



2020 CWC ANNUAL CONVENTION WORKSHOPS

Wednesday, January 29

Water Administration

9:00 to 11:30 am

Westminster I/II

Perspectives of Colorado Division Engineers

Water Administration Challenges in 2020

9:00 to 11:00 am

Moderator: Kevin Rein, Colorado State Engineer

Panelists: Division Engineers

Division Engineers will be on stage as Colorado State Engineer Kevin Rein leads an Interactive discussion among panelists as well as the audience.

Colorado State Engineer and Leadership

11:00 to 11:30 am

Moderator/Speaker: Kevin Rein, CO State Engineer

Panelists: Tracy Kosloff, Mike Sullivan

The executive leadership of the Division of Water Resources will select relevant topics to discuss with attendees.

Demand Management Regional Workshop

9:00 to 11:30 am

Westminster III

Moderator/Speaker: Amy Ostdiek, CWCB

This will be the second regional Demand Management Workshop hosted by the CWCB. We will provide an update on the progress of the Demand Management Feasibility Investigation, which is ongoing pursuant to the 2019 Demand Management Work Plan. We also look forward to hearing feedback from the public about the process so far.

Water Policy Target Practice

Developing 20/20 Vision

9:00 to 11:30 am

Westminster IV

Moderator/Speakers:

Tom Cech, One World One Water Center, MSU Denver

Doug Kemper, Colorado Water Congress

Peter Nichols, Berg Hill Greenleaf Ruscitti

Doug Robotham, consultant

Lee Rozaklis, Rozaklis and Associates

This workshop will be the first in a series to practice skills as we continue to aim for great water policy in Colorado. We start by studying the tapestry of concepts that forms the background of modern water planning and policy. Each thread came from often expensive, sometimes painful experience.

The 1990's were characterized by a lot of collaborative thinking that fundamentally changed the approach to water supply management

and development from previous decades. From today's perspective, we will examine what we have learned over the past three decades and why it is relevant to today.

Just as the previous generation did, it is time for the next generation of water planners to consider: What exists? Why does it exist? And what needs to be kept, changed, deleted, and built from scratch?

Member Tech Sessions

9:00 to 11:30 am

Meadowbrook

Colorado Water Data and Modeling

Moderator: Brian Macpherson, CWCB

9:00 Strengths and Weaknesses of Raw Water Modeling

9:30 The Glover Equation

10:00 OpenCDSS Update

10:30 Decision Support System Updates

Understanding the Strengths and Weaknesses of Raw Water Modeling

9:00 to 9:30 am

Speakers: John Winchester, High Country Hydrology
Roger Wolvington, Lynker Technologies

Learn about the basics of modelling. What are the expectations from raw water models and why do you need them? We will review what model engines are typically used, how they are different, and what inputs they require. We will also review how to match the desired outcomes (questions to be studied) with different types of models. What are the advantages/disadvantages of different models? What analyses can they perform? A sample model demonstration will be used to illustrate how models are used in practice.

The Glover Equation - Its History, Limitations, Tips and Tricks

9:30 to 10:30 am

Speaker: Matt Seitz, HRS Water Consultants

In Colorado groundwater rights applications, the "Glover equation" has become the de facto method used to estimate the timing, amount, and location of depletions to the surface water system that result from pumping a well. While its ease of use has led to its widespread adoption by the consulting and regulatory community in Colorado, too often the Glover equation is used when it should not be, or the user-specified inputs to the equation do not accurately represent the physical groundwater system. This can lead to over-augmentation or wildly inaccurate replacement of depletions in location, time, and amount.

This session will review the importance of developing a reasonable geologic conceptualization when estimating Glover equation inputs, the various formats of the Glover equation, and how its usage has evolved since its introduction in 1954. The goal of the session is to



improve the accuracy of depletion timing results using Glover, present some tips and tricks, and provide a basis to determine if the Glover equation is a reasonable method to quantify depletions or if another method is required.

OpenCDSS Update

10:00 to 10:30

Speaker: Steve Malers, Open Water Foundation

This session will provide an update on the OpenCDSS project including recent progress, current activities, and information about using OpenCDSS tools. OpenCDSS is the State of Colorado's initiative to transfer CDSS software tools to open source software products in order to increase transparency, collaboration, and sustainability. OpenCDSS Phase I resulted in core CDSS tools (StateMod, StateCU, TSTool, and StateDMI) being moved to open source. This allows State employees, contractors, and public to review and, if appropriate, contribute enhancements to software tools. CDSS tools have also been updated to benefit from other State efforts, including enhancing TSTool and StateDMI to use new HydroBase web services, thereby leveraging CDSS tools to improve data access. OpenCDSS Phase II will continue the migration of CDSS tools to open source. Phase II will also focus on implementing streamlined automated testing to ensure that complex software tools are validated and can support use on a variety of projects.

Decision Support System Updates

10:30 to 11:30

Speakers: John Rodgers, CO Division of Water Resources

This will be an annual update on Colorado's Decision Support Systems (CDSS), the State's water information database and toolset. New rollouts for CWC 2020 include the following CDSS web tools:

- o Stations - surface water current conditions/other Station data*
- o My Stations - customize & save your current conditions displays*
- o My Alerts - set your own thresholds (min, max, rate of change, stale data) for current conditions data, and receive email or text alerts*

We'll also review the new public Meter Reading Entry tool, and the upcoming ArkDSS Colors of Water and Forecasting Tool project.

Locating Our Water History

9:00 to 11:30 am

Cotton Creek

Moderator/Speaker: Patty Rettig, Water Resources Archive

Speakers:

- Kevin Luv, State of Colorado Archives
- Marene Baker, National Archives - Denver Branch
- Shaun Boyd, History Colorado
- Craig Haggitt, Den. Public Library - Western History/Genealogy
- Megan Friedel, University of Colorado, Boulder

We have a rich water history that is documented in an outstanding archival system. The system has its own complexities and nuances,

and no, not everything is online! Patty Rettig will serve as our guide on how to access documents that tell the story and provide unique insights not available elsewhere. Archivists from a variety of repositories will highlight their most important water-related collections and give navigational pointers. The workshop will be responsive to attendee preferences, and time will be allotted for one-on-one consultations.

Colorado Water Congress President's Luncheon
Winter General Membership Meeting

12:00 to 1:00 pm

Sponsor: Ute Water

Legacy Ballroom

Speaker: Matt Herndon, Corona Insights

We will present the findings from the 2019 Member Survey. What are your colleagues thinking about the Water Congress and water policy? How are the demographics of the Water Congress changing?

Colorado Water Resources and Power Development

Authority Board Meeting

Standley I

2:00 pm until Complete

2020 CWCB Instream Flow Recommendations Workshop

(Open to the public)

1:30 to 4:00 pm

Westminster I/II

Moderator/Speaker: Linda Bassi, CWCB

Speakers:

- Brandy Logan, CWCB
- Roy Smith, Bureau of Land Management
- Katie Birch, Colorado Parks and Wildlife
- Ken Neubecker, American Rivers
- Julie Nania, High Country Conservation Advocates
- Mickey O'Hara, Colorado Water Trust

The CWCB's Stream and Lake Protection Section annual workshop provides state and federal agencies and other interested persons an opportunity to recommend stream reaches or natural lakes for inclusion in the State's Instream Flow (ISF) Program. The recommending entities will present new ISF recommendations, including the recommendation's location and supporting preliminary data. An overview of the ISF Program, the new appropriation process, and an update of pending ISF recommendations from previous years will also be provided.

The second part of the workshop will focus on the Request for Water Acquisitions Process (Process), a partnership between the Colorado Water Trust (Water Trust) and the Colorado Water Conservation Board (CWCB). The Process provides a streamlined approach to ISF water acquisitions that preserve or improve the natural environment. Topics covered include the Process timeline, available stream restoration and transaction tools, and the information needed to initiate water right owner participation in the Process.



Climate Workshop

1:30 to 5:00 pm

Westminster III

Moderator: Doug Kemper, Colorado Water Congress

Speakers:

Laurina Kaatz, Denver Water

Kelly Mahoney, NOAA

Russ Schumacher, Colorado State Climatologist

Brad Udall, Colorado Water Institute

- 1:35 Climate Modeling History**
- 1:50 Public Opinions on Global Warming**
- 2:05 Common Climate Myths**
- 2:25 Overview of Climate and Weather Models**
- 2:45 Break**
- 2:55 Panel Discussion on Relevance of Climate Modeling**
- 3:05 Extremes Are Where the Rubber Meets the Road**
- 3:35 Leading Practices in Climate Adaptation for Water Utilities**
- 4:00 Overview of Long-term Climate Records**
- 4:15 Regional Projections**
- 4:30 What's the Latest on Colorado River Climate Forecasts**
- 4:45 Ideas for Future Workshops**
- 5:00 Conclude**

Water Policy Target Practice

Federal Environmental Policy

1:30 to 5:00 pm

Westminster IV

Moderator: Ian Lyle, National Water Resources Association

Speakers:

Sam Kalen, College of Law, University of Wyoming

Melinda Kassen, Theodore Roosevelt Conservation Partnership

Mark Pifher, Colorado Water Congress Board

Roughly 50 years ago, Congress passed a series of laws that changed the landscape of environmental policy in the United States (and around the world). Monumental effort went into crafting the legislation. Many of these laws ultimately passed with strong majorities. However, they have proved to be exceedingly difficult to amend. As a result, the executive and judicial branches of government have played perhaps a larger policy role than might

otherwise be expected. Our discussion will examine two landmark Environmental Acts:

The National Environmental Policy Act (1970)

Clean Water Act (1972)

We will spend some time examining the public opinion/political context behind passage of these laws as well as their application over the years. From our perspective many decades later, how successfully were the targeted environmental issues addressed? Does our experience help us define the elements of good water policy and the process to develop them?

DARCA Workshop

1:30 to 5:00 pm

Cotton Creek

Moderator: Amber Weber, DARCA

Speakers:

Carla Sanchez, Colorado 811

Bob Benson, Environmental Protection Agency Region 8

Pat Pfaltzgraff, CO. Dept. of Public Health and Environment

Michael Fink, Fountain Water Utility

Adam Federspill, Custom Environmental Services

Charlie Liu, CO School of Mines – Environmental Engineering.

Geary Olsen, 3M Epidemiologist

Both 811 and PFAS have flooded water users across the state with uncertainty and unforeseen costs that make it difficult to operate as a municipality, ditch company, or other water user typically would. This session will explore the current legislation, difficulties in each situation, and what can be done to mitigate these issues that affect and face so many statewide.

Member Tech Sessions

1:30 to 5:00 pm

Meadowbrook

1:30 Collaboration in Water Decision-Making

2:30 Stream Management Plans Aren't Just for Fish

4:30 Statewide Water Education Action Plan

Collaboration in Water Decision-Making

1:30 to 2:30 pm

Speakers: Jonathan Bartsch and Emily Zmak, CDR Associates

Good decision-making encourages collaboration -- finding solutions that are in the best interest of communities, the environment, rights-holders, and users. Collaborative problem-solving is more likely to result in enduring solutions, while also building capacity for resolving future resource challenges. This interactive workshop will introduce foundational skills for collaboration.



**Stream Management Plans Aren't Just for Fish:
Leveraging SMPs for Diverse Needs**

2:30 to 4:30 pm

Stream and Integrated Water Management Plans are taking off in every corner of Colorado. These locally-driven planning processes have some fundamentals, like assessing the drivers and threats to river functional health, in common. But they also cover a wide range of other goals, stakeholders, and outcomes.

This workshop will compare and contrast why different interests would want to undertake an SMP/IWMP (get ready for some audience polling!), and showcase plans that integrate goals related to agriculture, recreation, municipal water supplies and water quality regulation.

We will also discuss how SMPs/IWMPs fit into the upcoming Basin Implementation Plan Updates. You will leave with a better understanding of how SMPs/IWMPs are viewed by a range of stakeholders, how they can result in projects that have multiple benefits, and how to get started in your Basin Roundtable or community.

2:30 Audience Polling: Opinions and Knowledge about SMPs/IWMPs

Speakers:

Phil Brink, Colorado Ag Water NetWORK
Greg Peterson, Colorado Ag Water Alliance)

2:55 Current Status of SMPs / IWMPs in Colorado

Speaker: Nicole Seltzer, River Network

3:15 SMPs, Env/Rec Needs Assessments and BIP Updates

Speakers:

Heather Dutton, San Luis Valley Water Cons. District
Alex Funk, CWCB

3:35 Exploring How SMPs Can Meet Diverse Needs: Case Studies

Moderator: Chris Sturm, CWCB

Middle Colorado IWMP

Speaker:

Sara Dunn, Balcomb & Green, P.C. and Bookcliff,
South Side and Mt. Sopris Cons. Districts

Eagle River Community Water Plan

Speaker: Linn Brooks, Eagle River Water and Sanitation District

South Fork Republication River Stream Management and Restoration Planning Project

Speakers:

Nancy Smith, The Nature Conservancy
Deb Daniels, Republican River Water Cons. District

4:30 Conclude

Statewide Water Education Action Plan

4:30 to 5:00 pm

Moderators/Speakers: Rob Buirgy and Scott Williamson, Water Education Colorado

Water education in Colorado is highly localized and decentralized. With diverse interests, audiences and resources, it tends toward a fragmented, poorly coordinated approach when it comes to realizing statewide impact. There is not a "one size fits all" approach.

However, water educators agree that a compelling vision, clarity of purpose and direction, data-informed strategies, and shared metrics for success would foster meaningful collective impact and make the case for further investment in water education. In addition, Chapter 9.5 of the Colorado Water Plan (CWP) called for the creation of "a data-based water education plan" as one of three critical educational actions to achieve the measurable objectives outlined in the CWP.

The Statewide Water Education Action Plan (SWEAP) was developed by Water Education Colorado working with a Coalition of water educators from across the state to fulfill that critical action. SWEAP is intended to be a resource and guide for water educators working individually and collectively across Colorado to accomplish a set of specific, measurable shared outcomes that align with the "Outreach, Education and Public Engagement" goals set forth in Ch. 9.5 of the CWP. Those goals focus on ensuring Coloradans have access to accurate information and are empowered to participate in stakeholder decision-making processes.

During this session we will provide an overview of SWEAP, including the history of this effort how the plan was developed, and detailed descriptions of each element of the plan. We will explore how the plan will be managed and a preview next steps in implementing the plan. Our goals with this presentation are to foster an in-depth understanding of the plan, gain insight on particularly challenging aspects, and solicit ideas for successful implementation.

POND and Colorado Water Congress Opening Reception

Networking Event

5:00 to 7:00 pm

Legacy Ballroom

We will be taking a break from the Thursday reception this year to partner with the POND Committee and bring you the ultimate opening reception networking event. As always, the event is top secret up until it begins, but you can expect another unique and interactive event. We promise to challenge your knowledge of Colorado's water community and facilitate creativity and teamwork. We will fill the entire 9,600 square-foot Legacy Ballroom this year!

The POND events are designed to provide and opportunity for attendees to interact in a fun and engaging way.

Drinks and appetizers will be provided. We encourage everyone to attend. Please note Convention registration is not required.