# Agenda

# Washington Groundwater Hydrology

S.R. McLartv

The hydrologic cycle

Precipitation and infiltration

Groundwater aquifers

Declining groundwater levels

Relationship between groundwater and surface waters

## **Groundwater Use in Washington State**

S.R. McLarty

High-capacity groundwater wells

- Municipal wells
- Agricultural uses
- Industrial and mining use

Residential use

Proliferation of wells

Groundwater mapping

Cumulative effect of groundwater pumping

### **Tribal Rights to Groundwater and Surface Water**

W. Goldina

## **Washington Groundwater Management Regulation**

D. Christensen

Environmental protection and impacts on groundwater use

# Groundwater regulation in Washington State

Well drilling regulation

Anticipated changes to state laws and rules



# Save up to 31% on Tuition!

Maximize your savings with Continuing Education Credit Packages and Knowledge Points. Visit halfmoonseminars.org and click on "NEW Packages and Knowledge Points" to learn more!

# Can't Attend? Order the Webinar as an On-Demand Package!

Recordings of this webinar are available for purchase. See details online for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Conference 2025

April 25,

Groundwate

State

Washington

on Education Inc. 278 WI 54720-0278



# **Why Choose HalfMoon Education**

# Why Choose HalfMoon Education?

 Learn from Experts: Gain insights from seasoned professionals with real-world experience.

Up-to-Date Content:

Our recordings are retired after two years to ensure you're learning the most current information.

Flexible Options:

Attend live webinars or learn at your own pace with on-demand courses.

To register, view webinar agendas, credit information and to learn about our distinguished faculty, please visit us online at:

www.halfmoonseminars.org



# HalfMoon Education Inc., **Your LIVE Education Leader Presents**





#### **Continuing Education Credits**

#### **Engineers**

6.0 Hour Learning Opportunity

#### **Attorneys**

6.0 CLE Credits

# **Certified Planners**

CM|6

### Geologists

6.0 Hour Learning Opportunity

# **Washington State Groundwater Conference**

# Live, Interactive Webinar - Friday, April 25, 2025

This webinar covers Washington's groundwater hydrology, including the hydrologic cycle, aquifers, and the relationship between groundwater and surface waters. It explores groundwater use across various sectors, the proliferation of wells, and the cumulative effects of groundwater pumping. Additionally, it addresses groundwater regulations, environmental protections, tribal water rights, and anticipated changes to state laws.

Learn More and Register:

# www.halfmoonseminars.org

Customer Service (715) 835-5900 Ext. 1







# **Webinar Information**

Online - Friday, April 25, 2025

Log into Webinar Break

8:00 - 8:30 am PDT 11:45 am - 12:15 pm PDT

**First Session Second Session** 8:30 - 11:45 am PDT 12:15 - 3:30 pm PDT

#### **Tuition**

\$339 for individual registration.

\$237 per attendee for group registrations of two or more people registering at the same time for the same program.

That's a savings of 30 percent!

**Included with your registration:** PDF seminar manual.

# **How to Register**

- Visit us online at www.halfmoonseminars.org
- Call customer service at 715-835-5900

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit www.gotowebinar.com.

Cancellations: Cancel at least 48 hours before the start of the webinar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another webinar or the on-demand package. You may also authorize another person to take your place.

or scan here



Customer Service (715) 835-5900 Ext. 1

## Can't Attend? Order the Webinar as an On-Demand Package!

Recordings of this webinar are available for purchase. See details online for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Save up to 31% on Tuition!

Maximize your savings with Continuing Education Credit Packages and Knowledge Points. Visit halfmoonseminars.org and click on "NEW Packages and Knowledge Points" to learn more!

# **Faculty**

Dr. Sasha Richey McLarty is an assistant professor at Washington State University. Her main interest is in identifying and quantifying the interaction between human and physical systems, with a focus on groundwater and large-scale hydrologic systems. Currently, Dr. Richey's research combines satellite and in situ observations of hydrologic systems into modeling and decision support frameworks over large regional scales, including in the Columbia Plateau Aguifer in the Pacific Northwest (USA) and in Central Asia. She mainly focuses on complex groundwater systems, where interdisciplinary approaches are necessary to understand both natural and anthropogenic drivers of aguifer change. She enjoys working at the interface of research and water resources management and has contributed to multiple "science diplomacy" efforts in the United States and internationally to advance the role of scientific research in decision making. Dr. Richey earned her M.S. and Ph.D. degrees in Civil Engineering - Hydrology and Water Resources Specialty from the University of California, Irvine.

Wyatt Golding is an attorney with Ziontz Chestnut in Seattle. The firm serves the wide-ranging legal needs of Indian tribes and other Native American entities and individuals, as well as non-profit conservation and community groups. In addition to defending treaty hunting and fishing rights, the firm's work involves tribal sovereignty and jurisdiction, taxation, land and water rights, federal government contracting, and natural and cultural resource protection. Mr. Golding specializes in litigation involving the intersection of environmental law and federal Indian law, Washington state water law, and administrative environmental appeals.

Dave Christensen is the Washington State Department of Ecology Water Resources Deputy Program Manager. He has been with Ecology for 12 years working on legislative proposals, regulations, and policies on water resource management. Mr. Christensen has worked for state agencies, local government and non-profit organizations, with more than 30 years of professional experience in water resources, public health and environmental management.

# **Credit Information**

This webinar is open to the public and provides a 6.0-hour learning opportunity to professional engineers and geologists in Washington.

This webinar has been approved by the Washington State Bar Association's MCLE Board for 6.0 total CLE credits, which includes 3.0 Law & Legal credits and 3.0 Other credits.

HalfMoon Education is an approved CM Provider with the American Planning Association. This course is registered for CM | 6 for Certified Planners.

This webinar may offer up to 6.0 PDHs to licensed professional engineers and geologists in some states. HalfMoon Education has not applied for state geologist continuing education approval in states requiring such.

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

#### **On-Demand Credits**

The preceding credit information only applies to the live presentation. This course in an on-demand format is not pre-approved by any licensing boards and may not qualify for the same credits; please consult your licensing board(s) to ensure that a structured, asynchronous learning format is appropriate.

# Additional Learning

## **Use of Nature-Based Solutions for Stormwater Management and Flood Resiliency**

- Tuesday, March 25, 2025 | 7:00 - 9:00 am CDT

#### Water Commodification and Privatization in the Western U.S.

- Monday, March 31, 2025 | 7:00 am - 2:00 pm PDT

#### Using US EPA's Stormwater Management Model (SWMM)

- Wednesday, March 26, 2025 | 6:30 am - 2:00 pm CDT

#### **Engineering Ethics and Consequences**

- Friday, April 4, 2025 | 11:00 am - 12:00 pm CDT

#### How to Naturalize an Existing Stormwater Detention/Retention Basin

- Monday, April 7, 2025 | 12:00 - 2:00 pm CDT

#### **Streambank Stabilization**

- Thursday, April 10, 2025 | 7:00 - 9:00 am CDT

#### Deep Dive into PFAS in Our Water

- Friday, April 11, 2025 | 11:00 am - 2:15 pm CDT

#### Stormwater Modeling and Design with HydroCAD

- Monday, April 28, 2025 | 7:00 am - 2:00 pm CDT

#### Most of these webinars are also available on-demand!

For more information and other online learning opportunities visit:

www.halfmoonseminars.org