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WALPA's 29th CONFERENCE SCHEDULE 2016		
12:00pm Registration		WED
12:30-5:00pm Workshops A & B		
A - Macroinvertebrate Identification	B - Cyanobacteria Identification	
7am Registration/Breakfast Exhibitor Booths / Raffle & Silent Auction Open		
8:30 - 10am Welcome & Plenary Session		
10 - 10:30am Break		
10:30 - Noon Session 1 Lake Monitoring & Management		
Noon - 1:30pm Lunch Secchi & Scholarship Winners, WALPA Business		
1:30 - 3pm Session 2 Problem Bacteria and Invasive Species		
3 - 3:30pm Break		
3:30 - 5:00pm Session 3 Next Generation of Limnology		
5:00 - 7pm Poster Session / Social Hour Wine Tasting, Raffle Drawings, Silent Auction Closes - Sponsored by OTT Hydromet		
7am Registration/Breakfast		
8:30 - 10am Session 4 Lakes: Coming Up With Solutions		
10-10:30am Break		
10am-Noon Session 5 Lake Whatcom: Big Lake, Tough Issues		
12:30-4pm Field Trip		

Auction Donors

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29th Annual
Conference



Oct. 5th-7th, 2016
Bellingham, WA

WASHINGTON STATE LAKE PROTECTION ASSOCIATION

Lakes - Reflections of Change

WALPA Conference Special Events:

2016 Secchi Disk Award

The Secchi Disk Award is nominated by the WALPA membership and voted on by the Board of Directors to honor an outstanding person in the field of lakes management and protection. In 2016 the Board unanimously voted to present the award to Gene Williams! Gene is the single longest serving board member in the history of WALPA by collectively volunteering over ten years. Gene was the lead and founder of Snohomish County's lake management program, working on all aspects of lake and watershed science including water quality monitoring, outreach, lake restoration, and aquatic plant control. Over the past 28 years, Gene has implemented not one, but several visionary projects including installation of the world's largest hypolimnetic aeration system in Lake Stevens (at the time), implementing one of the first toxic algae monitoring programs, and helping develop an innovative social-marketing based lake outreach program called LakeWise. His work has culminated in healthier lakes, empowered residents, and an increased understanding of lake management both locally and nationally.

WALPA Business Meeting Agenda

- 1) Introduction – Marisa Burghdoff, WALPA president
- 2) Scholarship Awards – Andrew Child, Scholarship committee
- 3) Dave Lamb Memorial Scholarship Contribution – Teri McNabb, Aquatechnex
- 4) Retiring & New Board Members – Randy Hadland, nominations committee
- 5) WALPA 2016 review– Marisa Burghdoff, Tim Clark (legislative committee), Jen Oden (membership committee), Siana Wong (statewide volunteer monitoring special initiative),
- 6) WALPA 2017 goals – Jim Gawel, Incoming WALPA president

Evening Social

Please join us on Thursday night for appetizers, drinks and good company. It's a great time to unwind and network with fellow WALPA members. Refreshments provided with the first drink ticket on the house.

Annual Scholarship Auction and Raffle

During the evening social, WALPA will be holding its annual raffle & auction to raise funds for student scholarships, research and outreach. This year there will be an action-packed live auction with the latest water quality instrumentation from OTT Hydromet, YSI, and In-Situ. The silent auction and raffle will also have a variety of items including outdoor gear, books, gift certificates and beer from local breweries. You must be there for the raffle, but not the silent auction. We hope to see you there.

REMINDERS

- Elections – Turn in your ballots at registration.
- Student Awards – Be sure to pick the best student talk and student poster.
- Photo Contest – Cast your vote for this year's best photographer.
- Recertification Credits – Sign up at Registration to qualify for applicator license credits.

Lakes - Reflections of Change - Session Schedule

Wednesday – October 5th 12:00 – Registration Opens

SeFair Room also open to exhibitors for setup

12:30 – 5:00 Workshops

Workshop-A: Macroinvertebrate Identification

- **Jim Helfield**, Department of Environmental Sciences, Huxley College of the Environment, Western Washington University
- **Joan Vandersypen**, Institute for Watershed Studies, Huxley College of the Environment, Western Washington

Workshop-B: Cyanobacteria Identification

- **Dr. Robin A. Matthews**, Director, Institute for Watershed Studies, Huxley College of the Environment, Western Washington University

Thursday – October 6th

7:00 - Registration/Breakfast

SeFair Room

Exhibitor Booths/Raffle & Silent Auction Open

8:30 – Welcome & Plenary Session

Whatcom Room

- **Mike Brett**, University of Washington, “How do we balance the (possibly) conflicting goals of phosphorus removal, ecosystem services and sustainability in the Spokane River Basin?”

Dr. Mike Brett is Professor in Civil and Environmental Engineering at the University of Washington. He obtained his PhD from Uppsala University, Sweden, in 1990. His research is in biological limnology, in particular, nutrient discharges and eutrophication in lakes, streams and estuaries. Mike also does research on the production and bioaccumulation of omega-3 fatty acids in aquatic food webs, coupling between aquatic and terrestrial ecosystems, and zooplankton ecology. Mike teaches courses in Applied Limnology, Lake and Watershed Management and Environmental Engineering. Mike was President of WALPA in 2000-2001 and served on the WALPA Board for 3 years.

10:00 - Break

10:30 - Session 1

Lake Monitoring & Management - Whatcom Room

- **Moderator – Andrew Child**, WSU
- **Speakers:**
- **Curtis DeGasperi**, King County Water and Land Resources Division, “Review of King County’s continuous lake temperature monitoring data”
- **David C. Deardorff**, Abraxis, Inc., “Real time monitoring for cyanotoxins in recreational waters”
- **Michael Mangham**, Premier Materials Technology, Inc., “Treatment of cyanobacteria by superoxide”
- **Robert Plotnikoff**, **Harry Gibbons, Jr.**, Tetra Tech, Inc., “Environmental benefits dredging soft sediment from a small recreational lake in Western Washington”
- **Curtis Hinman**, Herrera Environmental Consultants, “Anal-

ysis of bioretention soil media for improved nitrogen, phosphorus, and copper retention”

- **Andrew James**, **Alex Gipe**, University of Washington Tacoma; **Shawn Ultican**, Kitsap Public Health District; **Justin Miller-Schulze**, California State University at Sacramento, “Contaminants of emerging concern as source tracers of anthropogenic impacts in surface waters”

12:00 – Lunch

SeFair Room

Secchi Award, Scholarship Winners and other

WALPA Business – Renaissance Room

1:30 - Session 2

Problem Bacteria and Invasive Species –

Whatcom Room

- **Moderator – Tim Clark**, King County
- **Speakers:**
- **Jonathan Frodge**, Seattle Public Utilities, “Bacteria source tracking in Thornton Creek”
- **Jenifer Parsons**, Lizbeth Seebacher, Washington Department of Ecology, “Ecology’s invasive aquatic plant projects”
- **Terry McNabb**, Aquatechnex, “Game changing strategies to target Eurasian milfoil and flowering rush”
- **Rachel Garcia and Teagan Ward**, City of Bellingham, “Past, present and future development of Corbicula fluminea and other aquatic invasive species in two drinking water reservoirs in Whatcom County, Washington”

3:00 - Break

3:30 – Session 3

Next Generation of Limnology –

Whatcom Room

- **Moderator – Jim Gawel**, UW Tacoma
- **Speakers:**
- **Anthony Endresen***, **Jim Gawel**, University of Washington Tacoma, “Phytoremediation of arsenic by aquatic plants in contaminated urban lakes in the South-Central Puget Sound region”
- **Erin Hull**, **Jim Gawel**, University of Washington Tacoma; **Pamela Barrett**, **Rebecca Neumann**, University of Washington, “Arsenic in shallow polymictic and seasonally stratified urban lakes: mobility, bioaccumulation and ecological toxicity”
- **Andrew Child***, **Barry Moore**, **Jeffrey Vervoort**, Washington State University; **Marc Beutel**, University of California-Merced, “From farm to table: tracking availability and bioaccumulation of heavy metals in freshwater zooplankton in northeastern Washington lakes”
- **Sarah H. Burnet***, University of Idaho, **Frank M. Wilhelm**, University of Idaho, “Comparison of two methods to estimate within-lake regenerated phosphorus in a reservoir”
- **Vincent O. Jobin***, University of Washington, **Julian D. Olden**, University of Washington, “Landscape position defines lake water level fluctuations in response to past climate in the Pacific Northwest”

5:00-7:00 Poster Session & Social

SeFair Room

Wine Tasting, Raffle

Drawings,

Silent Auction Closes

Friday – October 7th

7:00 - Registration/Breakfast

SeFair Room

8:30 - Session 4

Lakes: Coming Up With Solutions –

Whatcom Room

- **Moderator – Jen Oden**, Snohomish County
- **Speakers:**
- **Peggy Campbell**, **Marisa Burghdoff**, **Gene Williams**, **Jennifer Oden**, Snohomish County Public Works Surface Water Management, “Lakewise: motivating and inspiring clear choices for healthy lakes”
- **Scott Moore**, **Marisa Burghdoff**, **Marta Olson**, Snohomish County Public Works Surface Water Management, “Lakewise: the triumphs and tribulations of lake shoreline restoration”
- **Roberta Davenport**, WA Department of Natural Resources, “Creating Washington’s first freshwater Aquatic Reserve: Lake Kapowsin”
- **Jim Gawel**, **Corey King**, **Rebecca Rigg**, University of Washington Tacoma; **Mike Milne**, **Sharonne Park**, **Jon Turk**, Brown and Caldwell; **Greg Vigoren**, City of Lakewood, “Hydrologic and nutrient budgets to support the Waughop Lake management plan”
- **Chris Webb**, Herrera Environmental Consultants, “A review of unit costs of selected stormwater phosphorus treatment practices”

10:00 - Break

10:30 - Session 5

Lake Whatcom: Big Lake, Tough Issues –

Whatcom Room

- **Moderator – Rachael Gravon**, King County
- **Speakers:**
- **Robin Matthews**, **Michael Hilles**, **Joan Vandersypen**, **Geoffrey Matthews**, **Robert Mitchell**, Western Washington University, “Lake Whatcom reflections, 1988-2016”
- **Bill L. Evans**, City of Bellingham, “Tiny bubbles”
- **Rob Zisette**, Herrera Environmental Consultants, “Lake Whatcom north shore on-site sewage system leachate detection plan”
- **Teagan Ward**, City of Bellingham, “Whatcom boat inspections: preventing the spread of aquatic invasive species in Whatcom County”
- **Steve Hood**, “How to compare dissolved oxygen from different model scenarios”

12:00 Conference ends

(except for field trip participants)

12:30 – 4:00 Field Trip

All field trip participants should meet in the SeFair room to pick up your boxed lunches and be ready to load up into vehicles by 12:30

Field Trip Locations & Presenters:

- **Teagan Ward**, Whatcom Inspection Program (AIS) Coordinator, **Randy Lewis**, AIS Lead Inspector, **Mat Main**, AIS Lead Inspector - *AIS inspection station*
- **Eli Mackiewicz**, City of Bellingham Engineering Technician - *Bloedel Donovan Park Stormwater Management*
- **Rachael Garcia**, AIS Monitoring Lead - *Bloedel Donovan Park AIS monitoring*
- **Cathy Craver**, Whatcom County Stormwater NPDES Coordinator - *Britton/Barkley/Brownsville Stormwater - 25 min*
- **Clare Fogelsong**, City of Bellingham Natural Resources Policy Manager - *Agate Bay Preserve, Uly gate*

POSTERS

On Display Throughout the Conference

- **Timothy Taylor***, **Barry C. Moore**, Washington State University, “Evaluating the precision of lake-dwelling brook trout age structures”
- **Robert Mitchell**, Western Washington University, **Katherine Beeler**, Associated Earth Sciences, Inc., “Sediment and phosphorus inputs from perennial streams to Lake Whatcom, Northwestern Washington State”
- **Kellen Maloney***, **Robert Turner**, **Keya Sen**, **David Jackson**, **Saiwa Conejo-Morales**, University of Washington Bothell, “Investigating the ability of substrates inoculated with mushroom mycelium to reduce fecal coliform bacteria contamination in surface water”
- **Randi Bowman***, **Dr. Michael Edgehouse**, Lewis-Clark State College, “Macroinvertebrates as bioindicators of stream health in the Snake River drainage”
- **Raena Anderson***, **Jesse Klinger**, Huxley College of the Environment, Western Washington University, “An explorative study of aquatic macrophyte habitats in Canyon Lake, Washington”
- **Andrew Child***, **Barry Moore**, **Jeffrey Vervoort**, Washington State University; **Marc Beutel**, University of California-Merced, “Tracking long-distance deposition of airborne smelter emissions in remote lake sediment cores”
- **Oliver Miler**, University of Washington; **Gwendolin Porst**, TU Berlin, Germany; **Elaine McGoff**, Freshwater Habitats Trust, United Kingdom; **Francesca Pilotto**, Umea University, ; **Louise Donohue**, Trinity College Dublin, Ireland; **Tamara Jurca**, University of Novi Sad, Serbia; **Angelo Solimini**, La Sapienza University of Rome, Italy; **Leonard Sandin**, Swedish University of Agricultural Sciences (SLU) Uppsala, Sweden; **Kenneth Irvine**, UNESCO-IHE Institute for Water Education, The Netherlands; **Jukka Aroviita**, Finnish Environment Institute (SYKE), Finland; **Ralph Clarke**, Bournemouth University, United Kingdom; **Martin T. Pusch**, Leibniz Institute of Freshwater Ecology and Inland Fisheries, Germany, “Biotic assessment of human lake shore degradation based on the composition of littoral macroinvertebrate communities ”

*student presenters