

Vancouver Lake Watershed Partnership August 2009 Status Report



Status Report to Update Partnership

The Vancouver Lake Watershed Partnership Steering Group and Technical Groups have several projects underway right now. This Status Report is to update the Partnership on Lake issues and activity in several project areas in lieu of an August meeting.

Technical Group Update

The Technical Group met on August 10th to discuss starting a new study of Vancouver Lake that would look at two of the six study areas outlined in the Vancouver Lake Technical Foundation report. The US Geological Survey (USGS) revised a research proposal that would provide the Partnership with important information on the hydrology and nutrient balance of the lake. The Technical Group reviewed the proposal, discussed different avenues in which to look at such research, and recommended partnering with USGS at the August 25th Steering Group meeting. Results of such research will allow the Partnership to make informed management decisions on Vancouver Lake issues.

The Technical Group also discussed contracting with a lake expert for short term technical assistance. The main focus of this contract would be to assist in the development of a Five Year Research Plan to complete the technical analysis. This research plan will build on the study areas outlined in the Technical Foundation, identifying study tasks, budgets, timeframes, and defining a logical order in which the studies should take place. The Five Year Research Plan will be completed in November/December this year.

The Technical Group will have several meetings this fall as they review and make recommendations on the Five Year Research Plan, the upcoming application for Washington Department of Ecology's Centennial Grant, and the Management Alternatives Report that is being developed by the Project Management Team. The Management Alternatives Report will look at over a dozen methods that were used to control cyanobacteria in other lakes and examine the potential use of such methods in Vancouver Lake. The alternatives report will be completed this December.

Funding Prospects

The Project Management Team continues to explore funding sources that can supplement Partnership funds to support the much needed work at Vancouver Lake. An upcoming potential fund source is the annual Centennial Grant program. The team will meet with Ecology staff to refine the focus of the application for this year's funding cycle. Although the Vancouver Lake hydrology and nutrient balance project did not get funded through the Centennial program this past year, feedback from reviewers was favorable.

Project Team staff will work in conjunction with the Technical Group to refine the Centennial application to attempt to tap into this significant source of funds. The Technical Group's work in review and refinement of a hydrology and nutrient balance study proposal will go far in informing the Centennial grant application.

Vancouver Lake Partnership Financial Summary

Funding for the Partnership is provided through an intergovernmental agreement between the Port of Vancouver, City of Vancouver, and Clark County. The account is managed by Clark County, designated as the financial agent in the agreement. The agreement specifies that funds be used primarily for professional services, such as project management, research, and public involvement and outreach. The members agreed to donate staff time for participating in Partnership activities which include leading technical and public involvement team meetings, reviewing study proposals, applying for grants, managing contracts and finances, updating the website, and more.

To date \$525,000 has been contributed by Steering Group agencies under the agreement. In addition, \$1,000 was generously donated by the Vancouver Lake Sailing Club to help fund research and planning.

At the midway point of 2009, the Partnership fund has a balance of \$375,000. Ongoing work with the Lower Columbia River Estuary Partnership for project management will require approximately \$60,000 through 2009. Additionally, the Partnership is obligated to provide about \$15,000 in 2009 to match funds provided by the Department of Ecology's Freshwater Algae Program for algae research.

The outlook for next year and beyond is good, even in these tough financial times. Resources are building up enough to fund a research project that will help us understand more about where the water and nutrients in the lake come from, and how that may affect cyanobacteria and algae blooms. The Steering Group also expects to secure a contract for project management at the end of this year, which to this point has required about \$75,000 annually. Meanwhile, efforts continue in seeking out grant funds and partnerships to help leverage funding for work to benefit Vancouver Lake.

Lake Reopened after 30-day Closure

Vancouver Lake re-opened on August 21 after being closed to swimmers on July 22 due to high levels of *E. coli* bacteria and high levels of cyanobacteria (blue-green algae). Clark County Public Health collects lake water samples weekly after a closure. Lake samples after the closure showed a drop in *E. coli* counts from a high of 365 on the date of closure to zero on August 3rd. The Environmental Protection Agency's closure threshold is 236 colonies per 100 milliliters. It is not known why there was such a precipitous drop in *E. coli* numbers, but such declines have been witnessed in the past.

While *E. coli* counts dropped quickly, cyanobacteria species *Anabaena* counts remained high for several weeks. The high cell count resulted in a continued lake closure to protect human health. Information on the status of Vancouver Lake can be viewed on the Partnership website at www.vancouverlakepartnership.org or directly at the County's website <http://www.clark.wa.gov/public-health/pools/beaches.html>.

In early August the Partnership's Public Information Team provided Clark County Public Health with a paragraph on the work of the Partnership, including a link to the Partnership's website. County Public Health is now including this information in news releases regarding the lake, starting with the lake reopening in August. Pairing outreach efforts in this way helps inform the public of the Partnership's efforts to address Vancouver Lake issues.

Flushing Channel Cleanup

The Port of Vancouver maintenance crews removed debris from the Flushing Channel August 4th through 6th. This was part of the Port's semiannual maintenance schedule.

Outreach

The Project Management Team will be making a presentation to the Fruit Valley Neighborhood Association at their next meeting on September 3rd at 7 pm. This will serve to update the neighborhood on progress the Partnership has made in understanding Vancouver Lake issues to allow for informed decision making.

Plankton Assessment by WSU-Vancouver

Washington State University Vancouver (WSUV) continues to make progress in its effort to better understand the dynamics of recurring cyanobacteria blooms in Vancouver Lake. This work is being conducted with funding through the Vancouver Lake Watershed Partnership and a grant by the Washington Department of Ecology.

The objectives of the current year of study are to:

- 1) assess the abundance and composition of the plankton (both algal/cyanobacterial prey and potential zooplankton grazers) in Vancouver Lake throughout the year;
- 2) estimate algal/cyanobacterial growth and zooplankton grazing rates over a full summer cycle through bi-weekly dilution and incubation experiments with plankton collected from Vancouver Lake; and
- 3) interpret the experimental results in relation to variability in temperature, dissolved oxygen, nutrient concentrations, and other conditions as well as plankton composition and abundance.

Between May and July, water samples containing plankton were collected over 18 field days. Microscopic analyses of plankton samples will allow researchers to quantify and identify cyanobacteria, algae and zooplankton.

During this same period, WSUV researchers conducted bi-weekly experiments to determine algal growth rates and protozoan zooplankton grazing rates. At the same time feeding incubation experiments were conducted to determine metazoan zooplankton grazing rates and prey preference.

Plankton sampling will continue through March 2010 and bi-weekly experiments will continue through September 2009. Variability in plankton abundance and composition, as well as growth and grazing rates, will be assessed in the context of changes in environmental conditions over time (seasonally and over an annual cycle).

This study is important for scientists and managers to better understand the dynamics of cyanobacteria blooms in the Vancouver Lake, which is critical in identifying appropriate management strategies to improve Vancouver Lake.

Upcoming Meetings

The next Steering Group meeting will take place at 3:30 on September 29, 2009, at the Port of Vancouver.

The next Full Partnership meeting will take place at 4pm on October 21, 2009, at the Port of Vancouver.

The Vancouver Lake Watershed Partnership is the result of efforts by the Port of Vancouver, City of Vancouver Department of Public Works, Vancouver-Clark Parks and Recreation, Clark County Department of Public Works and the Fruit Valley Neighborhood Association in 2004 to bring federal, state, and local public agencies with interest and jurisdiction over Vancouver Lake and its watershed, together with citizen stakeholders.

Citizen Members

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City of Vancouver Department of Public Works
Vancouver-Clark Parks & Recreation
Clark County Department of Public Works
Fruit Valley Neighborhood Association
Clark County Public Health
Port of Ridgefield
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For more information please visit the Partnership's website:
www.vancouverlakepartnership.org