



WATERLINE

June 2004

In this issue

Secchi Dip-In begins	1
Lake Focus: Ozette Lake	2
WALPA photo winners	3
WALPA produces fact sheets	3
<i>Waterline</i> deadlines	4
WALPA board members	4



Time to pay WALPA dues

Remember to renew your WALPA membership if you didn't attend the April conference. For information, contact debra.bouchard@metrokc.gov or moya.joubert@ci.seattle.wa.us



Contact WALPA:
WALPA Web site
[www.nalms.org/
walpa/](http://www.nalms.org/walpa/)

NALMS Web site
www.nalms.org



Please save *Waterline* issues
for future reference.

Secchi Dip-In begins June 26

The Great North American Secchi Dip-In celebrates its 10th anniversary of collecting transparency data this year. The Dip-In runs from June 26 to July 11 when volunteer monitors will measure water transparency at their lakes and reservoirs (also estuaries, rivers and streams).

The Dip-In began in 1994 as a pilot study in six Midwest states with funding from the EPA Clean Lakes program. Since then more than 375 programs and 10,000 volunteers in the U.S., Canada, and other countries have generated 30,000 records. These data are used to map regional differences in transparency and to detect trends.

"The loss of the volunteer program in the Washington State Department of Ecology is a real blow," comments Bob Carlson, Ph.D., Kent State University, Dip-In coordinator. Dr. Carlson offers the use of his Dip-In database to the volunteers of Washington state.

The Dip-In accepts data from all types of turbidity instruments, including transparency tubes, and from all types of water bodies, not just lakes. Monitoring programs are encouraged to use the Dip-In as a midsummer event to draw attention to its monitoring efforts. Various programs have had governors, federal and state representatives, and local officials "doing the dip" – along with doing educating the public.

The Dip-In Web site, <http://dipin.kent.edu/>, contains all the information to participate, along with

data and trend analyses from past years and technical information on different methods of measuring transparency.

What is a Secchi disk?

The typical Secchi disk used in lakes is an eight-inch disk with alternating black and white quadrants (like a checkerboard). It is lowered into the water until the observer can no longer see it. The depth of disappearance, called the Secchi depth, is a measure of the transparency of the water.

Transparency decreases as the amount of particulate materials – such as algae and suspended sediment – increases. The amount of algae that grows is affected by the amount of nutrients coming from sewage treatment plants, septic tanks, and lawn and agriculture fertilizer, as well as suspended sediments washed from construction sites, agricultural fields, urban storm runoff, or churned upward from bottom deposits.

Father Pietro Angelo Secchi, scientific advisor to the pope, was asked by Commander Cialdi, head of the Papal Navy, to develop and test a new water transparency instrument in the Mediterranean Sea. This instrument, now named the "Secchi" disk, was first lowered from the papal steam yacht on the Mediterranean Sea on April 20, 1865.



Lake Focus on Ozette Lake

By Heidi Wachter, Taylor Associates

Nestled between public and private lands, Ozette Lake lies in the most northwestern region of Washington state. To travel there, one must access the lake either by foot from the west or by car from the northeast. The remote location of Ozette Lake makes it an ideal place for those who want to explore the lake's shorelines, two islands, the surrounding coastal forests, or the Pacific coastline, which lies to the west via a boardwalk trail.

As the third largest (7,787 acres) natural freshwater body in Washington state and the most westerly large lake in the lower 48 United States, Ozette Lake is known as Ka'houk or a large body of fresh water by the Makah Indians. The entire water body and its shoreline lies within the Olympic National Park. The lands to the west of the lake are entirely within the park and the upland drainage area to the east is dominated by privately-held lands. The lake is more than 300 feet deep and has five main tributaries, the Big River and Coal, Umbrella, Crooked, and Siwash creeks. The lake's two main outflows lie at an elevation near 30 feet, the Ozette River flowing into the Pacific Ocean from the north shore and the Allens Slough from the south.

Numerous fish, including sockeye salmon (*Oncorhynchus nerka*), can be found in the Ozette Lake drainage. The Ozette Lake sockeye salmon have been determined to be an Evolutionary Significant Unit (ESU) and in March 1999 were listed as threatened by the National Marine Fisheries Service. The Ozette Lake ESU, which is a distinctive group of Pacific salmon, includes all naturally spawned populations of sockeye salmon in Ozette Lake and the tributaries flowing into Ozette Lake. The Makah Tribe and the Washington Department of Fish and Wildlife serve as co-managers of the fisheries resource. The co-managers have submitted a joint Resource Management Plan (RMP) that proposes sockeye salmon artificial propagation, research, monitoring, and evaluation activities.



Ozette Lake is a few miles from the Pacific Ocean and is located within the Olympic National Park. It's a popular area for backpackers and anglers. Photo by John Gussman.

The RMP's goals are to increase the number of naturally spawning sockeye salmon in Ozette Lake tributaries and to conduct research on the factors limiting the ESU's productivity.

Ozette Lake and the Ozette River are popular fishing destinations. Other than sockeye salmon, fish use in the lake includes largemouth bass, yellow perch, cutthroat trout, squawfish, plus seasonal runs of silver salmon and steelhead. The upper reaches of the Ozette River can be fished from its banks, however, the park does not recommend floating the river due to the presence of hazardous log jams. Park fishing regulations apply to the lake and are posted at the Ozette Ranger Station.

Ozette Lake, which is commonly called Lake Ozette, serves as the starting point for beach hikers, in addition to a recreational destination for fishing and boating enthusiasts. Campsites can be found at the Ozette Ranger Station on the north end of the lake or in Erickson's Bay. If you prefer a remote location, the camp sites in Erickson's Bay can only be accessed by boat or the 2.2 mile trail coming in from the Pacific Coast. For those who prefer a solid roof over their heads, less primitive accommodations are available at The Lost Resort.

For hikes from Ozette Lake, the Cape Alava – Sand Point Loop (9.3 miles) provides a beautifully diverse hike with dense coastal forest, ocean surf, an archaeological site (a 2,500 year Native American village buried in a mud slide 500 years ago), the deserted homestead of Swedish settler Lars Ahlstrom, and petroglyphs on Wedding Rock. If you choose to hike any of the four trails stretching between the coastline and Ozette Lake, be wary that the boardwalks can

be very slick and soft-soled shoes are recommended.

To visit Ozette Lake by car, the only paved roads to the lake are from the north. From Port Angeles head west on State Route 112. After passing Sekiu, head south on Hoko-Ozette Road (also referred to as the Ozette Lake Road). This road ends at the Ozette Ranger Station, where the Ozette River flows from the lake to the Pacific Ocean.

Sources for this article:

- Tim Tynan, National Oceanic and Atmospheric Administration (NOAA)/Fisheries, National Marine Fisheries Service (NMFS)
- NOAA/NMFS, www.nwr.noaa.gov/1salmon/salmesa/sockozt.htm, www.nwr.noaa.gov/1sustfsh/limit6/rmpfinal.htm
- Makah Tribe, www.makah.com
- Olympic National Park Service, www.northolympic.com/onp/ozette.html
- Jeff Larson, *Short Trips: Superb scenery awaits sure-footed hikers*, *Seattle Post-Intelligencer*, April 3, 2003.
- Ira Spring and Harvey Manning, *100 Hikes in Washington's South Cascades and Olympics*, pgs. 232-235, 1992.
- The Lost Resort, www.northolympic.com/lostresort/index.html

Note: WALPA makes no guarantee to the accuracy of this information.

Want to recommend a lake for the next **Lake Focus**? Send suggestions and questions to Heidi Wachter at heidi@taylorassoc.net.

WALPA announces photo contest winners

Winning first place in the photo contest was Gene Williams of Seattle. His photo was the skyline reflecting on Turn Lake at sunset on Kenai Peninsula in Alaska. Gene won a \$50 gift certificate from Barnes and Noble, which was donated by SePRO Corp.

Second place winner was Kyle Langan of Centralia. Entitled "Close Up," his photo was a water-clover floating on a pond in Lewis County. Kyle won a \$50 gift certificate from REI. Thanks to Envirovision, Corp., for donating the gift card.

Third place winner was Arline Fullerton of Tacoma. Her photo, "Leaning Madrona," was taken on Clear Lake in Thurston County. Her prize was a book by Joseph M. DiTomaso and Evelyn A. Healy, *Aquatic and Riparian Weeds of the West*, which was donated by Joseph DiTomaso.

Thanks to everyone who submit-

ted their beautiful photos to the contest. Special thanks to the SePRO Corp., Envirovision, Corp., and Joseph DiTomaso for donating contest prizes.

Questions about the contest may be directed to Ryan Langan, langanr@co.thurston.wa.us or 360-357-2491.

Protect lake water quality

- Organize a lakeshore clean-up to collect trash and litter washed up on shore.
- Recycle used motor oil.
- Clean off recreational equipment after use to stop aquatic hitchhikers.
- Use pump-out stations for boat waste.
- Let natural vegetation grow by the lake – mow and fertilize less!

Advertising lake-related products or services in the *Waterline* does not imply endorsement by WALPA or any of its officers.

WALPA publishes fact sheets

By Isabel Ragland, WALPA board member

The WALPA lake user survey showed five areas of concern. They are: impact of new development on shorelines and wetlands; responsible pesticide and fertilizer use on lake shores and watersheds; bacterial and fecal contamination; invasive aquatic plants; and nuisance waterfowl.

Each of these topics will be addressed in fact sheets presented as two-page pull-out sections inserted in the *Waterline* beginning in June and for the following four issues.

WATER MANAGEMENT EQUIPMENT • Aquatic Plant Harvesters • Swamp Devils • Trash Hunters • Amphibious Excavators



Respected as the industry leader, Aquarius Systems, a Division of D&D Products Inc., is the oldest manufacturer of surface water management equipment in the world. Manufactured in North Prairie, Wisconsin, we are proud to feature equipment made in the U.S.A.

We place a great deal of emphasis on the quality and durability of our equipment, but most importantly, we believe that safety is not an option. The machines we offer are the most reliable and best value available on the market today.

Contact us today to learn more, or visit our website to see an online catalog of equipment:

www.aquarius-systems.com



**AQUARIUS
SYSTEMS**
A Division of D&D Products Inc.

Toll Free 800-328-6555

Phone 262-392-2162

Fax 262-392-2984

Email info@aquarius-systems.com

**WASHINGTON STATE LAKE
PROTECTION ASSOCIATION
P.O. BOX 4245
SEATTLE, WA 98104**

Waterline is the newsletter of the Washington State Lake Protection Association (WALPA). Articles may be reproduced; credit the *Waterline*. For information about WALPA, call 1-800-607-5498. WALPA is a chapter of the North American Lake Management Society (NALMS).

WALPA Board for 2003-2004

Board of Directors

President Barry Moore	bcmoore@mail.wsu.edu
President-elect Sally Abella	sally.abella@metrokc.gov
Past President Lee Mellish	sewerdoc@aol.com
Secretary Moya Joubert	moya.joubert@seattle.gov
Treasurer Debra Bouchard	Debra.Bouchard@metrokc.gov

Directors

BiJay Adams	bijay@libertylake.org
Marianne Barrentine	mbarrentine@spokanecounty.org
Peter DeArtega	peter.dearteaga.seattle.gov
Ray Latham	rlat461@ecy.wa.gov
Michael Murphy	michael.murphy@metrokc.gov
Shannon Nobel	shannon.nobel@tetrattech.com
Isabel Ragland	isabelr@piercecountycd.org
Bob Roper	rstanley@aol.com
Shawn Ultican	ultics@health.co.kitsap.wa.gov
Dave VanderMeulen	davevm@envirovisioncorp.com

Waterline newsletter published quarterly

<u>Deadline</u>	<u>Issue date</u>
July 12	Sept. 1
Nov. 1	Dec. 1
Feb. 1	March 1
May 1	June 1

Send your ideas for articles to *Waterline* Editor Paula Lowe, pmrlowe@comcast.net or call 360-491-0109.

Please include a description of the topic, suggest a writer, a contact person with phone number and e-mail address. Each recommendation is reviewed carefully.