

NORTHWEST GROUNDWATER CONFERENCE

Application of Science and Technology to Ground Water Management

Presented by: **American Ground Water Trust**

(A 501(c)(3) non-profit education organization)



Holiday Inn Express Hotel & Suites Pasco-Tri Cities, WA*
4525 Convention Place, Pasco, WA 99301



Conference: Monday, March 6 & Tuesday, March 7, 2023

Optional ASR field trip on Sunday, March 5

A conference for all professions and end-users involved with groundwater resources in the Northwest

The American Ground Water Trust's Northwest Groundwater conference is a great information-exchange and networking opportunity. Attendance is anticipated from water agencies, utilities and water districts, water professionals (scientific, engineering, managerial, legal, environmental, and regulatory), water operators, industrial and irrigation end-users of water, local and state elected officials and university and college academics with an interest in water supply, water policy and regulatory issues in Idaho, Oregon, and Washington.

Conference Program organized in cooperation with:



Program Overview

The two-day conference will address key regional water resources issues involving policy, science, and technology. The topics that will be covered by invited presentations from experts and specialists include:

- The current and likely future impacts of climate changes on the region's hydrology and aquifers
- Increasing the adoption of aquifer recharge technology as a management strategy to achieve resource sustainability
- Legal aspects and water rights related to private well issues involving policies and agency authority for managing/regulating "exempt wells"
- Achieving collaboration for managing aquifers which are "transboundary" – where different jurisdictions have authority to regulate the same aquifer
- Water treatment technology and costs for remediating legacy groundwater contamination to comply with increasing levels of regulatory stringency
- State initiatives and programs to help domestic well owners (who are mostly below the regulatory radar) navigate water sampling and testing to determine if a treatment system is required

*There is a link on the AGWT event website for sleeping room reservations at the Holiday Inn Express Hotel & Suites Pasco
www.agwt.org/events

March 6-7 Northwest Groundwater Conference program schedule details on pages 3 & 4

Join these American Ground Water Trust corporate supporters and conference sponsors

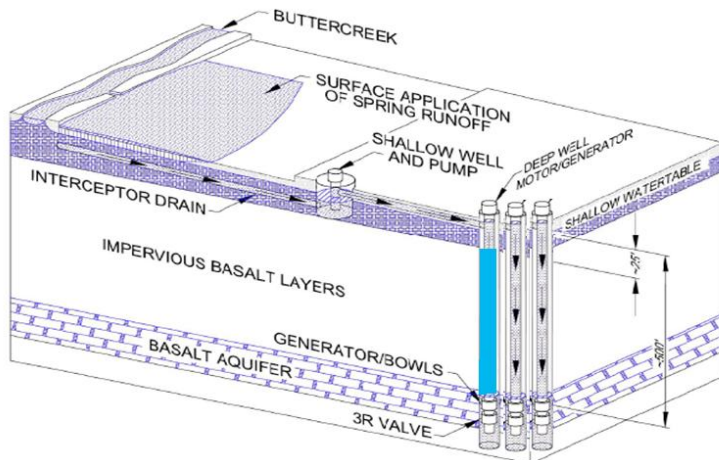


FIELD TOUR – LEADING EDGE ON-FARM WATER MANAGEMENT

Sunday, March 5th - 1:00pm – 4:30pm - lunch provided

Madison Ranches, Echo, Oregon

A unique opportunity to view first-hand, the integration of managed aquifer recharge, aquifer storage recovery and ASR electricity generation. Field tour leader, Kent Madison.



Spring runoff from Buttercreek is diverted for surface spreading and infiltration to the shallow water table. With turbidity removed, the “new” groundwater is then captured by interceptor drains and pumped to irrigation circles and/or recharged to the deep basalt aquifer (generating electricity during the recharge process). The stored water in the deep aquifer can be recovered for late season irrigation. Down well valve design is a critical element of the ASR and ASR electricity generation process

Field tour sign-up is first-come-first served.

Only available for people registered for the March 6-7 conference.

The field tour location is at Madison Ranches, Echo OR.

Pasco to Echo is a 45-minute drive, Portland to Echo is 3¼ hours, and Seattle to Echo is 3¾ hours.



Monday March 6th Northwest Groundwater Conference

7:30 Registration open. (Coffee, pastries and visit exhibitors)

8:30 - 8:45 OPENING REMARKS FROM AMERICAN GROUND WATER TRUST

8:45 -9:20 EXEMPT WELLS IN OREGON: CURRENT RULES AND IMPLICATIONS FOR THE FUTURE
Chris Kowitz, North Central Region Manager, Oregon Department of Water Resources, Salem, OR

9:20 – 9:55 EXEMPT WELLS – FRIEND OR FOE?
Dan Haller, PE, CWRE, Principal Water Resources Engineer, Aspect Consulting LLC, Yakima, WA

9:55 – 10:30 WHAT IS THE DOMESTIC EXEMPTION, AND IS IT TIME FOR CHANGE?
Angela Hansen, PG, Water Rights Section Manager, Idaho Department of Water Resources, Boise, ID

10:30 – 11:00 BREAK - Exhibitor introduction

11 - 11:35 CONFLICT AND CONTEXT: AN ANALYSIS OF WATER CONFLICT AND COLLABORATION IN IDAHO BETWEEN 1950 AND 2019
Colt Dickman, Natural Resource Conflict Resolution Professional, Oregon State University, Corvallis, OR

11:35 – 12:05 IDAHO GEOLOGICAL SURVEY – RECENT HYDROGEOLOGIC INVESTIGATIONS IN BIG LOST RIVER BASIN AND RAFT RIVER BASIN, SOUTH-CENTRAL IDAHO
Alexis Clark, PG, Hydrogeologist, Idaho Geological Survey, Boise, ID

12:05 – 1:10 LUNCH (provided)

1:10 - 1:45 FOSSIL GROUNDWATER, MODERN GROUNDWATER, AND EVERYTHING IN BETWEEN;
GROUNDWATER AROUND THE COLUMBIA BASIN
Kevin Lindsey, Ph.D., Principal Hydrogeologist, and
Alicia Candelaria, Environmental Scientist, GeoEngineers, Inc., Kennewick, WA

1:45 - 2:20 ENGAGED GROUNDWATER MANAGEMENT – LEVERAGING LOCAL RESIDENTIAL WELLS AS LOW COST, HIGH VALUE MONITORING POINTS TO INCREASE SHARED UNDERSTANDING, IMPROVE MANAGEMENT AND REDUCE RISK
Charles Dunning, PhD, VP Hydrology, WelIntel, Milwaukee, WI

2:20 - 2:55 CURRENT AND FUTURE GROUNDWATER VULNERABILITY IN EASTERN WASHINGTON
Sasha McLartey, PhD, Assistant Professor, Washington State University, Pullman, WA

2:55 – 3:10 BREAK

3:10 – 4:40 TRANSBOUNDARY GROUNDWATER BASIN MANAGEMENT:
LESSONS LEARNED IN THE WALLA WALLA BASIN

- Salini Sasidharan, Ph.D., Assistant Professor, Department of Biological & Ecological Engineering, OSU, Corvallis, OR
- Troy Baker, Executive Director, Walla Walla Basin Watershed Council, Milton-Freewater, OR
- Renee Hadley, PG, District Manager, Walla Walla County Conservation District, Walla Walla, WA
- Steven Patten, Public Works Engineering Technician, City of Milton-Freewater, Milton-Freewater, OR
- Tara Patten, Project Manager, Walla Walla Basin Watershed Council, Milton-Freewater, OR

4:40 – 4:50 EXPLORING GROUNDWATER RESOURCE VULNERABILITY AND WATER SECURITY IN QUINTANA ROO, MEXICO
Maria Iglesias-Thome, Graduate Student, Oregon State University Dept. of Water Resources Science, Corvallis, OR

4:50 – 5:00 PRELIMINARY GROUNDWATER MODELING OF THE WEST PLAINS, SPOKANE COUNTY, WA TO IDENTIFY ERRATIC PFAS CONTAMINATION
Erin Toulou, Student, Eastern Washington University Department of Geosciences, Cheney, WA

5:00 – 6:30 NETWORKING RECEPTION (Cash bar) Exhibits – Meet the presenters



Tuesday, March 7th Northwest Groundwater Conference

7:30 – 8:30 Registration (Coffee, pastries and visit exhibitors)

8:30 - 8:40 REVIEW OF DAY ONE

8:40 - 9:15 INNOVATIONS IN ASR FOR AGRICULTURAL AND ENVIRONMENTAL BENEFITS
[Jason Melady, RG, LG, Principal Hydrogeologist, Summit Water Resources, LLC, Portland, OR](#)

9:15 – 9:50 IMPLEMENTING INCENTIVIZED MAR WITH THE ARU SOLUTION
[David Tuthill, PhD, PE, Founder, Idaho Water Engineering, LLC, Boise, ID](#)

9:50 – 10:25 AQUIFER RECHARGE AND ASR ELECTRICAL POWER REGENERATION: THE WILLOW SPRINGS
 WATER BANK DEMONSTRATION PROJECT
[Kent Madison, President, 3RValve LLC, Echo, OR](#)

10:25 – 10:45 BREAK

10:45 - 11:20 WORKING TOGETHER ONSITE: PARTNERSHIPS AND COOPERATION MAKE FOR BETTER PROJECTS
[Mike Piechowski, LHG, Principal Hydrogeologist, Robinson Noble, Inc., Tacoma, WA](#)

11:20 - 11:55 CONTAMINANT FLOW THROUGH A FRACTURED BASALT AQUIFER, AN OVERVIEW OF MORE THAN
 70 YEARS OF MONITORING AT THE IDAHO NATIONAL LABORATORY, IDAHO
[Roy Bartholomay, Center Director, USGS-Idaho, Idaho Falls, ID](#)

11:55 - 12:30 INFLUENCE OF BASALT AND MEGAFLOOD-DERIVED AQUIFERS ON MIGRATION OF PFAS
 CONTAMINATION AND STORMWATER DISPOSAL
[Chad Pritchard, Chair and Professor, Department of Geosciences, Eastern Washington University, Cheney, WA](#)

12:30 – 1:30 LUNCH

1:30 – 12:05 MINING GROUNDWATER CONTAMINANT DATASETS: ISSUES AND OPPORTUNITIES
[Alan Kolok, PhD, Professor, College of Natural Resources, University of Idaho, and Director Emeritus, Idaho Water Resources Research Institute, Moscow, ID](#)

2:05 - 2:40 ADDRESSING WATER INSECURITY AND HIGH NITRATES IN DOMESTIC WELLS IN THE LOWER
 UMATILLA GROUNDWATER MANAGEMENT AREA
[Curtis Cude, Healthy Waters Program Coordinator, Oregon Health Authority, Portland, OR](#)

2:40 – 3:15 WASHINGTON STATE DEPARTMENT OF HEALTH'S ROLE IN ADDRESSING NITRATE CONTAMINATION
 IN THE LOWER YAKIMA VALLEY
[Mallory Little, Toxicologist, Office of Environmental Public Health, Washington State Dept. of Health, Tumwater, WA](#)

3:15 – 3:50 PRIVATE WELL WATER EDUCATION AND OUTREACH IN IDAHO
[Brigitta Gruenberg, REHS, Environmental Health Program Manager, Idaho Dept of Health, Boise, ID](#)

3:50 – 4:30 DISCUSSION: COLLABORATIVE EFFORTS AMONG STATES AND AGENCIES TO ADDRESS
 PRESSING GROUNDWATER ISSUES IN THE REGION
[Sara Chudnoff, PG, Hydrogeologist, American Ground Water Trust, Pinetop, AZ](#)
[Salini Sasidharan, Ph.D., Assistant Professor, Department of Biological & Ecological Engineering, OSU, Corvallis, OR](#)



CASH/GIFT CERTIFICATE DOOR PRIZES (must be present to win)



4:30 ADJOURN



