**MINUTES**

**of the**

**WATER RESOURCES COMMITTEE**

**No Host - Virtual Summer Meetings**

**(Due to COVID-19)**

**July 22, 2020**

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**MEMBERS AND ALTERNATES ATTENDING WEBINAR**

**ALASKA** Christopher Estes

**ARIZONA** Kyle Miller

 Ayesha Vohra

 Kelly Brown

**CALIFORNIA** Jeanine Jones

 **COLORADO** Becky Mitchell

Patrick Pfaltzgraff

**IDAHO** Jerry Rigby

 Mary Anne Nelson

 **KANSAS** Earl Lewis Kenneth Titus

 **MONTANA** Tim Davis

**NEBRASKA** Jesse Bradley

**NEVADA** Jennifer Carr

 Micheline Fairbank

 James Bolotin

 Adam Sullivan

 **NEW MEXICO**  John D’Antonio

 Greg Ridgley

 **NORTH DAKOTA** Jennifer Verleger

**OKLAHOMA** Julie Cunningham

 Sara Gibson

**OREGON** Tom Byler

 Doug Woodcock

 **SOUTH DAKOTA**  Kent Woodmansey

 **TEXAS** Jon Niermann

 Jim Rizk

 Kathy Alexander

 Kathleen Ligon

 **UTAH** Todd Adams

 Norm Johnson

 Erica Gaddis

 Todd Stonely

**WASHINGTON**  Mary Verner

 Buck Smith

 **WYOMING**  Steve Wolff

 Chris Brown

 Kevin Frederick

 Sam Swartz

**GUESTS**

 Jordan Bunker, Las Vegas Valley Water District

 Marlo Berg, Texas Commission on Environmental Quality

 Jill Csekitz, Texas Commission on Environmental Quality

 Lori Hanilton, Texas Commission on Environmental Quality

 Earl Lott, Texas Commission on Environmental Quality

 Scott Van Winkle, Texas Commission on Environmental Quality

 Kim Nygren, Texas Commission on Environmental Quality

 Cindy Loeffler, Texas Parks and Wildlife Department

 Ward Scott, Western Governors’ Association

 Dave Tuthill, Recharge Development Corporation

 Jolene Walsh, Eastern Municipal Water District

**WESTFAST**

 Deborah Lawler, Federal Liaison, Murray, UT

 Pat Lambert, U.S. Geological Survey

 Chris Carlson, USDA, Forest Service

 Lauren Dempsey, U.S. Air Force

 P. Brent Duncan, USDA-NRCS

 Michael Higgins, U.S. Fish and Wildlife Service

 Cherilyn Plaxco, US Army Corps of Engineers

 Kevin Werner, National Oceanic & Atmospheric Administration

**STAFF**

 Tony Willardson

 Michelle Bushman

 Jessica Reimer

 Adel Abdallah

 Ryan James

Cheryl Redding

Joseph Brewer, Intern

**WELCOME AND INTRODUCTIONS**

 Jeanine Jones welcomed everyone to our virtual meetings via webinar. Tony asked two new staff members to introduce themselves.

My name is Jessica Reimer. I started with the Council in February, so I’ve been in the office for a total of about five weeks before we all started working from home. That has been interesting. It has been great being a part of the Council. I don’t have a background in water, but rather I have a background in environmental science and policy. I have a graduate degree from Oregon State University in ecology. I’ve spent some years working in environmental advocacy as well, so I have a broad background. I’ve worked at the state level and also at international levels. I’m really excited to be able to work on water, which is an issue very close to my heart, having grown up in Utah, and understanding all of the complex issues that come with that. I’m very excited to be here and look forward to meeting all of you in person one day.

My name is Ryan James. I am the Council's data analysis and hydroinformatics specialist. I primarily work with web development on the front-end of our portal and the back-end with our database. I have been working with the Council since last fall. I interned for a few months and accepted a full-time position near the end of December. I’ve been working with Adel on the development of WaDE 2.0. My background is actually in civil engineering.

Jeanine then turned the time to Tom Byler, Chair of the Water Resources Committee, who called the meeting to order. We'll do our best to work through this video conferencing approach. Welcome everyone. Glad to have everyone here.

Tom commented that before diving into the meetings too deeply, he wanted to make sure he understood who he was working with. He referenced the participants list, noting there were 11 panelists and 61 attendees. Perhaps some are signed up, though not participating at the moment. The panelists have control over their own microphones, as do the committee chairs, the staff, andthe officers. Others participating can ask to speak. Folks can raise their hand and Adel Abdallah can open their microphones.

I do want to have some clarity because we will be taking some votes and we’ll want to make sure that we count everybody. If anyone has an objection or comment, they can put it in the chat box or raise their hand. We do have a lot ahead of us and I want to make sure we move through this in a timely manner.

**APPROVAL OF MINUTES**

 The minutes of the meeting held in Breckenridge, Colorado on October 17, 2019 were moved for approval by Micheline Fairbank. Jennifer Verleger seconded the motion. There was no opposition, and the mintues were unanimously approved.

**POSITIONS**

 **A. Proposed Position - Supporting Federal and Non-Federal Dam Safety Programs**

Tom Byler pointed out that there were some edits suggested to this proposed position subsequent the Executive Committee discussion. Tony Willardson added that the WestFAST team made some recommendations related to the Natural Resources Conservation Service (NRCS). Two whereas clauses have been added which refer to NRCS high hazard dams, many of which are over 50 years old requiring major maintenance estimated at over $11 billion. It was also noted that NRCS has an emergency watershed protect program, as well as a watershed protection and flood program to assist local sponsors with dam rehabilitation.

Tom entertained a motion to recommend adoption of the proposed position to the Full Council. Jennifer Verleger so moved and Micheline Fairbank seconded the motion. There was no opposition and the position will be forwarded to the Full Council.

**B. Sunsetting Positions**

**Position #407** – Supports federal research and the development of updated hydroclimate guidance for floods and droughts (June 29, 2017)

Tony commented about changes suggested by the Executive Committee beginning with the sixth whereas clause, and the addition of a whereas clause referencing the 20-year Colorado River Basin drought. The title has also been changed. Jeanine noted that a significant rewrite of this position has been done to eliminate redundancy, among other positions, and to try to consolidate all of the NOAA items into one position, making it easier to keep track of.

John D’Antonio moved approval, and Jeanine Jones seconded the motion. With no opposition, the resolution was moved to the Full Council.

**Position #408** – Requests Congress fully appropriate receipts accruing to the Reclamation Fund for their intended purpose (June 29, 2017)

Tony Willardson provided background on the position stating that it relates to support for expenditures from the Reclamation Fund. Some minor changes were made updating information provided by the Bureau of Reclamation as far as the benefits, as well as updating current figures. Please note on the second page in the fifth whereas clause that the current unallocated balance in the Reclamation Fund is approaching $19 billion. The WSWC has been an active proponent of spending that money and we’ll discuss our support for proposals for tapping the Reclamation Fund for aging infrastructure. The first “Be It Further Resolved Clause” does include an explanation of the needs for this money and states it may include Reclamation project dam safety costs, extraordinary maintenance and rehabilitation of aging infrastructure, also covering transferred works, the operation of which have been taken over by non-federal project sponsors as well as authorized rural water supply projects.

Kent Woodmansey moved to recommend the position as amended to the Full Council. A second was offered by John D’Antonio. With no opposition, this position was moved forward.

**Position #409** – Requests Congress maintain federal authorization and financial support for the U.S. Geological Survey (USGS) State Water Resources Research Institutes program (June 29, 2017)

Tony Willardson remarked that all are aware that State Water Resources Research Institutes have some funding from the U.S. Geological Survey (USGS). We have supported federal cost sharing in the past. We recognize the importance of the centers in moving research towards operations. An addition has been suggested in the third “Whereas Clause.” At the bottom of the first page, another whereas clause was added clarifying that this falls under the Water Resources Rresearch Act within the Department of Interior and USGS. The last “Whereas Clause” recognizes that research institute programs help to resolve state and regional water problems and address state and regional water issues.

Micheline Fairbank offered a motion to recommend adoption of the position as amended to the Full Council. The motion was seconded by Steve Wolff and Jennifer Verleger. There were no signs of opposition.

**Position #411** – Emphasizes state primacy over water resources and requests that federal agencies establish and implement appropriate procedures and processes for substantively consulting with the states (June 29, 2017)

Tony Willardson remarked that this has been a longstanding position, and no changes have been recommended.

This position will receive a new number and the reference to Rohnert Park and date removed and updated appropriately.

Kent Woodmansey moved to recommend adoption of the position to the Full Council. Chris Brown seconded the motion. The Committee approved the position to be forwarded to the Full Council for adoption.

**STATE PROGRAM OPERATIONS AMID THE COVID-19 CRISIS**

 Generally, this roundtable discussion provided an opportunity for states to talk about how things are changing within their organizations, given COVID-19, or how they continue to meet the needs of the State under the current restrictions.

Tom Byler articulated the experiences they have had in Oregon. The Oregon Water Resources Department (WRD) was not prepared for the transition to a teleworking environment. They still have to have staff in the field, but also a number of staff who have desk work primarily processing water right permits and transfers and the like. They had a very quick and dramatic transition away from the office environment to putting as many staff as possible into a telework environment. Field staff such as watermasters, continue working though at lesser risk. And of course, we are all on a learning curve in terms of the new working environment with video conferencing calls that populate our everyday calendars. Field work has continued quite well. In some respects, desk work has actually improved a bit, perhaps because folks are able to focus a little better than they had in the office environment. Time will tell. It’s too early to fully grasp our productivity and effectiveness under the telework environment.

In Oregon, we continue to telework under guidance from our governor. As long as we feel that we can be productive and serving Oregonians, we will maintain a telework environment. Our offices are closed to the public from the standpoint that we don’t take foot traffic. Opportunities for in person meetings are provided given appropriate social distancing. All of our Commission meetings and public meetings are being held via teleconference or videoconference and those seem to be working pretty well. There are certainly things that we all miss in terms of face-to-face relationship building. That is one of the definite minuses we’re dealing with.

We’re grappling with impacts to our State’s budget. The legislature is meeting in August to do a rebalance, and it’s pretty severe. The WRD and many other agencies will be going through some contraction. This will likely occur over a multi-year period. We’re headed into a tough budget cycle for the next few years, and doing everything we can to try to maintain our services. Oregon is very heavily general funded through income tax. As you can imagine, with the economic downturn associated with the pandemic, our general fund resources are rapidly diminishing. There is a lot of uncertainty as an agency for the foreseeable future.

 Tony Willardson reported that most of the staff are teleworking as well. It hasn’t been too much different than working while on the road for him. While in the office, requirements for wearing masks, sanitation, and social distancing are being observed.

 Jeanine Jones chimed in from the perspective of a very large agency with about 3500 employees comprised of a mix of field maintenance people and office people. In March, when the shutdown order was issued, essentially anyone who had an office job was directed to work from home. The transition happened fairly quickly and went quite well. Most office staff will be working from home for the foreseeable future. Maintenance operations at power and pumping plants, dams, reservoirs and so forth continues. Although it is easier to maintain social distance for field workers, special precautions must be taken in how crews are scheduled to work together, so as not to lose the entire crew due to infection.

On the budget side, the California’s general fund has been significantly affected by the coronavirus. State employees have two furlough days per month over a two-year period. The pandemic is expected to have a multi-year budget impact. Anything from the general fund that was a new start has been pulled back. Fortunately, much of the California Department of Water Resources is funded by the State Water Project operations and the general fund is not the dominant source.

 Mary Verner observed that Washington’s experience is very similar to their colleagues in Oregon. Washington has been on the front edge of shutting down and moving home. Our workforce is working from home with very few exceptions. There is limited entry to our buildings with many constraints, such as your name being on a roster and a wellness check, wearing masks and social distancing. Field teams have gone to “Phase two” in certain areas of the State. Phase one was only for emergency response to an incident, like an oil spill. Phase two allows some inspections and enforcement work, again with tight constraints in select portions of the State.

Washington State is looking at about a $9 billion hole in the general fund, and the water resources program is funded 80% through the general fund. Agencies have already been required to submit percentage cuts, proposals and scenarios. Budget freezes have been implemented on everything for this fiscal year. For the upcoming biennium, they’re looking at different options for addressing the huge hole in the general fund. All State employees are finishing July, having four furlough days. In August, they will have one furlough day per month for the foreseeable future.

 John D’Antonio described New Mexico’s seven district offices with water management responsibilities as “essential” due to dry conditions. The drought conditions have necessitated a field presence to track diversions and stop illegal diversions. Thus skeleton crews are being maintained at the seven district offices. Statewide, the vast majority of state employees (about 90%) are teleworking. The Office of the State Engineer’s lobby is open for people to drop off applications, checks, and things of that nature. In-office work is limited with social distancing, and staff are using a lot of Zoom and GoToMeetings platforms for discussion.

Forty percent of state revenues are derived from oil and gas. New Mexico had two really good years immediately preceding this year in which the legislature set aside 25% of the surplus into an emergency fund. During a special session a month ago, the state budget was in a deficit. As of right now, furloughs have not been required. However, State employees did not receive a salary increase, with the exception of anyone who earned under $50,000. Those employees received a 1% increase. A hiring freeze was implemented a couple of months ago. The 2022 budget is the concern. Budget revenues are still projected to be about a billion dollars too low, even at $40 per barrel for oil. If oil and gas prices increase, losses can be mitigated and hopefully furloughs can be avoided.

Jennifer Carr reported that Nevada’s experience is similar to others. The economy took a significant hit because all casinos closed for the first time ever for an extended period of time. We’re utilizing emergency fiscal services. Over the course of about three or four weeks, a database was developed where critical infrastructure workers could be nominated by their utility managers to receive a letter that would include their picture and their reason for traveling about the state or their community for the purposes of operating their utilities. The project came together incredibly quickly. This was done for under $10,000 and was stood up very quickly. For the most part, it was very well received. Travel papers were readily available.

Todd Adams noted that the State of Utah has undergone many of the same things. The state has seen a $2B budget cut. Statewide, agencies have had to take cuts of about 10%. The Department of Water Resources’ hit has been in the 7-8% range. The DWR office has remained open with two or three people in the office at all times. Most people are teleworking. The governor has called five special legislative sessions with more expected.

Julie Cunningham explained that Oklahoma is in much the same budget crunch given COVID and less oil and gas revenues. No furloughs have been faced yet, though they are certainly tightening their belt and face budget cuts. They heavily rely on fees and a gross production tax which is also related to oil and gas. With regard to business operations, the Oklahoma Water Resources Board is using this opportunity to change the expectations of their customers. The Board handles water rights administration, floodplain management, dam safety technical studies, and they work with landowners. Since they’ve had to shut down the front office, they’re seizing the opportunity to direct customers to their online services. One silver lining to teleworking is that it has forced the agency to beef-up their online water use reporting, online permitting, online courses for water well drillers and floodplain management folks. The Board is teasing out anything they can do electronically and reducing paper and printing expenses. The Water Quality Division was moving to a mobile office anyway. They are equipping staff with laptops, docking stations, cell phones or voice over IP phones to prepare for working remotely. This will enable the division to reduce their physical real estate footprint. Field work has been cut back. Labs are mostly closed. On the water quantity side, they are implementing safety features and waiting it out.

Tom Byler thanked all for sharing their experiences. In particular, he expressed appreciation for Julie Cunningham’s silver lining comments. It’s his belief that the pandemic has perhaps accelerated where we may have all been headed anyway – towards more teleworking and technology based operations. We are all learning and maybe developing some improvements to some of our operations.

**FEDERAL WATER INFRASTRUCTURE LEGISLATION**

Tony Willardson reported that last October the WSWC began talking about sending a letter to reiterate its support for addressing water supply and water quality challenges facing the West and the Nation and received approval for the general outline. Federal infrastructure legislation did not move until this spring. In June, we sent a letter to the Senate leadership, both Senator McConnell, the Majority Leader and Senator Schumer, the Minority Leader, as well as the Energy and Natural Resources (ENR) Committee leadership, Senator Murkowski and Senator Manchin. The letter explained that the WSWC is a government entity and expressed longstanding support for placing a high priority on addressing water quality and water supply challenges.

We looked at a number of different bills that were moving through the Senate. In the third paragraph of the letter under Tab L in your briefing materials, you will see mention of two bills, S. 2044 and S. 1570. We expressed our general support for that legislation. S. 2044 and S. 1570 are both still pending. There has been an indication the bills might move as part of an infrastructure package in the Senate.

Similarly, there was legislation moving through the Senate in the form of H.R. 1957, which became a vehicle for the Great American Outdoors Act (GAOA), of which many of you may be aware. It would provide a permanent source of funding for catching up on some of the backlog on maintenance in our national parks. Tony believes that funding was from offshore oil and gas revenues that were not otherwise committed. We were watching the legislative actions because of some similarities to our support for spending the Reclamation Fund for authorized purposes, including tribal settlements and our continuing efforts (that we’ll talk about a little later) to fund those settlements. An amendment offered by Senator Martha McSally (R-AZ) would have set aside money from oil and gas revenues for an Aging Infrastructure Fund that then would be available for expenditures without further appropriation. The amendment was not approved however. H.R. 1957 went through the Rules Committee yesterday. They will be considering the Senate amendments and acting on the legislation.

You can check on some of the legislation in the update Michelle prepared found under Tab T in the briefing materials. The other bills listed in the letter are still in committee. There was a hearing on the Drought Resiliency and Water Supply Infrastructure Act, S. 1932, submitted by Senator Cory Gardner (R-CO). S. 2718, the Western Water Security Act was introduced by Senator Tom Udall (D -NM), and it has yet to get a hearing. We are following these various legislative bills related to infrastructure, as well as the Water Resources Development Act (WRDA) legislation authorizing U.S. Army Corps of Engineers projects and programs.

The latter paragraphs of the letter express support for particular programs and projects and our “all of the above” approach to investing in traditional storage and innovative water supply strategies. We lay out a number of principles from the WSWC’s current position on infrastructure. We wanted to make you aware of our efforts and the status of some of the legislation.

 Chris Carlson stated (via chat) that the GAOA provides up to about $250 million for backlogged infrastructure on national forests and grasslands. In addition, it makes the Land and Water Conservation Fund permanent. Steve Wolff mentioned that S. 2718 is scheduled for a hearing in front of Senate ENR this afternoon, along with other legislation.

**IMPROVING SUBSEASONAL TO SEASONAL (S2S) FORECASTS**

 Jeanine Jones reported that an annual workshop with the science community on improving S2S forecasting had been scheduled to be held this past May. The hotel cancelled the venue before we even got around to canceling the event. We have chosen to postpone the event until next year, rather than attempting to go with a virtual event, because the purpose of the event was to bring together practitioners and the science community and encourage developing relationships. Thus, California’s Department of Water Resources (DWR) will apply the money given to the WSWC for this year’s workshop to a workshop to be held next year.

In terms of other workshop activities, California had also funded a WSWC subcontract under their contract with NASA for S2S forecasting research, to hold a workshop with the National Weather Service and NOAA in the Fall on this subject. This event would be an attempt to work on the transition of some of the research to operations (R2O) in NOAA. NOAA is actually at the point right now where they are internally looking at starting to comply with the Weather Research Act of 2017, which directed NOAA to put a focus on S2S forecasting and deliver a report to Congress. The report has not yet been delivered to Congress.

Because of the likely continuation of COVID related travel restrictions in the Fall, we are planning on postponing a workshop until sometime next year, by which time NASA and other researchers on the team will have hopefully made a little more progress on the forecasting work. Jeanine was delighted to see that one of the forecasting projects at the seasonal time scale that is being done by NOAA's Earth Sciences Research Lab in Boulder, Colorado. They did a very good experimental forecast for the entire West for this past quarter year. She will be watching with great interest to see the experimental forecasts that they are preparing for the coming winter.

Tony Willardson commented that he has been in enough of these meetings to recognize the challenge of reconciling and improving our physical understanding of all of the earth systems that go into making seasonal predictions, as well as the challenges in the West due to orographics. Just the computing power that is required to run and test the models is challenging. The WSWC has been out front with the challenge of just maintaining support for programs that provide the basic water data that is needed to be able to do the research to run the models and to make progress.

Tony believes progress is being made, though it is slow and incremental. Dave DeWitt of NOAA’s Climate Prediction Center is very direct about how much of this may be predictable and how much of it is not predictable. And that’s a challenge as well. The National Academy of Sciences laid out a goal for NOAA and others that within ten years we would be using seasonal and sub seasonal predictions similar to the way we use five to ten-day weather forecasts. That’s an ambitious goal. We'll see where we are in ten years.

**WESTFAST WEBINAR SERIES UPDATE**

 Deborah Lawler, Federal Liaison Officer for the Western Federal Agency Support Team (WestFAST) gave a briefing on the webinar series that WestFAST has undertaken this year. She looked at the history of WestFAST webinars and found they were initiated in 2015. There has been some webinar activity over the course of time with the exception of 2019 when that activity started to go on a downward trajectory. When the webinars were initiated in 2015, they held ten webinars. In 2016, seven webinars were held, and there were four in 2017 followed by only one in 2018. Given scheduling conflicts in 2019, WestFAST was determined to kick-off the webinar series early in 2020.

 Since January 2020, WestFAST has held a webinar every month. Participation has been good with between 30 and 50 participants each. The webinars have been recorded and posting on the WestFAST webpage on the Western States Water Council’s website for those who may have had scheduling conflicts or want to go back and re-listen to a webinar.

 When John D’Antonio left the WestFAST liaison position, he left behind a list of identified topics for potential webinars. This served as a starting point for Deb. She has also received input from WestFAST members, as well as in meetings and discussions with Western States Water Council staff. In addition to the regularly scheduled webinars, a group of presentations that had been scheduled as part of the Western States Water Council’s Spring Roundtable event have been held. Seven webinars have been held to date, and they have been recorded and are available on the WestFAST webinars webpage.

 Deb has had to move through multiple webinar platforms this year. With the initial webinar series, the Zoom platform was used. They ran into issues with some federal agencies putting a moratorium on the use of Zoom. Deb switched to the WebEx service and had lots of complications. They have now moved to Microsoft Teams, which is an application Reclamation uses (which is Deb’s home agency). One of the complications experienced with Microsoft Teams is that there are not enough conference lines for folks to dial in on if they don’t have audio on their computers. Reclamation is working to resolve this issue.

 Deb stated she would be remiss if she didn’t give a shout out to everyone who has been helping with the webinars. She expressed gratitude for the support from WSWC staff Julie Groat, Adel Abdallah and Ryan James. All have been extremely helpful with testing the various webinar platforms. She has learned a lot from Adel and said she couldn’t have done this series without his assistance and support. Of course, last but not least, Deb thanked the presenters and the future presenters. She noted that the presenters have been very accommodating and helpful and willing to step up.

 Deb requested suggestions for future webinars and said that if any agency would like to be part of the routing for upcoming announcements, to send her an email. She has received one suggestion for a webinar on salinity control.

 Tony added that within the seven-state Colorado River Basin, particularly with the low flows, salinity is a major issue. Salinity is not just an issue in the Colorado River Basin. There are issues in Texas and Oklahoma related to salinity. Obviously, it’s also an issue in the Bay Delta area of California. We’re considering whether or not we should set up a webinar to address salinity control. Please share your interest with myself or Deb, and we will pursue that.

 Tom expressed appreciation for the work that everyone has been doing to put on these webinars. The topics have been important and and these types of venues are going to be part of our reality for the foreseeable future.

**Colorado River Basin States Data and Modeling Roundtable**

 Adel Abdallah, Program Manager of the WSWC Water Data Exchange (WaDE) addressed the group and reported that on May 27-28, the second Colorado River Basin States Data and Modeling Roundtable was held. This roundtable was originally planned to have been held in Albuquerque, New Mexico, but obviously due to the COVID pandemic, the format was changed to an online webinar. The roundtable webinar was attended by 60 participants from the seven Colorado River Basin states and many federal agencies, consisting mainly of the U.S. Geological Survey (USGS), the Bureau of Reclamation, and National Aeronatics and Space Administration (NASA). Academicians and nonprofit organizations also participated.

 The webinar addressed progress across the OpenET initiative, the Internet of Water project, currently housed at Duke University, and WaDE. Several state agencies presented with respect to their work on measuring and monitoring consumptive use.

 The Internet of Water folks are working on a water terminology collection. This is a tool that promotes a shared vocabulary and tracks definitions, synonyms, and homonyms of water-related terms. This tool is open source, so anyone can contribute. It will be a very useful to the WSWC. During the previous roundtable held in Salt Lake City in January 2019, folks requested help to harvest vocabularies and see how the states are using them in similar or different fashion.

 Adel described the OpenET Beta internal release for the entire West. The Dakotas down to Texas are not currently included. It provides ET estimates for the past four or five years. They are planning to release it to the public in the spring of next year. Please feel free to experiment with the application, and if you have questions, we’re happy to relay your questions, concerns or any issues to them.

 With respect to action items from the roundtable, there is a need to continue to provide interoperable, accessible and transparent aggregate water use data as shared by the Basin states and agencies. The Internet of Water project is working on compiling different water budget models in the Colorado Basin and examining similarities/differences. We decided to convene a working group, which is being called for now the Consumptive Use Interoperable Data and Modeling Experiment work group. This group will hold quarterly calls to discuss how our work relates with each other and to maximize the value of all of this work. It was agreed tentatively to organize another follow up roundtable in June of 2021, to be held in Albuquerque, New Mexico.

 With respect to our WaDE architecture, we have a centralized database in the cloud in Azure. We use data that is already public available and published by your state agencies online. Our interns and Ryan write scripts to harvest that data, and we load it into a prepared template. With the click of a button, one can load all these data into a consistent format through an Application Programming Interface (API). We’re experimenting with different front end designs. We have not yet released anything to the public. We continue to work with each of your agency’s staff to address their concerns about sharing data.

 Ryan James, WSWC Water Data Analyst, provided a live demonstration of some of the applications being built for the WaDE project. As a reminder, these tools are under construction and not for public use at this time. Ryan showed a web tool being developed to locate water right points of diversion across the western United States. This particular app is meant to provide a dashboard interface to enable sorting and returning of states’ information by users and dates. An app like this allows a user to discover information concerning a water right and the point of diversion, particularly information on the owner, the allocated amount, beneficial uses associated with that right, water sources associated with that right, and priority dates within a geospatial boundary across a given member state or across state boundaries.

 In addition, with WaDE, we are developing the ability to screen for sites in a given river basin, for example, the Columbia, the Rio Grande and the Colorado River basins. With the same tools, we are able to look at priority dates, narrowed down by the states we’re interested in.

**Questions**

**Chris Brown:** I guess my understanding is that the basis of the data that’s used to create that conglomerated database is just state based rights or state information. Is there going to be an effort to include on top of that federal rights? For example, tribal federal reserved water rights?

**Adel Abdallah**: Chris, what we are presenting are rights provided or managed by the states. So let's say in Utah, if Utah’s database has those federal water rights they would be included. So I think they’re automatically shared. Does that make sense?

**Chris Brown**: To some extent I guess, if whatever state database your mining does include those rights. I guess I’m not certain one way or the other if Wyoming’s database includes those Federal reserved rights. That’s something I could check into.

**Adel Abdallah**: That’s a great question. We’ll keep this in mind.

**Tony Willardson**: Where there has been an adjudication, we will have those federal rights. But if they have not been adjudicated, we would not. That was one of the issues in the Klamath basin, as I understand it, the judge would not allow the State to administer rights by priority until that adjudication was complete. The rights of the tribes in that case were settled as part of the adjudication. So yes, Chris, that’s an area we do still need to look at.

**Tom Byler**: I’m sorry to get into the weeds here, but I just want to make sure the record is clear. Actually under Oregon law, the administrative phase of the adjudication in the Klamath is completed and we can regulate based on priority, even though the full complete adjudication is still pending in front of the district court. So just for people’s information, it’s been a mess quite frankly.

 Ryan continued with the demonstration of an app showing aggregated water use data. This is the aggregated use of data over a given area. These include water sources and transfers and estimated water uses, or water budgets as people commonly know them. We have mapped out five states including specific river basins in the Upper Colorado. The app consists of a user-based dashboard that allows you to sort and return data and water budgets for a specific given area. A user is able to discover the annual or monthly water budgets and time series data for aggregated water withdrawals over any specific area, in addition to finding their beneficial uses, their water sources, and methods for reporting in a given member state or across state lines. Tank you.

 Adel commented that Ryan has been working around the clock on these apps. They are time consuming and there is always something to do and improve.

 Tony acknowledged that the work has been in large part with support from a number of different foundations, including the Water Foundation, the Mitchell Foundation and the Moore Foundation/Internet of Water through Duke University. In total, the Water Foundation provided $340,000 the Mitchell Foundation - $50,000, and the Internet of Water has committed 633,000. The WSWC has spent just over $100,000 of the IOW grant, and has a commitment for another $200,000 through the end of this year. At this point, we have a promise for up to another $326,000 which will help us fund this effort, at least through September of 2021.

 Adel noted that he and Ryan are excited to have the funding support to continue the work of helping WSWC member states, and to make the data accessible in a portal.

 Adel next addressed U.S. Geological Survey (USGS) water use data and research (WUDR) grants. The WSWC has been working with many WSWC member states to help them to apply for these grants.

 A request was received to look at western water rights sytems. An inventory is in progress. Our intern Joseph Brewer has been working to build a dashboard to document how each state runs their permits and if they have glossaries.

**FY2020-2021 Draft Water Resources Committee Workplan**

 Tom Byler remarked that the Committee workplan is a living document. There is more included than we can usually get to. We will move forward as best we can with these particular items and we would appreciate any comments you have. We keep this on our radar screen and make adjustments as needed over time.

**Sunsetting Positions for 2020 Fall Meetings**

[**Position #413**](https://www.westernstateswater.org/wp-content/uploads/2012/10/413_Farm-Bill-Position_2017Oct20.pdf)**–** Supporting prompt reauthorization of the Farm Bill (October 20, 2017)

**OTHER MATTERS**

Tony was approached by the Utah State Engineer’s office for information on how the State Engineer position varies from state to state, as well as the criteria for the State Engineer.

 It would be an interesting exercise to see how the position has evolved over time. The WSWC will pull together a brief survey to send to member states.

There being no further matters, the meeting was adjourned at 10:45 a.m.