

SOUTHWESTERN WATER CONSERVATION DISTRICT'S
37th Annual Water Seminar

From Headwaters to Headgates
Uniting Leaders and Lessons for Southwest Colorado



Friday, November 1, 2019
DoubleTree Hotel
Durango, CO

FINAL DRAFT PROGRAM

- 8:30** **Registration & Breakfast**
- 9:00** **Welcoming Remarks & Introductions**
Bob Wolff, Board President, Southwestern Water Conservation District
- 9:10** **Headwaters to Headgates**
Uniting Leaders and Lessons for Southwest Colorado
Frank Kugel Executive Director, Southwestern Water Conservation District
- 9:25** **Weather We Like it or Not**
Brian Bledsoe, KKTU Meteorologist
- 10:00** **Is Anyone in DC Talking Water?**
U.S. Representative Scott Tipton
- 10:30** **Networking Break**
- 10:55** **Laser Mapping of Mountain Snowpacks**
Enabling the Next Generation of Water Management
Jeff Deems, National Snow & Ice Data Center
- 11:25** **Phase III Preliminary Results: Colorado River West Slope Risk Assessment**
John Currier, Colorado River Water Conservation District
- 12:00** **Lunch**
- 1:20** **Making Waves in Water Education**
Jayla Poppleton, Water Education Colorado
- 1:30** **Proposing a Reverse Auction Exchange**
Compensating Farmers for Reductions in Consumptive Use
Steve Ruddell, Economist
Dave Stiller, Water Resources Consultant
- 2:00** **West Slope Priorities in Funding Water Management**
State Senator Don Coram
State Representative Marc Catlin
- 2:30** **Cookie Break**
- 2:50** **Leading the Conversation on Demand Management**
Moderator: Mark Harris, Grand Valley Water Users Association
Becky Mitchell, Colorado Commissioner to the Upper Colorado River Commission
Aaron Derwingson, The Nature Conservancy
Andy Mueller, Colorado River Water Conservation District
- 3:30** **Closing Remarks**
Frank Kugel, Executive Director, SW Water Conservation District

9:00-9:10am

Welcoming Remarks

Robert Wolff, Board President

Bob Wolff represents La Plata County on the Southwestern Water Conservation District, and is the District's President. He has been a Director on the Board since 2010, replacing Jim Isgar. Born in Louisville, Kentucky, Bob received a Bachelor of Architecture from the University of Kentucky and then relocated to Durango as soon as he could in 1976. During his college career, he spent one year at the Swiss Technical Institute in Zurich Switzerland. Bob has served on the La Plata County Planning Commission, the City of Durango 1997 Comprehensive Plan Advisory Committee, the City of Durango's Water Commission, then later the City's Utility Commission and is a steering committee member of the La Plata Forum. He is currently President of the Animas – La Plata Water Conservancy District and Vice President of the Colorado Water Resources, & Power Development Authority. Bob is a licensed Architect in Colorado and California and is President of Durango Development, Inc. He is an avid pilot, sailor, mountain biker and spends a good deal of effort trying to understand the times we live in. He and his wife, Jenny, have two adult children.

9:10-9:25am

Headwaters to Headgates

Uniting Leaders and Lessons for Southwest Colorado

Climate change brings unpredictability. Drought threatens uncertainty in the Colorado River basin. There's never enough funding for infrastructure. But southwest Colorado has strength in its unmatched local basin experts. This fact is not lost on SWCD's new executive director, Frank Kugel. In his 13 years in the Gunnison Basin, Frank listened to local water users, state agencies, and federal partners to facilitate win-win solutions. In this short introduction, Mr. Kugel will relay some of his experiences, and the leadership style he brings to the District.

From the headwaters of the San Miguel to the headgates on the Piedra, SWCD will continue work to bring southwest Colorado together for water solutions that benefit all our communities. Mr. Kugel will elaborate on the SWCD board's perspective on the challenges we face and opportunities for engagement.

For 37 years, SWCD has hosted the Annual Water Seminar, a venue for this engagement to strengthen. We hope the presentations and panels today spark conversation, and hold lessons you can share with your board, town, or organization.

Frank Kugel, Executive Director

Frank Kugel is the Executive Director of the Southwestern Water Conservation District. Prior to this, he was the General Manager of the Upper Gunnison River Water Conservancy District (UGRWCD). He is a registered Professional Engineer with a Civil Engineering degree from the University of Colorado – Denver. Frank was involved in construction engineering in the Denver area before joining the Colorado Division of Water Resources (DWR) as a Dam Safety Engineer. He served in the Denver and Durango offices of DWR before moving to Montrose where he ultimately became Division 4 Engineer for the Gunnison, San Miguel and lower Dolores Basins. Frank joined the UGRWCD upon leaving DWR in 2006. He was a member of the Gunnison Basin

Roundtable since its inception and chair of its Basin Implementation Planning Subcommittee.

9:25-9:55am

Weather We Like it or Not

KKTV's long-range forecaster Brian Bledsoe will set the stage for water policy talk with a summary of current conditions and a peak into the coming winter.

Brian Bledsoe, KKTV

Brian Bledsoe is Weather5280's climate and long-range forecast specialist, as well as Chief Meteorologist/Climatologist for KKTV 11 News in Colorado Springs. He is also the President and Founder of BrianBledsoeWx, LLC, which is his private weather consulting business. Brian's goal is to help ag producers make their business more successful, by using accurate weather forecasts, both short-term and long-term. His strong background in agriculture is important, as he recognizes the need for good common-sense weather forecasting that can be readily be used by farmers and ranchers. Brian has several private clients scattered around Colorado, and the whole United States. He also works for Silveus Insurance, AgriPros, and frequently speaks all across the region about weather and the importance of drought planning. He writes for the Colorado Association of Wheat Growers, The Southern Livestock Standard out of San Antonio, TX, and his work has been featured in several media outlets around the United States.

10:00-10:30am

Is Anyone in DC Talking Water?

U.S. Representative Scott Tipton

Congressman Scott Tipton was born and raised in Cortez, Colorado. He graduated from high school in Cortez and went on to Ft. Lewis College in Durango, where he studied Political Science and became the first person in his family to graduate from college. After College, he returned home to Cortez and co-founded Mesa Verde Indian Pottery with his brother Joe. It was through his business that Scott met his wife of 26 years, Jean, who is now a retired school teacher. The Tipton's have two daughters, Liesl and Elizabeth. Scott was elected as a Republican to the Colorado House of Representatives for the 58th District in November of 2008 and then as a Member of the U.S. House of Representatives in 2010.

10:30-10:50am

Networking Break

10:55-11:25am

Laser Mapping of Mountain Snowpacks

Enabling the Next Generation of Water Management

Operational runoff forecasting and water management in snowmelt-dominated watersheds currently relies on index measurements of snow accumulation and melt from a small number of point locations or geographically-limited manual surveys. These data sources cannot adequately characterize the spatial variation of snow depth and snow water equivalent (SWE) – the primary determinant of snowmelt runoff magnitude and timing. The Airborne Snow Observatory uses an airborne laser scanning system to map a time series of snow depth and

SWE across full watersheds at high spatial resolution, providing an unprecedented snowpack monitoring capability and enabling a new operational paradigm. Beginning in 2013, the ASO has mapped snow depth and SWE, and provided low-latency snow depth and SWE maps to water management partners. These products enable more accurate runoff simulation and optimal reservoir management, even in years with unusual snow conditions. This presentation will cover the development of the ASO system, highlight results, and explore future plans for this new application of multi-temporal laser mapping in operational water management.

Jeff Deems, National Snow & Ice Data Center

Dr. Jeffrey S. Deems is a Research Scientist at the National Snow and Ice Data Center at the University of Colorado, and Co-Founder and Formulation Lead at the Airborne Snow Observatory. Dr. Deems combines field measurement and remote sensing with physical modeling to explore spatial variation of snow properties in mountain environments to support operational avalanche and water management needs.

11:25am-12:00pm

Phase III Preliminary Results: Colorado River West Slope Risk Assessment

SWCD, the River District, and other West Slope partners have undertaken a three-phased study to assess threats to Western Slope water development from basin-wide constraints such as Lake Powell critical elevations and compact curtailment. The goal of the study is to inform local stakeholders as planning efforts move forward in the Colorado River basin.

In Phase I, it was determined that there is significant risk of Lake Powell reaching critical elevation 3,525 feet, which can be reduced (not eliminated) by Lower Basin states implementing their drought contingency plan and CRSPA reservoir reoperations. Phase I and II further explored the additional risk reduction by reducing consumptive use voluntarily. It was clear that reducing consumptive use had to be significant in order to bend the risk curve, and such reductions may need to be weighed against their costs.

Phase III delved deeper into what curtailment may look like on the Western Slope, using specific basin data and various administrative scenarios, with the goal of preparing stakeholders to discuss objectively these possible futures and plan accordingly. With the preliminary results now available, John Currier will summarize the main findings and answer questions.

John Currier, Chief Engineer, Colorado River Water Conservation District

John Currier is a fourth-generation west slope native with family roots that run deep in irrigated agriculture in both the Grand Valley and the San Luis Valley. He is the Chief Engineer for the Colorado River Water Conservation District where he is responsible for managing all technical activities of the District as well as helping guide the District's technical and policy direction. He has 30 years of experience in the public and private sectors in the operation and management of large water resource projects, water policy development, water supply planning, water rights analysis and administration, surface and groundwater analysis, well design and construction, and hydraulic structure design. As an engineering consultant, clients included the state, municipalities, special districts, ski areas, industrial water users, farmers and ranchers, conservancy districts and development interests. He is honored to serve on the Colorado Water

Congress and Colorado Water Trust boards of directors. He is an avid mountain biker and chances are that's where you can find him.

12:00-1:20pm

Lunch

1:20-1:30pm

Making Waves in Water Education

In 2002, amid the worst single-year drought on record in state history, the Colorado Legislature founded Water Education Colorado (formerly Colorado Foundation for Water Education). The 501(c)(3) nonprofit is charged with the important task of ensuring a sustainable water future for our state by educating and engaging Colorado citizens around this limited resource. In this short introduction, Water Education Colorado's executive director will describe some of the current content offerings, including the hard-hitting digital weekly Fresh Water News, Headwaters magazine, and a dozen Citizen's Guides to water, and their statewide programs such as Water Fluency, Water Leaders, and the Annual Basin Tour.

Jayla Poppleton, Water Education Colorado

Jayla Poppleton is the Executive Director at Water Education Colorado, the state's leading organization for informing and engaging Coloradans on water issues. Previously, Jayla oversaw Water Education Colorado's full suite of print and digital content programming. For 9 years she was the editor for Headwaters magazine, Water Education Colorado's flagship publication. She has written extensively on all things water, and it continues to be the subject she is most passionate about. In addition to the Advisory Committee for TAP-IN, Jayla also serves on the Advisory Council for the One World One Water Center at Metro State University. She holds a Bachelor's degree in technical journalism with a specialization in natural resources management from Colorado State University. She lives in Denver with her husband and three sons, and enjoys traveling and recreating in Colorado's great outdoors—especially in, on or around water.

1:30-2:00pm

Proposing a Reverse Auction Exchange

Compensating Farmers for Reductions in Consumptive Use

As the Colorado Water Conservation Board begins assessing the feasibility of implementing a potential Demand Management program, any such program will need to be voluntary, temporary, and will need to compensate participating farmers on the west slope for reducing their consumptive use of Colorado River water. This presentation will address a straightforward auction pricing mechanism to compensate farmers where farmers get to decide how much they want to be paid to participate. This pricing mechanism is called a reverse auction.

To ensure equity, a reverse auction would enable all water rights holders to be eligible to bid the amount of water they want to lease, and the lowest price that they are willing to accept (\$/AF), over a specific time period and within a specific basin. Using a reverse auction would make it possible for Colorado, as well as the other Upper Basin states, to avoid a compact call by the Lower Basin states at the lowest total program costs to the State of Colorado while

achieving low transaction costs for farmers. Also, a reverse auction would scale-up quickly in response to changing hydrological conditions in the Upper Colorado River Basin.

This presentation will discuss the mechanics of a reverse auction, as well as address the advantages of using a reverse auction to compensate farmers. It will also discuss the threshold priority issues that need to be addressed by the State of Colorado to make any pricing mechanism work within a Demand Management program.

Steven Ruddell, Economist

Steven Ruddell serves on the board of directors on the Animas La Plata Water Conservancy District, and as Commissioner on the Durango Utilities Commission. Mr. Ruddell also serves on the Colorado Water Conservation Board's Economic Considerations and Local Government workgroup that is currently assessing the feasibility of a potential Demand Management program in Colorado. As an environmental economist, for the past 20 years Mr. Ruddell has consulted on the use of voluntary and regulatory market-based mechanisms in ecosystem service markets, and trading these environmental assets on exchange platforms. Steve holds an MBA and has completed three years of post-graduate work towards a PhD in natural resource & environmental economics.

David Stiller, Water Resources Consultant

David Stiller has a broad background in water resources. He owned and managed a water resources consulting firm in Montana that specialized in mining, Superfund, and hazard waste investigations and cleanup. Mr. Stiller is a former member of the board of directors of the Fire Mountain Canal and Reservoir Company, past owner and operator of a retail nursery and irrigated farm, and former executive director of a watershed protection group. He is a former Adjunct Assistant Professor of Environmental Engineering at the University of Colorado at Boulder and served as a consultant to the U.S. Department of Justice. Dave holds an MA and PhD in environmental geography.

1:50-2:30pm

West Slope Priorities in Funding Water Management

In spring 2019, the Colorado General Assembly passed legislation to appropriate \$8.7 million towards the continued implementation of Colorado's Water Plan. It's a start. But as many have pointed out, according to the water plan, there is an estimated funding gap of \$100 million per year over 30 years.

That same 2019 legislation also provided \$1.7 million to support the Colorado Water Conservation Board's demand management feasibility investigation. Should the demand management program be implemented, one critical threshold issue is identifying the funding needed to compensate voluntary participants.

State Senator Don Coram and State Representative Marc Catlin will provide their perspectives on these water funding challenges and other legislative priorities for West Slope water.

State Senator Don Coram

Don was born and raised in Montrose County on a family farming and ranching operation along with his sister, Darla, and brother, Dwayne. While growing up, Don's parents ran Stockyards in Montrose and Grand Junction. Don's wife Dianna is a third generation Delta County girl. Together they have one son, Dee who is also their business partner. Don, Dianna and Dee are proud to have such strong roots and a history all throughout the 6th District. Ranching, mining, environmental reclamation, and Main Street business are what you will see when looking at Don's background. Strong community participation has always been very important to Don and Dianna and is apparent in their past and current involvement with organizations like the San Juan Cancer Center, the Dolphin House, Magic Circle Community Theatre, and Welcome Home Montrose. Don has served as Director and Treasurer on the board of School District RE -1J. Don also has served as Treasurer and President of the Delta Montrose Vocational Center and served on the Board of Directors for the Western Small Miners Association and the San Juan Regional Council of the El Pomar Foundation. Prior to being elected by the people of House District 58 to serve in the Colorado House of Representatives in 2010, Don served as 2nd Vice-Chairman of the Montrose County Republican Central Committee and was selected by then Colorado State GOP Chairman Dick Wadhams to serve on the CRC Executive Committee. In January 2017, he was selected by the Senate District 6 vacancy committee to replace State Senator Ellen Roberts, who resigned after 10 years of representing the people of House District 59 and Senate District 6. He is a strong voice for the rural Colorado, standing up for our water, jobs, local control on education and our Western way of life. A healthy economy and a healthy environment must go hand in hand.

State Representative Marc Catlin

In January 2017, State Representative Marc Catlin was appointed to fill a vacancy in the Colorado House of Representatives and now represents House District 58 as well. He also represents Montrose County on the Colorado River Water Conservation District Board of Directors. Most recently, Marc was the Water Right Development Coordinator for Montrose County where he worked to identify and protect water rights within the county. From 1996 to 2011, he served as Manager of the Uncompahgre Valley Water User's Association. He was born and raised on a row crop farm in Montrose and is still actively involved with farming today. Marc also hosts a weekly talk-radio program on AM 580 KUBC called "Diversions" regarding water issues of the western slope. His experience in water management related issues give him a unique perspective on Colorado River issues. Marc is an advocate for the producers of the western slope and believes this is a critical era in Colorado history and for the future of the Colorado River.

2:30-2:50pm

Cookie Break

2:50-3:30pm

Leading the Conversation on Demand Management

The Colorado River drought contingency plan is now being implemented basin wide. As part of this implementation, the State of Colorado is investigating the feasibility of a voluntary "demand management" program, which would reduce consumptive use in the state that would then be "banked" in the new 500,000 af storage pool created at Lake Powell. This storage pool would be used to mitigate the Upper Basin's risk in the event of a compact curtailment.

Moderator Mark Harris will guide this discussion with Becky Mitchell, who was recently appointed as Colorado's Commissioner to the Upper Colorado River Commission, as well as two other leaders in the statewide demand management discussion. We'll hear the panel debate and share perspectives on this question: why and how should Colorado continue the demand management conversation?"

Moderator: Mark Harris, Grand Valley Water Users Association

Mark Harris is the General Manager of the Grand Valley Water Users Association (GVWUA) in Grand Junction, CO. The Grand Valley Water Users operates the Grand River Diversion Dam, commonly known as the Roller Dam, on the Colorado River in Debeque Canyon, the Government Highline Canal System that delivers water to the Grand Valley Water Users' Association, Palisade Irrigation District, Mesa County Irrigation District, and to Orchard Mesa Irrigation District, with whom the Association is a partner in the operations of the Grand Valley Power Plant in Palisade. The Grand Valley Water Users operates 50 miles of canal, over 130 miles of laterals, and 100 miles of drainage facilities. Mark has lived on the family farm since 1958. He has been active in agricultural business, water, and civic concerns on a local, state, and national level. Mark and the GVWUA have been actively involvement in Drought Contingency Planning and Demand Management issues on local, state, and regional levels since his joining the Water Users in 2013. Mark also serves on the Colorado Mesa University Water Center Advisory Council.

Becky Mitchell, Colorado Commissioner to the Upper Colorado River Commission

Rebecca Mitchell (Becky) serves as the Director of the Colorado Water Conservation Board (CWCB) and the Colorado Commissioner to the Upper Colorado River Commission. She is an accomplished water leader with over 17 years' experience in the Colorado water sector and highly knowledgeable in the water laws of the State. Mitchell played a significant part in working with the State's Basin Roundtables, the Interbasin Compact Committee, the public at large and CWCB staff in producing Colorado's Water Plan. Becky has worked in the public and private sector as a consulting engineer; she received both her B.S. and M.S. from the Colorado School of Mines.

Aaron Derwingson, The Nature Conservancy

Aaron Derwingson is the Water Projects Director for The Nature Conservancy's Colorado River Program where he works in partnership with water users on pragmatic, solution-oriented approaches to meeting water needs for people and nature. Aaron works with agricultural water users, municipalities, and industry throughout the Colorado River Basin to develop and implement innovative approaches to water management to improve the health of the rivers and streams we all rely on. Aaron holds a Bachelor's degree in Biology from the University of Colorado and a Master's in Community and Regional Planning from the University of Oregon. Before joining The Nature Conservancy, Aaron worked at the Rio Grande Headwaters Land Trust helping protect important working lands, wildlife habitat, and water resources in Colorado's San Luis Valley.

Andy Mueller, Colorado River Water Conservation District

Andy Mueller is the General Manager of the Colorado River Water Conservation District. Prior to taking the helm at the Colorado River District he spent 23 years in private law practice on the West Slope of Colorado. His work ranged across the breadth of critical western Colorado topics: water, natural resource, land use and community issues.

For nine years from 2006-15, he was Ouray County's Director on the Colorado River District Board, his last two as Board President. His combined experience prepared him to lead the River District, whose work is to lead in the protection, conservation, use and development of the waters of the Colorado River for the residents of the West Slope and to safeguard for all of Colorado all waters of the Colorado River to which the state is entitled.

Andy earned his law degree from University of Colorado in 1995 after earning his BA in history from Kenyon College in Gambier, Ohio. When he is not delving deep into Colorado River issues or spending time outdoors with his family, he is actively engaged with his community, serving on the local Habitat for Humanity Board and the local Parks and Recreation Commission.

3:30-3:40pm

Closing Remarks

Frank Kugel, Executive Director

About SWCD

The Southwestern Water Conservation District (SWCD) was created on April 16, 1941 by the Colorado General Assembly through House Bill #795 (Statute 37-47).

The District is comprised of nine counties: Archuleta, Dolores, La Plata, Montezuma, San Juan, San Miguel, and parts of Hinsdale, Mineral, and Montrose. Each Board of County Commissioners appoints a representative to the District Board of Directors, which meets every other month.

SWCD's charter is to protect, conserve, use and develop the water resources of the Southwestern basin for the welfare of the District, and safeguard for Colorado all waters of the basin to which the state is entitled. Following this mandate, the District has assumed a broad strategic role on behalf of its diverse constituents. District representatives advocate for southwestern Colorado's water interests at the local, state and regional levels.

Funded by property taxes, SWCD currently funds a variety of essential work, including vital stream flow data collection by the US Geological Survey, water quality sampling through the Colorado Department of Public Health and Environment, water supply augmentation through weather modification, and endangered fish species recovery efforts in the San Juan Basin.

SWCD's grant program supports local efforts across the District, among them water supply projects, recreational development, environmental improvements, collaborative community processes, and water quality studies.

For more than 20 years, the District has spearheaded regional water education by sponsoring an Annual Children's Water Festival for students across the basin and administering the Water Information Program with contributions from participating entities. This is the 37th year the District has invited prominent experts to share their expertise at the Annual Water Seminar.

SOUTHWESTERN WATER CONSERVATION DISTRICT

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More than 75 Years Developing and Conserving
the Waters of Southwestern Colorado

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SOUTHWESTERN WATER CONSERVATION DISTRICT

Annual Water Seminar

EVALUATION FORM

Friday, November 1, 2019



Thank you for taking the time to provide your feedback. Please return completed forms to the registration table or email lauras@swxcd.org with your comments.	Very Satisfied	Satisfied	Dissatisfied	Very dissatisfied
1. How satisfied were you with the registration process? Comments:				
2. How satisfied were you with the conference facilities? Comments:				
3. How satisfied were you with the food service? Comments:				
4. How satisfied were you with the networking opportunities? Comments:				
5. How satisfied were you with the length of panel sessions? Comments:				
6. Overall, how useful was the seminar? Comments:				
7. What are your suggestions for improving future seminars? (Use the other side of this form if needed.)				
8. What are your suggestions for future seminar presentation topics?				