

October 20-22, 2021

Virtual Conference

34th Annual Conference



It Takes a Village

WASHINGTON STATE LAKE

PROTECTION ASSOCIATION

WALPA Conference Special Announcements:

2021 Secchi Award

The Secchi Disk Award is nominated by the WALPA membership and voted on by the Board of Directors to honor a member in recognition of their outstanding contribution to science, management, or the protection of lakes in Washington or Idaho. In 2021, the Board is honored to present the Secchi Disk Award to Jenifer Parsons. Jen is The Aquatic Plant Expert (<https://ecology.wa.gov/Blog/Posts/March-2020/Jenifer-Parsons>) in Washington. Her 27-year career at the Washington Department of Ecology began in Olympia until her move in 2000 to the Central Regional Office, where she retired on June 30, 2021. She can be described as diligent, hard-working, and an innovative team member that served as the expert on freshwater aquatic plants. Jen has characterized invasive aquatic plant infestations in rivers, streams, lakes, and reservoirs statewide. She is the go-to person to identify a plant and provide technical assistance. Jen has done it all from checking on the effectiveness aquatic weed control projects, researching the impact of control methods, monitoring the spread of invasive aquatic plants, maintaining aquatic plant data in Ecology's database, writing technical reports and papers, to serving as a scientific advisor on the State Noxious Weed Board.

Jen is a long-time and active member of WALPA having presented her work and moderating macrophyte sessions at numerous annual conferences over the past 20 years. She has led the very popular aquatic plant and invasive species workshops at most of our conferences since 2012. Jen also served two terms as a Director on the WALPA board from 2016 through 2020. WALPA very much appreciates her contributions to WALPA and our lakes.

Student Scholarships

Nancy Weller Memorial Scholarship for PhD (\$1,250) Alexander Reyes

Alexander is a third year PhD student in Environmental and Natural Resource Science at Washington State University, Vancouver. The title of his study is "Food web ecology study for an alkaline lake hosting Lahontan cutthroat trout in Omak, WA".

Dave Lamb Memorial Scholarship for MS (\$1,000) Rachel Fricke

Rachel is a Masters student in Aquatic and Fisheries Sciences at the University of Washington in Seattle. The title of her study is "Employing mobile data to assess human interactions with lakes".

WALPA Scholarship for undergrad (\$500) Meg Smith

Meg is an undergraduate student at the University of Washington in Tacoma. The title of her study is "Mapping the spread and ecological impacts of invasive New Zealand mudsnails in Spirit Lake".

2021 Special Award

Noah Bos, Allison Simmons, and Alexandra Tyler.

Noah is a Masters student and Allison and Alexandra are undergraduate students at Walla Walla University. WALPA made a special award to them in recognition of the quality of their proposals and the team assembled to do the research. Each received a \$167 award to support their research on *Corbicula fluminea*, an invasive clam, in Lake Ozette.

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SESSION SCHEDULE

Wednesday, October 20

Workshops

10 am–Noon - Workshop A

SUCCESSFUL LAKE MANAGEMENT & THE FEASIBILITY OF ALUM TO IMPROVE WATER QUALITY

- John Holz, *HAB Aquatic Solutions*

1–5 pm - Workshop B

AQUATIC INVASIVE SPECIES

- Plants by: Ben Peterson, *King County Noxious Weed Program*
- Animals by: Jesse Schultz, Chelsey Buffington, and Max Lambert, *Washington Department of Fish and Wildlife*

Thursday, October 21

8–9 am - Welcome & Plenary Session

A WHOLE COMMUNITY APPROACH TO PREVENTING AND STOPPING INVASIVE SPECIES

- Justin Bush, Executive Coordinator of the Washington Invasive Species Council, *State of Washington Recreation and Conservation Office*

9–9:10am - Break

9:10–10:30 am - Session 1

INVASIVE SPECIES

Tackling inter-state movement of invasive species by making it easy to clean, drain, and dry
- Jesse Schultz, *Washington Department of Fish and Wildlife*
Coauthor: Dr. Edgar Rudberg, *CD3 Systems*

Aquatic invasive species surveys: Pend Oreille River/boundary reservoir

- Toni Pennington, *Environmental Science Associates*
Coauthors: Rich Miller, *Portland State University*, Steve Wells, *Aquaticus, LLC*, Mark Sytsma, *Portland State University*, Arick Rouhe, *Portland State University*

North Lake Washington and lower Sammamish River integrated aquatic vegetation management plan for City of Kenmore

- Eliza Spear, *Herrera Environmental Consultants*
- Coauthor: Rob Zisette, *Herrera Environmental Consultants*

Managing Eurasian milfoil in the Pacific Northwest with ProcellaCOR Herbicide technology

- Terry McNabb, *Aquatechnex*

10:30–10:40 am - Break

10:40–Noon - Session 2

PERMITTING

Aquatic plant management permits - Overview of ecology's permit requirements - Part 1
- Shawn Ultican, *Washington State Department of Ecology*

Aquatic plant management permits - Ecology's permit requirements - Part 2
- Shawn Ultican, *Washington State Department of Ecology*

You will need a HPA permit: Aquatic vegetation management

- Michael Ritter, *Washington Department of Fish and Wildlife*

A demonstration of WDFW's new aquatic pesticides mapping tool

- Keith Folkerts, *Washington Department of Fish and Wildlife*
Coauthor: Terry Johnson, *Washington Department of Fish and Wildlife*

12–1:00 pm - Lunch Break

1:00–2:20pm - Session 3

ALGAE & PHOSPHORUS CONTROL PART 1

Lake cyanobacteria management plan template and guidance
- Lizbeth Seebacher, *Washington State Department of Ecology*

Effectiveness of alum in an urban kettle lake with a long history of toxic blooms

- Shannon Brattebo, *Tetra Tech Inc.*
Coauthors: Dr. Harry Gibbons, *Tetra Tech, Inc.*, Iris Lippert, *Tetra Tech, Inc.*, Paul A. Bucich, *City of Lakewood, WA*

A 5-year look back: Biological and sediment changes in Lake Ketchum following lake restoration

-Marissa Burghdoff, *Snohomish County*
-Coauthors: Shannon Brattebo, *Tetra Tech Inc.*, Dr. Harry Gibbons, *Tetra Tech, Inc.*

Aquatic toxicity assessment of alum treatments in four western Washington lakes

-Rob Zisette, *Herrera Environmental Consultants*

2:20–2:30 pm - Break

2:30–3:50 pm Session 4

STUDENT POSTERS PART 1

Population dynamics of an early-stage invasion of Corbicula Asian clams in a Pacific Northwest lake
- Alexandra K. Tyler, *Walla Walla University*
Coauthors: Allison M. Simmons, *Walla Walla University*, David L. Cowles, *Walla Walla University*

Plant surprises in Lake Ozette

- Nathaniel T. Iwakoshi, *Walla Walla University*
Coauthors: Allison M. Simmons, *Walla Walla University*, Alexandra K. Tyler, *Walla Walla University*, David L. Cowles, *Walla Walla University*

The role of an invasive snail in the aquatic food web at Spirit Lake, Mount St. Helens

- Wyatt Cranston, *University of Puget Sound*
Coauthors: Kena Fox-Dobbs, *University of Puget Sound*

SESSION SCHEDULE

Charlie Crisafulli, *retired U.S. Forest Service*, James Gawel, *University of Washington Tacoma*

Mapping the spread and ecological impacts of invasive New Zealand mudsnails in Spirit Lake

- Meg Smith, *University of Washington Tacoma*
Coauthors: James Gawel, *University of Washington Tacoma*, Charlie Crisafulli, *Mount St. Helens Institute*

Comparing 40-year sediment records of aquatic ecosystem evolution in two large lakes in the blast zone of Mount St. Helens.

- Maeve Gallagher, *University of Puget Sound*
Coauthors: Avery Shinneman, *University of Washington Bothell*, James Gawel, *University of Washington Tacoma*; Angelica Luchetto *University of Washington Bothell*, Kena Fox-Dobbs, *University of Puget Sound*

3:50–4 pm - Break

4–4:45 pm - WALPA Business Meeting

4:45–5:45 pm - WALPA Social Hour

Friday, October 22

8–9:30 am Session 5

ALGAE & PHOSPHORUS CONTROL PART 2

Bioretention media designed for lakes

- Dylan Ahearn, *Herrera Environmental Consultants*
Coauthors: Curtis Hinman, *Herrera Environmental Consultants*, Jenee Colton, *King County*

Mitigating HAB problems in Washington lakes

- Terry McNabb, *Aquatechnex*

Use of zero valent iron to control nutrient loading within Lake Lorene

- Douglas Dorling, *Northwest Aquatic Ecosystems*
Coauthor: Don Russell, *private citizen*

Evaluation of zero valent iron for phosphorus reduction, Spanaway Lake, Washington

- Jeffrey H. Tepper, *University of Puget Sound*, Alex K. (Sandy) Williamson, *Friends of Spanaway Lake (retired USGS)*

9:30–9:40am - Break

9:40–11:40am - Session 6

PUBLIC USE & MONITORING

Public lake use and access barriers across Washington lakes

- Rachel Fricke, *University of Washington*
Coauthors: Julian Olden, *University of Washington*, James Gawel, *University of Washington Tacoma*, Avery Shinneman, *University of Washington Bothell*

A village of volunteers: creating a more informed public and advocating for continued lake protection

- Katie Ruthenberg, *Snohomish County*
Coauthors: Marisa Burghdoff, *Snohomish County*, Jen Oden, *Snohomish County*

Decoding the food web for Omak Lake, the largest saline lake in Washington

- Alexander D. Reyes, *Washington State University*
Coauthors: Bryan Jones, *Colville Confederated Tribes*, Barry Moore, *Washington State University*, Timothy Taylor, *Lummi Tribes*

Plankton diversity in the wetlands of Lake Tana: key insights into restoration and protection of wetlands biodiversity

- Abrehet Kahsay Mehari, *Department of Biology, Vrije Universiteit Brussel, Brussels, Belgium*

Long-term water quality trends in King County streams

- Jeremy Walls, *King County Water and Land Resources Division*
Coauthor: Timothy Clark, *King County Water and Land Resources Division*

11:40–11:50am - Break

11:50 am–12:40 pm Session 7

STUDENT POSTERS PART 2

Impacts of sulfur loading following alum treatment of Waughop Lake, Pierce County, Washington

- Colin Glaze, *University of Puget Sound*
Coauthor: Jeff Tepper, *University of Puget Sound*

Quantifying the link between boat wakes and sediment-released nutrients that may stimulate harmful algal blooms in the nearshore of Coeur d'Alene Lake, Idaho

- Krystal Saunoo, *University of Idaho*
Coauthors: Dr. Frank Wilhelm, *University of Idaho*, Julie VanMiddlesworth, *North Idaho College*

UW Bothell students create six posters to raise awareness on lake management

- Jodylene Delosreyes, *University of Washington Bothell*
- Tram Lam, *University of Washington Bothell*
Coauthors: Avery Shinneman, *University of Washington Bothell*, Joan Hardy, *Lake Advocates*

Assessing socioeconomic and temporal patterns of cultural ecosystem services provided by King County lakes

- Lexus Martin, *University of Washington Tacoma*

Assessing spatiotemporal patterns of cultural ecosystem services provided by North King and Snohomish County lakes

- Selene Bogstie, *School of IAS University of Washington Bothell*
Coauthors: Lexi Martin, *University of Washington Tacoma*, Rachel Fricke, *University of Washington*, Avery Shinneman, *University of Washington Bothell*, Julian Olden, *University of Washington*, James Gawel, *University of Washington Tacoma*

WALPA Business Meeting Agenda

Introduction and WALPA 2021 review - Rob Zisette, WALPA President

Scholarship Awards – Mark Sytsma, scholarship committee

Secchi Award – presented by Lizbeth Seebacher and Ben Peterson

Retiring Board Members - Rob Zisette, WALPA President

New Board Member Vote and WALPA 2022 - Jen Oden, Incoming WALPA President

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WALPA 34th CONFERENCE SCHEDULE AT A GLANCE

10 am–Noon - Workshop A Successful lake management	WED
1–5 pm - Workshop B Aquatic invasive species	
8–9 am - Welcome & Plenary Session A whole community approach to preventing and stopping invasive species	THURS
9–9:10am - Break	
9:10–10:30am - Session 1 Invasive species	
10:30–10:40 am - Break	
10:40–Noon - Session 2 Permitting	
12–1:00 pm - Lunch Break	
1:00 pm - Session 3 Algae & phosphorus control-Part 1	
2:20–2:30 pm - Break	
2:30–3:50 pm Session 4 Student posters-Part 1	
3:50–4 pm - Break	
4–5:45 pm - WALPA Business Meeting & Social Hour	FRI
8–9:30 am Session 5 Algae & phosphorus control-Part 2	
9:30–9:40am - Break	
9:40–11:40am - Session 6 Public use & monitoring	
11:40–11:50am - Break	
11:50 am–12:40 pm Session 7 Student posters-Part 2	