

WATERLINE

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WALPA goes to Olympia

A report from Jonathan Frodge, legislative chair

Beth Cullen was wearing high heels that gave her blisters, and I had on a tie, and it was not a clip-on. Bijay Adams brought his wife and new baby all the way from Liberty Lake with Ron and Beth Cocchiarella. During our two days in Olympia, four Representatives, three Senators, and a passel of staff members heard WALPA's pitch promoting two key bills: *SB6228/HB3147 Protecting lake water quality by reducing phosphorus from lawn fertilizer* and *SB6229/HB3146 Requiring a comprehensive lakes management strategic plan*.

President Cullen appeared before the Natural Resources, Ocean and Recreation Committee to present a "History of Lake Management in Washington State, and where that leaves us for the future." She laid out a brief history of lake funding in Washington, highlighting some neglected issues that need our attention. We'll be working to get this presentation posted on the WALPA web site soon.

Even more importantly, many of the Representatives and Senators have heard from you. Your emails, calls and letters are the most powerful tool we have. I still haven't gotten my Christmas letter out, but I did contact everyone on my email list about these bills, and many have contacted their elected officials. In fact I think someone contacted someone else who eventually got Kevin Bacon to send in his support! (Well, that may be an exaggeration.)

Five WALPA members testified for the phosphorus ban, blowing the golf course industry lobbyist out of the water. (Actually the golf course guy was OK; he just didn't want to do any additional reporting to Ecology. Maybe we can make that change and come to an agreement with them...) We actually had more problems with another environmental lobbyist (whose organization shall remain nameless unless they cross us again). We also heard some doozies from opponents' testimony, like the fact that no lakes drain into Puget Sound, that this bill will ban the application of compost, and that you're going to steal our money (we've heard that one a lot). From our friends at Ecology, we heard that "it's not in the Governor's budget." We may need to encourage our elected officials to keep pressure on Ecology to support these efforts, as there are rumors of resistance among some of the management in Lacey.



Dr. Jonathan Frodge (right) and WALPA lobbyist Arlen Harris (middle) discuss lakes legislation in the halls of the Capitol.

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Focus on Liberty Lake, Washington

by BiJay Adams

Liberty Lake is a 708-acre mesotrophic lake two miles east of the City of Spokane Valley and three miles west of the Idaho border. The City of Liberty Lake lies a quarter mile north-northwest. Enclosed on three sides by mountains that reach 5,000 feet, Liberty Lake has a mean depth of 23 feet and a maximum depth of 30 feet. The lake was formed when Liberty Creek was dammed by catastrophic flood deposits from glacial Lake Missoula during the Pleistocene Epoch. Like many lakes in the Spokane Valley / Rathdrum Prairie, Liberty Lake has no natural outlet. Water leaves the system only by infiltration into the Spokane Valley Rathdrum Prairie Aquifer, which supplies drinking water to more than half a million people in the Spokane area.

There are numerous homes along Liberty Lake's five-mile shoreline, but the forested watershed is mostly undeveloped. The jewel of the lake is Spokane County's Liberty Lake Regional Park, which occupies 4,200 acres of the 8,870 acre watershed and offers camping, hiking, mountain biking, horseback riding, and picnicking. The County, with jurisdiction over the lake and most of its watershed, maintains a public dock and swimming area.

Concerns about the lake's water quality and overall health began in the 1960's, as nuisance blue-green algae blooms grew more apparent—and uglier—each year. By the late 1960's, tons of decaying aquatic weeds and dried algal mats were being removed from the lake. In 1973, with help from the Property Owners' Association, residents petitioned for and elected three commissioners to represent a special purpose sewer district. Since then, the Liberty Lake Sewer and Water District (LLSWD) has worked hard to protect the lake's health and maintain the beauty that had attracted many area residents.

In 1975, the District got a grant from the State Clean Lakes Program for lake restoration. The State of Washington Water Research Center and the Civil Engineering Hydraulics Section at WSU did chemical and physical tests and hydrology measurements, and analyzed precipitation and watershed runoff from 1974 to 1976. Wright and Funk developed a

restoration plan in 1974 calling for watershed protection, reduction of marsh runoff, sewers to reduce nutrient flows, and dredging to remove nutrient-rich sediments. These were followed with alum treatment to remove suspended matter and nutrients released by dredging. Plans for a wastewater treatment facility were developed in 1976 and the facility completed in 1982.

To address the concerns of environmental groups, citizens, and some agency personnel, agencies studied the effect of restoration efforts on the lake's zooplankton, macroinvertebrates, macrophytes, and fish. To date, these indicate that the lake has remained in a healthy mesotrophic state since restoration. No large-scale algal bloom has occurred in the past thirty years, though the threat remains.

Not surprisingly, given continued residential growth and recreational use of the lake by transient boats, a small Eurasian water milfoil infestation was discovered in the fall of 1995. It was controlled by hand for two years, when 2,4-D herbicide treatments began. Since its discovery, dive harvests and herbicide treatments to manage milfoil have continued with funding from the Washington Department of Ecology. Since 1968, WSU and the LLSWD monitor the lake and streams each year, measuring and analyzing water quality, temperature, conductivity and other variables.

To reduce and prevent non-point source pollution, protective measures divert runoff, reduce lawn fertilization, and prevent disruptions to the watershed. Lake stewardship is promoted through watershed studies, environmental education programs, aquatic plant and landscape workshops

and news articles that explain the relationship between watersheds and lakes, water quality, and human activity.

Liberty Lake offers a peaceful, rural environment for relaxing and enjoying nature. If visitors and residents continue to protect its beauty and control pollution with beach cleanups, debris collection and public education, Liberty Lake will remain one of the most popular lakes in Spokane County.



Liberty Lake 1976: Nuisance blue-green algae blooms choke the lake.



Liberty Lake 2001: Construction of a wastewater treatment plant and lake stewardship efforts to reduce nutrient inputs result in a clear lake for everyone.

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Absence of hydrilla in two King County lakes may signal victory in battle to eradicate invasive weed

Though they are not yet declaring victory in their twelve year battle against a fast-growing exotic water plant, King County and state environmental managers are relieved that extensive surveys of Pipe and Lucerne lakes in 2007 turned up no sign of hydrilla.

Not long ago, King County was still battling the threat of a significant hydrilla infestation despite years of treatment. In 2003, surveyors found 470 of the fast-growing plants in the two lakes, which are connected and are the only Northwest water bodies in which the invasive plant has been found.

Aggressive management and survey programs in recent years have shown remarkable results in eradicating the weed, which chokes out native plants. No hydrilla were found in Lucerne Lake during the past three years, while Pipe Lake had just two plants in 2006 and none in 2007.

“Some states spend millions each year to address hydrilla infestations in their waterways, so it is very important that we eliminate the plant from these two lakes and prevent its spread to other water bodies,” said Sally Abella, manager of the King County Lake Stewardship Program.

Native to the warmer areas of Asia and first discovered in U.S. waters in 1960, hydrilla has caused numerous environmental problems in lakes and rivers – especially in the Southeastern states. In the past, hydrilla was

frequently sold to the public as an aquarium plant, but it has been banned in Washington.

Most hydrilla infestations likely begin when aquarium owners release fish into lakes or rivers, or when water lilies imported from states with hydrilla infestations are planted. Hydrilla can also be carried between lakes by boats – even small fragments of the fast-growing vegetation can start a new infestation.

Abella said the dramatic reductions in hydrilla are largely due to the partnership between King County, the Washington Department of Ecology (DOE) and the cities of Maple Valley and Covington. The cities and DOE provided funding for the program, while King County applied herbicides and did monitoring.

After consulting with DOE, King County is following the protocol used by the State of California to eradicate hydrilla from several locations, according to Abella. “California treats water bodies for three years after the first survey that finds no plants,” she said. “We will treat Pipe Lake for at least two more years to make sure we have no re-emergence of this invasive plant.”

Abella said both lakes would be monitored for at least another five years beyond treatment.

Read more about the hydrilla eradication program at <http://dnr.metrokc.gov/wlr/waterres/smlakes/stophydrilla.htm>

Ecology samples thirty lakes as part of national survey

Continued from cover

physical characteristics. National EMAP surveys have already been done on America’s wadeable streams and coastal and estuarine habitats. Read more about EMAP and sampling design online at <http://www.epa.gov/emap/>

Nationally, 909 lakes were included in the survey. The lakes represent five size classes distributed evenly across the lower 48 states. Selected randomly, the lakes include natural and man-made freshwater lakes, ponds and reservoirs at least 3.3 feet deep and larger than 10 acres.

The 30 Washington lakes in the survey range in size from 17-acre Lake Louise in Whatcom County to 7,600-acre Lake Ozette in Olympic National Park. The complete list can be seen in the chart to the right. Parameters sampled included:

Trophic indicators – lake profile (pH, conductivity, temperature and dissolved oxygen); water quality chemistry and nutrient concentrations; chlorophyll-a; transparency; turbidity and color

Ecological integrity indicators – sediment diatoms (from sediment cores); phytoplankton; zooplankton; shoreline physical habitat conditions and macroinvertebrates

Recreational indicators – pathogen (enterococci bacteria); algal toxin (microcystin) and sediment mercury (human health concerns)

EPA and its partner agencies will analyze and compile the results of this national survey in 2008; a final report should be ready next year. Ecology will analyze the data collected from the 30 Washington lakes separately for a report on the condition of our lakes statewide.

Additional information about the survey is available on the Department of Ecology website at <http://www.ecy.wa.gov/programs/eap/lakes/wq/NatLakesSurvey.html>

For more information, contact Maggie Bell-McKinnon, Washington Department of Ecology, at 360-407-6124 or MBEL461@ecy.wa.gov

LAKE NAME	COUNTY	AREA (acres)
American	Pierce	1104
Armstrong	Snohomish	25
Bayley	Stevens	68
Calispell	Pend Oreille	486
Cle Elum	Kittitas	4541
Cranberry	Island	130
Cushman	Mason	3880
Fan	Pend Oreille	71
Forbes	Mason	36
Gorge	Whatcom	204
Grimes	Douglas	188
Horseshoe	Cowlitz	80
Island	Pacific	44
Jumpoff Joe	Stevens	120
Kitsap	Kitsap	233
Koeneman	Kitsap	18
Lacamas	Clark	253
Lewis	Pierce	56
Louise	Whatcom	26
Medical	Spokane	124
Moses	Grant	6439
Mountain	San Juan	185
Ozette	Clallam	7590
Red Rock	Grant	127
Sacheen	Pend Oreille	301
Saddle Mountain	Grant	548
Sammamish	King	4836
Swamp	Kittitas	38
Swofford Pond	Lewis	210
Wapato	Chelan	192

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Department of Ecology’s Callie Meredith collects a sediment core from Lake Ozette in Olympic National Park.

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- \$20 - individuals
- \$30 - professionals
- \$40 - organizations & lake associations
- \$10 - individuals who belong to lake associations that are WALPA members

The membership year runs between annual conferences or from April 1 through March 31 if the conference schedule changes.

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WALPA goes to Olympia

Continued from front page

While neither bill will become law this session, we have raised the visibility of both issues in Olympia. The bills did not pass because it was a short session and we waited too long to schedule them on the House side, not because they lack support. The Strategic Lake Report bill was voted out of the Natural Resources, Oceans, and Recreation Committee with a do pass, but could not be scheduled in the Ways and Means Committee. The phosphorus ban for lawn fertilizer did not make it out of the Water, Energy, and Telecommunications Committee in the Senate or the Agriculture and Natural Resources Committee in the House. Both bills were making progress, but lost at the buzzer. So our new battle cry is, "Next year in Olympia!"

We're getting better at this legislative work, and much of the credit goes to Arlen, our lobbyist. He has proven himself to be a good investment as he deals with the intricacies of the kabuki dance that is legislating. As we continue to learn about the legislative process, we increase our odds of getting

these bills passed next session.

While the fate of this year's bills has been determined, we need to continue to call, visit, and email our representatives and every member of every committee that has jurisdiction over lake issues (<http://www.leg.wa.gov/legislature>). Keep those cards, letters, phone calls and emails pouring into representatives' mailboxes. Get your friends, neighbors and grandmother to send them in, too, because it really makes a difference.

Save the date!

Mark your calendars for the 2008 WALPA conference to be held **September 30th** and **October 1, 2008** at the Hawthorn Inn and Suites in Arlington, Washington. Check out the Hawthorn Inn at www.hawthorninn.net and stay tuned for more details soon.

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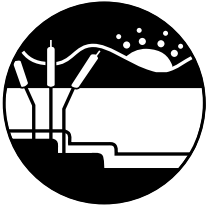


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Washington department of ecology samples thirty lakes for national survey

Maggie Bell-McKinnon, biologist, Washington Department of Ecology

Last summer, staff from the Washington Department of Ecology (Ecology) traveled more than 8,000 miles to sample Washington lakes as part an EPA-funded national water quality survey. Thirty Washington lakes, chosen randomly, were among the 900 selected nationwide for testing to assess the health, water quality and recreational value of America's lakes. Ecology staff sampled water quality, assessed habitat, and collected other data.

This "Survey of the Nation's Lakes" was undertaken to address two key questions:

- What percent of the nation's lakes are in good, fair or poor condition in terms of trophic state, ecological health and recreation?
- What is the relative importance of key environmental stressors like nutrients, bacteria and lakeshore development?

For this survey, Ecology staff employed the same probability-based sampling design used in EPA's Environmental Monitoring and Assessment Program (EMAP). Since each lake has a known probability of being selected for sampling, the lakes sampled are statistically representative of other lakes in their ecoregion with the same



Department of Ecology's Glenn Merritt collects macroinvertebrates at a habitat station on Moses Lake in Grant County.

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