committee to indicate their level of interest. He stated that the Alternate Seasonal Limit Schedule is based on TMDL amendment and Ecology's AG says it may not be necessary to make an amendment which could result in a shortened schedule.

Doug Krapas recommended that nothing be taken off of the table. IEP has presented their position on BAP and IEP is an insignificant contributor to the alternate seasonal limit scenario. Doug expressed concern about the cost for additional months of treatment which is substantial (estimated at \$100K) and requires 10 times the chemical dosage. There is also the sludge handling issue at a reject rate of 1million gals /day of sludge which currently has no reuse value. The secondary sludge is reused but what will IEP do with 1M gal/day of chemical sludge for which there is no use and may have a more dramatic environmental impact than is understood?

Dale Arnold proposed another option to achieve the standard. Can we make an assumption that if an entity wants the original TMDL they can do so? I want to reserve my final say regarding choosing either the extended limit or the original TMDL.

Dave Moore and Kelly Susewind want to have the model validated. All dischargers should decide if they will opt in or opt out for the higher limit over an extended season. It is unknown whether or not the limits will work if dischargers can switch back and forth (another model run would be necessary if they want to mix and match). If one discharger chooses not to do the extended season there may not be equivalency. Then the dischargers will need to do a new model run to see if there is equivalency (as validated by Ecology).

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Questions and Issues to be addressed:

- How does variable implementation translate to the permit limits?
- If BAP is considered then aren't all entities discharging less BAP than the model assumes.
- How will the UW BAP study and Ortho P with IEP impact all dischargers?
- SRSP needs to discuss their level of interest for staying with the TMDL or proposing a different scenario.
- Ecology has the option to issue permits today on a model run with an extended season or using the current TMDL with no extended season. Otherwise the dischargers need to propose an alternate scenario and then a model run.
- If Ecology does not choose monthly limits, can a discharger choose their month to month limits? KS: Dischargers come up with monthly limits that result in meeting the seasonal average. Will Washington permits have seasonal or monthly limits? Industrial limits are seasonal. It was agreed that the wording in the draft permits is confusing on whether there are monthly or seasonal limits. Some thought there was monthly reporting of how you're doing throughout the seasonal limit.
- Idaho is in favor of the alternate seasonal limit idea as they proposed it. There are environmental benefits to the extended season but if Washington doesn't want to go along then ID will work with EPA to get extended seasonal limits in their permits (as they have been doing under the settlement agreement). Idaho is interested regardless of the Washington limits. The TMDL does not set limits for Idaho and Idaho is free to set limits as long as they meet the WA standards. Idaho came close but did not meet the standards. If all WA dischargers don't want to use the extended limits then Idaho would have to make adjustments to make the numbers work. 0.01 won't take big changes.
- Interest was again expressed in the outcome of the modeling and seeing the LimnoTech memo. If there is a single cell that fails would that one cell fail the test? The cost and benefit to each discharger may be dramatically different. There may be no consensus for all of us on the benefit & cost.
- Avista expressed a high degree of confidence in the process and is very interested to see if dischargers are in or out. Speed (Avista) said he heard concern for Avista's level of responsibility and how they meet or don't meet it.

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Next Steps

1. Ecology will check with Idaho lawyers for approval to release the LimnoTech report and Ecology will validate the report using equivalency rules. When available, the report will be posted on the SRF website.
2. SRSP will meet to talk about the level of interest and propose a different scenario.
3. Dave Moore will modify the schedule
4. EPA spread sheet will be released. *It is not the equivalency document.* Its purpose is to explain the logic in the model Brian Nickel prepared in 10/2010. The draft can be sent out or we will check with attorneys and find out their comfort with distribution so everyone could have the actual document. Dave and Brian will decide on the best option.
5. May 6 is the next full DOTMDL Advisory Committee meeting
6. Ecology plans to issue permits by 6/1
7. SRSP has a meeting on 5/6 afternoon to share validation of test and rules. ML teleconference SHG 4/22 and in person meeting after 5/6 Advisory Committee Meeting
8. SRSP may want to meet sooner. To have proposal for 5/6
9. Clarification of seasonal average and monthly reporting on WA side. Resolution on WA permits Dave Moore will work with Pat & Richard and report by 5/6

The Alternate Seasonal Limits Sub Committee meeting was adjourned at 10:40 am