



WATERLINE

June 2010

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WATERLINE is the newsletter of the Washington State Lake Protection Assoc. (WALPA). Send submissions to Polly Freeman at polly_freeman@msn.com. Articles may be reproduced. Please credit *WATERLINE*.

For information about the organization, call **1-800-607-5498** or visit the WALPA website

www.walpa.org

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Please save *WATERLINE* issues for future reference.

Loosestrifes: stifling the competition

Many lake watchers are probably familiar with purple loosestrife (*Lythrum salicaria*), a wetland and lakeshore scourge found in at least 29 of Washington's 39 counties. Purple loosestrife has narrow, smooth-edged, pointed leaves arranged opposite one another on a squareish stem. Its tall spikes are packed with beautiful magenta flowers that can produce up to 2.5 million seeds per plant. Yep, you read that right – one plant can make 2.5 million peppery seeds that blow around on the wind, float downstream, and get carried on duck feathers, boots and waders to another favorable spot.

If you're battling a purple loosestrife infestation, start by making sure the plants don't get a chance to make seeds. Cut off the flower heads, or better yet, cut down the whole plant. Or just pull or dig it out and throw the whole thing in the trash. Don't compost this plant! Stem fragments can root and form new plants, so make sure the whole plant goes in the garbage.

The good news for lakes in the grip of purple loosestrife is that there are a number of biological controls available to help. *Galerucella* beetles are tiny golden-brown leaf-feeding beetles that eat only purple loosestrife. They've been released across the state for many years now, and purple loosestrife populations are much reduced from earlier levels as a result. For those of you living near salt water, where *Galerucella* isn't as successful, there's also a root-feeding weevil in the genus *Hylobius* that can help rein in purple loosestrife populations. If you think you may have a good spot for any of these helpful critters, find out more at WSU's Integrated Weed Control Project: <http://invasives.wsu.edu/>.

Although purple loosestrife is a fairly common sight along our state's lakeshores, only a few of us have had to tangle with garden loosestrife (*Lysimachia vulgaris*), which is unrelated to and sometimes more aggressive than its purple namesake. Garden loosestrife can outcompete purple loosestrife, and has even been found growing under established stands of invasive knotweed! Garden loosestrife is present at only a couple of sites in each of six counties (Chelan, Grays Harbor, Kitsap, Stevens, Thurston and Whatcom), but is more widespread in King and parts of Snohomish County.

Garden loosestrife is in the primrose family. It has clusters of attractive five-petaled yellow flowers on top of round stems with soft leaves in whorls of three or four. This weed's secret weapon is its ability to produce thin, red rhizomes up to 15 feet long, every inch of which can make new plants. Effectively pulling or digging the plants is very challenging.

In most places where it has escaped cultivation around the



Purple loosestrife can produce 2.5 million seeds per plant.

[Continued on page 3](#)

Join NALMS now and join us in Spokane next year!

Greetings from your North American Lake Management Society (NALMS) Region 10 Director! The mission of NALMS, founded in 1980, is to **forge partnerships among citizens, scientists, and professionals to foster the management and protection of lakes and reservoirs for today and tomorrow.** To help this important mission continue, join NALMS today!

NALMS produces two quarterly publications: *LakeLine Magazine* and the *Journal of Lake & Reservoir Management*. *LakeLine*, sent to all NALMS members, and historically the organization's most visible publication, targets the general public and lake users. *Lake & Reservoir Management* is a journal of peer-reviewed scientific papers intended for a more technical audience of academics and lake managers. This publication, available to higher-cost membership categories, is a major source of practical information in the technical lake management community. NALMS also sends members a monthly e-newsletter.

The signature event of the NALMS year is the International Symposium, held each fall and typically drawing 500-600 attendees. The Symposium produces material for NALMS publications, promotes the exchange of scientific information

among scientists, lake managers, students, and citizens, and provides a rare opportunity for face to face contact and networking. The symposium, whose location rotates among regions, is also a chance to recognize excellence in the field of lake and reservoir management. Sounds like a great gathering, right? Washington lake enthusiasts have a perfect opportunity to learn

more and get involved in NALMS' work, because the 2011 International Symposium will convene in Spokane.

Joining NALMS is simple. First, decide what level of membership works for you: <http://www.nalms.org/nalmsnew/nalms.aspx?id=80&Sid=5>. Second, complete your membership form – and you're in. To join or renew on-line go to: <https://www.thedatabank.com/dpg/358/donate.asp?formid=member>

To join or renew by mail, download the application: <http://www.nalms.org/nalmsnew/userfiles/file/NALMS%20Membership%20Form%20for%20faxing%20or%20mailing%20to%20us.pdf>.

If you have any questions, please contact Bijay Adams at (509) 922-5443, (509) 370-1574 or bijay@libertylake.org. Thank you for supporting NALMS!



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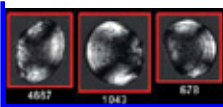
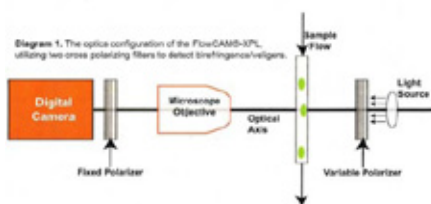
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Aquatic Ecosystem Restoration & Maintenance

DETECTION OF INVASIVE MUSSEL VELIGER'S (QUAGGA/ZEBRA) & ALGAE SPECIES USING BIREFRINGENCE IMAGING PARTICLE ANALYSIS



Liz Mason Gaspar, Santa Barbara County Parks
Modeling the Quagga Mussel Sunglasses at Lake Mead, NV

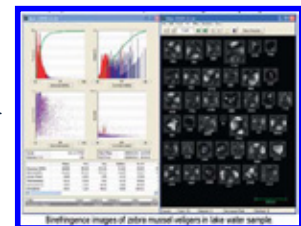
CAN YOU SEE "WHAT'S IN YOUR WATER?"[®]



Clean Lakes, Inc. (CLI) has added Invasive Zebra/Quagga Mussel Veliger and Algae Detection/Identification Services to our Aquatic Ecosystem Restoration and Maintenance Services operations. CLI's Veliger Detection Service builds on our expertise to bring the newest detection technology to water body managers looking for fast, affordable, and accurate early veliger or Cynobacteria detection. In early 2009, CLI took delivery of a portable FlowCAM[®] which provides several advantages over traditional microscopy techniques. The FlowCAM[®] detects invasive mussels through the birefringence imaging particle analysis process (See Veliger Detection Services - Program Information Packet, at www.cleanlake.com, Mussel Veliger Detection Tab for further information). The specific advantages that the FlowCAM[®] provides over traditional microscopy techniques include a larger sample size, faster sample test time, reduced human error, and physical snapshots of veligers. This results in a process that is more accurate and more thorough with a quick turnaround time.

Clean Lakes, Inc. (CLI) has added Invasive Zebra/Quagga Mussel Veliger and Algae Detection/Identification Services to our Aquatic Ecosystem Restoration and Maintenance Services operations. CLI's Veliger Detection Service builds on our expertise to

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Loosestrifes: stifling the competition

Continued from front page

country, garden loosestrife is a fairly well-behaved weed, scattering itself down roadsides or creeping along streams and into wetlands a bit. Most of Washington's populations are likewise fairly sedentary, not moving rapidly from place to place, but staying put in a slowly growing cluster. Not so in King County! Garden loosestrife covers 40% of Lake Sammamish's eight miles of shoreline, and lines both banks of the Sammamish River (along with purple loosestrife – the riverbanks are awash in purple and gold just in time for Husky football). Garden loosestrife has invaded all Lake Washington's wetlands and is also increasing along the Snoqualmie River, which is transporting garden loosestrife steadily downstream into Snohomish County.

The King County Noxious Weed Control Program has been working hard to get a handle on the Snoqualmie infestation, but garden loosestrife is proving very hard to kill. With help from Tim Miller of WSU Extension, we hope to find an herbicide that



Garden loosestrife can be found growing under stands of knotweed!

will reach the rhizomes. Sadly, there are no biocontrol agents available for this weed, and since it doesn't seem to be a major problem in other areas, nobody is looking for one, either. It's up to us to prevent garden loosestrife from taking over any more of our lakes.

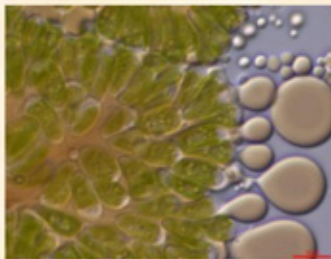
For more information on purple loosestrife, garden loosestrife, and a host of other aquatic plants and weeds, visit <http://www.ecy.wa.gov/programs/wq/links/plants.html> or <http://www.kingcounty.gov/weeds>.

Ecology seeks public input on permit renewal

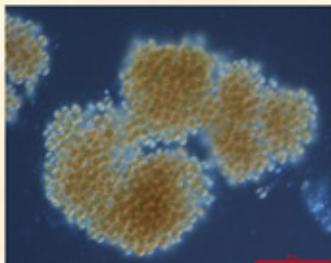
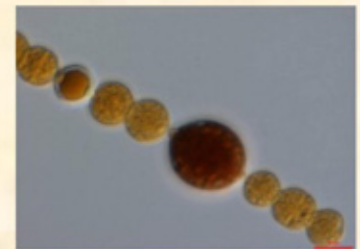
Is your lake being treated with aquatic herbicides or algaecides? The current Aquatic Plant and Algae Management Permit (which allows lake treatment state-wide) expires April 1, 2011. (See http://www.ecy.wa.gov/programs/wq/pesticides/permit_documents/APAMfinalpermitrevised011509.pdf.) The Washington State Department of Ecology has begun developing new language to reissue the permit and would like to hear your views. Staff have tentatively scheduled an evening Open House for June in Tacoma.

To be involved in the permit renewal process, please contact Kathy Hamel at Kathy.Hamel@ecy.wa.gov. You will be added to Ecology's list of interested parties, learn more about the open house and receive more information as it is available. The public comment period will likely occur sometime in late summer.

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WALPA's 23rd annual conference to focus on stormwater – and lots more!

It's time again to mark your calendars for WALPA's annual conference! This year the board has put together a thoughtful program that includes a little bit of everything for everyone involved in their lakes, streams and surrounding watersheds. The theme for this year's conference, to be held in Tacoma at the University of Washington, is "21st Century Techniques for Protecting Our Lakes and Streams."

All the usual time-tested – and still timely – topics will be on tap at this year's conference, including blue-green algae, long term monitoring projects, invasive species and student presentations. There will also be lake talks from around the Tacoma area that focus on nutrient budgets and toxic blue green algae. But we'll also hear about another issue central to lake management and protection these days – stormwater.

In Washington, we are charged to address stormwater through the state's NPDES program. It shapes our monitoring programs, our funding and the ways we make our projects happen. Recognizing stormwater's importance to Washington lakes, the conference will showcase Tacoma's stormwater management with a discussion and tour of the ways that city is working to mitigate, improve and handle its stormwater.

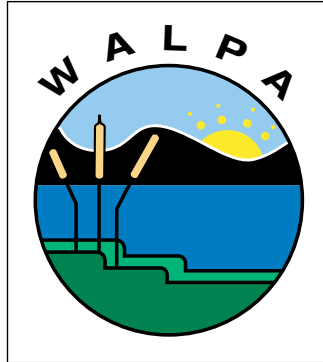
Slated for the conference's second day, this special session will focus on Salishan, a low-income, low-impact housing development created by HUD, the Puyallup Nation, Washington State and the City of Tacoma. Salishan has

served as a model for studying low-impact development as a means to mitigate and control stormwater. Among other aspects of LID, the studies examine rain gardens, their sorption rates, and ways to measure pollutants released from rain gardens.

The 2010 conference promises to be one of the most informative yet – the broad spectrum of topics will be useful to everyone interested in lakes. As in past years, applicator license credits will be available for those who attend the invasive plant and animal sessions.

So don't wait! Fill out the [registration form on page 5](#) and mail it in now to snag the early bird rate. Rooms are being held at the Courtyard Marriott in downtown Tacoma at \$113/night for conference attendees. You can book your room directly at: <http://www.marriott.com/hotels/travel/SEATD?groupCode=laklaka&app=resvlink&fromDate=9/8/10&toDate=9/10/10>.

Send any questions to Beth Cullen at beth.cullen@kingcounty.gov – and please join us in Tacoma come September!



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2010 WALPA Preliminary Conference Schedule

"21st Century Techniques for protecting our lakes and streams"

Thursday, Sept 9

- 7:00 - 8:30 Registration
8:30 - 10:00 Plenary session – TBD
10:30 - 12:00 Session 1
 Session 1A - Low impact development
 Session 1B - Aquatic plants
12:00 - 1:30 Lunch
1:30 - 3:00 Session 2

Session 2A - Long term monitoring programs

- *Changes in zooplankton in Lake Washington over time* – Arni Litt, University of Washington Department of Biology
- *Long term winter monitoring in Spokane County* – Jacob McCann, Newman Lake Flood Control Zone District
- *Recent changes in lakes and reservoirs in Seattle's drinking water system* – Moya Joubert, City of Seattle Public Utilities

Session 2B - Aquatic animals

3:30- 5:00 Session 3

Session 3A - Centennial fund projects

- *Long Term Lake Restoration Utilizing WA State Water Quality Funds, Newman Lake, WA.* – Jacob McCann, Newman Lake Flood Control Zone District
- *Cottage Lake - Community oriented Phosphorus Reduction Project on Cottage Lake* – Beth Cullen, King County Water & Land Resources
- *A Historical Clean Lakes Program Restoration Success, Liberty Lake, WA* – BiJay Adams, Liberty Lake Sewer and Water District

Session 3B - Fish work

6:00 - ?? No-host reception

No-host reception at Harmon's Brewery

Friday, Sept 10

- 7:00 - 8:30 Registration
8:30 - 10:00 Session 4

Session 4A - Student presentations

Session 4B - Stormwater

- Rebecca Dugopolski, Hererra
- Lauren McIntire, Landau Associates
- Lorna Mauren, City of Tacoma, Stormwater Division Mgr.

10:30 - 12:00 Session 5

Session 5 - Algae

- *Cyanobacteria bloom control in Lake Steilacoom, Washington using algicides, SolarBee, calcium hydroxide, and alum* – Rob Zisette, Hererra
- *Snohomish County Lakes, specific studies* – Marisa Burghdoff, Snohomish County
- *Algae study on Green Lake in Seattle* – Friends of Green Lake

12:00 - 1:30 Lunch

- Intro talk to storm water and LID in Tacoma by Chris Burke

1:30 - 4:00 Tour Tacoma

- Tour Tacoma with Chris Burke – LID in Action!

Registration for 23rd Annual WALPA Conference Sept 9 & 10, 2010 Tacoma, WA

All conference registrations include a one-year WALPA membership, lunches on Thurs and Fri and a late afternoon no-host social on Thurs. For an additional registration form in PDF format, visit www.walpa.org

Name (Please print) _____ Lake Affiliation _____

Company or Organization _____ E-mail _____

Address _____ City _____ State _____

Zip _____ Phone(day) _____ (evening) _____

Full conference:

\$130 by Aug 15 \$130 _____

\$150 after Aug 15 \$150 _____

Student rates:

\$75 full conference \$75 _____

\$40 one day

Thurs or Fri (circle one) \$40 _____

One day: Thurs or Fri (circle one)

\$75 by Aug 15 \$75 _____

\$80 after Aug 15 \$80 _____

Complete the registration form, enclose it with your check payable to WALPA and mail to: WALPA, PO Box 4245, Seattle, WA 98194

Questions?

Contact Beth Cullen :

206-236-6242 or beth.cullen@kingcounty.gov

1. May we share your name and email with our conference's attendees and exhibitors? Y N

2. Prefer vegetarian meals? Y N Significant food allergies? _____

SPECIAL–If you belong to a lake association that is a member of WALPA conference registration will be \$100 (after Aug 15 it is \$120).

TOTAL REGISTRATION FEE ENCLOSED _____

To pay for the conference by Purchase Order: P.O. number _____ Contact Person _____

Billing Address _____ Phone _____

E-mail _____

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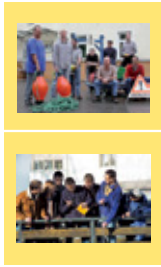
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Nominate WALPA's future leaders

Do you know someone who would make a great WALPA leader for the years ahead? Nominations are currently being accepted for the following board positions:

President-Elect (serves a three-year term including one year as President and one year as Past-President)

Treasurer (serves a two-year term)

Director (six positions) Directors serve two year terms. They act and vote in the interests of the Association as a whole, while bringing local concerns to the Board's attention.

The Officers and Directors' duties can be found in the WALPA by-laws at: www.walpa.org.

How do I nominate someone?

Any WALPA member may submit nominations; candidates must be nominated by at least two members. Self-nomination is encouraged if two other members support the nomination. Candidates must be WALPA members.

Nominations are due no later than **July 9**, must be made in writing (via mail, fax or e-mail) and must include mailing and e-mail addresses and a phone number for the nominee.

The WALPA Nominations Committee will make sure nominees are active members and that they meet the qualifications for office, including:

- Demonstrated interest and participation in WALPA;
- Leadership ability and other qualifications listed in the

position requirements; and

- Willingness to accept the duties of office as listed, including attending bi-monthly board meetings.

Submit nominations (or questions) to:

Jacob McCann

WALPA President

Spokane County Division of Engineering and Roads
1026 W Broadway Ave

Phone: 509.477.7262

Fax: 509.477.7478

JMcCann@spokanecounty.org

The WALPA photo contest is back!

Share your most beautiful, most thought provoking, most timely lake photos to have a chance to win at the 2010 WALPA Conference. Please send all photos and inquires to Sally Abella at sally.abella@kingcounty.gov or 206-296-8382. Photos can be sent digitally to Sally directly or mail them to the WALPA mailbox at PO Box 4245, Seattle WA 98194.

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Lake-friendly dishwasher detergent goes statewide July 1

Beginning this summer, Spokane and Whatcom Counties will no longer be the only Washington counties mandating that low phosphate automatic dishwashing detergents be sold for residential use. As of July 1, the new law goes into effect for all of Washington – and 15 other states.

In a continuing effort to improve water quality in our lakes, rivers, streams, and marine waters, Washington will stop the distribution and sale of dishwasher detergents that contain more than 0.5 percent phosphorus. Because soaps for hand washing dishes are already phosphorus-free, the new requirement applies only to soaps used in automatic dishwashers. The law extends limits already in place for laundry detergent.

The Washington Legislature passed the lake-friendly detergent law in 2006 to take effect this summer. Governor Gregoire and the legislature imposed the restrictions in Spokane and Whatcom Counties two years early because environmental conditions there demanded immediate action.

Lake watchers have long known that excess phosphorus acts as a fertilizer, stimulating the growth of algae and

other aquatic plants in fresh water. When these plants and organisms die, their decay uses up oxygen, suffocating fish and other aquatic life.

Stormwater runoff, septic tanks and wastewater treatment plants send phosphorus into our water from detergents and other products like fertilizers. When

household wastewater is sent to a treatment plant, the process removes much, but not all, of the phosphorus before it reaches our rivers, lakes and streams. By reducing phosphorus in household products, we can reduce nutrient pollution and keep our waters and



aquatic life healthier.

The other 15 states joining Washington in the move toward lake-friendly detergents on July 1 are Illinois, Indiana, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, Ohio, Oregon, Pennsylvania, Utah, Vermont, Virginia, and Wisconsin.

To learn about more lake-friendly actions and ways to protect Washington's waters, visit www.ecy.wa.gov/washington_waters.