

Oct. 14th-15th



Virtual Conference

33rd Annual Conference

*Lake Diversity
From Ponds to Reservoirs*

WASHINGTON STATE LAKE

PROTECTION ASSOCIATION

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2020 CONFERENCE SCHEDULE AT A GLANCE

8 - 9 am - Plenary Session Racial and Social Justice in Freshwater Systems	WED - OCT 14
9 - 9:10 am - Break	
9:10 - 10:10 am - Session 1 Lake Restoration	
10:10 - 10:20 am - Break	
10:20 - 11:20 am - Session 2 Water Quality	
11:20 - 11:30 am - Break	
11:30 - 12 pm - WALPA Business Meeting	
12 - 1 pm - LUNCH	
1 - 2:20 pm - Session 3 Algae	
2:20 - 2:30 pm - Break	
2:30 - 3:50 am - Session 4 Lake Ecology	THURS - OCT 15
8 - 9 am - Panel Supporting Public Access to Washington Lakes	
9 - 9:40 am - Student Posters	
9:40 - 9:50 am - Break	
9:50 - 10:50 am - Session 5 Health Risks	
10:20 - 11 am - Break	
11 - 12:20 pm - Session 6 Invasives Management	
12:20 - 1:20 pm - LUNCH	
1:20 - 2:40 pm - Session 7 Waves and Source Tracking	



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ADVANCED ECO-SOLUTIONS

STUDENT POSTERS: 9:10-9:40 Thurs.

Impacts of Wildfire Reburn Events on Water Storage and Transport in the Washington Cascades

- Katherine Swensen, *Washington State University, Vancouver*
Coauthor: Kevan Moffett

Broadscale Distribution, Abundance, and Habitat Association of the Asian Clam *Corbicula Fluminea* in the Lower Columbia River, USA

- Salvador Robb-Chavez, *Washington State University Vancouver*
Coauthors: Stephen Bollens; Gretchen Rollwagen-Bollens; Timothy Counihan

Effects of Boat Wakes on the Nearshore of the Spokane River in North Idaho

- Krystal Saunao, *University of Idaho*
Coauthors: Frank Wilhelm, *University of Idaho*, Julie Vanmiddlesworth, *North Idaho College*

Seasonal Spatial Distribution of Zooplankton in Willow Creek Reservoir in Relation to Hypolimnetic Anoxia

- Hana Haakenstad, *University of Idaho*
Coauthor: Frank Wilhelm, *University of Idaho*

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VIRTUAL CONFERENCE SESSION SCHEDULE

Wednesday, Oct 14th

8 - 9:00 am - Plenary Session

Racial and Social Justice in Freshwater Systems

- Melissa Haeffner, *Portland State University*
Moderated by: Angela Strecker, *Western Washington University*

9:00-9:10 am - Break

9:10-10:10 am - Session 1

LAKE RESTORATION

A Tale of Two Contrasting Lakes and HAB Control Plans

- Rob Zisette, *Herrera Environmental Consultants*

A Tale of Two Lakes - Part I: Understanding Lake Nutrient Dynamics Using a Cost-effective Approach (Using the Data You Have Coupled with Good Detective Work)

- Shannon Brattebo, *Tetra Tech*
Coauthors: Harry Gibbons, *Tetra Tech*, Marisa Burghdoff, Katie Ruthenberg *Snohomish County Surface Water Management*, Jennifer Oden, *Snohomish County Surface Water Management*

A Tale of Two Lakes Part II: Selecting Lake Restoration Alternatives Through Community Collaboration

- Marisa Burghdoff, *Snohomish County Surface Water Management*
Coauthors: Jennifer Oden, *Snohomish County Surface Water Management*; Katie Ruthenberg, Shannon Brattebo, and Harry Gibbons, *Tetra Tech*

10:10-10:20 am – Break

10:20-11:20 am - Session 2

WATER QUALITY

Examining the Spatial Dynamics of Algal Blooms in Lake Whatcom, WA, Using Satellite Remote Sensing

- Emily Deardorff, *Institute for Watershed Studies, Western Washington University*
Coauthors: Angela Strecker, *Western Washington University, Institute for Watershed Studies*, David Wallin, *Western Washington University, Huxley College of the Environment*

Spring Fever Revisited. Relationships Among Lake Sammamish Thermal Stratification, Anoxia, and Phosphorus.

- Curtis DeGasperi, *King County Water & Land Resources Division*

Synergistic Impact of Urbanization and Climate Change on the Water Quality and Ecosystem Services Provided by Lake Sammamish (WA)

- Laura Costadone, *Portland State University*
Coauthor: Mark Sytsma, *Portland State University*

11:20-11:20 am - Break

11:30-12 pm – WALPA Business Meeting

12:00-1:00 pm - LUNCH

1:00-2:20 pm – Session 3

ALGAE

Direct Dna Sequencing of Cyanohab Lake Samples Reveals Genome Sequences and Population Structures of Extant Pacific NW Blooms

- Theo W. Dreher, *Department of Microbiology, Oregon State University*
Coauthor: Ryan S. Mueller, *Department of Microbiology, Oregon State University*

The Influence of Floating Logs on Lake Ecosystems: A Comparison of Coldwater Lake and Spirit Lake, Mt. St. Helens

- Angelica Lucchetto, *University of Washington Bothell*
Coauthors: Kena Fox-Dobbs, *University of Puget Sound*, Avery Shinneman, *University of Washington Bothell*, James E. Gawel, Ph.D., *University of Washington Tacoma*

Nutrient Removal from an Urban Lake Using an Algal Turf Scrubber

- Sarah Norberg, *City of Tacoma*
Coauthors: Kenneth Burkart, James E. Gawel, Ph.D.

Tiny Bubble Solving Big Problems - Nanobubbles as a Chemical-Free Method for Algae Control

- Christian Ference, *Moleaer Inc, Carson, CA*

2:20-2:30 am – Break

2:30-3:50 pm – Session 4

LAKE ECOLOGY

Population Structure and Habitat Availability Determined by Resource Use by Rainbow Trout in High Elevation Lakes

- Beka Stiling, *University of Washington*
Coauthors: Julian Olden, Gordon Holtgrieve

Primary Succession and Community Assembly in Ponds Created by the Mount St. Helen's Eruption

- Angela Strecker, *Western Washington University*
Coauthors: Meredith Holgerson, Charlie Crisafulli, James E. Gawel, Ph.D., *University of Washington Tacoma*

Life History of a Caddisfly in Coeur d'Alene Lake

- Elizabeth Hoots, *University of Idaho*

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VIRTUAL CONFERENCE SESSION SCHEDULE

Coauthors: Ben Scofield, *Coeur d'Alene Tribe Lake Management Department*, Frank Wilhelm, *University of Idaho*

Impacts of Hydrodynamic Processes on Pelagic Fish Habitat in Clear Lake, CA

- Drew Stang, *University of California, Davis and Herrera Environmental Consultants*

Coauthors: Alexander Forrest, Geoffrey Schladow, Andrew Rypel, Alicia Cortes

Thursday, Oct 15th

8:00-9:00 am - Panel Discussion

Supporting Public Access to Washington Lakes: A Discussion

- Avery Shinneman, *University of Washington Bothel*
Coauthor: James E. Gawel, Ph.D., *University of Washington Tacoma*

9:00-9:10 am - Break

9:10-9:40 am - Student Posters

9:40-9:50 am - Break

9:50-10:50 am - Session 5

HEALTH RISKS

Human Health Risk from Consumption of Aquatic Species in Arsenic-Contaminated Shallow Urban Lakes

- Marco Barajas, *University of Washington Tacoma* and Erin Hull, *University of Washington Tacoma*

Coauthors: Kenneth Burkart, Samantha Fung, Brian Jackson, Rebecca Neumann, Julian Olden and James E. Gawel, Ph.D., *University of Washington Tacoma*

Seasonal Patterns of Mixing and Arsenic Concentrations in a Small, Arsenic-Contaminated Lake

- Samantha Fung, *University of Washington Seattle*
Coauthors: Erin A. Hull, Ken Burkart, Marco Barajas, Alex Horner-Devine, Rebecca Neumann and James E. Gawel, Ph.D., *University of Washington Tacoma*

Building a Bayesian Network from Expert Knowledge to Evaluate Microcystin Production in King County Lakes Under Various External Load Reduction Scenarios.

- Timothy Clark, *King County Water and Land Resources Division*

10:50-11:00 am – Break

11:00-12:20 pm - Session 6

INVASIVES MANAGEMENT

Understanding Angler-Driven Vectors of Invasive Species Transmission Using Social Media and Mobile Technology

- Julian D. Olden, *School of Aquatic and Fishery Sciences, University of Washington*

Coauthors: Rachel M. Fricke, *School of Aquatic and Fishery Sciences, University of Washington*; Spencer A. Wood, *eScience Institute, University of Washington*, and Dustin R. Martin, *ReelSonar, Inc., Seattle, Washington*

Whatcom Boat Inspections: Preventing the Spread of Aquatic Invasive Species in Whatcom County, Washington

- Teagan Ward, *City of Bellingham*

Ludwigia Peploides (Floating Primrose-Willow) Control in an Off-Channel Constructed Wetland Near Seattle

- Ben Peterson, *King County Noxious Weed Program*

High Selectivity, Low Specificity: Diver Assisted Suction Harvesting, a New Path Forward in the Fight Against Aquatic Invasive Species.

- Garrett Raemhild, *Seascapes Milfoil Removal LLC*
Coauthors: Ian Raemhild, Adrian Rautureau

12:20-1:20 pm - LUNCH

1-2:20 pm – Session 7

WAVES AND SOURCE TRACKING

Literature Review of Sediment and Nutrient Resuspension in Response to Surface Hydrodynamic Disturbance: Current State and Directions for Future Research

- Basile Cousin, *UFR Temps et Territoires, Université Lumière Lyon 2, Lyon, France*

Coauthor: Heather Crawford, Krystal Saunoo, Frank Wilhelm

Using Ground-Based Lidar 3d Scanning to Measure Shoreline Accretion and Erosion in Response to Waves and Wakes

- Heather Crawford, *University of Idaho*
Coauthors: Jan Eitel, Basile Cousin, Frank Wilhelm

Isotope Tracers in Nutrient Source Tracking (NST) of Nitrate, a Different Perspective of Surface and Ground-water Remediation

- Sean P. Ahearn, *Beta Analytic, Inc.*

Monitoring Phosphorus and Fecal Bacteria Loading Rates to Lake Whatcom in Drainage from Areas Served by Septic Systems and Sanitary Sewers

- Rob Zisette, *Herrera Environmental Consultants*