MEETING SUMMARY

Spokane River TMDL Collaboration

Wastewater Flows and Loadings Workgroup Status Report

Meeting Date: July 7, 2005

Member Attendance:

Here	Name	Sponsor	e-mail	Phone
No	Bramble, Len	Ecology	lbra461@ecy.wa.gov	(509) 329-3504
Yes	Brewer, Lloyd	Petitioners	lbrewer@spokanecity.org	(509) 625-6968
Yes	Buterbaugh, Galen	Petitioners	galenb1@comcast.net	(509) 465-2289
No	Fredrickson, Sid	Petitioners	SidF@cdaid.org	(208) 769-2277
No	Kimball, Jim	Petitioners	JKimball@JUB.com	(208) 762-8787
yes	Koch, Richard*	Ecology	rkoc461@ecy.wa.gov	(509) 329-3400
No	Merrill, Ken	Ecology	kmer461@ecy.wa.gov	(509) 329-3400
Yes	Paschal Osborn, Rachel	Ecology	rdpaschal@earthlink.net	(509) 328-1087
No	Rawls, Bruce*	Petitioners	Brawls@spokanecounty.org	(509) 477-3604
Yes	Kevin Cooke	Petitioners	kcooke@SpokaneCounty.org	(509) 477-7286
No	R. William Rickard	Petitioners	brickard@SpokaneCity.org	(509) 625-6533

1. Attach Audience Attendance Roster-No Audience

   Rick Eichstaedt and Tim Conner attended today's meeting for Rachael Paschal Osborne who was late.

   Dr. Barry Moore and Dr. Marc Beutel of WSU

2. Meeting Summary:

   An overview was given: The full work group is anticipating feed back on "what happens next." This workgroup has considered the benefits of proceeding with the task of obtaining new and presumably more precise SOD data. The petitioners are of the opinion that lake oxygenation is likely to be a needed option and implementation likely has a long lead time for data acquisition, engineering, environmental review, etc. and it is therefore prudent to consider what can or should be done now.

   Regarding uncertainty in SOD, uncertainty is inherent is any engineering work. But if SOD was back-calculated using the model, it could be a repository of accumulated uncertainties. If so, direct measurement would be beneficial. It was suggested that 6 to 10 stations and 3 or 4 samples per station would be needed, with a ball park cost of $100K. Again the question was asked is a better SOD worth the cost.

   It was suggested that before committing to a major SOD effort, that the model be used to determine the sensitivity of the model results to changes in SOD and that a less ambitious SOD test program be made and results be compared to literature values. Dr. Barry Moore would write up a proposal for consideration.

It was recommended that a feasibility study be done. Briefly, the scope is a data assessment task, a goals setting task, a technology evaluation task comparing possible technologies to goals and provides ball park cost estimates (+/- 50 %). The petitioners and Ecology are in the best position to complete the first two tasks while coordinating with the team doing the feasibility study. Dr. Marc Beutel while draft a proposed scope of work.

One concern expressed at the June 23 full work group meeting was the need to ensure that the engineering design isn't overly conservative. Dr. Barry Moore described a procedure for calculating the risk of over design based on the extent of the hypolimnion based on several years' temperature data.

Dr. Beutel provided a rough estimate of water column oxygen demand (WOD) and sediment oxygen demand to lead the workgroup through a discussion of the relative importance of SOD.

A few back of the envelope calculations to ponder concerning Long Lake:

Water Column Oxygen Demand (WOD) ~ 122,000,000 m3 x 0.1 g/m3-d x ton/1,000,000 g = 13 tons/day

Sediment Oxygen Demand (SOD) ~ 10,000,000 m2 x x 0.6 g/m2-d x ton/1,000,000 g = 6 tons/day

So SOD appears to be roughly one-half of WOD in LL.

Notes on Status of Fundamental Questions:

1. What are the current and future (20 year) wastewater flows and loadings that will be generated for each of the wastewater treatment plants and the proposed Spokane County wastewater treatment plant. Define the monthly average wastewater treatment flows April through October?

   Report is drafted and being circulated through the committee for review.

2. What are the forecast loadings for BOD, Phosphorus for the above flows?

   Report is drafted and being circulated through the committee for review.

3. What are the measures to be used for determining the phosphorus loading limits to the river; daily, weekly, monthly, seasonally?

   This Question deferred to Technology Workgroup. Note – the TMDL report discusses loading as <10 ug/L annual average on page 29 of October draft.

4. Lake Aeration Feasibility
   See above

Topics for Next Meeting:

Review work and reports for July 22 full work group presentation

Next Meeting(s) Time and Place:

July 15 at Ecology at 9:30 am. The second floor conference room is reserved.