

**MINUTES
of the
WATER RESOURCES COMMITTEE
Radisson Hotel
Bismarck, North Dakota
July 14, 2016**

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MEMBERS AND ALTERNATES PRESENT

ALASKA	David Schade
ARIZONA	Einav Henenson
CALIFORNIA	Betty Olson
COLORADO	Patrick Pfaltzgraff John Stulp
IDAHO	Jerry Rigby John Simpson
KANSAS	Tracy Streeter
MONTANA	Tim Davis
NEBRASKA	Jeff Fassett Jim Macy
NEVADA	--
NEW MEXICO	Greg Ridgley John Longworth
NORTH DAKOTA	Garland Erbele Jennifer Verleger
OKLAHOMA	--
OREGON	Tom Byler
SOUTH DAKOTA	Kent Woodmansey
TEXAS	Robert Mace

UTAH

Norman Johnson

WASHINGTON

Mike Gallagher

WYOMING

Pat Tyrrell
Chris Brown
Rick Dewell
Kevin Frederick
Steve Wolff

GUESTS

Jim Fredericks, U.S. Army Corps of Engineers - NWD, Portland, OR
Dave Mitamura, U.S. Army Corps of Engineers, Austin, TX
Cherilyn Plaxco, U.S. Army Corps of Engineers, Little Rock, AR
Chaunsey Chau-Duong, Southern Nevada Water Authority, Las Vegas, NV
Joel Galloway, U.S. Geological Survey – NDWSC, Bismarck, ND
Skip Vecchia, U.S. Geological Survey, Bismarck, ND
G. Edward Dickey, Consultant (COE retired), Dickinson, ND
Travis Stramer, North Dakota State Water Commission, Bismarck, ND

WESTFAST

Patrick Lambert, WestFAST Liaison, Murray, UT
Becky Fulkerson, U.S. Bureau of Reclamation, Washington, D.C.
Kevin Werner, National Oceanic and Atmospheric Administration, Washington, D.C.
John D'Antonio, U.S. Army Corps of Engineers, Albuquerque, NM

STAFF

Tony Willardson
Michelle Bushman
Sara Larsen
Cheryl Redding

WELCOME AND INTRODUCTIONS

Tim Davis, Chair of the Water Resources Committee, called the meeting to order, and requested introductions be made around the room.

APPROVAL OF MINUTES

The minutes of the meeting held in Washington, DC on March 22, 2016 were moved for approval by Jennifer Verleger. The motion was seconded and the Committee unanimously approved the minutes as circulated.

SUNSETTING POSITIONS

Tim Davis, Chair, noted there were three positions that would sunset if no action was taken at this meeting.

Position #352 supports federal efforts to prepare for and respond to extreme weather events, including an expanded enhanced west-wide extreme precipitation monitoring system. Robert Mace, on behalf of Texas, suggested re-inserting the fourth Whereas paragraph from the position as adopted at the Casper, Wyoming meetings in June 2013. There was a motion to accept this change. The motion was seconded and the Committee approved the position as revised. The paragraph referenced Mexico's Rio Grande water delivery obligations.

Position #353 states that the WSWC "...opposes any and all efforts that would diminish the primary and exclusive authority of states over the allocation of water resources used in hydraulic fracturing." The Committee had no questions or comments on retaining this position as revised by the Executive Committee, and as included in the briefing books under Tab C.

Position #354 was in the form of a letter to House Water Resources and Environment Subcommittee leaders in opposition to H.R. 1460, which would remove "fish and wildlife" as an authorized purpose for which the Corps can manage the Missouri River Mainstem Reservoir System. The letter adopted three years ago was changed to be in the form of a position, and is now a more general resolution. No comments were raised by the Committee.

Position #355 urges the Administration and the Congress to support water research and development programs at the Department of Energy National Laboratories. The Committee again had no comments or questions and approved the position as had been revised by the Executive Committee to update the "resolved" clause.

All of the positions were moved for adoption as revised. The Water Resources Committee approved each of the four positions to be brought forward at the Full Council meeting.

WGA ANNUAL MEETING/RESOLUTIONS & NEW CHAIR'S INITIATIVE

Troy Timmons, Director of Strategic Initiatives and Policy Advisor for the Western Governors' Association (WGA) provided an update on the WGA Annual Meeting held in June.

The WGA passed several resolutions. Six resolutions were revisions of former resolutions that were readopted at the meeting: (1) invasive species response; (2) update of wildfire management, which includes water quality issues; (3) clean up of abandoned mines in the West, and asking the Federal government to take steps to enable Good Samaritan clean ups; (4) Federal–State land exchanges; (5) Governor Mead’s initiative on species conservation and the Endangered Species Act; (6) energy and transmission policy – revolving around a previous policy; and a new resolution (7) on National Parks in the West, which centered on the Park Service centennial and the historical value of protecting those sites.

Tony Willardson mentioned that Governor Jay Nixon of Missouri was an invited speaker and remarked on longstanding disputes over the Missouri River. We have included in our briefing materials some selected pages of WGA’s annual report that note WGA is addressing: Waters of the U.S. (WOTUS); the Forest Service groundwater directive, and other issues. The WSWC sends our resolutions to WGA 30-days in advance so they can be vetted with the Governors’ staff, and WSWC members are encouraged to work with their respective Governor’s Staff Advisory Council (SAC) member.

Troy mentioned that with water issues, WGA recognizes the WSWC is the technical experts. Therefore, generally WGA prefers to allow the WSWC to handle the more technical water issues. It is very important for WGA and the WSWC to coordinate on the policy implications of the more technical aspects of such water issues. Tony is good to coordinate that activity with the WGA and our Staff Council and the governors. We attempt to be seamless in our operations. We were not perfect in that regard with the groundwater directive effort. Our organizations are all trying to work together as a “one – two” punch.

WGA is trying to figure out how to best bring the WSWC’s expertise into Governor Bullock’s new initiative which is Forest and Rangeland Management. It hits on all kinds of issues -- healthy landscapes which assist in reducing wildfire danger, creating better habitat for species, increasing the economic value of the lands, and having a positive impact on water quality. We need to be sure the water elements of healthy forests are included in the discussion. WGA has not coordinated closely with WSWC to date, since this initiative is relatively new. Please bring your issues to the WGA, and we want to make sure they are properly integrated.

CDWR/WSWC WORKSHOP UPDATES

A. Sub-seasonal to Seasonal Precipitation Forecasting

Kevin Werner, Director of the Office of Organizational Excellence for the National Weather Service, in the National Oceanic and Atmospheric Administration (NOAA) gave a quick update on drought details. He showed a slide of the Drought Monitor dated July 5, 2016. Additional slides showed precipitation anomalies for water year 2016, and SNOTEL snow water equivalent ranking percentiles. He remarked that it has been a fairly average year in many places.

Seasonal forecast skill is low relative to weather forecast skill. Weather forecasts are getting better and better, although it takes decades to see improvements. Currently seasonal forecast skill is largely derived from El Niño status and trends.

An El Niño occurs when warm temperatures depart from average in the Tropical Pacific Ocean. Anything above a 0.5 degree increase is considered an El Niño on the El Niño Southern Oscillation (ENSO) prediction model, whereas a -0.5 degree drop is La Niña. With respect to the El Niño status and phenomenon, the 2016 El Niño was forecast very well. However, the precipitation outcome was opposite of what was expected. Looking forward at predictions for the coming water year, indicators show we are transitioning into a moderately strong La Niña. The precipitation outlook shows the classic La Niña pattern. There is a probability shift. The temperature outlooks are reflective of the trends characterized by unusually cold ocean temperatures in the Equatorial Pacific.

What are we doing to improve these forecasts? Where are we going with mid-range forecasting? The lead time for weather forecasting is getting longer and there are improvements in skill. Weather models show increasing skill for extreme weather events (1-2 weeks out). Climate models show increasing skill at shorter time scales (months).

Major science and technical issues exist in closing the gap in the time scales. Computational capacity is also a major limiting factor. A White Paper is being drafted with respect to accurate seasonal prediction of precipitation over the United States, and how an investment in resources could improve water resource management. It also discusses where NOAA would utilize funding for the Seasonal Precipitation Forecast Improvement Project.

Questions

Mike Gallagher: Would it be better if we could coordinate with Canada and Mexico for the data?

Kevin Werner: We do have more coordination through the North American forecast system than is displayed on the maps. There is a lot of coordination behind the scenes. We can test and evaluate region-specific models.

Mike Gallagher: (Gave a suggestion.)

Kevin Werner: It is a good suggestion, although we wouldn't want to put a lot of effort into the coordination unless it also improves our skill.

John Longmont: You guys have been talking about a model...

Kevin Werner: I think it would be important for us to focus on areas for water resources. I continue to promote that idea. With testing and evaluation, we will want to look at that and explore opportunities.

Tony Willardson commented that the Western States Water Council has a contract with the California Department of Water Resources to work on two items -- one being Seasonal to Subseasonal Precipitation Forecasting. It is a difficult question. David DeWitt of NOAA was very frank in noting the challenges NOAA faces to improve the skill. They are working with both dynamical and statistical models, and looking at potential improvements if there were more resources. Tony remarked that he found the presentations given at the recent workshop in San Diego in June very interesting, particularly regarding interactions between atmosphere layers, land, ice, and hydrology. He is amazed at what we know and what we don't know. The Hi-FLOR (Forecast-oriented Low Ocean Resolution) prototype seasonal prediction model is high resolution spatial modeling that picks up orographics from the mountains with some skill, but the computational requirements are 120 times greater than low resolution models.

Tony further noted that Jeanine Jones is attending a NOAA meeting in Washington, D.C. today and we hope to continue efforts on this topic.

B. California Irrigation Management Information System (CIMIS)

Tony Willardson noted the Council will be holding a workshop at the end of August, and may be sending invitations to some of your staff for this workshop. There are several other systems besides the CIMIS system in California, which operates about 250 sites in agricultural and urban area. There is an AZMet in Arizona, the Bureau of Reclamation's AgriMet system, Colorado's Agricultural Meteorological Network (CoAgMet), the Desert Research Institute's system in Nevada and other system. We hope to look at these systems and look at commonalities (as well as possibly standard specifications from the American Society of Civil Engineers (ASCE) on weather stations). The WSWC has been very supportive of efforts for LandSat data. However, while the LandSat system gathers data on evapotranspiration (ET), we also need the information on the ground to calibrate consumptive water use. Jeanine Jones calls California's CIMIS the gold standard. We want to see if other states match up to that standard and the ASCE standards, and go from there. California has the capacity that if other states have an interest, they could disseminate weather information through their system. We can provide some travel assistance to the San Diego meeting in August.

FCC BANDWIDTH AND CURRENT USES

Pat Lambert addressed the topic of safeguarding current uses of the Federal Communications Commission (FCC) bandwidth. There are expanding private sector uses of the Geostationary Operational Environmental Satellite (GOES) radio spectrum.

At issue is the radio bandwidth used by the U.S. Geological Survey (USGS), National Oceanic and Atmospheric Administration (NOAA), and others to transmit and download water and meteorological data through the GOES system. A part of the bandwidth was auctioned off in 2010. The issue is with the transmission of data back down from the GOES satellite. There could be some bleed-over that could garble the data or take it out entirely. Actions are planned

to expand private sector use of the radio spectrum adjacent to what will be used in next-generation GOES satellites that will be operational in 2017.

To date, the FCC regulations permit and provide funding for the USGS, NOAA, and other Federal agencies to establish interference-monitoring systems around our downlink facilities to detect the source of the interference and work with the generators to mitigate or possibly remove it.

The frequencies that were being used will buy a bit of time, as they are not yet interfering. They are looking long term at solutions that would move away from GOES.

The USGS expects no near-term loss of services from their bandwidths. USGS is exploring secure alternative means of transmitting and processing real-time water data from the field network gages, monitoring stations, and ground-water wells for the long-term. The new solutions will include private sector systems.

In the briefing book, under Tab I, there are some examples of letters from stakeholder groups to hopefully delay the use of the bandwidths. The groups are hoping to get enough time for complete communication with the full range of those impacted bandwidths. They are seeking protection for the new GOES downlink spectrum band, and proving that co-occupancy of the spectrum will not interrupt the downlink service. USGS is concerned about this, but it is not a serious issue right now. It is simply an emerging issue.

Pat Tyrrell: Wyoming is not only interested in saving the GOES technology, we are invested in this technology. What is USGS' concern with near-term impacts versus long-term impacts?

Pat Lambert: The auction includes protection zones, but doesn't have protections for the multiple download sites. Wyoming doesn't have a protection zone built in, which is not the case for other states. See the examples in the briefing materials. Depending on what frequency you are using, we are not sure how it will affect the service.

Pat Tyrrell: Interesting timing. A chunk of money just went to purchase more GOES technology.

Pat Lambert: You are at particular risk as you don't have the protections built in. States don't have that built into these kinds of actions.

Robert Mace: Is the comment period over?

Pat Lambert: It appears to me that this was triggered by private sector folks. That comment period is over. You may still engage with the FCC.

Robert Mace: Is there a hotline?

Pat Lambert: Not that I'm aware of. We can use the WSWC to help pass information along and keep folks updated.

Tony Willardson: The WSWC only became aware of this through receipt of the ICWP letter -- which we received Friday and the comment period ended on Monday

Pat Lambert: The issue may have changed now for some of the western states.

DOE NATIONAL LAB UPDATES

Sara Larsen stated that given WSWC Position #355 was being considered for renewal at this meeting, she was providing an update on collaboration with the national labs.

The Department of Energy (DOE) National Labs were cited as authorities on the energy nexus. We want to collaborate and work with the labs to develop this information. The WSWC last worked with the labs on the Water and Energy study. The results of the study were published in a journal. There was so much data.

Since that time, work at the DOE includes an Energy-Water Nexus Crosscut Team (originally called the Water-Energy TechTeam). It was formed in late 2012, early 2013 to coordinate the DOE's approach. A six-fold increase has been requested in the FY2017 Funding pillar for the Energy-Water Nexus work. In 2015, DOE hosted an Energy-Water Nexus roundtable series that engaged stakeholders from industry, academia, utilities, state and local governments, National Laboratories, and other federal agencies in focused discussions about the energy-water nexus.

Sandia National Lab worked with the eastern states on a study which was similar to the western states' study.

Lawrence Livermore National Lab is putting together a 2011 estimated U.S. energy-water flow diagram.

The Idaho National Lab (INL) is doing a lot of research and working on a Desalination Hub focused on tech solutions to de-energize, de-carbonize and reduce the cost of desalination. They are evaluating beneficial uses for produced water from oil and gas (a pilot in Wyoming) – and to use thermal energy for water treatment. INL is also exploring the potential for more geothermal energy production through the Center for Advanced Energy Studies.

The National Renewable Energy Laboratory (NREL) is conducting a study on industrial water use that is looking to find site-specific state data.

WATER DATA EXCHANGE (WaDE) UPDATE

Sara Larsen reported that many states are flowing data now in the Water Data Exchange (WaDE) project. Since the WSWC's Fall 2015 meeting, Oregon, Oklahoma, and California began flowing data. Progress is being made with the states of Washington, South Dakota, Texas, and Nevada. The contract agreements with the Exchange Network grant partners are nearing completion.

The WSWC offices were relocated to a new office building, and all servers and equipment were moved to our new location without breaking anything!

To help Sara, the Council has hired two part-time summer interns: Zubayed Rakib, who holds an MS in Civil and Environmental Engineering (CVEEN) from the University of Utah; and Carly Hansen, a PhD candidate in CVEEN, also from the University of Utah. The internship positions were also published at Utah State University and Brigham Young University.

Sara summarized the data encompassed in WaDE. She asked the states to please re-evaluate their datasets. The kinds of data that can be accommodated in WaDE include: dry, normal, wet year water supply estimates by basin; regulatory information and constraints to development by basin; water availability by source or type and basin; water diversions (withdrawals) by sector and basin; consumptive use by sector and basin. The detailed, site-specific data incorporates: high-level water rights information; diversion locations and amounts; consumptive use locations and amounts; and return flow locations and amounts.

Sara emphasized the importance for states to include the metadata and documentation for a casual user to understand what is being shared (e.g., basin plan, state water plan, webpage, etc.)

Questions

Jerry Rigby: How does the data get rolled out for use to the wider portal?

Sara Larsen: Right now we are in sort of a holding pattern. The WSWC would like to roll-out WaDE at the WGA Winter Meeting.

USGS WATER AVAILABILITY AND OTHER ACTIVITIES

A. USGS Water Use Grants Program

The 2016 Water Use Data Research (WUDR) grant program announcement is available on Grants.gov. The closing date is July 18, 2016 for those who have not applied for funding for this year.

WaDE is working with USGS and is an accepted method for data publication. The WUDR team is not opposed to multi-state applications. This could be possible for things like consumptive use in the Colorado River Basin. The WSWC has some experience gained from Exchange Network grant partnerships and may be able to help facilitate that discussion.

Sara suggested it may be useful to reconvene the Water Information and Data Subcommittee as a forum for more data discussion. They could consider a Water Information Management Systems (WIMS) workshop, and provide guidance and direction of the WaDE program.

Tony briefly mentioned that Sonya Jones wrote a letter to Sara in response to some questions about the WUDR program. The SECURE Water Act is the impetus for the program. WUDR offers financial aid for states, and across state boundaries. Sonya's letter provides a great endorsement of the work that the WSWC, Sara and our states have done. Tony then read from the letter.

B. USGS North Dakota Science Center

Joel Galloway, Acting Director, USGS North Dakota Water Science Center presented using a powerpoint and noted that North Dakota has ten river basins and essentially there is a "continental divide" in the state. The Eastern basins flow into the Hudson. There are 144 surface water gages and the data from the gages are used for: water use and availability, flood control, flood forecasting, international water management and water quality. The network is funded by state-federal-local partnerships. The biggest partner is the North Dakota State Water Commission. Five sites have 100+ years of flow and water level data which is critical for understanding climate issues. The state is fortunate to have a strong network that has been there over a long period of time.

Statewide comprehensive ambient monitoring network. Some sites had a lot of redundancy between three state agencies collecting the data. The network is set up the same so that they all sample the same way and it is a coordinated effort. The spatial distribution and frequency of obtaining the data covers the major waterways. It is a unique working relationship on monitoring water quality in the state.

Flood science is important in North Dakota as there are trends for large flow increases over time in flooding. The GRACE satellite images are clear in showing a swath of increased flooding since 2003. He presented a slide that shows annual peak flows which indicates there is a distinct change in peak flows since 1980.

Devils Lake reached its low in the 1940s. In 1993, it skyrocketed up. The lake spills into Stump Lake and they are now one lake. If it overflows into the Sheyenne River, that would be a catastrophic event. There is a lot of information on the Devils Lake Basin including Devils Lake and Stump Lake. They are mitigating the issues of flooding into the Sheyenne River (which would become an international issue).

The USGS provides a lot of science to support management of a long-term flood. There have been several reports. The 2011 flood on the Missouri River was the largest flood since Garrison Dam was built in 1953. A study was initiated in 2012 to determine the long-term effects of dam management on channel morphology, vegetation and sediment transport after the flood occurred. The project was funded by ten Federal, State, and local agencies. The methods used are repeat historical cross-sectional surveys, remote sensing, wind sediment traps, sediment transport data, dendrogeomorphic tools, etc.

The challenge is estimating flood frequency using streamflows that are nonstationary. Understanding the hydraulics and how high to build the levees. Scouring meant the levees weren't actually needed.

All weather patterns converge in North Dakota since it is the geographic center of North America. These factors make it hard to understand the climate drivers for this area. They are looking at analyzing long-term climate variability/change. They are researching using tree ring analysis to find large patterns of wet periods and drought patterns. A water balance model has been used for simulating runoff in response to precipitation, evapotranspiration, and temperature. They developed a stochastic model for simulating future climatic inputs and streamflows. Another objective is to determine future flood and drought risk.

Energy development in the state has been an issue that has a massive effect on the landscape. There are a lot of resources affected with oil and gas production. With respect to water quality effects, groundwater quality assessments are being done in the Williston Basin.

A USGS national effort is being undertaken. The purpose of the study is to develop methods to estimate water use for unconventional oil and gas (UOG) development in the United States. There are three phases. It includes all aspects of UOG: fracking, injection wells, and others. They are using the information to come up with estimation models to prepare for the national assessment, looking at water use for UOG.

The North Dakota State Water Commission and North Dakota State University collaborated on developing a municipal water use study with WUDR grant money, and this dovetails nicely with the USGS study.

There are important issues moving forward which include climate variability and nonstationarity – flood/drought frequency and landuse change effects; energy development, nutrient management, and harmful algal blooms.

Questions:

Betty Olson: California is looking at ways of controlling algal blooms.

Joel Galloway: North Dakota is perhaps a little slow at working in this area. We haven't done a lot of monitoring in this area as it has not been as big a problem in our state. It is becoming more of a hot topic across the nation.

Betty Olson: I think the drought exacerbated the problem.

John Stulp: I want to revisit Devils Lake. What are the reasons for the operations of the pumping areas?

Joel Galloway: The biggest issue is in terms of water quality standards and sulfates. It is much higher than the river. Canada receives those waters, so we have to make sure we meet the water quality standards. We've done assessments looking at the physical developments. There are upstream and downstream effects as well. There are multiple issues.

Tony Willardson: I have seen some analyses in the past that compared the rise and fall of Devils Lake with the Great Salt Lake since they are both terminal lakes.

Joel Galloway: Devils Lake is a unique terminal lake, and is not as salty as the Great Salt Lake. There are different challenges.

FY 2016-2017 COMMITTEE WORK PLAN

Tim Davis, Committee Chair, commented it is his recommendation to collapse and remove the subcommittees. Currently, the subcommittees are not undertaking any active tasks.

Tony added that the size of the staff has remained the same as in 1965, upon its creation. Thus, to whatever extent the staff can take advantage of your expertise and your staff for help with the work it will be greatly appreciated. He also noted that Subcommittee members do not need to be officially appointed WSWC representatives. An example of expansion beyond Council appointed representatives is the Ad Hoc Group on Indian Water Rights.

Pat Tyrrell noted he believes a couple of things have combined. The Council is a bit of a victim of our own success. This is attributable to Tony and the great staff. We continue to receive requests to attend meetings, sign letters, etc. A strategic planning committee is refocusing the WSWC's mission. The group believes it is time to clean-out the committee and subcommittee structures that were impaneled 15 years ago. As Council Chairman, it was my request of the Committee chairs to trim the subcommittees so that the organization stays light on its feet. It's a clean up and clarifying task.

Jerry Rigby: This does not mean we cannot have a subcommittee for a specific purpose. I think that is still the best way to go. We are not trying to decrease the role of the WSWC.

Tim Davis: That follows with my perception. The way members typically become engaged is on the Committee structure. Therefore, I suggest we collapse down the subcommittees with the exception of the Water and Data Subcommittee.

Tony Willardson: The work plans have always been expansive and beyond the capability to accomplish the tasks in any one year. As Pat stated, there are at times issues that arise as a priority that are outside the scope of the work plan. The work plan is a guide rather than a rule. It allows us flexibility to take up items as they arise. Tony then highlighted some of the topics included in the Water Resources Committee's work plan.

Tim Davis: If there are items in the work plan that don't have specific actions or tasks, should we remove those items? The item on border water issues is an example. The topic is in the work plan, we have position statements, but no direct actions to take. I believe we should rely upon our positions to guide the staff and the Council as a whole on issues.

If there is not a specific work plan task associated with an item, we will collapse them down.

Tim walked through each of the items in the Committee's work plan.

- 1 – Water Data Exchange (WaDE) – continue
- 2 – Irrigation Information Management Systems – leave item in the work plan
- 3 – National Water Availability and Use Assessment - will be folded into the WaDE item
- 4 – M3 Initiative: remove A – USGS Cooperative Streamgaging; B – NRCS Snow Survey; C – LandSat; D – Drought; and E – Groundwater monitoring -- all will be collapsed
- 5 – Western Water Infrastructure Projects and Program Funding – Remove
- 6 – Energy & Water Resources – Integrated Management – keep this in the work plan, but remove the subcommittee.
- 7 – Border Water Issues – remove from work plan. Neither the WSWC nor the Committee have been active on this issue.

The work plan can be amended in the future, as necessary.

The staff will redraft the work plan. Tim requested a list of positions that were specifically associated with the Water Resources Committee.

Tim asked for any additions for the next year.

Dave Schade moved approval. The motion was seconded, and the Committee unanimously approved redrafting the Committee's work plan as outlined.

SUNSETTING POSITIONS

Tony reviewed the sunseting positions that are Water Resources Committee related that will be up for renewal at the fall meetings in St. George, Utah.

OTHER MATTERS

A. Assured Water Supply Laws in Western States

Anne Castle is working with the University of Colorado on assured water supply laws. The Colorado Water Plan addresses the land and water issue in some detail. We have to grow more strategically than we have in the past. All folks with an interest in the land use component need to work to incorporate water uses into the land use process. Academic institutions can advance this integration. The University of Colorado is trying to advance the tools. Many western states require some determination that water supplies for new development are available.

In the broader context, it would be useful to see what other states have done and have not done to stimulate ideas to determine if additional steps should be taken. We're documenting what the states' statutory requirements look like. We are looking at whether water is tied into the county plan. This was highlighted in the WSWC's Next Steps report.

We are identifying some characteristics that appear over and over again in these swaths. We are looking at five different characteristics of the assured water supply laws we are considering/questioning. First, some states will have water short areas where assured water supply laws apply. Second, is there a review of the water supply plan and whether or not it is adequate? We are asking the County Commisisoners to review their water supply plans. Third, what is the minimum size requiring approval? Fourth, we are looking at the adequacy of the water supply plan and is it tied into the plan for the county? This ties into the WSWC's 2008 Next Steps report. Lastly, are water conservation considerations tied into these water supply laws?

We have heard from seven states, and have four more to go. We appreciate those who have submitted comments. The report will be published in a law journal by January 2017.

The states that have responded include: AZ, CA, ID, MT, NV, OR, UT, and WY. Those states we have not heard from are: CO, NM, and WA

John Stulp mentioned that this will be brought to James Eklund's attention, he also mentioned a pilot on rainwater capturing. He noted that new technology and innovation and conservation are a big part of Colorado's Water Plan. We realize that each state has a bit different plan.

John Longworth of New Mexico requested that Ann send along the request again.

Tim Davis commented that in Montana, they bifurcated the physical availability from the land use. He will make sure that is reflected in Montana's comments.

Ann related that is similar to what has happened in the State of Washington.

B. Republican River and Interstate Compact Agreement

Tracy Streeter noted that Kansas and Nebraska are working on a strategy for the interstate compact on the Republican River. Nebraska delivers water on schedule to meet their compact compliance through augmentation projects. The overall plan is to use Harlan County as a beneficiary that will receive water across the border.

The states are in agreement, but the Bureau of Reclamation (BOR) has some issues. Tracy mentioned there has been a change in the relationship the states have had interacting with the BOR. The states do not understand what the BOR is trying to do, and they are frustrated over the federal position, which seems to be an over-reach. Tracy wanted to notify Council members that this issue will be brought forward by Jackie McClaskey on the national level at the National States Department of Agriculture group meeting.

Tracy referred to WSWC position #371 and noted a key portion of the resolved clause as shown below.

“Now, therefore be it resolved, that nothing in any federal rule, regulation, directive, order or policy should affect, erode, or interfere with the lawful government and role of the respective States relating to: (a) the appropriation and allocation of water from any and all sources within their borders; and/or (b) the withdrawal, control, use, or distribution of water; and/or (c) affect or interfere with any interstate compact, decree or negotiated water rights agreement; and/or (d) the application, development and/or implementation of rules, laws, and regulations related to water.”

They have tried a legislative remedy, but the legislation did not pass. Kansas will be using WSWC Position #371 on this issue.

Robert Mace commented on an experience Texas had in working with the Department of Homeland Security (DHS) focusing on helping Texas with drought resiliency. Texas sent a proposal to DHS seeking what a water provider would need to do if their water supply was being cut off. Homeland Security contracted with a National Lab, and without talking to Texas, they did something completely different. So \$300,000 was spent by DHS on a document that was critical of the state’s drought plans. As a forewarning, Robert suggested that anyone working with DHS should keep very close tabs on work with them.

Tony raised what, if any role, the WSWC should have during the transition with the new Administration. Should we draft briefing papers? This may be an area where WestFAST could help give us direction.

Ed Dickey, formerly with the Corps of Engineers (retired), commented that he was part of the transition team from President George H.W. Bush to Bill Clinton. He noted that appointee

development is a time of paralysis, but as such appointments are made for specific positions, it is good to have materials developed to let them know of your positions.

Resolutions of appreciation for Todd Sando and Michelle Klose were approved.

There being no other matters, the meeting was adjourned at 11:12 a.m.