Technical Group Meeting **Summary Notes**
March 30, 2009

Technical Group Members Present:

Tonnie Cummings	WA Department of Ecology
Andrew Ness	Port of Vancouver
Thom McConathy	Partnership Member
Marty McGinn	Clark County Health Department
Joy Polston-Barnes	WA Department of Natural Resources
Gretchen Rollwagen-Bollens	WSU-Vancouver
Dorie Sutton	City of Vancouver
Jeff Schnabel	Clark County Public Works
Ron Wierenga	Clark County Public Works

Project Management Team:

Phil Trask	PC Trask & Associates, Inc.
Sabrina Litton	PC Trask & Associates, Inc.

General Tech Group Meeting Business

Ron Wierenga welcomed everyone and called the meeting to order. The group went around the table and introduced themselves. Ron asked if there were any general comments or modifications to the agenda. There were none.

WSU's Year 1 Final Report

The first item on the agenda was a discussion of WSU- Vancouver's Year 1 Biological Assessment work. Gretchen Rollwagen-Bollens provided a brief overview of the research objectives and major conclusions. One major goal of the study was to perform a broad scale survey of plankton composition in the lake and look at variability over time and space. This was accomplished by two sampling regimes. One was quarterly and occurred at multiple stations across the lake, the second was more frequent and occurred from the sailing club dock.

One major conclusion in the year 1 report was that spatial variability in plankton composition throughout the lake was low. No clear pattern or significant statistical difference was observed in sampling results from the distributed lake stations in both smaller single-celled organisms, and larger zooplankton such as cladocerans and rotifers.

The second major observation was that overall plankton abundance was very high. In the summer of 2007, the composition was dominated by the cyanobacteria anabaena. Peaks of other organisms such as diatoms were observed but not to the same extent as cyanobacteria.

Gretchen described that year 1 consisted of a descriptive analysis and year 2 is where they will begin to understand more specifics on grazing interactions between the plankton species of concern. They intend to do this by running a series of lab experiments to understand feeding rates between predator and prey plankton. Over the summer of 2008, a series of 16 experiments occurred biweekly. They observed another large bloom of anabaena and extremely high growth rates. Preliminary analysis of the results is showing many interesting patterns.

Thom asked how grazers are isolated in the lab. Gretchen explained that since the predator and prey are the same size, the technique for separating them is dilution. The theory is that for every sample of water there are more prey than predators, and by diluting the sample you are removing predators and leaving in more prey. By performing a series of different concentration dilution experiments one can watch how the

prey respond to less and less grazing from predators. From these data a statistical regression analysis can be done and the grazing rate determined.

Thom asked how (bacterio)phages affect cyanobacteria populations vs grazers. Gretchen noted that viral contributions shouldn't be ignored. Currently identifying their effect is beyond WSU's capability. There is no clear methodology defined in the literature at this time for understanding this effect.

Ron opened up discussion to the group so they could provide comments and suggestions on the summary report. Jeff noted that the report did a good job answering year 1 questions. He added that he was interested in knowing more about how the Partnership will be able to use this data in the future. Ideally the Partnership will be able to use it to educate themselves when selecting management alternatives. More discussion on this would be useful.

Another member asked if there was other plankton work going on in the lower Columbia River and estuary. Gretchen said that WSU –Vancouver is currently sampling along a large stretch of the river on a monthly basis and has been for several years. These data have not been analyzed yet.

Discussion continued into more specifics on the report and what the group would like to see in the Year 2 report. It was decided that specific comments should be sent to Sabrina by April 10th where they will be consolidated and redistributed to the technical group.

Freshwater Algae Program

Ron provided a brief overview on the Freshwater Algae Grant status. He said that the grant agreement has been signed by Clark County and has been sent to Ecology for a signature. It is expected that the agreement will be complete by April 1st, 2009. The next step is for the county to develop and finalize a contract agreement with WSU for year 3 work.

Centennial Clean Water Program

Sabrina reviewed the latest status on the Clean Water Program draft offer of grant funds. She described that the Partnership had submitted a proposal last year for a project with a total cost of $220,000 with 75% covered by Ecology to perform a nutrient/water budget. Currently the project is last on the ranked list of funded projects and will be highly influenced by what the legislature appropriates for the Clean Water Program this year. Depending on if the grant gets funded and for what amount, the Technical Group might be called upon to help adjust the scope to fit a reduced funding level.

USGS

Ron described that he, Phil and Sabrina have begun talks with the USGS Tacoma office about a water and nutrient budget at Vancouver Lake. They met earlier this year to discuss opportunities and tour the lake. They recently finished a scope of work outlining what an aggressive effort might look like. Sabrina handed out copies of the proposal. Initial feedback was asked for from the group. Jeff commented that stormwater sampling seems insufficient. The 2-3 storms detailed in the proposal seem low and 15-18 storms are more realistic for accurate stormwater characterization. He also noted that sediment is likely a large player in this system and rather than have it be a "special study" in phase 2, perhaps putting more emphasis on it early on would be a good idea because eventually this question will have to be answered in detail.

A member asked about the Port of Vancouver/Clark Public Utilities groundwater model and if we knew anything about groundwater inputs to the lake from that effort. It was noted that the model hadn't been run specifically for Vancouver Lake's needs but it would be a good idea find out if we can use it to help answer questions about groundwater inflow.

Dorie noted that getting this proposal was a good step forward. The proposal adds to our understanding of how to tackle the nutrient budget question.

It was decided by the group that since they had just received a copy of the USGS proposal they would need some time to review it and provide comments. Written comments or questions should be forwarded to Sabrina by Friday April 10th.

Ecology EAP Proposal

Tonnie announced that she had submitted a project request within Ecology under their Environmental Assessment Program. The scope would include preliminary monitoring to determine concentrations of PCBs and chlorinated pesticides in various locations in the Vancouver Lake watershed. She described that the need and extent of a Total Maximum Daily Load (TMDL) is unclear at this time because of the complex nature of the Vancouver Lake and Lake River system. The question of ongoing versus legacy contaminants remains an issue and this project would build from previous Ecology work.

It was asked if this work would overlap with the current EPA Preliminary Site Assessment Work. Nobody in the group knew the extent of the EPA investigation and what type of sampling it included. Tonnie agreed that they would not want to be redundant in sampling efforts and would look into it. Tonnie will be contacting EPA to understand their investigation better.

Restoration Alternatives Report

Phil said that he and Sabrina were beginning work on a new report to outline and explain potential methods of lake management. It is intended to be an educational document for the Partnership that helps them understand the range and scope of various restoration alternatives. Right now the intent of the document is to be very broad and abstract. It will explain the alternatives in lay terms and avoid any type of judgment on whether the method would be appropriate for Vancouver Lake. It will be important for the Partnership to educate themselves and come to their own understanding on the benefits and constraints of each method.

The Technical Group agreed to participate and discussion was had on their potential role in the development of this document. Ron said to stay tuned for scheduling of another meeting. Ron thanked everyone for coming.