January 19, 2005 Meeting Summary

The second meeting of the Vancouver Lake Watershed Partnership was held on Wednesday, January 19, 2005 4:30-6:30pm at the Port of Vancouver Administration Offices.

Attending
Partnership members in attendance:
Pete Capell, Brian Carlson, Carl Dugger, Nancy Ellifrit, Don Jacobs, David Judd, Gary Kokstis, Clark Martin, Debrah Marriott, Lee McCallister, Thom McConathay, James Meyer, Iloba Odum, Larry Paulson, Randy Phillips, Doug Quinn, Jane VanDyke, Bruce Wiseman, Victor Ehrlich

Partnership members absent:
Dawn Fletcher, Vern Veysey

Public Information Committee:
Loretta Callahan, Allison Shultz, Maureen Chan-Heflin, Jeanne Lawson, Amanda Garcia-Snell, Vaughn Brown

In the audience:
Nancy Baker, Dvija Michael Bertish, Patty Boyden, Dick Carroll, Justin Clary, Todd Coleman, Tim Dean, Eldon Edwards, Jacquelin Edwards, Gordon Franklin, Annette Griffy, Lehman Holder, Paul King, Jeroen Kok, Tim Kraft, Jou Hale, John McConnaughy, Bob Moser, Lenora Oftedahl, Mike Roe, Earl Rowell, Jan Rosholt, Bill Stewart, Derik Vowels, Ron Wierenga

Committee Business

Minutes
Corrections:
- Change to reflect that Bruce Wiseman was absent at the last meeting

Protocols
No changes

Meeting Schedule
The members were given two handouts describing the proposed schedule of upcoming meetings as well as a meeting plan, which described what topics will be covered at upcoming meetings. When asked about whether the number of meetings devoted at the beginning of the process to education was too much, the group agreed that more education was critical and so agreed that they would proceed along the proposed meeting plan.

On the schedule, Pete reminded the group that it should be thought of as a flexible schedule.

Measuring Success

Jeanne asked members to write down a response to the question "how will you know if/when success has been achieved for this project?". These are the responses that were collected:

- sustainable solution
- make it work
- develop a strategy that the committee can support
- buy in by the stakeholders and decision makers
- consensus by all on the vision
- one oversight group, not 15 agencies doing their own thing
- harmonious agreement on positive steps (plan) to accomplish the vision for Vancouver Lake and the watershed
- solution and paths of activity reflect a compromise of the respective visions and values
- that we have a vision with recommended actions and a "process" in place for ongoing oversight & implementation
- sign off by majority to preferred implementable action
- implementation steps adopted by the agencies
- if the vision is actually implemented to a significant extent
- we have a strategy that can be fiscally and feasible implemented
- funding is available
- the outcome will be successful if we have means to measure and implement environmental improvements
- habitat preserved though perhaps in concert with Recreation/Development
- Burnt Bridge Creek, Salmon Creek, and Vancouver Lake will be fishable and swimable
- swimming at Vancouver Lake, o.k. body contact with the water/rowing, and fish passage
- when my grandkids can enjoy the area and not get sick
- more of the public enjoying the Lake in the decided capacity
- people in Portland actually know there is a Lake here
- the general public would know a lot more about the lake and it's more likely future
- public is fully engaged
- publicly supported
- a solution based on sound science that has broad community support

Jeanne identified common themes in the measuring of success, she indicated that these post its will become basis for fuller discussion further on down the line.

Presentations

Vancouver Lake Watershed History & System Overview – Victor Ehrlich

Victor Ehrlich gave a short presentation on the history of the Lake area and a system overview. He explained some of the challenges that the Lake level creates in terms of the flushing channel. He also identified the three point plan that the community developed in the 1970s in response to the poor condition of the Lake. It was:

- Reconnect Columbia River to the Lake
- Dredge excess sediment
- Institute watershed plans

In 1983 the flushing channel was constructed, the beach was developed and the public began using the park and the Lake. A maintenance plan was also developed at that time but was not implemented and the Lake has begun to have problems more recently.

System Presentation Part 1 – Jan Rosholt – hand-outs attached

Jan Rosholt gave a short presentation that focused on the lake system and how it has changed over the last 35 years. He began with a logic diagram that contained key elements that are related to lake and watershed management. All of these components need to be developed. He then focused on the three components of the overall program, specifically the installation of the flushing channel, dredging the lake, and development of a program that would reduce and control the pollutants that were going into the lake.

He distributed a list of key studies and reports that have been conducted in regards to the lake and the watershed area. He commented on the study efforts that took place in the 1960s and the discussions that took place concerning the lake lowlands. At that time WSU was also conducting several studies and an analysis of the lake and the adjacent area through simulated flow modeling. In the late 1960s and early 1970s these studies were used in the development of more detailed plans for the lake restoration that were subsequently passed on to Dames & Moore who developed a comprehensive Lake Restoration Plan. At this same time meetings were also being held with the Department of Ecology and the U.S. Environmental Protection Agency (EPA). These meetings included discussions related to section 208 of PL 92500 that provided guidance and funding for all states to do water quality planning. The Washington State Department of Ecology (DOE), wanted to allow King, Pierce, and Snohomish County to conduct their own studies and the State would conduct studies for all other counties. The Clark County Regional Planning Council, City of Vancouver, Port of Vancouver, Clark County, PUD, Washougal and Camas joined together to petition EPA for these local agencies to conduct their own studies for Clark County. Through this action Clark County was able to conduct the 208 study through the Regional Planning Council. It was this 208 program that was the

basis for the funding that led to the Lake Vancouver restoration project. The Port was the sponsoring agency to pursue and secure funding from EPA and DOE for the actual construction under the Clean Lakes Program. The Port also retained BE & C, which was a subsidiary of the Boeing Company, to design the flushing channel and prepare the performance specifications for the dredging.

The flushing channel design was derived from the WSU laboratory analysis of how much water was required to pass through it in order to force the water out of the lake in 25 to 50 days. They determined that installing two 96 inch aluminum or corrugated steel pipe culverts would provide the necessary volume and flow required to flush the lake. It was also determined that two 86 inch concrete pipes would produce the same result. As a contingency the design left enough room in the gate structure to install a third pipe if necessary.

The design of the island in the middle of the lake was negotiated with the Washington Department of Game. Originally, there were to be two islands that would provide the necessary habitat to replace the habitat lost due to the dredge material. The Southpark area was the last area anticipated to be filled since the Department of Game was reluctant to fill that area. As the process commenced, the quantities of dredge material was less than anticipated and it was not necessary to fill the Southpark area and therefore there was not a need for the second island.

The overall plan also called for maintenance & operations plan and an operations handbook. Although these were both developed, there was not a funding mechanism to continue the maintenance operation nor was there a single entity that was responsible for the lake. Jan also suggested that there was not as much passion relative to water quality by some of the engineering groups that there was in the 1970s . He mentioned that initial microbiology and water quality monitoring by the County Health Department was financed through County road funds under the rationale that it was possible that road run-off was contributing to the degradation of the ecology and research was needed to determine the factual situation.

This concluded Jan's presentation and Jeanne asked if the members needed any clarifications of the specifics of Jan's presentation.

What is the delayed maintenance that would make the flushing work?
Jan could not answer that.

In the 1985 Cooper Report, the last study conducted about water quality in relation to the flushing channel, it was stated that as a result of the flushing channel implementation the lake was getting a second bacteriological Algae strain introduced from the Columbia River through the flushing Channel that had not been experienced previously.

The Cooper Report also identified a lot more sources of pollutants that became apparent during and subsequent to the construction like Salmon Creek, Chicken Creek, and the 20 plus drainages that are on the east side of the lake

Jan mentioned that it is important to keep in mind that the design parameters were based on empirical calculations and there were limited flow calculations for Salmon Creek available at that time and no data available regarding Burnt Bridge Creek. The physical model that was used at the Albrook Labs at WSU was a 10 ft. diameter that was used as a simulation for calculations.

The placement of the fill was on the island and where else?
Jan clarified that there were 11 initial locations for the fill to go but the Southpark area was not used. The island was filled by having a container around the base and then filling it in. This process took about 18 months.

Was there one depth of the lake that was planned for?
No, there were two channels that were dredged to be able to move the water down to the Lower River and stimulate the flushing on both sides of the lake.

What was the depth of those channels?
They were about 6-9ft deep.

Thom inquired about sediment cells that were mentioned in the Cooper Report. Jan indicated that he would take a look at the documentation concerning the sediment cells and include that into the history and documentation that he is working on.

Thom also mentioned that the 208 plan calls for looking into possibly enhancing water quality at the shore where the park was with water that would be pumped form ground water.
Jan pointed out that this was one of two proposals; the City also looked at supplementing Burnt Bridge Creek with ground water out of the Orchards well-field during low flows like August and September. This concept was in response to the concern about sustaining water quality.

System Presentation Part 1 – Flushing Channel - Todd Coleman- hand-out attached

Todd Coleman gave a short presentation that mainly focused on the design and processes of the flushing channel. He identified some of the challenges to meeting this goal, such as lake and river water levels, tidal and yearly influences from the Columbia River that are dependent on dam activity and the impact that differences in lake and river elevations have on water flow. He mentioned that because he does not have a lot of history on the area his presentation is based on the information he has about what was actually built. He mentioned some initial reports in 1977 that called for 3 or 4 96 inch culverts, two 86 in culverts is

what was actually installed. Based on the 3 96 inch culvert plan, the calculations determined a flow rate from the Columbia River into Vancouver Lake of 1100 cubic feet per second (cf/s). He reminded the group that the purpose of the flushing channel was to move fresh, cold water into the lake from the Columbia River, not vice versa. There were flap gates installed on the pipes to allow the water to only flow into Vancouver Lake, not back out to the Columbia River. However, if the Columbia River elevation drops and the Lake elevation is higher no water is technically flowing through the flushing channel. On average, when the Columbia River is higher, there is about a 1.5 ft difference; meaning that there is about 1.5 feet of water that is pushing all of the water through the flushing channel and through those pipes into Vancouver Lake. The range in elevation differences spans from the River being 5.5 ft higher than the lake to it being lower than the lake. Based on the limited river level vs. lake level data available, during mid-June to November there is no flow from the River into Vancouver Lake. He used the flow table that is on the hand-out to illustrate that during high flows the culvert pipes are restricting the maximum flow because the flow rate of the culverts is not as great as the flow rate of the channel. At the low flow, where the conditions are typically, the restriction is that the flushing channel flow is not as great as the culvert flow capacity. It was suggested that the actual flow rates are possibly lower than what was shown on the table. This is due to the theoretical calculations and the difficulty modeling what is happening in the channel due to the trash racks and the weight of the flap valves.

Currently, the Port maintains the two 86 inch culverts, they clean the trash racks, which were installed to keep the wood and debris out of the channel, every month and they make sure that the pipes are working and that the valves are not stuck in the closed position.

He also discussed the hyrdographic surveys which are conducted on the bottom of the channel. In 2001, 2003, and 2004 there is virtually no change. Which suggests that during the most common flow rates both flow rate areas are about equal.

Thom inquired about why the Port is not actively managing the gates as the 1980 Dames & Moore operations plan suggests.
Todd mentioned that the Port does actively monitor the gates; they inspect the gate valves monthly and clean the build-up off of them as necessary.
Thom clarified that the Dames & Moore plan calls for monitoring the water quality and only allowing the water to flow into the lake when it is cleaner than the water that is in the lake.
According to the information that Todd is aware of, the Port is required to actively monitor the gates themselves, not the water quality.
Larry mentioned that he understood that the Dames & Moore report set forth recommendations but it was not a document that needed to be adopted nor was any specific maintenance plan adopted by any agency in the community. He also

mentioned that the fundamental issue is the engineering design that allows the water to flow through.
Thom reiterated that according to the Dames & Moore report, monitoring water quality was supposed to have been conducted, it was not and he is interested in the reasons why.

Jeanne then suggested that this inquiry be added to a list of questions that the members would like to have answered. She asked for members to add any additional information that they might have concerning the flushing channel.

She then asked members to identify any questions or data needs that they had in regards to the flushing channel. They are as follows:

- What is the outlook profile?
- Minimal dredging of north end?
- What is the status and depth of dredging channels?
- Is there upflow (groundwater seeping into the lake)?
- Why is the lake maintaining higher water levels?
- How can we increase flushing channel operation in the summer?
- How have Columbia River levels changed historically
- What can be done about silting from the mouth of Lake River
- What is the elevation of the mouth of Lake River in relation to Vancouver Lake?

Jeanne then asked members to mention any ideas or options that they would like to have considered in later discussions when developing potential actions that could be taken regarding the lake area and flushing channel. They are as follows:

- Maintenance monitoring
- Minimum acceptable level for lake depth
- Dredge Lake River mouth
- Summer flushing improvements
- Need to define dynamics and problems
- Watershed Council
- What are the bottom lines of decision makers?

Other requests were made by committee members for different pieces of information. They are:

- a fresh analysis of the lake area that included a current map and current biological make-up of the lake
- suggested readings between committee meetings
- what can the community be doing
- how can local youth be involved

There was a brief discussion about what the community and local youth may have to offer in terms of resources and information about the lake. It was mentioned that during the summer an eagle scout spent 600 hours mapping the depth of the lake with a gps, palm pilot and a depth finder and it is possible that the information is available through the County GIS department. Lee also mentioned that there are community volunteers who are interested in working towards a healthier lake as well as the potential for local school science projects that could be related to the lake. Other references include the bibliography that Lenore Ofetdahl is working on compiling.

Lorreta Callahan mentioned that the website will contain a link to resources that will include reports and other pertinent information that committee members may want to look at in-between meetings. The website is scheduled to be active within two-weeks of this meeting.

The Group agreed to an extended fact-finding period before beginning discussions actions for the area. It was decided that having up to 5 meetings regarding background information would be acceptable. It was also reiterated that the purpose of the group is to identify what should happen to the area not necessarily which problems need to be addressed.

Next Meeting

The next meeting will be held February 16th, 2005 from 4:00pm to 6:00pm. Location will be confirmed and sent out via email meeting notice. The focus of the next meeting will be on the watershed.

Jeanne reminded members and the audience that if they were interested in making a presentation that they need to contact the Committee Coordinator, Amanda Garcia-Snell 503-235-5881.

Public Comment

Jeanne asked for public comment at the end of the meeting. The comment is as follows:

Jacqulein Edwards asked How much does the tide going in an out of Lake River effect Vancouver Lake?

Nancy Ellifrit answered that it is about 1.5 feet difference.

Jacqulein also mentioned that she would like the County to post signs about the health of Lake River on the banks of the river.

It was mentioned that mixing zone analysis studies show that mixing zone is flushed out in a two-tidal period, and it doesn't flow up Lake River.

Committee Business

- All Partnership related information will be distributed by email unless otherwise noted.
- The meetings are tentatively scheduled for the third Wednesday of every month and will be held from 4:00pm – 6:00pm.
- The next meeting session, and later meetings if necessary, will be dedicated to the sharing of past pertinent information about the watershed area.
- Any member that would like to present information will need to notify Amanda Garcia-Snell (amanda@jlainvolve.com) and provide a summary of the information.