

# Vancouver Lake Watershed Partnership

## **September 20, 2006 Meeting Summary**

The fifteenth meeting of the Vancouver Lake Watershed Partnership was held on Wednesday, September 20th from 4:00-6:00pm at the Port of Vancouver Administration Offices.

### **Partnership members in attendance:**

Patty Boyden, Pete Capell, Nancy Ellifrit, Jonnie Hyde, David Judd, Gary Kokstis, Clark Martin, George Medina, Thom McConathy, Jim Meyer, Iloba Odum, Doug Quinn, Tim Rymer, Bruce Wiseman

### **Staff in attendance:**

Katy Brooks, Loretta Callahan, Victor Ehrlich, Jim Gladson, Annette Griffy, Jeroen Kok, Jordan Larner, Jeanne Lawson, Curt Loop, Kelly Skelton, Ron Wierenga

## **Partnership Business**

Minutes from 6/21/06 – There were no comments or changes.

### **Membership updates**

Jeanne introduced Jonnie Hyde from Clark County Public Health; Jonnie is filling in for Randy Phillips who will occasionally attend Partnership meetings. Newcomers Tim Rymer and Anne Friez from the Washington Dept of Fish & Wildlife were also in attendance. Tim has been in Port Angeles for the last 18 years and is new to the Vancouver area. Todd Welker from the Washington Dept of Natural Resources has also recently joined the Partnership but was not in attendance today.

### **IGA Update**

The IGA has been signed by the City of Vancouver, Clark County Public Works, Clark County Parks and Recreation, and the Port of Vancouver. Pete Capell handed over all fully executed copies to Patty. Patty will post on a copy of IGA on the website for everyone to review if they wish.

### **Public Involvement group update**

Loretta Callahan handed out the summary of the informal questionnaire that was distributed to the public and was available online from Memorial Day through August 16<sup>th</sup>. This is a basic summary of results, and Loretta emphasized that this was not technically accurate survey and results might seem skewed because of the level of self-directed effort made by the participants. The intent of the questionnaire was also to disseminate information about the Partnership and provide an open means for people to give input. The report does not mention that 34 of the respondents answered that they want to be informed and kept up-to-date on the lake which was a nice outcome of the survey. The PI team will meet soon to design a nine month media plan and create other possible activities to maintain the public's interest and keep people involved. Ron Wierenga asked if the question "what do you think are the important issues and concerns for Vancouver Lake" was multiple choice or if it was open-ended question. Loretta said that it was an open-ended question, and some people even listed more than one issue. Most responses were electronic through the City of Vancouver website which was a great incentive for participation. Most people inserted comments wherever they could; none of the fields were required so some people skipped entire questions. Thom commented that he wished this would have been a more "official" survey that could have been presented as evidence of the public's concerns to elected officials. Loretta agreed with Thom and stated that the PI team hopes to do something more technically sound in the future when there is more funding available and the potential "solutions" for the lake will be better defined, but at this point we do not have that information. Katy Brooks commented that it was ok to do a survey now to gauge awareness. Thom asked if Katy thinks the survey tells us anything definitive, Katy said no. Jeanne said that the usefulness of a questionnaire like this is to ask people to participate, give perspectives, and begin the public conversation -- it useful in a different way than a statistically valid survey. Jeanne clarified that

this is a questionnaire to see what people think, give perspective, begins public conversation and is useful in a very different way than a statistically valid survey.

Ron commented that he recently looked at King County's Cottage Grove study grant which included money to do a public survey. There is money available to do a more technically sound survey. One difference is that that King County's lake has already been extensively studied over the past 10 years; they had a lot of data to work with before they did their public survey.

### **Public Comment**

Jacqueline Edwards said that has taken a lot of photos of the lake lately, capturing the "green gunk" and foam coming from the lake, she will pass these photos along to the Partnership soon. Pete commented that Ron brought water samples to our SG meeting and it was really interesting to see the water up close.

### **Program Manager Position**

Because there were a few new members in attendance Pete Capell wanted to give a little bit of background on the position before he gave an update. Over the summer the Steering Group had discussions concerning the fact that all staff working on this project had other full time responsibilities and commitments in other jobs. The Steering Group was concerned keeping up momentum and having focused resources dedicated to the project. They decided that a Program Manager should be brought in to oversee the project, coordinate work with the Corps and WSU, work on grant applications, and really function as a "champion" for the project to maximize progress. The Steering Group had met a few times with a strong potential candidate, but he has recently decided to pass on the position because he could not commit the necessary time due to other commitments. The Steering Group is still committed to filling the position but they do not know who at this time. One possibility is to solicit proposals through an RFP and hire a consultant; this would be expensive alternative to hiring a project employee. The Steering Group is hoping to have the position filled by the first of the year. Katy commented that this person will coordinate the technical work, policy work, and the outreach pieces that the PIO team works on. It is also imperative that this person needs to know "where the money is" to augment the work that the Corps is doing; the person in this role will need to be very familiar with federal, state, local and foundation grants. Pete said because of the broad nature of the studies, we aren't necessarily looking for a technical expert, but someone with a good technical understanding so they can work with the experts (the Corps, WSU, etc.) and also help with grant applications, and bring good project management skills to keep progress going. Thom asked if we could put more forth more concentrated effort to get this position filled by the end of the year. Pete agreed that he and the Steering Group would also like to this position filled by the end of the year as well. Thom said that he thinks that meeting more often as a Partnership might put more pressure on the Steering Group to fill this position. Jeanne suggested that we revisit the Partnership schedule at the end of today's meeting. Pete commented that considerable efforts were made this summer to interview and work with their desired candidate but things fell through. David Judd commented that their target candidate took longer to make a decision than was ideal, but he feels that a good effort is being made. Iloba asked if the position will be posted as a next step. Pete said they hadn't pursued that possibility because the process to create a "position" for government entities can be quite daunting, but rather a contract position for a multi-year commitment seemed more efficient but they are open to possibly positing the position as well. Jeanne said that because this is first and foremost a funding issue the Steering Group has to decide what hiring method will work best. Thom commented that he feels like the Steering Group has only pursued one person because it was convenient, and he thinks the candidate search should be opened up to include retired academics, community members – people who aren't necessarily on government approved vendor lists. He thinks we are defining the candidate pool too narrowly. Pete replied that he does not necessarily agree with Thom, that we do not necessarily want someone with an academic background since we have good panel of technical experts in the Partnership already. Thom clarified that the academics he was referring to might have managerial experience, experience with grant writing, and good public speaking skills. The group agreed it was time to move on, and Jeanne said that Pete will be the point of contact for any Partnership recommendations for the position. People can also email them to Kelly Skelton and she will route them to Pete if that is easier. Bruce Wiseman asked if we have any idea what the pay for this position will be and Pete said it will depend on qualifications of the individual and will be negotiable based on the number of hours worked. Pete thinks the caliber of person we need won't be inexpensive because we need someone with more senior level experience.

### **Update on Flushing Channel and Water Source Alternative for Vancouver Lake**

Patty said that the Port is going to dredge the flushing channel from November 2006 to February 2007; the dredge prism will be about 15,000 cubic yards. The flushing channel was originally designed as a trapezoid figure with a flat bottom about 100 feet wide, but with sedimentation from the river it has become kind of a "saddle" shape that has since filled in particularly at the mouth. The Port will dredge and remove where there is quite a bit of shoaling; dredging to the design depth of minus 8 feet, up 10-15 feet of dredge material in some places will be removed. Currently the flow is about 45 cubic feet per second and after the dredging it will be increased to about 250 feet per second. As context the high water into the lake is about 420 cubic feet per second. One question the Port currently has is how that flow is during the summer, will it improve it one day a year, several days a year -- they don't know. The channel has been tested; they have taken 10 sediment samples and they meet the DMEF (Dredge Materials Evaluation Framework screen) put together by the EPA, the Corps, the Dept. of Natural Resources and the Dept. Ecology. The sediment that will be removed is going to be given to the contractor. One thing that the Port is doing that will be helpful to the Partnership is flow monitoring both pre and post dredge. They will put a water level meter on the flushing channel side in addition to a water level meter that already exists over by the Sailing Club, and to a flow monitor submerged in the flushing channel that will tell them how the flow is going into the lake as it responds to the river level. Patty added that it will be a continuous read every 30 minutes, data will be downloaded once a month.

Gary questioned the monitoring period of October to December; Patty said this timeframe can be expanded.

Clark Martin asked how the discharge out of Lake River will contribute to the back water affect. Patty said that she thinks that will be part of a larger study looking at the entire flow and hydrology of Vancouver Lake. George said everyone is asking key questions that will be addressed in the Corps' feasibility study. There is a lot of data out there, and a lot of information that can be gathered and evaluated. David asked if the distant level measures are just measuring the depth of the water. Patty said the two sensors on either side of the flushing channel will measure the depth of the water and the sensor in the channel will measure the flow and velocity of water.

Gary Kokstis said dredging is a major concern for the Sailing Club. But they do feel that any concerns about how the dredging it is going to affect to lake is secondary to actually doing the dredging at this time.

Patty had one other update. There is an opportunity for access to an additional water source for the lake. The Port is working with WA Dept. of Ecology on groundwater clean up. Back in the 80s the Port purchased .8 acres of land which requires groundwater clean up due to solvent contamination. The proposed clean up remedy is a "pump and treat system" where the groundwater is pumped out, run through an air stripping tower to collect contaminants which results in usable groundwater.

The least costly option is to take the water and dump it into the river; it's cleaner than drinking water. The Port has looked at a lot of different ways to use the excess water such as wetland mitigation projects, and existing tenants. Another option is to take the water and pump it and move it along the existing right of ways and the discharge it into Vancouver Lake; the Port will likely be pumping for decades so it will be around for a very long time. Patty is sharing this as a reminder that this is option that could help the health of Vancouver Lake. Gary asked how soon this will start and Patty said it will start in 2009-2010. Bruce Weisman thinks you could kill two birds with one stone and have it go flow through the wetlands as an alternative since there is a pipeline that currently goes through that area.

David Judd asked if we are focusing on the mouth of the flushing channel, is there any way of knowing if there are any constrictions on the lake side that could affect the results. Patty said that during high water the restriction is the culverts (there are two 84 wide culverts) during low water the restriction is at the flushing channel. Tim Rymer asked if the culverts are under the roadway, Patty said yes they are culverts under the state highway. Doug Quinn commented he thinks it makes pretty good sense to redirect from the main stem of the river into the lake, that would be a positive and beneficial use of the water.

Jonnie asked which plumes are being cleaned up; Patty said it is both the Swan Manufacturing and Cadet Manufacturing plumes. Thom commented that this is currently cattle area which could cause leaching of cattle waste into the lake, Patty the plan is build a wetland mitigation bank and so cattle will be removed.

Ron said we will do a water and nutrient budget for the lake, in the feasibility study. It will be important to remember that the dredge is temporary and we need to look at the long term larger solution for the lake.

George thinks is a viable resource that can serve a couple of alternatives that need to be evaluated as part of the context of the over all study. Patty reiterated that she is sharing this news for public information and she realizes that this option and its affects will need to be carefully evaluated.

Dr. Bollens asked what fraction of the lake we are talking about in terms of volume and turnover on a daily basis -- 1% 10%. Ron said that you could probably flush the lake in a few days with the volume of water Patty is talking about. Dr. Bollens then asked why this type of flushing is necessarily a good thing. Thom commented because the others sources that are draining to the lake are a substantial problem, in some ways the Columbia River is adding to the problem, and Salmon and Burnt Bridge Creeks are adding to the problem as well – they are all adding a nutrient stream to the lake. This water would be the only source that is not adding a nutrient stream. Jeanne commented that no one is trying to make a decision today, but there are a lot of issues to be evaluated before this becomes a reality. Dr Bollens responded that diluting the nutrients also dilutes other things, which might be good or bad -- that is unclear at this time.

Patty said the Port is in the official scoping period for the Columbia Gateway project; a 500 acre development plus a 500+ acre mitigation habitat development. Patty pointed out that everyone received a packet of project information and a comment sheet to allow people to make comments. The comments close September 24<sup>th</sup> and input is greatly appreciated.

### **Corps PRP Update**

Jeanne asked George Medina to give a brief overview of the Corps involvement in the Partnership thus far. When the Corps of Engineers was initially engaged to help with this project it was thought that a large GI study would be useful to define solutions on how to improve the health of the lake. GI studies are pretty much off the Federal table at this time so the Corps decided that local programs could be utilized to help with funding in the mean time, such as the 536 study. Due to the creation of the Preliminary Restoration Plan conducted by the Corps we know have \$100,000 of federal funding to construct a project team and develop a plan to study the lake. George thinks this will be a good amount of money to do this recon and mitigation study, anything beyond the \$100,000 will be a 50/50 split. The Corps will be working with Ron Wierenga and other technical team members to move begin moving forward on the with the recon and mitigation study.

### **Tech Group Update**

Gary Kokstis mentioned that the Sailing Club has a \$1000 donation to make to make the VLWP. Pete Capell said that Clark County is the official financial sponsor of the VLWP through the IGA and therefore he can accept the donation. Thank you Sailing Club!

### **WSU Work plan**

#### **DR. BOLLEN'S POWERPOINT PRESENTATION IS AVAILABLE AS A PDF AT**

- [http://www.cityofvancouver.us/PublicWorks/vancouverlake/MapsMaterials/vlwp\\_mapsandmaterials.htm](http://www.cityofvancouver.us/PublicWorks/vancouverlake/MapsMaterials/vlwp_mapsandmaterials.htm)

At the last Partnership meeting Ron gave an overview of the draft work plan ideas that he had been working on with Dr. Bollens at WSU-Vancouver. As a result of that presentation to the Partnership it was decided that addressing the smaller components (algae and other plankton) makes more sense and is central to the problems currently plaguing the lake. Ron asked Dr. Bollens of WSU-Vancouver to attend this meeting to talk about where we are with the work plan and answer any questions from the audience.

Dr. Bollens reiterated that he and Ron had decided that the work plan should focus on planktonic algae (blue-green algae specifically) and multi-cellular animals -- this is where WSU-Vancouver has a lot of expertise to offer. In addition, there was a discussion about benthic diatoms and their affect on the other organisms (due to grazing and filtering) so some attention should be given to these diatoms in the scope of this study as well. These four components (planktonic algae, planktonic protozoa, planktonic animals, and benthic diatoms) will the focus of the one year study.

Plankton also is different sizes which require different kinds of sampling and different types of sample analysis. In order from smallest to largest:

- Picoplankton (bacteria, cyanobacteria)
- Nanoplankton (cyanobacteria, diatoms, flagellates)
- Microplankton (ciliates, rotifers)
- Mesoplankton (copepods, cladocerans)
- Macroplankton (insects, decapods)

The objectives of one year work plan are:

1. To determine the abundance, distribution, and taxonomic composition of cyanobacteria in Vancouver Lake over a full annual cycle.
2. To initiate some preliminary investigations of the biotic (e.g., grazers) and abiotic (e.g., temperature, mixing) factors influencing these blooms. (Dr. Bollen's pointed out that this is the direction that they'd like to go but due to time and financial constraints the focus will be on #1 as a more realistic goal with in a one year study, #2 is a multi year study.)
3. In addition to performing our own field studies, we will analyze the extant data on cyanobacteria blooms in Vancouver Lake (e.g., Wierenga 2005) for spatial and temporal patterns and trends in abundance, as well as provide a literature review of plankton in other shallow lake ecosystems.

With any finite pool of resources there is a trade off between the frequency of sampling and spatial coverage that can be accomplished. This plan will allow us to sample at one representative station at a very high frequency (probably every two weeks). This is ideal because these organisms have a very short life span and things change quite quickly. Unfortunately it would be prohibitively expensive to do daily samples. There is a possibility to have some continuous recording data done with equipment but that has not yet been discussed within the scope of this plan.

The next component is to do a broader survey of the lake studying 8 stations less frequently (probably quarterly). Dr. Bollens thinks that this is a good combination of spatial coverage to answer some of the questions raised. The high frequency sampling gives will give us a much handle on the dynamics of the system, how quickly the algae bloom and how quickly they dissipate.

They are currently sampling at the Sailing Club's dock, and they are hoping to continue to sample there. The broader samples will have to be done from a boat, all over the lake some in shallow water, some in deeper water at various locations.

Dr. Bollen's gave an overview of the team that will be working on the project.

- Dr. Steve Bollen's training is in both coastal oceanography and aquatic ecology. He as worked primarily in estuarial systems but has done some open ocean and fresh water work. His area of expertise in zooplankton and multi-cellular animals, ranging from bacteria on up to fish.
- Dr. Gretchen Rollwagen-Bollens an assistant clinical professor, her area of expertise is mesozooplankton and microzooplankton.
- Angela Gibson is a research associate specializing in phytoplankton, single-celled algae.
- Rian Hoofs a research associate; he has masters in zooplankton.
- Other students and technicians also from Dr. Bollen's research group will be helping with the study as well.

These four main researchers have most expertise but they will work as a group and any one person can be working on the project at any time.

David Judd asked if any there will be any impact on this study from the dredging project that Patty referred to early in today's meeting. Dr. Bollens said he as no idea at this time how the dredging will affect the turbidity of the lake.

Thom asked Dr. Bollens for clarification on the location of the single testing station; Dr. Bollens said it will be at Sailing Club's dock. This area is easily accessible and is default approach right now, but not solidified so the location could change. The other testing stations have not yet been determined.

Dr. Bollens showed a slide depicting a rather complex food web, where algae of different sizes are at the base of the food web, showing how the chain moves on up to the higher levels of consumers. The primary reason VLWP approached WSU was to focus on some of the smaller phytoplankton and blue-green algae, however, understanding this larger food web and its relations to fish is going to serve as an important foundation for the study in the future.

George Medina said that he thinks this will be great baseline study and he thinks the Corps should work closely with WSU -- Dr. Bollens agreed that this would be a great idea. George questioned whether the work plan will look at the source of the algae blooms because the Corps' scope is limited to fish mitigation not water quality, and this study is definitely a water quality issue. George is concerned that about not addressing the source and origins of the blooms. Dr. Bollens said the cause of the blooms will be addressed but it is a tricky and complicated set of issues to look at. Dr. Bollens said he can't promise that the cause will be found in this study, and that this wouldn't be a realistic goal for a one year study. Looking and distribution, abundance and composition is realistic, as well as starting to look at the interaction of different biota in the system. Root causes typically required longer term investigations.

Ron commented that when looking at the overall strategic plan for the technical work for VLWP, this study will help us characterize the problem -- not tell us the source of the problem (nutrients, etc.) Dr. Bollens agreed and said that a detailed characterization of the algae (and the physical environment) is essential before you can start to address and define causes and sources.

Jeanne commented that WSU's work will narrow the focus, and by characterizing the problem we'll get a better idea of our second objective. Choices will need to be made on how to spend money based on incomplete information; we aren't ever going to have a detailed understanding when we need it to move forward. Dr. Bollens agreed, and said by the end of this year we'll have reduced the uncertainty of the underlying causes which will lead to more detailed studies.

Clark Martin asked if the study will lead to suggestions for intervention with the lake. Dr. Bollens clarified that he has no idea what affect the dredging and flushing will have on the lake -- good or bad. Any kind of intervention without the characterization study is a shot in the dark that is why the characterization study is essential.

Ron clarified that this WSU study will last for a year, the Corps will do its work with the preliminary restoration plan, and other work will be identified and started so there will be multiple simultaneous studies and that information will eventually need to be coordinated and analyzed. Ultimately, once piece of research isn't gong to give us a simple answer or solution. It will require data analysis of all studies down the road.

Clark asked if a literature review of other shallow lakes has been exhausted yet. Ron said no but he's building on that as we go, and he's asked WSU to compile some information as well.

George thinks it will be 12-18 months before we have a good handle on what is out there. We need to manage expectations and approach things incrementally; it will take a while to see results that we can make decisions with.

Jeanne reinforced that we will come to points in this process where decisions need to be made based on best available science, but there is a depth of information that is not always available.

## **Process Recap**

Due to a lack of time the Process Recap will happen at the November meeting.

## **Public Comment**

Michael Bertish asked George if the PRP that has been approved is the same version that the Partnership saw previously or if it has been revised. George said that it has been revised a little bit but the overall scope is to better understand the dynamics of the lake, hopefully look at the tide gates and dredging. Michael asked because people who have been to the lake years ago say it was very shallow and sedimentation was an issue. It seems that the lake might be plugging back up since the dredging in the 80s. This increasing shallowness will have an effect on the fish habitat and he is worried about a repeat of this sedimentation occurrence. Michael also asked if the proposed new water Patty spoke about would be "super oxygenated". He knows that super oxygenated water can cause strange water quality problems there is a chance of negative effects. Patty said that the water will be agitated, and run through an air stripper. She does not know what super oxygenated means. Michael clarified and asked if it will remove ALL contaminants, Patty said yes.

Jeanne went back to Thom's issue that he raised earlier about the Partnership meeting more frequently; no one else in the group agreed that they would like to meet monthly. Jeanne reminded Thom that he can continue to attend Steering Group meetings. Thom reiterated that he still thinks the more frequent Partnership meetings would help keep things moving along, he feels that progress has begun to slide since the Partnership meetings have been cut back to every other month.

Jeanne pointed out that there have been considerable accomplishments in the Partnership recently such as the technical group's work, the Corps work, and the IGA. The Program Manager position was not a charge made by the Partnership to the Steering Group; the Steering Group decided on its own that the position needed to be created outside of the Partnership.

Clark Martin pointed out that he thinks that one person (the new Program Manager) will have a tough time coordinating priorities and keeping things moving forward in the face of uncertainty. The Program Manager will have to keep pushing the project in the realistic directions and this person must have those qualities.

Gary is sympathetic to comments by Thom regarding the Partnership's schedule, he suggested that if Partnership meetings need to happen to make decisions please call interim meetings. Thom suggested exploring working with other groups (volunteer groups, community groups) and building partnerships. Jeanne again asked if other partnership members want to meet more often and no one agreed. Jeanne commented that she will keep raising the issue on behalf of Thom.

Jeanne wrapped up and reminded everyone that our next Partnership meeting is November 15<sup>th</sup>. Our next Steering Group meeting will be October 18<sup>th</sup>.

Our next Partnership Meeting is November 15<sup>th</sup> at 4:00 pm.

Meeting adjourned.