

2021 COLORADO GROUNDWATER ISSUES

An annual information-exchange conference organized by the American Ground Water Trust



2 Day Conference Registration (www.agwt.org/events)

Tuesday November 9th 8:30 – 5:00

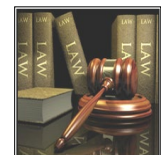
Wednesday November 10th 8:30 – 4:45

Holiday Inn Denver East, 3333 Quebec Street, Denver CO 80207

Learn about the state's water management challenges and solutions



“The AGWT always assembles an impressive selection of presentations”
“Each year this annual Colorado program gives background and insight to state water policy issues”
“If I can only attend one conference focused on Colorado groundwater - this is the one”



WHO SHOULD SIGN-UP FOR THIS CONFERENCE?

This annual program attracts participation from Colorado's water managers, water attorneys, hydrogeologists, engineers, geologists, planners, utility operators, groundwater consultants, water treatment specialists, water well contractors, groundwater end-users, city & county government, Federal and State water agencies, regulatory authorities, environmental NGOs and interested citizens.

“I attend this program every year: it always has interesting and relevant topics”
“The presentation team was successful in explaining complex science and legal issues”
“Great mix of water management science, engineering, politics and policy”

CONTINUING EDUCATION



Approved for Colorado Water Operators, Course #21-07648, 5.5 TUs (see website for TU assigned)

Approved for Colorado Water Well Construction & Pump Installation Contractors, Course #2021-01-082, 13 Hours

Certificate of attendance available for all attendees upon completion of CE Form.



Join our Conference Sponsors:



REGISTRATION Tuesday, November 9, 2021

8:30 – 8:45

CLIMATE CHANGE IMPACTS ON GROUNDWATER RESOURCES MANAGEMENT

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:45 – 9:20

COUNTY-WIDE GEOLOGY AND GROUNDWATER RESOURCE SERIES BY THE COLORADO GEOLOGICAL SURVEY:
COMPREHENSIVE COMPILATIONS OF GEOHYDROLOGIC DATA INTENDED FOR TECHNICAL AND LAY AUDIENCES

Peter Barkmann, Senior Hydrogeologist (Retired) and Lesley Sebol, PhD Colorado Geological Survey-Colorado School of Mines, Golden, CO

9:20 – 9:55

REVIEW OF LEGISLATION IMPACTING THE DEVELOPMENT AND MANAGEMENT OF GROUNDWATER IN COLORADO

Dick Brown, Economist, Public Policy Consultant to the Colorado Water Well Contractors Association, Glendale, CO

9:55 – 10:30

HYDROGEOLOGIC CONSIDERATIONS AND METHODS FOR EVALUATING THE TRIBUTARY OR NON-TRIBUTARY STATUS OF GROUNDWATER IN COLORADO

Matt Seitz, PE, PG, Principal Hydrogeologist, HRS Water Consultants, Inc., Lakewood, CO

10:30 – 10:50 BREAK (Networking and exhibits)

10:50 – 11:25

UPDATE ON AQUIFER STORAGE RECOVERY PROJECTS IN COLORADO

Courtney Hemenway, PE, President, Hemenway Groundwater Engineering, Parker, CO

11:25 12:00

INTRODUCTION TO HRX WELLS® - AN INNOVATIVE NEW HORIZONTAL WELL DESIGN FOR PASSIVE, IN-SITU TREATMENT OF A WIDE RANGE OF GROUNDWATER CONTAMINANTS

Jacob Gallagher, Business Development Manager, Ellingson - Directed Technologies Drilling, Bellefonte, PA

12:00 – 12:35

IMPACTS OF AGRICULTURE ON THE QUALITY OF GROUNDWATER AND IRRIGATION RETURN FLOW IN COLORADO

Erik Wardle, Manager, CSU Water Quality Program, Department of Soil and Crop Sciences, CSU, Fort Collins, CO

12:35 – 1:40 LUNCH (Networking and exhibits)

1:40 – 2:15

DETERMINATIONS OF NON-TRIBUTARY GROUNDWATER AND ITS SIGNIFICANCE

William Caile, JD, Attorney, Holland & Hart, Denver, CO

2:15 – 2:50

EVALUATION OF ISOTOPE DATA FOR DETERMINING RECHARGE IN THE UPPER PIERRE AND UPPER LARAMIE AQUIFERS, WELD COUNTY, COLORADO

Theresa Jehn Delaport, PG, President, Quantum Water Consulting, Lakewood, CO

2:50 – 3:25

INTEGRATED UNDERSTANDING OF THE HYDROLOGY OF MINE SITES GAINED FROM STABLE ISOTOPES AND ENVIRONMENTAL TRACERS

Connor Newman, PG, Hydrologist, Colorado Water Science Center, U.S. Geological Survey, Denver, CO

3:25 - 3:40 BREAK (Networking and exhibits)

3:40 – 4:15

TOWN OF FIRESTONE'S HORIZONTAL 600 GPM ALLUVIAL MANAGED AQUIFER RECHARGE SUPPLY WELL

Dennis McGrane, PE, CPG, Owner, McGrane Water Engineering, Lyons, CO and Calvin Miller, PhD, Groundwater Specialist, Miller Groundwater Engineering, LLC, Fort Collins, CO

4:15 – 4:50

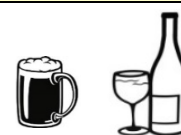
CONSTRUCTION OF THE TOWN OF FIRESTONE'S 10,000 FT. BRINE DISPOSAL INJECTION WELL

Fred Rothauge, Special Projects Manager, Hydro Resources, Simms, TX

4:50 – 5:00

Q & A AND WRAP-UP OF DAY ONE PRESENTATIONS

5:00 - 6:30 RECEPTION (Cash bar) (Networking and exhibits)



7:30 – 8:30 REGISTRATION Wednesday, November 10, 2021

8:30 – 8:35 SUMMARY OF DAY ONE PRESENTATIONS – INTRODUCTION DAY TWO
Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:35 – 9:10
THE TERRY RANCH AQUIFER STORAGE AND RECOVERY PROJECT
Adam Jokerst, PE, Deputy Director, Water Resources, Water and Sewer Department, Greeley, CO

9:10 – 9:45
CHARACTERIZATION OF THE UPPER LARAMIE AQUIFER FOR THE TERRY RANCH
Joel Barber, PE, Senior Hydrogeologist, LRE Water, Denver, CO

9:45 – 10:20
ASSESSING RATES OF GROUNDWATER FLOW: EFFECTIVE TRANSMISSIVITY FOR STREAM DEPLETION IN HETEROGENEOUS AQUIFERS
Calvin Miller, PhD, Groundwater Specialist, Miller Groundwater Engineering, LLC, Fort Collins, CO, and Jacob Bauer, PG, Project Manager, Hydrogeologist, LRE Water, Denver, CO

10:20 – 10:40 BREAK (Networking and exhibits)

10:40 – 11:15
STATUS OF RESEARCH AND DEVELOPMENT ON RISK ASSESSMENT AND TOXICOLOGY ASPECTS OF PFAS
Jenny Phillips, DABT, Deputy Director, Technical Development Unit, Vice President, Director Risk Assessment and Toxicology, TRC Companies, Fort Collins, CO

11:15 – 11:50
CAPITAL INVESTMENT AND O&M COSTS FOR PFAS TREATMENT OPTIONS
Cathy Swanson, Groundwater Remediation Specialist, Purolite Corporation, Fullerton, CA

11:50 – 12:25
PFAS CHALLENGES FOR WATER SUPPLIERS: EVOLVING REGULATIONS, UNCLEAR JURISDICTIONAL AUTHORITY, LIMITED BUDGETS AND AN EVER-INCREASING PRICE-TAG
Nancy Mortvedt, Director of Client Engagement, SL Environmental Law, San Francisco, CA

12:25 – 1:30 LUNCH (Networking and exhibits)

1:30 – 2:05
COLORADO WATER POLICY UPDATE
Kelly Romero-Heaney, Assistant Director for Water Policy, Colorado DNR, Denver, CO

2:05 – 2:40
THE INTERCONNECTIVITY BETWEEN SURFACE WATER AND GROUND WATER.
Tracy Kosloff, PE, Deputy State Engineer, Colorado Division of Water Resources, DNR, Denver, CO

2:40 – 3:15
FL v. GA, 142 ORIGINAL - WATER CONFLICT AT THE US SUPREME COURT AND LESSONS FOR COLORADO
Peter Mayer, PE, Principal, Water Demand Management, LLC, Boulder, CO

3:15 - 3:30 BREAK (Networking and exhibits)

3:30 – 4:05 MINING NUGGETS OF COLORADO WATER HISTORY FROM THE WATER RESOURCES ARCHIVE
Patricia J. Rettig, Head Archivist, Water Resources Archive, Colorado State University Morgan Library, Fort Collins, CO

4:05 – 4:40
PANEL DISCUSSING GROUNDWATER ISSUES AND LEGISLATION
Panel Moderator:
~Dick Brown, Economist, Public Policy Consultant to the Colorado Water Well Contractors Association, Glendale, CO
Panel:
~Representative Brianna Titone, Colorado 27th District
~Senator Dennis Hisey, Colorado Senate District 2

4:40 – 4:45 WRAP UP

RETAIL STORE GIFT CARD DOOR PRIZES (MUST BE PRESENT TO WIN!)

