



Presents a seminar on:

## **SPOKANE RIVER WATER QUALITY**

**Tuesday  
April 25, 2023**

**an In-Person Seminar at the**

**Centerplace Regional Event Center  
2426 North Discovery Place, Spokane Valley**

**With a tour to follow at the**

**Riverside Park Water Reclamation Facility**

The ASCE Inland Empire Section is pleased to present a one-day workshop on water quality and treatment methods. A portion of the seminar will include a field visit to Riverside Park Water Reclamation Facility.

The seminar will include presentations on:

- Ecology Studies of the Spokane River and Lake Spokane
- Treating PCBs in Groundwater
- Cyanide and Fluoride Remediation
- Increased Wastewater Treatment Levels and their Effectiveness
- Water Treatment at Industrial Sites
- City of Spokane Wastewater Treatment
- City of Post Falls Wastewater Treatment

Presenters for the workshop include:

- John Haney, PE, Haley & Aldrich, Inc.
- Cathrene Glick, LG, Washington Department of Ecology
- Allison Esvelt, PE, Esvelt Environmental Engineers
- Joshua Hudgins, GIT, Budinger & Associates
- Fred Brown, City of Spokane
- Craig Borrenpohl, City of Post Falls

This course qualifies for 6 PDH continuing education hours.

## Agenda

<b>8:30 to 8:40</b>	<b>Welcome and Introduction</b> <i>- Alan Gay, Coffman Engineers</i>	<b>12:30 to 1:30</b>	<b>Post Falls Wastewater Tertiary Treatment</b> <i>Craig Borrenpohl, City of Post Falls</i>
<b>8:40 to 9:40</b>	<b>An overview of current Ecology studies of the Spokane River and Lake Spokane</b> <i>Cathrene Glick, Washington Department of Ecology</i>	<b>1:30 to 2:30</b>	<b>A Moving Target – Treatment to Spokane River Discharge Limits</b> <i>Allison Esvelt, Esvelt Environmental Engineers</i>
<b>9:30 to 10:20</b>	<b>An Evaluation of Technologies to Treat PCBs in Groundwater</b> <i>John Haney, Haley &amp; Aldrich</i>	<b>2:30 to 2:45</b>	<b>Riverside Park Water Reclamation Facility Tertiary Treatment - Introduction</b> <i>Fred Brown, City of Spokane</i>
<b>10:20 to 10:40</b>	<b>Break</b>		
<b>10:40 to 11:30</b>	<b>Cyanide and Fluoride Groundwater Remediation of The Kaiser Aluminum NPL, Mead WA Using Pump and Treat Electrocoagulation Treatment</b> <i>Joshua Hudgins, Budinger &amp; Associates</i>	<b>2:45 to 3:30</b>	<b>Break &amp; Travel to Riverside Park Water Reclamation Facility</b>
		<b>3:30 to 4:30</b>	<b>Riverside Park Water Reclamation Facility Tertiary Membrane Facility Tour</b> <i>Fred Brown, City of Spokane</i>
<b>11:30 to 12:30</b>	<b>Lunch</b>		

## Speaker Bios

**Cathrene Glick, LG** serves as a Senior Hydrogeologist and Unit Supervisor for the Department of Ecology's Environmental Assessment Program, Eastern Operations Section, Eastern Region Office supervising a technical group overseeing surface water monitoring programs and surface water / groundwater investigative studies for watershed health assessments throughout central and eastern Washington. Cathrene is also the Department of Ecology's Metals, Mining, and Milling (3M) Coordinator to act as a contact person for information related to the status of any metals mining and milling operation from the preparation of the environmental impact statement through the permitting, construction, operation, and reclamation phases of the project or until the proposal is no longer active. Since 2018, Cathrene has been involved in surface water and groundwater studies to monitor and assess the water quality of tributaries to the Spokane River and is currently the lead for the Spokane River/Lake Spokane Dissolved Oxygen Total Daily Maximum Load (TMDL) 10-Year Effectiveness Monitoring Study. And if that is not enough work, Cathrene also provides hydrogeologic support to the Ecology's Nuclear Waste Program Cleanup Section Hydrogeology Team for technical and regulatory reviews of annual RCRA and CERCLA groundwater monitoring reports as well as technical review of Engineering Evaluation Reports and Groundwater Monitoring Plans for various sites at the Hanford Site.

**John Haney, PE** is a professional engineer in Washington state with over 20 years of experience in environmental engineering and consulting. After obtaining his BS in Environmental Engineering from Montana Tech, John began his career in his home state of California, but has since also practiced in Oregon, and Washington and managed projects in Idaho, Missouri, and Nevada. John has focused his career on assessing and remediating contaminated sites including bulk fuel terminals, heavy industrial facilities, rail yards, port facilities, abandoned mine lands, and other commercial properties. He has a broad experience with a variety of contaminants and contaminated media including: petroleum products, PAHs, VOCs, SVOCs, metals, and PCBs. He has extensive experience in site characterization, groundwater treatment, in situ and ex situ remediation, facility decontamination and decommissioning, and pilot testing innovative sampling and treatment methodologies.

**Joshua Hudgins, GIT** is an experienced environmental geologist with Budinger and Associates. Josh graduated from Eastern Washington University with a Bachelor of Science in Geology and Environmental Science; his career focuses on water quality and assessing hydrogeologic problems for clients in the public or private sector.

**Craig Borrenpohl** serves as the Utilities Division Manager overseeing the teams that keep this water moving to meet citizen needs and regulatory requirements. The 28 members of the City of Post Falls Utilities Division annually deliver more than a billion gallons of potable drinking water to 40,000 city residents and treat the returning wastewater prior to discharge to the Spokane River. Mr. Borrenpohl also represents Post Falls on several regional organizations including the Spokane River Regional Toxics Task Force and Idaho Washington Aquifer Collaborative to ensure citizens' interests are brought forth in regional coordination and planning efforts. Craig's passion for water extends beyond work as he can often be found fishing and skiing with his wife Teresa throughout Idaho and the west.

**Allison Esvelt, PE** is a water and wastewater treatment system process engineer and partner with her husband Mark Esvelt in Esvelt Environmental Engineering, LLC, in Spokane, Washington. She graduated from the University of California, Los Angeles, in 1993, with a Bachelor of Science degree in civil engineering, and from the University of California, Berkeley, in 1994, with a Master of Science degree in environmental engineering. She is a registered professional engineer and board certified by the American Academy of Environmental Engineers in water supply and wastewater engineering. She has 29 years of experience as an environmental engineer specializing in the planning and design of treatment systems for water, industrial and domestic wastewater, and reclaimed water. Esvelt Environmental Engineering has been involved with various stages of the planning, design, and pilot studies for wastewater treatment and reclamation facilities that discharge to the Spokane River including for the City of Spokane, Liberty Lake Sewer and Water District, Inland Empire Paper Company, City of Post Falls, and Hayden Area Regional Sewer Board.

**Fred Brown** is a Civil Engineer for the City of Spokane at the wastewater treatment facility for about 13 years. He is a certified wastewater 4 operator in Washington and Hawaii. Fred previously worked for the County of Hawaii as superintendent of 4 of the wastewater treatment plants on the island.

## **Registration**

### **Cost: \$125.00** (includes lunch!)

Full time students are entitled to a reduced enrollment fee of \$50.00.

A late fee of \$250 will be in effect after regular registration closes, subject to available space.

### ***Centerplace Regional Event Center***

2426 North Discovery Place, Spokane Valley, WA 99216

Free parking with over 400 spaces adjacent to building.

### ***Riverside Park Water Reclamation Facility***

4401 N Aubrey L White Pkwy, Spokane, WA 99205

Limited parking across the street, please use the westerly crosswalk to the main building.

### ***Lunch Selection:***

Sandwich/Salad Combination box lunches will be provided by LeCatering.

Gluten Free, Vegetarian, and Vegan options are available, please make selections through the Eventbrite registration process.

### ***Education Credit:***

0.6 CEUs (6 PDHs) for attendance of this course.

### ***Deadline Notice:***

To ensure participation, enroll early.

Regular Registration will close on April 18<sup>th</sup>, 2023.

### ***Registration Process:***

Go to <https://ascetechnicalseminar.eventbrite.com> to register and provide payment

### ***COVID-19 Requirements:***

The ASCE Inland Empire Section adheres to WA State's L&I Requirements and Guidance for Preventing COVID-19. For more information please see

<https://www.lni.wa.gov/agency/outreach/coronavirus/requirements-and-guidance-for-preventing-covid-19>

### ***For more Information:***

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