

MINUTES
of the
WATER RESOURCES COMMITTEE
Sheraton Hotel Denver Downtown
Denver, Colorado
April 4, 2013

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Sheraton Hotel Denver Downtown
Denver, Colorado
April 4, 2013**

The Water Resources Committee meeting of the Western States Water Council was called to order by Committee Chair Jennifer Gimbel at 8:00 a.m. Those in attendance were as follows:

MEMBERS AND ALTERNATES PRESENT

| | |
|---------------------|--|
| ALASKA | -- |
| ARIZONA | -- |
| CALIFORNIA | Jeanine Jones Tom Howard |
| COLORADO | Jennifer Gimbel Dick Wolfe Hal Simpson |
| IDAHO | John Simpson Gary Spackman |
| KANSAS | David Barfield |
| MONTANA | -- |
| NEBRASKA | Brian Dunnigan |
| NEVADA | Roland Westergrad |
| NEW MEXICO | Scott Verhines Greg Ridgley |
| NORTH DAKOTA | Todd Sando |
| OKLAHOMA | J.D. Strong |
| OREGON | Phil Ward |
| SOUTH DAKOTA | -- |
| TEXAS | Carlos Rubinstein |

UTAH

Dennis Strong
Walt Baker

WASHINGTON

--

WYOMING

Pat Tyrrell
Sue Lowry
Harry LaBonde
Greg Lanning
Chris Brown

WestFAST MEMBERS

Eric Stevens, WestFAST Liaison, SLC, UT
Jean Thomas, USDA Forest Service, Washington, DC
Robert Boyd, Bureau of Land Management, Denver, CO
Bret Bruce, USGS, Denver, CO
Julie Miller, US Army Corps of Engineers, Denver, CO

GUESTS

Robert Mace, Texas Water Development Board, Austin, TX
Dave Mitamura, Texas Water Development Board, Austin, TX
Curtis Seaton, Texas Commission on Environmental Quality, Austin, TX
Herman Settemeyer, Texas Commission on Environmental Quality, Austin, TX
Lee Koss, Bureau of Land Management, Washington, D.C. (via phone)
Chris Friel, Esri, St. Petersburg, FL
Brent Newman, Colorado Water Conservation Board, Denver, CO
David Merritt, URS, Glenwood Springs, CO
Cory Hooper, CH2M Hill, Denver, CO

STAFF

Tony Willardson, Executive Director
Sara Larsen, Water Data Exchange Program Manager
Nathan Bracken, Legal Counsel
Cheryl Redding, Office Manager

WELCOME AND INTRODUCTIONS

Jennifer Gimbel welcomed members to the meeting. Introductions were made around the room.

APPROVAL OF MINUTES

The minutes of the meeting held October 11, 2012 in San Antonio, Texas were moved for approval by J.D. Strong. Pat Tyrrell seconded the motion. There were no changes and the minutes were unanimously approved.

NIDIS/DROUGHT UPDATE AND PARTNERSHIP INITIATIVES

Roger Pulwarty addressed the group using a powerpoint presentation to discuss the drought of 2012 and the outlook for 2013. The impacts of the drought of 2012 in terms of agricultural losses are estimated at \$35B, not including losses to tourism, recreation, and so forth.

The three directives under the National Integrated Drought Information System (NIDIS) Act are: (1) Provide an effective drought early warning system; (2) Coordinate and integrate as practicable, Federal research in support of a drought early warning system; and (3) Build upon existing forecasting and assessment programs and partnerships.

Last year moderate to severe drought covered 60% of the country. 2012 was the warmest year on record for the continental United States. It was outside the realm of anything NOAA has seen. It was 3.25 degrees F above average. NOAA would not expect this degree of warming just due to climate change. The jump from May, in which 35% of the U.S. was experiencing moderate to exceptional drought, to July when 64% of the country was experiencing moderate to exceptional drought did not seem to have any particular driving force. The internal variability of the atmosphere set up the conditions for dryness over the region. This was an unusual event. There will be a NOAA Drought Task Force meeting on Apr 11, 2013 to try to determine why there was such a huge jump in 2012 in the drought from May to July.

Folks in the farming community or others no longer ask us what the conditions will be like. Instead they ask if this is something we have dealt with before. Research shows that the annual precipitation and summer temperatures of the year 2012 are tracking much the same as those in the 1930s. There is no El Nino or La Nina going on. There are longer term ocean temps that seem to be driving the current drought.

NOAA is working with folks from weather centers in Oklahoma, in the central region, and the Upper Colorado River Basin, on what is happening and trying to keep them apprised of the conditions right now. NOAA is in touch with the ski industry, water managers, and agricultural folks. NOAA is putting together a set of outlooks that use NOAA science, USGS science, U.S. Bureau of Reclamation (USBR) and states' information to communicate with people what conditions are like right now. An outgrowth of the MOU partnership between NOAA and the WGA is this set of outlooks and working with people on how to use them. We have also created a set of regional drought pages on the Portal. The key is working with our partners, the states, the federal agencies, and the tribes on how this information is going to be used.

The dynamics of vegetation in the Four Corners area of the U.S. is changing. Because evapotranspiration is sucking up a lot of the moisture, we're seeing dust storms in this region and dust on snow. The mobility and activity of the sand dunes in this region has increased due to the drought.

NOAA will be working more closely with some specific regions in California, including the Klamath River Basin, along the Russian River, and in the Central Valley, as well as in Southern California. Additionally, NOAA will work with New Mexico on the Rio Grande and an Interagency Network on the Missouri River Basin — linking the droughts and the floods.

NOAA has begun doing some drought assessments to try to determine the causes, impacts, and improve services working very actively with folks in the regions from the State Climate Offices, Regional Climate Centers, National Drought Mitigation Center and NOAA. A draft report will be issued at the Summer 2013 AASC Conference (in St. Louis) and will be finalized by the end of September.

A summary National Drought Forum report, entitled, “Drought and U.S. Preparedness for 2013 and Beyond” has been drafted “...to understand the extent of 2012 drought impacts and response in 2012, and help provide new information and coordination for improving the nation’s drought readiness for 2013 and in the future.”

Drought persists over much of the West. The likelihood of getting enough precipitation to end the drought in many cases is 200%. The controls on the seasonal drought are not helping; they are maintaining the seasonal drought. We are expecting as warm a season in 2013 as last year. The only thing that might help is an extreme weather event, such as an atmospheric river event which produced extreme amounts of rainfall. This is why it is so important to be able to forecast such events. If it is as warm this year as last, we know that in years such as the 1930s when it was also warm, we had significant impacts due to the extent of drought, and so this year’s drought will play a major role in how much water we lose to the atmosphere through evapotranspiration.

Roger attended the National Governors Association Meeting held February 27, 2013. One of the things as an outcome of the National Drought Forum and Memorandum of Understanding between the U.S. Department of Commerce and the U.S. Department of Agriculture was to try to improve monitoring, prediction, and the use of information. They are seeking to get a stronger more coordinated soil moisture network through improved satellite estimates and in situ measurements of soil moisture. NOAA is working with the State of Kansas on estimates of ground water and surface water interactions during drought, which will provide near real time attribution during drought. NOAA is also seeking to define the role of sea surface temperatures in the various ocean basins.

When we make a forecast, such as there is a la Nina occurring, we want to know how we could improve our understanding of how decadal variability impacts droughts year to year, and improving or linking the reliability of next season’s forecast to what is happening. We are performing comprehensive assessments of the underlying predictability of surface temperature, precipitation, soil moisture, and stream flow on monthly to decadal time scales.

A drought early warning system (NIDIS) Evaluation Survey was done September 7, 2012. It allows communities to compare their readiness for drought before 2002 with today. The Western Governors’ Association and the Western States Water Council should take credit for NIDIS.

Roger showed a slide (Table 1. NIDIS Implementation Milestones (FY 2007 – 2012, by year) that indicates where we’re at in terms of implementation of the program. Pretty much everything has been done.

Are we better off having implemented NIDIS? Through NIDIS, we have improved: (1) the number of states and other institutions with improved capacity to inform risk management and reduce exposure to drought and flood risks; (2) the number of staff in or working with those institutions trained to develop and communicate local drought information and help reduce impacts; (3) the number of research projects that conduct and update drought impacts and user needs assessments in drought - sensitive parts of the US; and (4) the percentage of the U.S. population covered by adequate drought risk and early warning information systems.

NIDIS works because of the people working on the effort. People such as Rep. Lamar Smith in Texas (District 21) are now able to say what NIDIS is doing for folks in his district.

S. 376, the Drought Information Act of 2013 was introduced in the 113th Congress on February 25, 2013. This is a bill to reauthorize the National Integrated Drought Information System, and for other purposes.

NOAA is still moving forward on every aspect of the drought early warning system, including monitoring and forecasting, drought impacts assessments and scenarios, communication and outreach, and engaging decision makers on preparedness and adaptation.

Roger added that they are seeing more saltwater intrusion into freshwater areas.

Jennifer Gimbel asked if the Council felt that given the NIDIS legislation has been introduced, that the Council write a letter to Congress to support this specific bill. We have a standing position, but this would reinforce that position and tie it to this specific legislation. The Committee approved writing and sending such a letter.

CDWR/WSWC/WGA DROUGHT PREDICTION WORKSHOP

Jeanine Jones reported that the California Department of Water Resources, along with the Council and the Western Governors' Association, are cosponsoring a workshop on improving drought prediction. Last year, we talked about NIDIS reauthorization, one of the things we wanted to emphasize in reauthorization was the concept of improving prediction because Roger Pulwarty and his staff have done a great deal with "now-casting" drought, but we are very interested in trying to determine will next month, next winter, and/or next season be dry as well, so we have more lead time for planning.

The purpose of the workshop is to bring together the science folks, water managers, and federal agencies to talk about the steps we can take along these lines, including the atmospheric rivers. Can we get better at predicting extreme weather events?

Additionally, information will be shared on the California Irrigation Management Information System (CIMIS) program, which is a network of about 120 weather stations that provide irrigation demand information for the agricultural community or for urban community folks. They have worked with NASA to incorporate remote sensing into the project. They now have some new thermosensing products to, in essence, extrapolate from the weather stations. California has been approached by federal agencies such as the Bureau of Reclamation to see if the state would be willing to expand the system to

cover other western states. Satellite information is already there. Some states have ground based networks that could provide the ground proofing for this. Arizona, for example, has a network called AZNet run by the University of Arizona, and the Bureau of Reclamation has AgriNet. California is willing to work with other interests in expanding the network.

We hope you can come to the workshop.

PROPOSED AND SUNSETTING POSITIONS/RESOLUTIONS

A. Sunsetting Position

Tony reported that sunsetting position #321 supporting funding for studies on the water resources-related impacts of climate change and adaptation efforts. It was rewritten following the call of the Executive Committee. Jeanine Jones, J.D. Strong, and Carlos Rubinstein worked on the language in the amended position.

Jeanine Jones noted that this was an existing position, coming up for renewal. The position was given a makeover to substitute the words extreme weather for climate change. In deference to comments from a couple of states about asking for new federal funding, which really was not the intent of the position, other language was changed. The intent of the position is to encourage NOAA to prioritize within the NOAA budget funding for the precipitation program, which is essentially the science and research dissemination program to end users. Rather than asking for federal spending, we substituted the word “prioritize.”

As background, Jeanine stated that the NOAA RISA program is funded at around \$7-\$8 million annually, and there is a request from some stakeholders for people to send letters of support for the RISA program as NOAA is internally reviewing its budget. If this position is reauthorized as amended, in the next couple of weeks we would expect to send a letter to NOAA expressing support for the concept of the RISA program.

With respect to the second “whereas” clause where the Colorado River Basin report is mentioned, Jennifer Gimbel suggested not calling attention to the Colorado River Basin study.

The Colorado River Basin states were polled to determine if they would oppose striking the reference to the Colorado River Basin study in the second whereas.

Carlos Rubinstein moved approval of the amended position. Jeanine Jones seconded the motion. The position was approved as amended, to be recommended to the Council for approval.

Tony noted that the Bureau of Reclamation had authorized a study of rural water needs in 2006 under the Rural Water Supply Act. The Council supported implementation of that legislation and the study was concluded in July 2012. A separate title provided loan guarantee authority for project rehabilitation. This was primarily directed to transferred Bureau of Reclamation works, where the sponsoring irrigation district had taken over operation and maintenance of a project, but the title was still held by Reclamation. Many districts have difficulty trying to secure financing for major rehabilitation work since they do not own the project per se. The Act authorized federal loan guarantees, which ran into

issues with the Office of Management and Budget (OMB). Essentially OMB said that if you're going to issue \$40 million in loan guarantees, we want you to have the \$40 million appropriated for that purpose. That seems to defeat the purpose of a loan guarantee. Reclamation continues to have discussions with OMB over this provision. Position #322 supporting implementation of the Rural Water Supply Act of 2006, would be revised and updated to strike references to the WGA Water Needs and Strategies Report of 2006 as it has since expired as WGA policy. The changes were discussed by the Executive Committee during the conference call, and are being recommended by that committee.

Pat Tyrrell moved adoption of the position as amended, with a new letter going to the Chair of the Senate Energy and Natural Resources Committee. The motion was seconded, and unanimously approved.

B. Proposed Positions

Jennifer Gimbel remarked that there is a possible position statement on Reclamation Conduit Hydro Authority. The draft position was distributed.

Tony called attention to item #11 on the Committee agenda which includes an update on federal legislation. A couple of bills have been introduced which would provide Reclamation the ability to authorize small hydropower conduits and would allow the Federal Energy Regulatory Commission (FERC) to exempt them from their licensing process for small projects.

A number of western senators have signed on as cosponsors of the legislation. A hearing is possible in the Senate Energy and Natural Resources Committee at the end of this month. The Council has never taken a position on hydropower and development of small hydro projects. The draft position is drawn broadly to cover both bills, H.R. 678 and H.R. 267.

If the Council chooses to address this issue, a state would need to sponsor this resolution. Dennis Strong moved for support of the position on renewable hydropower development. Scott Verhines seconded the motion.

As a point of clarification, Phil Ward commented that because this position was not included in the 30-Day Notice, the Committee will need to recommend that the Full Council consider it. It would take unanimous consent of the Council to add the position to the agenda for consideration. If content is received, then it only takes a majority vote to approve the proposed position. Our process of policy coordination is to then forward any such adopted position to WGA for a 10-day review before we would distribute the position.

Pat Tyrrell suggested inserting language to tie this to the legislation to be considered. Both Dennis Strong and Scott Verhines approved this amendment to their motion. Tony said that since this would be subject to a 10-day review period, he would work with Pat on the language. The motion was approved to bring this matter to the Full Council on Friday.

CORPS OF ENGINEERS WATER TOOLBOX WEBSITE DEMO

The Council has had ongoing discussions with the Corps of Engineers. Prior to the development of the WGA 2006 Water Needs and Strategies for a Sustainable Future report, there was a west-wide

watershed study. The Corps had received authority through the WRDA Act to look more broadly on a watershed basis at some of the national water issues. The Corps concluded a report which the Council summarized in the 2008 Water Needs and Strategies report. At the time, the Council suggested that a one-stop shop for federal water information, federal models, and other tools for use in planning would be useful. The Corps held a number of regional meetings, as well as a national meeting. The Corps rolled out their collaborative report and has since been working on a so-called toolbox. A website has been developed and will be demonstrated. They are beginning to populate the website with information from data to models to statutes, policies and programs. They intend to continue to do so.

Council member states should have received a survey from the Corps seeking information. It is a voluntary request. Those interested in participating and helping to update the website have been asked to sign an agreement so there will be one point of contact.

Julie Marcy of CDM and Ada Benavides of the Corps reviewed the toolbox via a live webinar demonstration of the geospatial mapping search feature, best management practices, and upcoming events, among others. There are opportunities for partners to identify water resources-related needs across the country. There is a mechanism to connect people with needs to those who may have answers. The Council's WaDE Program will be included as a link in the toolbox.

EPA IMPORTANCE OF WATER STUDY / URBAN WATERS INITIATIVES

Roger Gorke reported that he is working on a synthesis of the Importance of Water in the United States Economy study. See information under Tab K in the briefing book. The study is still under development. The study will summarize existing knowledge about the role and importance of water to the U.S. economy, provide information that supports private and public sector decision-making, and identify areas where additional research would be useful.

It is designed to be a resource for people to use on the ground in making decisions. The background report is a literature review and general analysis of U.S. economic and water resource statistics. As part of the study, seven commissioned technical papers examine various aspects of water use in the U.S. economy. EPA hosted a one-day technical workshop and presented the findings from the background report and expert papers, and to engage a diverse mix of analysts and decision-makers from different regions and sectors of the economy.

On December 4, 2012, EPA hosted a public symposium in which four roundtables were conducted with different speakers addressing the topics of infrastructure and technology, agriculture, food and beverage production, recreation, tourism and development, and energy. Videos of the symposium are available.

EPA hopes the study will also be a catalyst for a broader discussion on water's role in the U.S. economy, noting that it is not just an agricultural or a municipal issue. Not having water has real economic consequences, for example, if there is not water for barging traffic, etc. There are both economic and environmental impacts.

With respect to the Urban Waters effort, former EPA Administrator Lisa Jackson was very active. There are more and more people living in cities, in an urban environment. Many cities have a local

waterbody next to them. The waterbody is usually the lifeblood of that city. It provides water for commerce or recreation, but it also bears the brunt of being next to the urban environment with industrial or wastewater discharges, or stormwater runoff. This effort highlights those waters at the local level to connect people to their local waterbody. There are different pieces of the effort, such as grants, different federal agencies looking at what they can contribute to the urban environment and sharing information. Some grants have gone out and funded an ambassador, much like the WestFAST liaison, on the ground in communities.

Regarding the drought across the country, all hands are on deck from the federal perspective, particularly due to passage of the National Drought Recovery Act. The EPA Water Program can offer assistance with water conservation, climate-ready utilities, etc. EPA is trying to determine if their programs can offer a buffer element during times of drought.

Roger is working on a white paper that gets at the water quantity-water quality nexus based on the third sentence of Section 101(g) of the CWA. The majority of states allocate quantities of water. EPA understands that states are in charge of allocating and saying who gets what water within your state. There is a third sentence in Section 101(g) that says, "Federal agencies shall cooperate with State and Local agencies to develop comprehensive solutions to prevent, reduce, and eliminate pollution in concert with programs for managing water resources." EPA has a lot of water quality programs that have as their goal to improve water quality. But they also have programs benefitting water quantity. We are trying to pull those together to find the benefits. Examples include EPA's water reuse guidelines that detail practices and guidelines from across the country. The WaterSense program is a water conservation product. The stormwater program is a permitting program to reduce the pollutant loads from stormwater. Part of that is keeping water and managing it within an environment that is covered by a permit. Storing stormwater will help with flooding and pollution and helps with water supply, as well as recharging and conserving groundwater. The Source Water program under the Safe Drinking Water Act (SDWA), aquifer storage and recovery, all these programs are to help protect the quality of groundwater. It is also a way of improving groundwater resources.

EPA is actively reaching out to the WSWC and others to assist in running programs under the Clean Water Act that have benefits for water supply, and how can EPA assist the states with their programs so that there is a mutual benefit to both water quality and quantity. As we all know, there are challenges related to increased population, climate change, and other demands on water resources. We need to determine how to stretch the available water supply and keep the quality necessary for use.

Questions

Jennifer Gimbel: Thank you, Roger. I think we are all working together. Is EPA looking at perhaps adjusting some regulations and streamlining to make things easier for states?

Roger Gorke: Absolutely. We need help from the states in determining where problems exist that we may not be aware of. An example is the drought forum in December, in which NOAA helped pull people together, to deal with water shortage. Sometimes water treatment results in the creation of by-products that raise a regulatory issue. Is it really an issue or is it merely a perceived issue? Please tell us where you think there are roadblocks or areas that need to be streamlined so we can help. If we are not aware, then we cannot help.

J.D. Strong: You mentioned you are working on a white paper, correct? Is that something you will be able to share with us soon that will give us insight into what you and EPA are thinking when it comes to the nexus issue?

Roger Gorke: Yes, I think so. We are doing an internal review right now. There are no secrets.

J.D. Strong: It will be an external document at some point then. We may wish to incorporate parts of it into the Water Quality Committee workplan.

Dennis Strong: With respect to stormwater, aquifer storage and recovery water, and reuse water they are all going somewhere else. These waters are on their way somewhere before you decide to intercept them and do something else to them or with them. Are you looking at the impact, the interconnectedness of the water that we are using and reusing? It's okay if it is going into the ocean, I suppose. In Utah, some of our upstream water goes to downstream water users, so it is not as simple as saying "reuse" or do ACR or whatever. I just wonder what you're looking at.

Roger Gorke: We are not necessarily looking at the impacts in Utah versus Wyoming versus Southern California. I'm using the term "we" as society as a whole, in considering water reuse and recycling, and wondering do we want to do that at the expense of a low flow stream, an effluent dependent stream-- probably not. We are concerned with a bigger picture than if you're taking a discharge here and recycling that. If you're taking water out of a stream within a community, then hopefully that community is not taking that water from wherever its primary source is. Depending on the specific situation, there could be more water in the system. Power plants may be recycling water and some would say that is not a low number. The entire stakeholder group within a certain area would want to look at Water Plant A is discharging into Lake B, as well as the power plant is pulling from Lake B. Does it then make sense to have a connection with Wastewater Plant A to the power plant? You're suggesting the right question. Don't just do recycling for recycling sake. Determine what the downstream and ancillary benefits are of a recycling project. Local decision makers should raise these issues. We want to make the most informed choices possible. The same goes for stormwater.

Dennis Strong: Thank you. It is about choices, and it is important that people understand there are impacts associated with all of those choices.

Roger Gorke: Right. This is not designed to be a regulatory thing at all. It's a matter of saying to the stakeholder community, we think our program can help benefit supply, and we ask that you look at it while we are making local decisions.

MISSOURI RIVER CORPS WATER ISSUES

Todd Sando remarked that he and Garland Erbele gave a presentation in San Antonio last October on surplus water and the Corps of Engineers making use of Missouri River water mainstem reservoirs. After three years, the first surplus water contract was issued to take water out of Lake Sakakawea. There are 10 others in the cue right now.

The federal government is making a mountain out of a mole hill. Lake Sakakawea reservoir is 10 million acre-feet below the point it should be at this point to supply downstream needs. Mainly the water runs to the Gulf of Mexico and is used to support barge traffic.

We are fighting over the term ‘surplus water.’ The Corps issued the first surplus water contract, and then people in the Mississippi system thought there was extra water in the Missouri River. It is a misnomer, it is not surplus water. It is actually natural flows. It’s the state’s water. Right now the Corps is arguing one point with the Missouri Basin States and another with the Mississippi States. This past winter, the Mississippi States made a significant outcry to the Administration trying to have more water released from the Missouri River mainstem reservoirs. You cannot release water from reservoirs in the dead of winter due to ice dams, etc.

The Corps has started a process of rulemaking, following the issuance of the first five-year contract on surplus water. They have acknowledged that 100,000 acre feet of water is available that is extra storage. At the same time, they are working on a reallocation study on the reservoirs. They never did an original allocation, so this will likely cause another battle.

Garland Erbele has retired, so he is no longer working with the State of South Dakota on their issues. There are many issues ahead on the Missouri River. North Dakota’s Governor met with Assistant Secretary of the Army Jo Ellen Darcy in February, and he was not impressed. The Corps seems to be marching forward.

Tony Willardson reported that during the Council’s Washington, D.C. visits, Council officers met briefly with Steve Stockton and Ada Benavides. This issue was raised. The Council was told that the proposed surplus rules have been in the Assistant Secretary’s office (Jo Ellen Darcy) for a year. It is moving very slowly. On the Mississippi River issue, the Corps seems to be in lock-step with the Upper Missouri Basin States position that there is no authority for them to augment Mississippi River flows using the storage in the Missouri River Basin.

LDCM/LANDSAT 8 LAUNCH

Tony Willardson noted that the Council has been very instrumental in working with the Landsat program. The program was begun in the 1970s. In 1982, Landsat 5 was launched. It included the thermal infrared (TIR) imager that a number of our Council member states have been using, and particularly the state of Idaho, to measure consumptive water use using an energy balance algorithm. As NASA began to look at replacing Landsat 5 and Landsat 7 with Landsat 8, or the Landsat Data Continuity Mission (LDCM), NASA as a cost-cutting measure, looked at not including the TIRs instrument. There is a significant cost savings as the TIR imager is a significant part of the payload. Because of the potential, as well as the existing uses, for measuring consumptive water using the imager, it was again incorporated into the Landsat 8 satellite – largely due to the WSWC’s efforts. The information is also archived, and has been archived since 1982. As we begin to more closely regulate water rights and water uses, the archives could be a very valuable tool for quantifying water available for transfer.

The launch was pretty spectacular. Tony attended the launch at Vandenberg Air Force Base, along with many dignitaries. The Landsat advisory team gives the WSWC credit for getting the TIRS instrument on the satellite. It was not an insignificant task, nor an insignificant amount of money. Tony,

in turn, said that credit goes to all Council members who contacted your congressmen and senators as well to get Landsat to fly.

It took fourteen years between the launch of Landsat 7 and Landsat 8, to get support for and plan, design and build the satellite and sensors. The development of Landsat 9 is already behind schedule. In March discussions with OMB, there was an indication that the Council would be pleased when the President's budget came out. We anticipate there will be funding to begin developing Landsat 9. Tony is participating on a work group to advise the Assistant Secretary on how best to go about development of Landsat 9 as it moves forward. We would like to see a shorter return time with the satellites. There is about an 8 day return time now with two satellites. There are challenges with gathering the TIRS information as it does not see through clouds, mountainous areas create other challenges, etc. It is still a very valuable tool. It behooves us to tell the OMB how we are using this tool as expenditures are discussed for the next iteration of Landsat 9.

Dave Tuthill will likely not hold an annual metric workshop this year as he has in the past. This workshop had been held with contract funds from NASA, and the Council has been asked if we may be willing to sponsor that workshop. This topic will be reviewed during the work plan discussion.

Dr. Mace thanked the Council and Tony for their efforts. Texas is taking a serious look at Metric, and the work that has been done will be very beneficial to Texas, as well as other states.

WATER DATA EXCHANGE (WaDE) REPORT

Sara Larsen provided an update on the Water Data Exchange (WaDE) program for the last six months, since the fall Council meetings in San Antonio. Sara commented that a lot of things have been done to better enable the states to share important water data. A water/energy workshop was held this past Tuesday, and this will be described later.

Sara explained how WaDE works. The exchange will provide better access to water allocation, supply, and demand data that are maintained by the states. The WSWC also works through collaboration with WestFAST with the various Federal agencies that comprise WestFAST to develop standard methods for accessing Federal data that support state-federal planning efforts and are important components to water supply estimates.

Rather than transferring databases back and forth, WaDE uses web services and a catalog to try to access the data directly. The data are housed at the states and remain under their purview. As partners come online into the Data Exchange, the value of the information increases, and the better off we'll be. WaDE is also interested in promoting and incorporating shared federal datasets concerning water management (streamgage data, snowpack, streamflow forecasts, reservoir storage and groundwater gage elevations, etc.) to assist the states, and make their water planning efforts easier. It will provide water allocation data so folks can see the beneficial uses, as well as the amounts and priority dates. WaDE provides the data to the end user in an XML format (which is a hierarchy that shows the relationships), in the form of tables and charts, etc.

At the WSWC meetings in San Antonio, we learned that the states would need some funding in order to get the WaDE program up and running. Sara explained that she has worked with the state of

Texas in submitting a proposal for an EPA Exchange Network Grant. The award is for up to \$500,000. Five states helped with the EPA grant process: Washington, Oregon, Idaho, Texas, and Oklahoma. Sara thanked the state directors who allowed her to connect with their staff in putting together the budget, and in determining how much staff time would be necessary to implement WaDE, to determine if additional licenses would be needed, to assess whether a centralized IT department would be needed, and so forth. Sara completed a “scope of work” cost evaluation for eight states. The funds could range from \$30,000 to \$80,000, or on the lower range, states could perform some in-kind services. The recipients’ announcement is expected to be made in mid-April.

Additional achievements over the last six months include: an update to the Flow Configuration Document, which is a guide or map for the partners and describes the exchange methods and components that a state would need to implement in order to have compatible services and data as part of the exchange, as well as describes how a user of the data could consume those data services. Secondly, we rewrote code for the web services for newly released service specifications. We likewise have incorporated changes to the data schema and issued v0.2.

Sara demonstrated how the exchange works with Sandia data on the WSWC server.

Sara then described the Energy-Water Nexus workshop. She expressed appreciation to those who attended the workshop.

Tony Willardson talked about the costs of the project for member states to participate and noted that the benefits hopefully outweigh the costs.

FEDERAL LEGISLATION UPDATE

A brief legislative update highlighted the following legislation.

A. Reclamation State Emergency Drought Relief Act Reauthorization

Two bills have been introduced; one in the House and the other in the Senate. See Tab M. No hearings have been scheduled on the bills nor any action taken.

B. NIDIS Reauthorization

A Senate bill has been introduced. There is no companion bill in the House at this time.

C. Water Infrastructure Finance and Innovation Authority

Senator Merkley of Oregon has introduced this legislation. There is no House companion bill. There is also a provision in the WRDA bill for innovative projects. The Council has not taken a position on any of this legislation.

Phil Ward asked if any of these funding bills have legs?

Nathan Bracken responded that folks with federal Clean Water Act State Revolving Fund (SRF) programs have concerns that WRDA’s provision may take money away from SRFs.

D. Reclamation Conduit Hydropower Development Authority

Under Tab O in the briefing books. A bill has been introduced in the Senate.

E. Hydropower Regulatory Efficiency Improvement Act

H.R. 267 – passed House without opposition, although seven members did not vote. A bill has also been introduced, S 545 on March 14th. It has bipartisan sponsorship.

WSWC WESTERN WATER INFRASTRUCTURE SYMPOSIUM

The Council held the symposium last November in Phoenix. A report was done in the 1980s that summarized state water project financing programs. We had a good turnout, but not as many attended as in the past. There is a need to update information from 1980 report and WSWC staff will be pestering you for this information if you have not yet completed your state's update, as requested prior to the symposium. We will be preparing a summary report of the symposium.

Scott Verhines commented on how useful the symposium was from his perspective.

Tony also addressed Section 2015 language from WRDA, which was handed out. Tony also talked about cuts to USDA's Natural Resources Conservation Service, specifically the snow telemetry (SNOTEL) program.

Pat Tyrrell mentioned that Wyoming had responded to a request from Senator Barrasso about WRDA programs with a new proposal. In 2007, Wyoming was authorized a sum of money that they were really never able to use because they do not have the Corps presence that some other western states have. There was an authorization for \$30 million for the State of Wyoming that was never touched. Barrasso's office was saying to Wyoming that if they authorize WRDA again, they wanted to know what they could put in for the State of Wyoming that could actually be used.

Wyoming officials visited Senator Barrasso's office and proposed that rather than authorizing \$30 million for Wyoming that the state cannot use, they suggest funding \$6.25 million for enhanced data gathering in the Missouri River Basin, a request that will come to Congress in one form or another through the a task force. Also, they suggested adding \$5 million for a total of \$11.25 million that would backstop the loss of services, such as SNOTEL or USGS funding in the Missouri River Basin States. This is included as Section 5008 in the WRDA bill. This may at least help in part to stop or mitigate the loss of funds. Of course, this would still need an appropriation.

FY 2013-2014 WATER RESOURCES COMMITTEE DRAFT WORK PLAN

The draft committee work plan under Tab E is for discussion. The final work plan will be approved in June.

Jennifer Gimbel, Committee Chair, suggested that a subcommittee be developed to handle legislation in light of the cuts to funding in such bills as WRDA, Farm Bill, WIFIA, etc. It was suggested that J.D. may chair the subcommittee. Tony noted that the Farm Bill and WRDA are included in the draft work plan as items number 6 and 7. These items will continue to be of interest to several member states.

Tony briefly reviewed the items on the work plan, noting in particular the individual topics under item number 1, which is the M3 Initiative: Measuring, Monitoring and Management. He commented that the WSWC has consistently supported funding for the NRCS Snow Survey program, USGS Streamgaging and is working with the Advisory Committee on Water Information on recommendations for the USGS budget. These are continuing funding challenges. He further noted that the Committee has already heard reports on Landsat, Drought, NIDIS and extreme weather events, as well as groundwater monitoring. The Council can express our thoughts and make recommendations on which programs the limited funding should support, especially with respect to USGS programs.

Following up on the strategic directions discussion in terms of outreach to federal agencies, the Council has already produced a brochure in support of the position adopted on observing systems for extreme precipitation. The California Department of Water Resources is producing another brochure on behalf of the Council on the big picture of the water data program, which will be heavy on graphics and illustrations showing the hydrologic cycle and pointing out that all of these different federal data programs contribute to understanding it better. This brochure will be available as a fact sheet with respect to funding for the stream gaging program, the snow survey program, and others.

Regarding the NIDIS program, we are engaging with the Drought Impact Reporter to look at how we measure impacts. One of the many tools that NIDIS has spun off, or funded in part, was a web-based effort by the National Drought Mitigation Center to collect and disseminate information about drought impacts for folks to use. The existing website needs improvements. In California, as part of the State's NIDIS pilot, they will be partnering with NOAA on getting something more quantitative and useable for their purposes and extended an offer to the Council and other states to participate in that process. California will be funding a workshop that the Council will cosponsor this coming summer to get an understanding of some of the methods available to measure drought impacts, and how we might go about helping the federal agencies provide better quantification measures.

Tony remarked that the Council's Management Subcommittee visited with many of the federal agencies this past March and left the brochure on extreme precipitation. They also met with congressional staff on the streamgaging and snow survey programs to try to make the Council's position known and show our support for these information programs.

The draft work plan lists members of some subcommittees. Tony specifically pointed out that Committee members should review the membership of the subcommittees and let him know if they wish to be included or deleted. He then noted that if the appointed state Council representative feels they do not have the time or expertise on any particular subcommittee, they are welcome to name one of their staff to participate. The individual does not need to be an appointed Council representative to participate in a subcommittee.

Walt Baker raised an issue with respect to item number two on program funding. He asked whether some of the items in the work plan dealing with infrastructure funding, such as WRDA and WIFIA, may be integrated.

Tony remarked that Walt raised a good point. He agreed that there may be some cross-over, and there may be some provisions of WRDA that deal with infrastructure financing issues. There are also items dealing with the SRFs and water quantity and quality. This is an issue we will need to address. The Water Resources Committee can work with the Water Quality Committee to coordinate on items with

similar water quantity and quality aspects, if desired. Dennis Strong noted the funding overlaps on SRFs and water quality with the items in the Water Resources Committee. The Legal Committee work plan includes conservation, whereas it is not mentioned in the Water Resources Committee work plan. Thus, there are some items that have interest for each of the committees, and this should be addressed before the next meeting.

Tony said the staff can look at coordinating items between the various committees.

Jennifer Gimbel mentioned the Committee may wish to do some prioritization of the work plan items at the next meeting in Casper in June.

OTHER MATTERS

There being no further matters, the meeting was adjourned at 11:35 am.