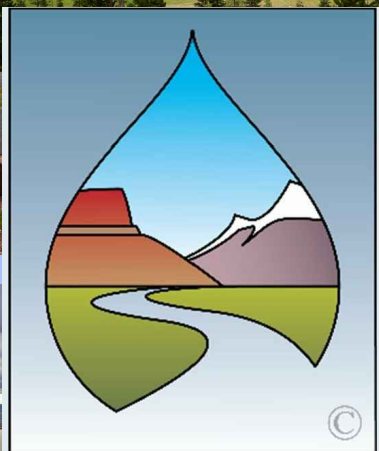
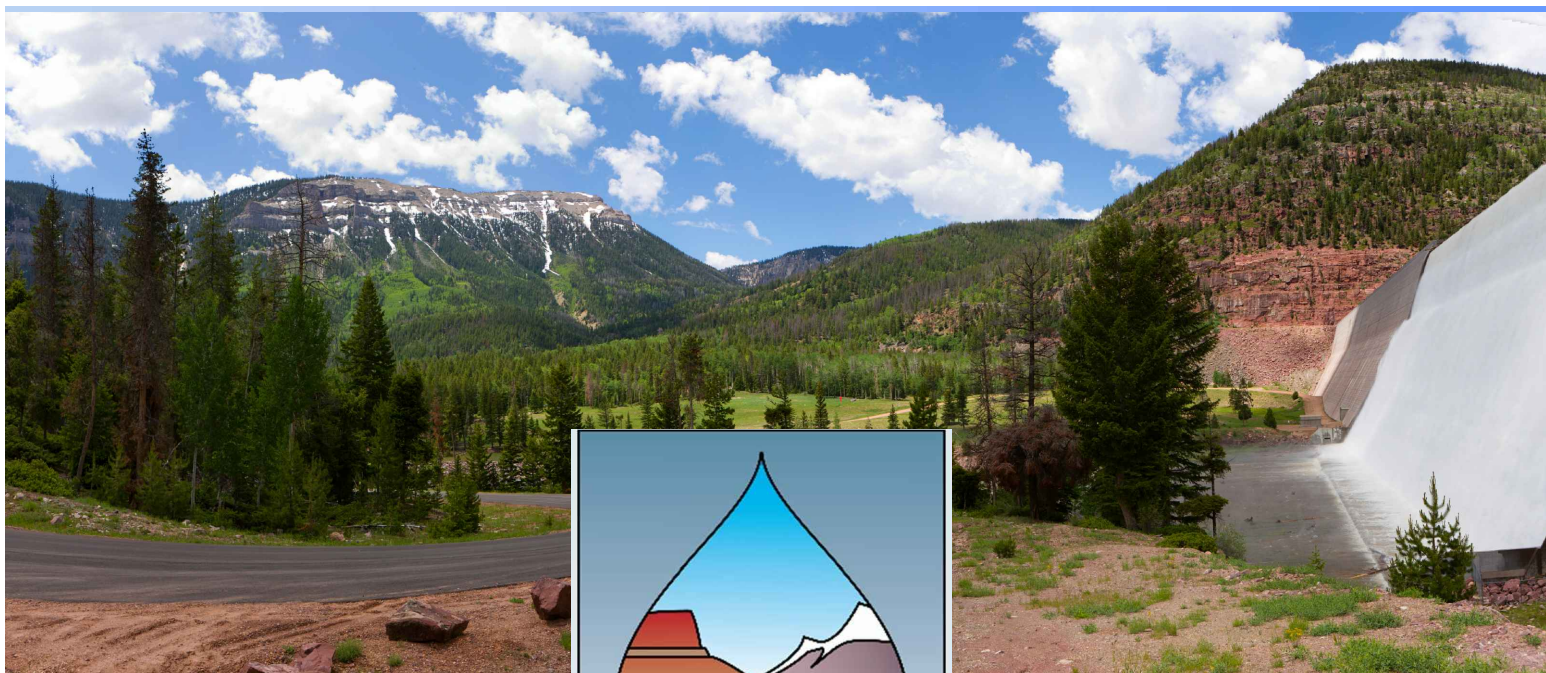




WESTERN STATES
WATER COUNCIL



182nd Council Meeting
St. George, Utah
September 28-30, 2016



WESTERN STATES WATER COUNCIL

682 East Vine Street, Suite 7 I Murray, Utah 84107 I (801) 685-2555 I FAX (801) 685-2559

Web Page: www.westernstateswater.org

MEMORANDUM

TO: Council Members and Others
FROM: Tony Willardson, Executive Director
DATE: September 21, 2016
RE: Briefing Books for the 182nd Council Meetings in St. George, Utah

This is notification that the briefing book for our meetings being held in St. George, Utah on September 28-30, 2016 is available on our [182nd meetings web page](#). The minutes from our last meetings held in Bismarck, North Dakota are posted on our website (under Past Meetings) for your review.

On Wednesday morning, September 28th, a workshop on Sub-Seasonal to Seasonal Precipitation Forecasting - Forecast Informed Reservoir Reoperations will be held. The workshop will commence Wednesday morning at 8:00 am, and conclude around 11:15 a.m.

Council members and guests are invited to join our Utah hosts on a field trip Wednesday afternoon, sponsored by the **Washington County Water Conservancy District**. Please meet in the hotel lobby at 12:15 p.m. Registration is required and is \$20 per person, which includes a box lunch. Space is available and payment arrangements can be worked out. We will be visiting: Sand Hollow Reservoir for a discussion on groundwater recharge and water banking. The reservoir is also the terminus of the Lake Powell Pipeline Project, which will allow Utah to further develop its allocation of Colorado River water to benefit Southern Utah's growing population and economy. Following this presentation, we'll travel to Pah Tempe Hot Springs for a presentation on the spring studies and water supply. Thereafter, we'll continue to Zion National Park, and disembark from the bus to spend some time in the park. We'll learn about the TMDL performed on the North Fork of the Virgin River as well as the Endangered Species Act recovery program on the river. Water rights settlements for Zion and Bryce Canyon National Parks will also be highlighted. We expect to return to the Abbey Inn around 6:00 p.m. Dinner is on your own.

On Thursday, the WSWC Committee meetings will be held sequentially, beginning at 8:00 a.m. with the Water Resources Committee meeting, after which the Executive Committee will begin at 11:30 a.m. and meet over lunch until 1:00 p.m. All others will be on their own for lunch. The Water Quality Committee meeting will begin at 1:15 p.m., followed by the Legal Committee, which will start at 3:30 pm. A reception will be held at the hotel from 6:00 – 7:00 p.m., and all Council members and guests are invited to attend. We wish to express our appreciation to our reception sponsors, **CH2MHill**, and meeting sponsors **Santa Margarita Water District** and **Smith Hartvigsen**.

The meetings will conclude with the Full Council which begins at 8:00 a.m. on Friday, September 30th. Utah Department of Environmental Quality Director Alan Matheson and Tom Iseman, Deputy Assistant Secretary for Water and Science at the Department of the Interior will both address the Council.

The Wednesday morning workshop will be available for remote participation via teleconference and webinar. On Thursday, the Water Resources, Water Quality, and Legal Committee meetings, as well as the Friday morning Full Council meeting will be available via teleconference and webinar. **Call-in instructions and information on how to participate via webinar are attached to this memorandum.** Please send a request if you wish to participate via teleconference in the Executive Committee meeting. In the event you have difficulties connecting, please call or text Tony at 801-573-7593 or Michelle at 801-615-1673.

We look forward to interesting and productive meetings in St. George, and hope you are able to join us. If you have any questions regarding these matters, please let us know.

CALL-IN AND WEBINAR INSTRUCTIONS

A. Call-In Information

The dates, times, and call-in information for each meeting are listed below. The below list also indicates which meetings will be available via webinar. Instructions on how to participate via webinar are contained in Section B, which follows.

For teleconference and webinar audio, **please use the dial-in numbers as indicated below.**

Mountain				
Day, Date	Time	Meeting	Dial-in Number	Webinar
Wed, Sep 28	8:00 am	Workshop on S2S and Forecast Informed Reservoir Re-operations	1-800-920-7487 Code: 19896486#	Yes
Thurs, Sep 29	8:00 am	Water Resources Committee	1-800-920-7487 Code: 19896486#	Yes
Thurs, Sep 29	1:15 pm	Water Quality Committee	1-800-920-7487 Code: 19896486#	Yes
Thurs, Sep 29	3:30 pm	Legal Committee	1-800-920-7487 Code: 19896486#	Yes
Fri, Sep 30	8:00 am	WSWC 182nd Full Council Meeting	1-800-920-7487 Code: 19896486#	Yes
<u>Please send a request if you wish to participate via teleconference in the Executive Committee.</u>				
Thurs, Sep 29	11:45 am	Executive Committee	1-800-920-7487 Code: 19896486#	No

B. General Webinar Instructions

Depending on your web browser and system configuration, you may experience problems accessing the webinar.

Please check and prepare your computer a day or two in advance of the meeting as follows:

1. Start your web browser
2. Visit <http://westerngovernors.webex.com>
3. Select “Setup / Event manager” (left side of page)

To participate via webinar, please follow the instructions below:

1. Go to <https://westerngovernors.webex.com/>
2. Select the meeting you wish to join.
3. If requested, enter your name and email address.
4. If a password is required, enter: “wswc” for all meetings
5. Click “Join.”
6. Follow the instructions that appear on your screen.

When you attempt to log in, you may receive a message that says you need Java to run the meeting software. If you do not have an up-to-date version of Java on your computer, the WebEx software should offer you a temporary application that you can run on your computer to make the WebEx application work correctly.

We recommend you place your phone on mute and under no circumstance place the call on hold. If you encounter troubles connecting to the audio (or other things), you may ask questions or communicate via the WebEx “chat” feature.

**WESTERN STATES WATER COUNCIL
182nd COUNCIL MEETING
St. George, Utah
September 28-30, 2016**

TABLE OF CONTENTS

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- A. Schedule of Meetings - Agenda - 30-day Notice
- B. Membership List
- C. WSWC Policy Positions

Sunsetting Positions

- Wat Res **#356** - Supporting NASA's applied science research program (October 3, 2013)
- Wat Res **#357** - A letter to Senate Energy and Natural Resources Committee leaders expressing continued support for implementation of the SECURE Water Act (October 3, 2013)
- Legal **#358** - Urging Congress to reaffirm its deference to state water law, provide for the waiver of the United States' immunity to participation in state administrative and judicial proceedings, and provide for payment of fees required by state law (October 3, 2013)
- WQ **#359** - Opposing requiring pesticide applications for National Pollutant Discharge Elimination System (NPDES) discharge permits (October 3, 2013)

List of Current WSWC Policy Statements and Sunsetted Positions

- D. Budget
- E. WSWC/CDWR Reports
- F. Sustaining Surface Water Flow in the Upper Colorado River Basin
- G. NASA's Western Water Applications Office
- H. Upper Rio Grande Basin Snowfall Measurement and Streamflow Forecasting Improvement Project
- I. Water Data Exchange (WaDE) Project Update
- J. Summary of WSWC Activities and Events
- K. Future Council Meetings
- L. Tribal Water Rights Update
- M. Legislation and Litigation Update
- N. 2017 Nationwide Permits
- O. National Drought Resilience Partnership on Climate Preparedness and Resilience / WSWC "Cross-walk"
- P. *Intentionally Blank*
- Q. *Intentionally Blank*
- R. *Intentionally Blank*
- S. *Intentionally Blank*
- T. *Intentionally Blank*
- U. *Intentionally Blank*
- V. *Intentionally Blank*
- W. Newsletter Index
- XYZ. Sunsetting Positions for Spring 2017 Meetings (#360 - #364)

Tab A – Schedule of Meetings – Agenda –
30-day Notice

SCHEDULE OF MEETINGS

WESTERN STATES WATER COUNCIL 182nd COUNCIL MEETINGS

Best Western Abbey Inn
St. George, Utah
September 28-30, 2016

<u>Date</u>	<u>Time</u>	<u>Meeting</u>	<u>Room</u>	<u>Adjournment</u>
<u>Wednesday, September 28</u>				
	8:00 am	Sub-Seasonal to Seasonal Precipitation Forecasting and Forecast-Informed Reservoir Operations Workshop		11:15 am
	12:30 pm	Field Trip – (see registration form on our website for description and details) Sponsor: <u>Washington County Water Conservancy District</u>		6:00 pm
	6:00 pm	Management Subcommittee (over dinner)		
<u>Thursday, September 29</u>				
	8:00 am	Water Resources Committee		11:15 am
	11:30 am	Executive Committee (over lunch)		1:00 pm
	1:15 pm	Water Quality Committee		3:15 pm
	3:30 pm	Legal Committee		5:30 pm
	6:00 pm	WSWC Reception Sponsor: <u>CH2MHill</u>		7:00 pm
<u>Friday, September 30</u>				
	8:00 am	Full Council Meeting including <i>Photo Session</i>		11:30 am
Meeting Sponsors:		<u>Santa Margarita Water District</u> <u>Smith Hartvigsen</u>		

AGENDA

Workshop on Sub-Seasonal and Seasonal Precipitation Forecasting and Forecast Informed Reservoir Reoperations

**Sponsored by
Western States Water Council and California Department of Water Resources**

September 28, 2016

**Best Western Abbey Inn
St. George, Utah**

Wednesday, September 28

Tuscany Room

- 8:00 Welcome and Introductions
- 8:10 Background on Sub-seasonal to Seasonal (S2S) Precipitation Forecasting and Overview of Related WSWC Activities, Jeanine Jones, Interstate Resources Manager, California Department of Water Resources (CDWR)
- 8:30 Seasonal Precipitation Forecast Improvement Project White Paper, David DeWitt, Director, Climate Prediction Center, NOAA (via phone)
- 8:50 S2S Research Activities at NOAA's Climate Prediction Office (CPO), Dan Barrie, Program Manager, CPO, Office of Atmospheric Research, NOAA (via phone)
- 9:10 Opportunities for Improving S2S Forecasting in the West: Extreme Precipitation and Atmospheric Rivers -- Marty Ralph, Director, Center for Western Weather and Water Extremes, Scripps Institution of Oceanography
- 9:40 Building on Improved Precipitation Forecasting – Forecast-Informed Reservoir Operations (FIRO) Pilot Project at Lake Mendocino, and Regional Advanced Quantitative Precipitation Information (AQPI) Project -- Jay Jasperse, Chief Engineer, Sonoma County Water Agency
- 10:10 USACE FIRO Research to Inform Water Management Policy – Cary Talbot, Program Manager, USACE Engineer Research & Development Center
- 10:40 Group Discussion
- 11:15 Adjourn

AGENDA
WATER RESOURCES COMMITTEE
Best Western Abbey Inn
St. George, UT
September 29, 2016

Called to Order at: 8:00 a.m. (Mountain Time)
Conducting: Tim Davis, Chair

Room: Tuscany Room

TABS

1. **Welcome and Introductions**
2. **Approval of Minutes**
- C 3. **Sunsetting Positions / Review Policy Positions List** – Tim Davis
 - #356 – NASA’s applied science research program
 - #357 – Letter expressing continued support for implementation of the SECURE Water Act
4. **Western Governors’ Association (WGA) Water-Related Activities** – Troy Timmons/Zach Bodhane, WGA
- E 5. **CDWR/WSWC Workshop Update**
 - a. Irrigation Management Information System (IMIS) Workshop – Jeanine Jones
 - b. Improving Sub-Seasonal to Seasonal Precipitation Forecasting Report – Jeanine
6. **U.S. Army Corps of Engineers Levee and Dam Safety Issues** – John Moreno, Chief, Business Technical Division, South Pacific Division
7. **SECURE Water Act: Reclamation, Climate Change and Water Report to Congress** – Katherine Dahm, Water Resource and Planning Division, U.S. Bureau of Reclamation
- F 8. **Significance of Groundwater to Colorado River Basin Streamflow** – David Susong, USGS Utah Water Science Center Director
- G 9. **Water Resources in the Applied Science Program of the Earth Science Division and NASA’s New Western Water Applications Office (WWAO)** – Brad Doorn, Program Manager, Water Resources Program, NASA / Dr. Christopher White, Jet Propulsion Lab
- H 10. **Upper Rio Grande Basin Snowfall Measurement & Streamflow Forecasting Improvement Project** – David Gochis, Scientist, Research Applications Laboratory, National Center for Atmospheric Research (NCAR)
11. **National Integrated Drought Information System (NIDIS) Update** – Veva Deheza, NIDIS Executive Director, National Oceanic and Atmospheric Administration (NOAA) and Kevin Werner, Director, Office of Organizational Excellence, National Weather Service, NOAA
- I 12. **WaDE Update** – Sara Larsen
13. **Discussion – Preparing for Administration Transition Teams**
- XYZ 14. **Sunsetting Positions for 2017 Spring Meetings - #360 - #363**
15. **Other Matters/Adjourn**

AGENDA
EXECUTIVE COMMITTEE
Best Western Abbey Inn
St. George, Utah
September 29, 2016

Call to Order at: 11:30 a.m. (Mountain Time)
Conducting: Jerry Rigby, Chair

Room: Tuscany

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
- D 3. **Report on Budget and Finances** – Jeanine Jones
 - a. FY2016-2017 Budget Status Report
 - b. WaDE/EN Grants Status Report
 - c. CDWR Contracts Status Report
 - d. Dues Report
- C 4. **Sunsetting Positions** – Tony Willardson
 - Wat Res #356 - Supporting NASA's applied science research program (October 3, 2013)
 - Wat Res #357 - A letter to Senate Energy and Natural Resources Committee leaders expressing continued support for implementation of the SECURE Water Act (October 3, 2013)
 - Legal #358 - Urging Congress to reaffirm its deference to state water law, provide for the waiver of the United States' immunity to participation in state administrative and judicial proceedings, and provide for payment of fees required by state law (October 3, 2013)
 - WQ #359 - Opposing requiring pesticide applications for National Pollutant Discharge Elimination System (NPDES) discharge permits (October 3, 2013)
- J 5. **Executive Director's Report/WSWC Activities and Events** – Tony Willardson
 6. **WSWC Strategic Planning Subcommittee Report** – Jeanine Jones
 7. **Federal Administration Transition and WSWC Priorities** – Jerry Rigby
- K 8. **Future WSWC Meetings**
 - a. WSWC Washington, D.C. Visits (Officers) – Spring 2017 – Wash, D.C.
 - b. WSWC Spring Meetings – April 12-14, 2017 – Nebraska City, Nebraska
 - c. WSWC Summer Meetings – June 27-29, 2017 – Rohnert Park, California
- XYZ 9. **Spring 2017 Meeting Sunsetting Positions** (adopted April 3, 2014)
 - Wat Res #360 - Bureau of Reclamation's Maintenance, Repair and Rehabilitation Needs
 - Wat Res #361 - Reclamation Safety of Dams Act of 1978
 - Wat Res #362 - Transfer of Federal Water and Power Projects and Related Facilities
 - Wat Res #363 - National Levee Safety Act of 2007 and the Interpretation of Levees and Water Supply Canals
 - Wat Qual #364 - Clean Water State Revolving Fund and the Drinking Water State Revolving Fund
10. **Other Matters**

AGENDA

WATER QUALITY COMMITTEE MEETING

Best Western Plus Abbey Inn

St. George, Utah

September 29, 2016

Call to Order at: 1:15 pm (Mountain Time)
Conducting: Kevin Frederick, Vice Chair

Room: Tuscany Room

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
- C 3. **Sunsetting Position - #359**
Opposing requiring pesticide applications for National Pollutant Discharge Elimination System (NPDES) discharge permits regulated under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) (October 3, 2013)
4. **Water Quality in Utah** – Erica Gaddis
5. **Discussion: Prediction, Assessment and Response to Harmful Algal Blooms**
6. **Ammonia Criteria Variances** – Tom Stiles
7. **Discussion: Connecting Water Quality and Public Health** – Trisha Oeth
8. **EPA Update** –
 - a. CWA 304(a) nutrient criteria for lakes and reservoirs
 - b. Proposed rulemaking on baseline Water Quality Standards for Tribes
 - c. Gold King Mine cleanup
9. **Colorado River Basin Salinity Control Program** – Don Barnett, Executive Director
Colorado River Basin Salinity Control Forum
10. **Discussion: Preparing for Administration Transition Teams**
- XYZ 11. **Sunsetting Position for 2017 Spring Meeting - #364**
12. **Other Matters**

AGENDA

LEGAL COMMITTEE MEETING

Best Western Abbey Inn

St. George, Utah

September 29, 2016

Call to Order at: 3:30 pm
Conducting: Jennifer Verleger, Chair

Room: Tuscany Room

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
- C 3. **Sunsetting Position - #358**
Urging Congress to reaffirm its deference to state water law, provide for the waiver of the United States' immunity to participation in state administrative and judicial proceedings, and provide for payment of fees required by state law (Oct. 3, 2013)
4. **Utah Water Rights Settlements** – Norman Johnson
5. **Dividing the Waters Program** – Nathan Bracken
- M 6. ***Texas v. New Mexico*** – Michelle Bushman
- M 7. ***Mississippi v. Tennessee*** – Michelle Bushman
- L 8. **Tribal Water Rights Update** – Michelle Bushman
- M 9. **Legislation and Litigation Update** – Michelle Bushman
- N 10. **2017 Nationwide Permits, WOTUS Rule Definitions** – Jennifer Verleger
11. **Discussion: Preparing for Administration Transition Teams**
12. **Other Matters**

AGENDA

182nd COUNCIL MEETING

Best Western Abbey Inn

St. George, Utah

September 30, 2016

Call to Order at: 8:00 a.m.
Conducting: Jerry Rigby, Chair

Room: Tuscany Room

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
3. **Utah Water Issues** – Alan Matheson, Director, Utah Department of Environmental Quality

Break *Photo Session*

- O 4. **Water-Related Activities at the Department of the Interior** – Tom Iseman, Deputy Assistant Secretary for Water and Science
5. **WestFAST Report and Workplan** – Roger Gorke, Environmental Protection Agency, WestFAST Chair, and Pat Lambert, WestFAST Liaison
6. **Committee Reports** – Action Items
 - C a. Water Resources Committee – Tim Davis
 - C b. Executive Committee – J. D. Strong
 - C c. Water Quality Committee – Kevin Frederick
 - C d. Legal Committee – Jennifer Verleger
- K 7. **Future Council Meetings**
- XYZ 8. **Sunsetting Positions for Spring 2017 Meetings**
9. **State Reports**
10. **Other Matters**



W E S T E R N S T A T E S W A T E R C O U N C I L

682 East Vine Street, Suite 7 I Murray, Utah 84107-5501 I (801) 685-2555 I FAX (801) 685-2559

Web Page: www.westernstateswater.org

MEMORANDUM

TO: Council Members
FROM: Tony Willardson, Executive Director
DATE: August 31, 2016
RE: **30-Day Notice of Fall (182nd) Council Meetings in St. George, Utah**

This memorandum is to advise that the 182nd meetings of the Western States Water Council will be held September 28-30, 2016, in St. George, Utah. In keeping with our rules of organization, any external policy positions to be proposed for Council consideration must be included in the 30-day notice.

No new policy positions are being proposed for consideration at the Utah meetings. Four positions are scheduled to sunset at this meeting, and they are as follows:

Position #356 – Supporting NASA’s applied science research program;

Position #357 – A letter to Senate Energy and Natural Resources Committee leaders expressing continued support for implementation of the SECURE Water Act;

Position #358 – Urging Congress to reaffirm its deference to state water law, provide for the waiver of the United States’ immunity to participation in state administrative and judicial proceedings, and provide for payment of fees required by state law; and

Position #359 – Opposing requiring National Pollutant Discharge Elimination System (NPDES) discharge permits for pesticide applications regulated under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA).

All sunseting positions are attached. They are also posted on our [website](http://www.westernstateswater.org). Revision and readoption of these sunseting positions will be considered. You may wish to consult with your respective Governor’s advisor with respect to the aforementioned policy positions.

An Executive Committee conference call to discuss the attached sunseting positions and any new proposed positions will be held on **Monday, September 12, at 2 p.m. Mountain Time** (1:00 pm Pacific; 3:00 pm Central). Committee Chairs are also invited to call in. Call details will be sent separately. Executive Committee members may designate an alternate.

For the purpose of the conference call and the meetings themselves, the Council has adopted an internal policy specifying the process for establishing credentials for participation by persons who are not Governor-appointed WSWC representatives. That policy requires written notification of any designee to act on behalf of a member, either in person or via conference call. An email to Tony with the name of your designated alternate is sufficient.

The Council meetings are being held at the Best Western Abbey Inn in St. George. The group room rate is \$80/night (single or double occupancy). The hotel reservations cutoff date has expired, and our block is filled. Rooms may be available and reservations will be accepted on a space and rate available basis. Reservations may be made directly with the hotel by calling **1-435-652-1234**, and request the Western States Water Council special group rate. Check in time is 4 pm and check out time is 11 am. As an alternate option, the hotel’s sister property, the Best Western Coral Hills (1-435-673-4844) has agreed to offer the same state rate. Please contact group sales

director Jennifer Cannady directly at the number above, mention the Western States Water Council conference, and she'll take care of the reservation. **Please note:** The 40th Annual St. George Marathon will be held on October 1st. Many events are held during race weekend in conjunction with the Marathon. Plan for more traffic as you depart if you are driving north toward Salt Lake or south toward Las Vegas.

WSWC members and guests are also invited to a reception on Thursday evening at 6:00 p.m. at the hotel. The reception is being sponsored by *CH2M Hill*. Additional meeting sponsors include: the *Santa Margarita Water District* and *Smith Hartvigsen*. Attached is a schedule of meetings for your reference. Agenda will be available soon on our [182nd meetings web page](#). Committee meetings will begin on Thursday with the Water Resources Committee at 8:00 a.m. and concluding with the Legal Committee meeting ending by 5:30 p.m. The Full Council meeting will commence at 8:00 a.m. on Friday, September 30th and adjourn around 11:30 a.m. Governor Herbert has been invited to address Council members.

Interested Council members are invited to attend a Sub-Seasonal to Seasonal Precipitation Forecasting - Forecast Informed Reservoir Reoperations Workshop in conjunction with the regularly-scheduled Council meetings. The workshop is scheduled to begin at 8:00 a.m. on Wednesday, September 28, and will adjourn at 11:15 a.m., prior to the field trip.

Our Utah hosts have arranged a field trip for Council members and guests on Wednesday afternoon, September 28, sponsored in part by the *Washington County Water Conservancy District*. The bus will depart from the Abbey Inn Hotel at 12:30 p.m., and a box lunch is included. We'll be visiting historic Pah Tempe Hot Springs and hear about salinity control issues. We'll travel to Sand Hollow Reservoir and hear a discussion regarding recharge and water banking. Additionally, the reservoir is the terminus of the Lake Powell Pipeline Project, which will allow Utah to further develop its allocation of Colorado River water to benefit Southern Utah's growing population and economy. We'll continue to Zion National Park, which includes mountains, canyons, buttes, mesas, monoliths, rivers, slot canyons and natural arches and disembark from the bus to spend some time in the park. We'll learn about the TMDL performed on the North Fork of the Virgin River as well as the Endangered Species Act recovery program on the river. Water rights settlements for Zion and Bryce Canyon National Parks will also be highlighted. We will return to the hotel around 6:00 p.m. The cost to attend the field trip is \$20.00 per person. Please register in advance, as space may be limited. The registration form is found under "Registration" on our [182nd meetings web page](#). **The deadline is September 15, 2016.** There is no fee to attend the regular meetings, but we would appreciate being informed so we may accommodate your attendance.

The WSWC meetings will also be accessible via teleconference/webinar. Dial-in and webinar participation information will be sent out just prior to the meetings and will also be posted [online](#).

Briefing books will be emailed on September 21st. If you wish to receive a hard copy of the briefing book, please contact Julie at jgroat@wswc.utah.gov **no later than September 15th** so that a book may be prepared and sent to you in advance of the meetings, or made available for pick-up on site.

If we can be of any assistance or answer any questions, please contact me at twillardson@wswc.utah.gov. We look forward to very successful and enjoyable meetings in southern Utah.

cc: Holly Propst, WGA

Attachments

Tab B – Membership List

WESTERN STATES WATER COUNCIL

MEMBERSHIP LIST

September 20, 2016

OFFICERS

Chair - **Jerry Rigby**
Vice-Chair - **Jeanine Jones**
Secretary-Treasurer - **J.D. Strong**

STAFF

Executive Director - **Tony Willardson**
Legal Counsel - **Michelle Bushman**
Federal Liaison - **Pat Lambert**
Hydrologist/Programmer - **Sara Larsen**
Office Manager - **Cheryl Redding**
Administrative Assistant - **Julie Groat**

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(801) 682-2559 (fax)

ALASKA

***Honorable Bill Walker**

Governor of Alaska
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†**Brent Goodrum**, Director
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ARIZONA

***Honorable Doug Ducey**

Governor of Arizona
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****Thomas Buschatzke**, Director
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*Ex-Officio Member

**Executive Committee Member

†Council members denoted by this symbol are listed by virtue of their office, pending receipt of a letter of appointment by their Governor.

Cynthia Chandley, Attorney (Alt.)
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CALIFORNIA

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****Mark Cowin**, Director
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Garland Erbele - North Dakota
JD Strong - Oklahoma
Thomas Byler - Oregon
(Vice-Chair)
Kent Woodmansey - South Dakota
Bech Bruun - Texas
Eric Millis - Utah
Tom Loranger - Washington
Patrick Tyrrell - Wyoming
Harry LaBonde - Wyoming
(Alternate)*

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(Updated 9/13/2016)

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Tab C – WSWC Policy Positions



(Originally adopted Oct 29, 2010 and revised and readopted on Oct. 3, 2013)

**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
NASA'S APPLIED SCIENCE RESEARCH PROGRAM
St. George, Utah
September 30, 2016
Deadwood, South Dakota
October 3, 2013**

WHEREAS, the Western States Water Council is a policy advisory body representing eighteen states, and has long been involved in western water conservation, development, protection, and management issues, and the member states and political subdivisions have long been partners in cooperative federal water and climate data collection and analysis programs; and

WHEREAS, in the West, water is a critical, vital resource (much of which originates from mountain snows) and sound decision making demands accurate and timely mapping of, and data on, altimetry, topography, precipitation, temperature, snow water content, groundwater, land use and land cover, water use, water quality parameters, and similar information; and

WHEREAS, the demands for water and related climate data continue to increase along with the West's population, and this information is used by federal, state, tribal, and local government agencies, as well as private entities and individuals to: (1) forecast flood and drought occurrence; (2) project future water supplies for agricultural, municipal, and industrial uses; (3) estimate streamflows for hydropower production, recreation, and environmental purposes; (4) facilitate water management and administration of water rights, decrees, interstate compacts, and international water treaties; (5) assist in disaster response; (6) assess impacts of climate variability and change; and

WHEREAS, thermal infrared imaging data available from Landsat 7 and Landsat 8 is used to measure and monitor agricultural and other outdoor water uses and needs, and is increasingly important for present and future management of our scarce water resources, and is an example of the application of basic science pioneered by the National Aeronautics and Space Administration (NASA); and

WHEREAS, the ability to use spaceborne-interferometric synthetic aperture radar (InSAR) to measure land subsidence due to groundwater extraction has already been demonstrated, and there are promising research approaches for using remote sensing for estimating snowpack conditions ~~has a demonstrated ability to measure land subsidence due to groundwater extraction and is now being evaluated in a research mode for its potential ability to measure changes in groundwater elevations;~~ and

~~**WHEREAS**, airborne light detection and ranging (LiDAR) using light waves instead of radio waves to measure the distance to objects and imaging spectroscopy are now being flown in California and Colorado to estimate basin-wide snow-water equivalent; and~~

WHEREAS, additional airborne and spaceborne remote sensing research and observations have a potential to provide other information on varied temporal and spatial scales that could with sustained engagement focus on transition of research to operations and ultimately be useful for water resources planning, management and decision-making; and

(Originally adopted Oct 29, 2010 and revised and readopted on Oct. 3, 2013)

WHEREAS, NASA has identified the “water and energy cycle” and “water resources” as topics to support in the agency’s research and applications programs respectively; and.

WHEREAS, NASA’s ARRA demonstration project on California applications for use of remote sensing information has illustrated that the potential exists for repurposing data collected from certain present NASA missions for water management applications, and that additional potential exists for research applications with sensors planned in future Decadal Survey missions such as the Deformation, Ecosystem Structure and Dynamics of Ice mission (DESDynI), which would combine radar and LiDAR technologies to get three-dimensional views; and

WHEREAS, the successful transfer of technology from the research domain to the applications domain is dependent, in part, on on-going communication between researchers and those responsible for resource management and policy decisions and a long term commitment to maintain such communication;

NOW THEREFORE BE IT RESOLVED, that the Western States Water Council urges the Administration and NASA to enhance the agency’s focus areas on research for water resources applications, and to promote long term engagement with the Council and the state and regional agencies in the western United States responsible for water management and water policy to maximize benefits to the public from NASA’s existing and future investments in Earth observations, Earth system models and systems engineering; and

BE IT FURTHER RESOLVED, that the Council supports efforts to advance linkages between NASA’s capabilities and water managers’ needs, such as NASA/JPL’s Western Water Applications Office (WWAO); and

BE IT FURTHER RESOLVED, that the Council urges the Administration and NASA to plan and provide for long-term continuity of observations from key sensors such as the thermal infrared sensor and InSAR; used in water management; and

BE IT FURTHER RESOLVED, that the Council strongly supports ~~an expedited NASA review of options for~~ a continuing National Land Imaging Program, including existing thermal imaging capabilities, and expresses its strong support for the expedited construction preference for an immediate short-term effort to replicate and launch of Landsat 409 ~~a satellite similar in design and instrumentation to Landsat 8 to minimize any loss of data~~ while exploring the potential for medium and longer-term advances in technology, design and future capabilities to meet existing and future uses.



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
THE DEPARTMENT OF THE INTERIOR'S WATER SMART PROGRAM
St. George, Utah
September 30, 2016**

WHEREAS, the Western States Water Council is a policy advisory body representing eighteen states, and has long been involved in western water conservation, development, protection, and management issues, and the member states and political subdivisions have long been partners in cooperative federal water programs; and

WHEREAS, in the West, water is a critical, vital resource and "...States bear the primary responsibility and authority for managing the water resources of the United States," as recognized in the SECURE Water Act¹; and

WHEREAS, Western water law and policy are based on the reality of scarcity and the need to use water wisely, and Western states have made great strides in increasing efficiency and reducing water use, but continued investments and sacrifices are needed to maintain our quality of life in the West and to protect our environment; and

WHEREAS, the Act also recognizes that "the Federal Government should support the States, as well as regional, local and tribal governments..." and authorizes a number of important programs to provide this much needed support; and

WHEREAS, the Council supports technical and financial assistance to states and local watershed groups and water districts as an appropriate federal role, consistent with authorized federal programs; and

WHEREAS, the Council has long supported watershed and basin-wide coordination that involves all governmental entities and stakeholders interested in finding solutions to present and future water management challenges; and

WHEREAS, Section 9504 of the Act authorizes the Secretary of the Interior to provide grants or enter into cooperative agreements to assist states and other non-federal entities in carrying out a range of water use efficiency improvements to address crucial water supply issues, stretch limited water supplies, and improve water management; and

WHEREAS, the Act authorizes a variety of activities to enhance the Department of the Interior's water data efforts, including the development of a national groundwater monitoring program, a brackish water assessment, and the establishment of a national water availability and use assessment; and

WHEREAS, real-time water resources data are critical for timely actions in response to droughts, flooding, and other extreme weather events, and the lack of federal capital investments in water data programs has led to the discontinuance, disrepair, or obsolescence of vital equipment needed to maintain existing water data gathering activities; and

WHEREAS, the lack of timely and accurate streamflow information threatens to put human life, health, welfare, property, and environmental and natural resources at a considerably greater risk of loss; and

¹ See Section 9501, SECURE Water Act, which Congress passed as Subtitle F of the Omnibus Public Lands Management Act of 2009 (Public Law 111-11).

WHEREAS, Section 9507 of the Act authorizes an additional \$10 million for each of fiscal years 2009 through 2019 for enhancements to the U.S. Geological Survey's (USGS) National Streamflow Information Program (NSIP) in order to provide an improved national backbone focused on national needs and interests; and

WHEREAS, the National Groundwater and Streamflow Information Program (NGWSIP), as well as USGS' cooperative matching funds within the Water Availability and Use Science Program (WAUSP), together provide vital water data that States and other public and private entities and individuals rely on in making day-to-day planning and management decisions; and

WHEREAS, Section 9508 (c) of the Act authorizes the USGS to "provide grants to State water resource agencies to assist in developing water use and availability datasets" and has led to initiation of the Water-Use Data and Research (WUDR) program, in support of the Water Use Data for the Nation publication and the National Water Census; and

WHEREAS, USGS' NGWSIP, WAUSP, and WUDR together will provide vital water data that States and other public and private entities and individuals rely on to make day-to-day planning and management decisions; and

WHEREAS, these and many WaterSMART programs have largely gone unfunded or underfunded or remain dependent on year-to-year appropriations, as opposed to a dedicated line item.

NOW THEREFORE BE IT RESOLVED, that the Western States Water Council expresses our continuing strong support for implementation of the SECURE Water Act; and

BE IT FURTHER RESOLVED, that the Council encourages the Administration to request and the Congress to ensure that the Act's authorized activities receive support and appropriations that are adequate to fulfill their stated purposes as a dedicated line item.



Position No. 358
Revised and Readopted

*(Originally adopted Nov. 17, 1995, readopted Nov. 20, 1998 and revised and readopted
Nov. 16, 2001, Oct. 29, 2004, Nov. 16, 2007, Oct. 29, 2010, and Oct. 3, 2013)*

**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
URGING CONGRESS TO REAFFIRM ITS DEFERENCE TO STATE WATER LAW,
PROVIDE FOR THE WAIVER OF THE UNITED STATES' IMMUNITY TO
PARTICIPATION IN STATE ADMINISTRATIVE AND JUDICIAL PROCEEDINGS,
AND PROVIDE FOR PAYMENT OF FEES REQUIRED BY STATE LAW**

[St. George, Utah](#)
[September 30, 2016](#)
~~[Deadwood, South Dakota](#)~~
~~[October 3, 2013](#)~~

WHEREAS, water is the lifeblood of each of the arid Western States, the allocation of which determines the future of each Western State's economic, environmental, social and cultural fortunes; and

WHEREAS, each Western State has developed comprehensive systems for the appropriation, use and distribution of water tailored to its unique physiographic, hydrologic and climatic conditions found within that state; and

WHEREAS, the United States does not have a water management system that is equivalent to those of the Western States for the appropriation, use or distribution of water; and

WHEREAS, Congress has consistently recognized the primacy of state water law because of the need for comprehensive water management systems tailored to the unique needs and characteristics of the individual states; and

WHEREAS, the adjudication of water rights claims is absolutely essential for the orderly allocation of water in all the Western States where state law is based on the prior appropriation doctrine; and

WHEREAS, Congress enacted the McCarran Amendment, 43 U.S.C. § 666, to allow the joinder of the United States in state general stream adjudications, and Congress intended the United States to be subject to the same procedures as all other water right claimants joined in state general stream adjudications; and

WHEREAS, many of the Western States are conducting general stream adjudications for the purpose of quantifying all water right claims in accordance with the McCarran Amendment; and

WHEREAS, the United States is often the largest claimant of water rights in these general stream adjudications, and the adjudication of federal water right claims requires a large commitment of time, effort and resources by the state courts and by state agencies; and

(Originally adopted Nov. 17, 1995, readopted Nov. 20, 1998 and revised and readopted Nov. 16, 2001, Oct. 29, 2004, Nov. 16, 2007, Oct. 29, 2010, and Oct. 3, 2013)

WHEREAS, many of the Western States' general stream adjudication procedures require claimants to pay a fee to offset the states' expenses arising from state general stream adjudications; and

WHEREAS, citing the U.S. Supreme Court's decision in *United States v. Idaho*, 508 U.S. 1 (1993), the United States claims immunity from the payment of adjudication filing fees required of all other claimants to offset the judicial and administrative expenses Western States incur in conducting general stream adjudications; and

WHEREAS, for the United States to be immune from sharing in the expenses of these proceedings constitutes an unfunded federal mandate to the states; and

WHEREAS, many Western States are facing budget shortfalls and limited resources, and the federal non-payment of state filing-fees is a significant impediment to their ability to begin or carry out general stream adjudications in a timely manner; and

WHEREAS, ~~that~~ drawn out adjudications are having a detrimental impact on the willingness of stakeholders in watersheds to collaborate on joint management and planning for water supply and water quality; and

WHEREAS, the United States contends that it cannot be joined in state administrative or judicial proceedings with respect to water rights it has acquired under state law other than pursuant to the McCarran Amendment, 43 U.S.C. § 666; and

WHEREAS, it is inefficient and wasteful to require that a separate lawsuit be commenced for the sole purpose of regulating water rights acquired by the United States under state law; and

WHEREAS, the United States claims it is also immune from paying fees to states that are required of all other water users for the appropriation, use or distribution of water; and

WHEREAS, equity and fairness dictate that federal agencies who voluntarily seek to appropriate water pursuant to state law, or who acquire water rights based on state law, should be required to comply with state law, including the payment of fees, to the same extent as all other persons.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council supports passage of legislation that at a minimum provides for the following:

1. Requires the federal government to participate in all state administrative and judicial proceedings with respect to water rights it acquires to the same extent as all other persons.
2. Requires the federal government (not Native American tribes) to pay filing fees as well as comply with all other state substantive and procedural water right adjudication laws to the same extent as all other persons.

(Originally adopted Nov. 17, 1995, readopted Nov. 20, 1998 and revised and readopted Nov. 16, 2001, Oct. 29, 2004, Nov. 16, 2007, Oct. 29, 2010, and Oct. 3, 2013)

3. Requires the federal government to pay applicable fees as well as comply with all other state substantive and procedural laws for the appropriation, use and distribution of water rights to the same extent as all other persons.
4. Provides for state administration of all water rights.

BE IT FURTHER RESOLVED₂ that the Western States Water Council also urges Congress to appropriate moneys for [retroactive](#) payment of unpaid fees to states that have incurred expenses as a result of processing federal claims or federal objections to private claims in state general stream adjudications.

[BE IT FURTHER RESOLVED, that absent legislation the Council encourages federal agencies to work with states and enter into memoranda of agreement or other administrative mechanisms to minimize and otherwise mitigate the expense of federal claims incurred by states in general adjudications to the maximum extent allowed by law.](#)

~~**BE IT FURTHER RESOLVED** that the Western States Water Council shall send a copy of this resolution to the congressional delegations representing the states and territories who are members of the Western States Water Council, to President Barack Obama, and to the President Pro Tem of the United States Senate and the Speaker of the United States House of Representatives.~~



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
PESTICIDE APPLICATIONS
and
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE PERMITS
[St. George, Utah](#)
[September 30, 2016](#)
~~[Deadwood, South Dakota](#)~~
~~[October 4, 2013](#)~~**

WHEREAS, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) has long protected water quality from pesticide applications by requiring registration of pesticides, mandating detailed label instructions, limiting the number of pesticides available to the general public, restricting application of hazardous pesticides to certified applicators, and monitoring the distribution of restricted pesticides, among other measures; and

WHEREAS, the Environmental Protection Agency (EPA) has historically not required National Pollutant Discharge Elimination System (NPDES) permits for pesticide applications made in compliance with FIFRA; and

WHEREAS, in *National Cotton Council v. Environmental Protection Agency*, 553 F.3d 927 (6th Cir. 2009), the Sixth Circuit Court of Appeals vacated an EPA rule that exempted pesticide applications made in compliance with the FIFRA from the need to obtain NPDES permits; and

WHEREAS, the Sixth Circuit did not analyze FIFRA's water quality protections or its relationship with the Clean Water Act (CWA), but based its ruling on a technical finding that the statutory text of the CWA foreclosed EPA's rule; and

WHEREAS, the Sixth Circuit's decision has national implications because it consolidated challenges to the rule filed in eleven circuits, and because the U.S. Supreme Court denied certiorari to review the decision in February 2010; and

WHEREAS, the Sixth Circuit's decision requires compliance with NPDES permitting requirements for all point source discharges to waters of the United States of biological and chemical pesticides that leave a residue even if the application is performed in compliance with FIFRA; and

WHEREAS, EPA estimates that the ruling will affect approximately 365,000 pesticide applicators nationwide who perform 5.6 million applications annually; and

WHEREAS, the Sixth Circuit's ruling has created an unnecessary and duplicative level of regulation without providing clear environmental benefits; and

WHEREAS, the burden of implementing NPDES programs to regulate pesticides has fallen almost entirely on state water quality agencies, as most states have delegated NPDES authority; and

WHEREAS, implementing and operating programs to regulate pesticide applications under the NPDES program will require substantial site monitoring, record keeping, annual reporting, and other efforts that will impose significant costs upon states at a time when many are facing budget shortfalls and are struggling to provide other more important and necessary environmental services; and

WHEREAS, it is EPA's position that states with delegated NPDES authority are obligated to regulate applicable pesticide applications under the NPDES program even though no additional federal funding accompanies the mandate; and

WHEREAS, the preferred manner of resolving this issue is through future legislation that clarifies that pesticide applications applied in compliance with FIFRA are exempt from NPDES permitting, rather than creating a new permitting program.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council declares that pesticide applications made in compliance with FIFRA should not trigger NPDES permitting requirements.

BE IT FURTHER RESOLVED that the Western States Water Council urges Congress to enact legislation that amends FIFRA and [/or](#) the CWA to clarify that pesticide applications performed in compliance with FIFRA are not subject to NPDES permitting.

WSWC POLICY STATEMENTS

Position Number	Committee Oversight	Date Adopted	POSITIONS (Policy positions will be deactivated three (3) years after their adoption, unless extended by formal action of the Council.)
395	WR	7/15/2016	Urges the Administration and the Congress to support water research and development programs at the Department of Energy National Laboratories
394	WR	7/15/2016	Opposes removal of “fish and wildlife” as an authorized purpose for which the Corps can manage the Missouri River Mainstem Reservoir System
393	WR	7/15/2016	States 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.”
392	WR	7/15/2016	Supports federal efforts to prepare for and respond to extreme weather events, including an expanded and enhanced west-wide extreme precipitation monitoring system.
391	WR	3/22/2016	Supports renewable hydropower development
390	WR	3/22/2016	Supporting rural water infrastructure needs and projects
389	WR	3/22/2016	Urging the Administration and the Congress to prioritize federal programs that translate science on climate and weather extremes to water resources management actions
388		10/9/2015	Regarding States’ Water Rights and Natural Flows
387	WR	10/9/2015	Regarding Bureau of Reclamation Drought Response Program
386	WR	10/9/2015	Regarding Drought Preparedness, Prediction and Early Warning Programs
385	WR	10/9/2015	Regarding Federal Water and Climate Data Collection and Analysis Programs
384	E	10/9/2015	A Vision on Water
383	E	7/10/2015	A Vision on Water
382	WQ	7/10/2015	Regarding Water Transfers and National Pollutant Discharge Elimination System (NPDES) Discharge Permits
381	WR	7/10/2015	Regarding the Rural Water Supply Project/Infrastructure Needs
380	WR	4/17/2015	On State Primacy over Groundwater
379	WR	4/17/2015	Supporting Federal Climate Adaptation Research
378	WR	4/17/2015	Regarding Integrating Water and Energy Policy and Planning
377	WQ	10/10/2014	Asserting state primacy on Protecting Ground Water Quality
376	L	10/10/2014	Supporting Indian Water Rights Settlements
375	L	10/10/2014	Outlining actions Federal agencies should take to expedite State General Stream Adjudications
374	L	10/10/2014	Supports the Dividing the Waters Program
373	WQ	10/10/2014	Letter commenting on the proposed rule developed by the EPA and the USACE to clarify the scope of Clean Water Act jurisdiction (combined file)
372	WR	10/3/2014	Letter sending comments on the USFS Proposed Directive on Groundwater Resource Management, Forest Service Manual 2560
371	E	8/11/2014	Regarding Water-Related Federal Rules, Regulations, Directives, Orders and Policies
370	WQ	8/11/2014	Regarding the Interpretive Rule Regarding Applicability of the Exemption from Permitting under Section 404(f)(1)(A) of the Clean Water Act to Certain Agricultural Conservation Practices
369	WQ	7/18/2014	Regarding Clean Water Act jurisdiction
368	WR	7/18/2014	Supporting the Water Resources Research Institutes (requesting Congress to maintain the federal authorization and financial support for the state WRRRI program)
367	WR	7/18/2014	Regarding the Reclamation Fund (asks Congress to fully appropriate the receipts and collections accruing to the Reclamation Fund)
366	WR	7/18/2014	Supporting Federal Research and Development of Updated Hydroclimate Guidance for Floods and Droughts
365	L	7/18/2014	Regarding Preemption of State Water Law in Federal Legislation
364	WQ	4/3/2014	Regarding the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund
363	WR	4/3/2014	Regarding the National Levee Safety Act of 2007 and the Interpretation of Levees and Water Supply Canals
362	WR	4/3/2014	Regarding the Transfer of Federal Water and Power Projects and Related Facilities
361	WR	4/3/2014	Regarding the Reclamation Safety of Dams Act of 1978
360	WR	4/3/2014	Regarding the Bureau of Reclamation’s Maintenance, Repair and Rehabilitation Needs
359	WQ	10/3/2013	Regarding pesticide applications and National Pollutant Discharge Elimination System discharge permits Urging Congress to reaffirm its deference to state water law, provide for the waiver of the United States’ immunity to participation in state administrative and judicial proceedings, and provide
358	L	10/3/2013	payment of fees required by state law
357	WR	10/3/2013	In the form of a letter to Senate Energy and Natural Resources Committee leaders expressing continued support for implementation of the SECURE Water Act
356	WR	10/3/2013	Regarding NASA’s applied science research program

Sunsetted Positions

2015

- #338 Energy and Water Integration Act of 2011. (*outdated*)
- #341 Letter regarding concerns with the Bureau of Reclamation's proposed changes to the Reclamation Manual. (*outdated*)

2013

- #323 A Shared Vision on Water Planning and Policy. (*superceded by more recent position*)

2012

- #313 Letter Regarding National Water Research and Development Initiative Act. (*There is no current legislation*)
- #315 Letter to House Transportation and Infrastructure Committee leaders raising concerns regarding a draft bill entitled the Sustainable Watershed Planning Act. (*outdated, not reintroduced*)
- #317 Supporting the Bureau of Reclamation's Field Services Program. (*outdated*)
- #318 Offering general comments to CEQ on the Principles and Guidelines. (*outdated*)
- #319 Describing principles that are important to the Western states in considering a "national vision" for water policy. (*superceded by more recent position*)

2011

- #297 Strong support for legislation to establish a National Drought Council to improve national drought preparedness, mitigation, and response efforts. (*There is no current legislation*)
- #298 In cooperation with the Interstate Council on Water Policy expressing strong support for increased funding for the Cooperative Water Program and the National Streamflow Information Program. (*superceded by more recent position statements and letters*)
- #299 Supporting S. 2842, the Aging Water Infrastructure and Maintenance Act. (*enacted*)
- #300 Regarding introduction of the Cooperative Watershed Management Act of 2008 (S. 3085). (*enacted*)
- #301 Commenting on H.R. 135, the "21st Century Water Commission," specifically declaring that the WSWC be involved in the selection of members and that it include State and Native American involvement. (*Bill has not been reintroduced*)
- #302 Supporting the enactment of S. 895 to provide the Bureau of Reclamation with authority to assess rural water supply needs and for sufficient funding. (*enacted*)
- #303 Revised resolution in support of the Weather Modification Research and Technology Transfer Act. (*No federal research program or legislation has been reintroduced*)

- #306 Urging support for full funding of the USGS National Streamflow Information Program (NSIP) and sufficient funding for the Cooperative Water Program to match non-USGS contributions. *(outdated)*
- #307 Letter to Senator Bingaman, Senate Energy and Natural Resources Committee, expressing interest in S. 3231, the Omnibus Public Lands Management Act. *(outdated)*
- #311 Letter to Steve Stockton offering assistance to the Corps in their water planning initiative. *(outdated)*

2010

- #287 Setting forth the Council's past perspectives on a proposed "Twenty-First Century Water Commission." *(outdated - see #301 above)*
- #289 Support of the proposed Water Conservation, Efficiency and Management Act, to specifically authorize the Bureau of Reclamation's water conservation programs. *(separately authorized)*
- #290 Concern over the Administration's decision to zero out funding for the U.S. Bureau of Reclamation's Technical Assistance to States (TATS) Program. *(outdated)*
- #291/#292 Regarding the proposed Agricultural Water Enhancement Program. *(enacted)*
- #295 Concern over budget request for federal funding for water and wastewater treatment, specifically EPA's State Revolving Fund (SRF) Capitalization Grants. *(combined with #296 and replaced with #330 – Apr 15, 2011)*
- #296 Concern with OMB directive to EPA disallowing the use of SRF revenues to repay bonds. *(combined with #295 and replaced with #330 – Apr 15, 2011)*

2009

- #276 Urging the Congress and Administration to Continue to Recognize State Primacy Regarding Water Rights and Water Quality Certification in the Federal Licensing of Hydroelectric Projects. *(supplanted by WGA resolution)*
- #277 Letter commending the American Indian Environmental Office of EPA for its efforts in establishing the Tribal Water Program Council and expressing a hope that it would "offer an ongoing opportunity for state-tribal cooperation on issues of mutual interest." *(outdated)*
- #279 Support for legislation (S. 2751 and H.R. 5136) to create a National Integrated Drought Information System within the National Oceanic and Atmospheric Administration. *(authority enacted)*
- #280 Strong support for federal legislation, the National Drought Preparedness Act, to establish a national policy for drought and coordinate "proactive measures at all levels of government to plan, prepare and mitigate the serious impacts of drought." *(deferred to WGA resolution)*
- #281 Support for Reclamation's Water Conservation Field Services Program and "Bridging-the-Headgate" Partnerships. *(outdated)*

- #282 Regarding Federal Non-Tribal Fees in General Adjudications asking the Congress to pass legislation requiring the Federal government, when a party to a general water rights adjudication, to pay fees for costs imposed by the state to conduct the proceedings to the same extent as all other users. (*deferred to WGA resolution*)
- #283 Reiterating strong support for maintaining a thermal band as part of the Landsat Data Continuity Mission, and the necessary funding. (*separately updated*)

2008

- #262 Support for the U.S. Geological Survey's Cooperative Water Program (CWP) and opposes any effort to force the privatization of related USGS services. (*separately updated*)
- #268 The Western States Water Council endorses policy resolutions adopted by the Western Governors' Association, and will allow these policies to guide the Council in matters relevant to implementation and potential reauthorization of the Clean Water Act. (*deferred to WGA resolution*)
- #269 Water Efficiency Standards for Plumbing Products (*subsequently enacted*)
- #270 Reauthorization of the Farm Bill. (*reauthorized*)
- #271 Support for the National Aeronautics and Space Administration's Landsat Data Continuity Mission and calling for continued funding to include a thermal infrared sensor. (*superceded by 2009 WSWC Position No. 283*)
- #273 Support for the Nonpoint Source Grant program administered by the U. S. Environmental Protection Agency under Section 319 of the Clean Water Act. (*outdated*)

Tab D – Budget

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08/16/16

Accrual Basis

Western States Water Council
Profit & Loss Budget Performance
 June 2016

	Jun 16	Budget	Jul '15 - Jun 16	YTD Budget	Annual Budget
Ordinary Income/Expense					
Income					
4000 · Revenues					
4100 · Member States Assessments	15,000.00	42,500.00	510,000.00	510,000.00	510,000.00
4200 · Newsletter	300.00	291.67	3,400.00	3,500.00	3,500.00
4400 · Contracts					
4403 · Texas / EPA EN	0.00	8,775.00	99,674.77	105,300.00	105,300.00
4404 · California EN	0.00	0.00	0.00	0.00	0.00
4405 · CDWR CIMIS	1,602.62		1,602.62		
Total 4400 · Contracts	1,602.62	8,775.00	101,277.39	105,300.00	105,300.00
4550 · Council Meeting Sponsors	0.00	583.33	5,970.19	7,000.00	7,000.00
4600 · Miscellaneous Income	0.00		831.00		
4800 · Interest Income					
4810 · Savings	0.00		3,895.50		
4820 · Sinking Fund	0.00		890.80		
4830 · Equipment Fund	0.00		200.55		
4800 · Interest Income - Other	0.00	266.67	0.00	3,200.00	3,200.00
Total 4800 · Interest Income	0.00	266.67	4,986.85	3,200.00	3,200.00
Total 4000 · Revenues	16,902.62	52,416.67	626,465.43	629,000.00	629,000.00
Total Income	16,902.62	52,416.67	626,465.43	629,000.00	629,000.00
Expense					
6010 · Contingencies	18.50	516.67	4,072.98	6,200.00	6,200.00
6020 · Contracted Services	3,406.65	1,000.00	8,401.65	12,000.00	12,000.00
6030 · Equip Replacement Fund	500.00	250.00	3,000.00	3,000.00	3,000.00
6040 · Furniture & Equipment	476.86	58.33	1,791.13	700.00	700.00
6060 · Insurance	0.00	0.00	727.00	800.00	800.00
6110 · Maintenance Contracts	491.49	458.33	7,222.57	5,500.00	5,500.00
6160 · Meetings & Arrangements	5,551.84	2,158.33	24,315.58	25,900.00	25,900.00
6300 · Office Supplies	368.08	208.33	2,205.20	2,500.00	2,500.00
6400 · Payroll - Salaries	25,949.88	25,875.00	305,964.84	310,500.00	310,500.00
6490 · Payroll Taxes & Benefits					
6500 · Benefits					
6510 · Dental Insurance	289.68		3,476.19		
6520 · Life Insurance	30.50		378.20		
6530 · LT Disability Insurance	155.70		2,020.20		
6540 · Medical Insurance	6,439.40		77,272.84		
6550 · Pension Plan	3,458.72		41,034.68		
6500 · Benefits - Other	0.00	12,312.50	0.00	147,750.00	147,750.00
Total 6500 · Benefits	10,374.00	12,312.50	124,182.11	147,750.00	147,750.00
6600 · Taxes					
6610 · FICAE	1,642.36		19,003.30		
6630 · MEDIE	384.10		4,444.32		
6640 · SUTA	29.30		418.91		
6650 · Worker's Comp	120.91		1,518.18		
6600 · Taxes - Other	0.00	2,183.33	0.00	26,200.00	26,200.00
Total 6600 · Taxes	2,176.67	2,183.33	25,384.71	26,200.00	26,200.00
Total 6490 · Payroll Taxes & Benefits	12,550.67	14,495.83	149,566.82	173,950.00	173,950.00

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08/16/16

Accrual Basis

Western States Water Council
Profit & Loss Budget Performance
June 2016

	Jun 16	Budget	Jul '15 - Jun 16	YTD Budget	Annual Budget
6700 · Pension Management	0.00	458.33	3,370.05	5,500.00	5,500.00
6750 · Postage & Freight	0.11	266.67	4,556.88	3,200.00	3,200.00
6780 · Printing & Reproduction	279.23	433.33	3,628.21	5,200.00	5,200.00
6800 · Professional Fees					
6810 · Accounting	725.00	725.00	8,700.00	8,700.00	8,700.00
6830 · Auditing	0.00		8,540.00	8,500.00	8,500.00
Total 6800 · Professional Fees	725.00	725.00	17,240.00	17,200.00	17,200.00
6850 · Rent	255.00	3,058.33	36,483.61	36,700.00	36,700.00
6890 · Reports & Publications	4,148.78	437.50	5,704.10	5,250.00	5,250.00
7020 · Telephone	107.04	241.67	2,285.43	2,900.00	2,900.00
7040 · Travel	5,781.11	3,750.00	58,737.31	45,000.00	45,000.00
Total Expense	60,610.24	54,391.65	639,273.36	662,000.00	662,000.00
Net Ordinary Income	(43,707.62)	(1,974.98)	(12,807.93)	(33,000.00)	(33,000.00)
Other Income/Expense					
Other Income					
8800 · Symposium Income					
8820 · CDWR					
8821 · 1	0.00	13,676.67	0.00	164,120.00	164,120.00
Total 8820 · CDWR	0.00	13,676.67	0.00	164,120.00	164,120.00
8840 · NARF					
8841 · Registration	0.00		34,628.00	10,000.00	10,000.00
8842 · Sponsors	0.00		5,000.00	4,000.00	4,000.00
Total 8840 · NARF	0.00		39,628.00	14,000.00	14,000.00
8890 · Sponsors	0.00	0.00	0.00	0.00	0.00
Total 8800 · Symposium Income	0.00	13,676.67	39,628.00	178,120.00	178,120.00
Total Other Income	0.00	13,676.67	39,628.00	178,120.00	178,120.00
Other Expense					
9100 · Symposium Expenses					
9120 · CDWR					
9121 · 1	0.00	11,260.00	0.00	135,120.00	135,120.00
9123 · 3	0.00		3,967.01		
Total 9120 · CDWR	0.00	11,260.00	3,967.01	135,120.00	135,120.00
9140 · NARF	0.00		27,463.52	10,000.00	10,000.00
Total 9100 · Symposium Expenses	0.00	11,260.00	31,430.53	145,120.00	145,120.00
Total Other Expense	0.00	11,260.00	31,430.53	145,120.00	145,120.00
Net Other Income	0.00	2,416.67	8,197.47	33,000.00	33,000.00
Net Income	(43,707.62)	441.69	(4,610.46)	0.00	0.00

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09/08/16

Accrual Basis

Western States Water Council
Pro Forma Profit & Loss Budget Performance
August 2016

	Aug 16	Budget	Jul - Aug 16	YTD Budget	Annual Budget
Ordinary Income/Expense					
Income					
4000 · Revenues					
4100 · Member States Assessments	105,000.00	42,500.00	420,000.00	85,000.00	510,000.00
4200 · Newsletter	0.00	283.33	200.00	566.70	3,400.00
4400 · Contracts					
4403 · EN FY2013 (TX)	18,736.07	9,833.33	18,736.07	19,666.70	118,000.00
4404 · EN FY2015 (CA)	0.00	2,833.33	0.00	5,666.70	34,000.00
Total 4400 · Contracts	18,736.07	12,666.66	18,736.07	25,333.40	152,000.00
4550 · Council Meeting Sponsors	0.00	583.33	0.00	1,166.70	7,000.00
4800 · Interest Income	0.00	416.67	0.00	833.30	5,000.00
Total 4000 · Revenues	123,736.07	56,449.99	438,936.07	112,900.10	677,400.00
Total Income	123,736.07	56,449.99	438,936.07	112,900.10	677,400.00
Expense					
6010 · Contingencies	55.62	333.33	130.52	666.70	4,000.00
6020 · Contracted Services	2,682.00	1,333.33	3,762.00	2,666.70	16,000.00
6030 · Equip Replacement Fund	250.00	250.00	500.00	500.00	3,000.00
6040 · Furniture & Equipment	48.16	58.33	48.16	116.70	700.00
6060 · Insurance	0.00	0.00	0.00	0.00	800.00
6110 · Maintenance Contracts	231.96	458.33	932.38	916.70	5,500.00
6160 · Meetings & Arrangements	4,755.31	1,500.00	4,167.67	3,000.00	18,000.00
6300 · Office Supplies	503.32	191.67	600.96	383.30	2,300.00
6400 · Payroll - Salaries	26,883.84	26,391.67	53,607.24	52,783.30	316,700.00
6490 · Payroll Taxes & Benefits					
6500 · Benefits					
6510 · Dental Insurance	292.72		585.44		
6520 · Life Insurance	30.50		61.00		
6530 · LT Disability Insurance	161.31		321.66		
6540 · Medical Insurance	6,536.02		13,072.04		
6550 · Pension Plan	4,570.29		9,113.31		
6500 · Benefits - Other	0.00	14,130.42	0.00	28,260.80	169,565.00
Total 6500 · Benefits	11,590.84	14,130.42	23,153.45	28,260.80	169,565.00
6600 · Taxes					
6610 · FICAE	1,833.09		3,556.90		
6630 · MEDIE	428.71		831.85		
6640 · SUTA	18.25		32.98		
6650 · Worker's Comp	130.04		255.65		
6600 · Taxes - Other	0.00	2,237.92	0.00	4,475.80	26,855.00
Total 6600 · Taxes	2,410.09	2,237.92	4,677.38	4,475.80	26,855.00
Total 6490 · Payroll Taxes & Benefits	14,000.93	16,368.34	27,830.83	32,736.60	196,420.00
6700 · Pension Management	0.00	283.33	105.00	566.70	3,400.00
6750 · Postage & Freight	(14.10)	375.00	(4.23)	750.00	4,500.00
6780 · Printing & Reproduction	201.04	308.33	323.23	616.70	3,700.00
6800 · Professional Fees					
6810 · Accounting	0.00	683.33	725.00	1,366.70	8,200.00
Total 6800 · Professional Fees	0.00	683.33	725.00	1,366.70	8,200.00

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09/08/16

Accrual Basis

Western States Water Council
Pro Forma Profit & Loss Budget Performance
August 2016

	Aug 16	Budget	Jul - Aug 16	YTD Budget	Annual Budget
6850 · Rent	2,560.00	2,833.33	5,375.00	5,666.70	34,000.00
6890 · Reports & Publications	0.00	466.67	78.78	933.30	5,600.00
7020 · Telephone	464.18	191.67	803.54	383.30	2,300.00
7040 · Travel	1,138.57	4,116.67	4,422.34	8,233.30	49,400.00
7060 · Utilities	166.04	240.00	264.76	480.00	2,880.00
Total Expense	53,926.87	56,383.33	103,673.18	112,766.70	677,400.00
Net Ordinary Income	69,809.20	66.66	335,262.89	133.40	0.00
Net Income	69,809.20	66.66	335,262.89	133.40	0.00

Tab E – WSWC/California Department of Water Resources Reports

DRAFT

IMPROVING SUB- SEASONAL TO SEASON PRECIPITATION FORECASTING FOR WATER MANAGEMENT

EXECUTIVE SUMMARY

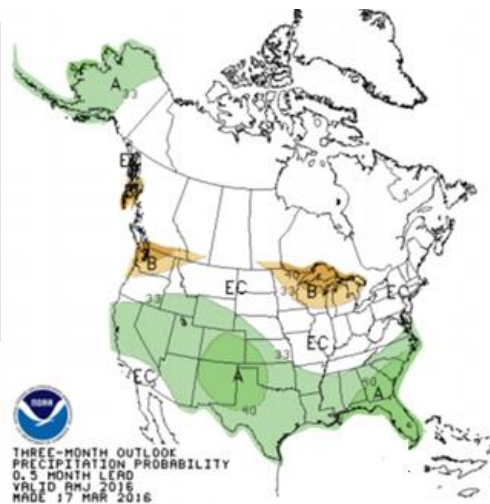
The Western States Water Council (WSWC) has long supported federal programs that have the potential to increase our ability to forecast precipitation over longer timeframes. Specifically, the sub-seasonal to seasonal (S2S) forecasting period, if possible, would have substantial benefits to water management by providing advanced projections beyond a 15-day horizon to a year of wet or dry conditions. This in turn, could enable better operation of reservoirs and other water infrastructure, allow for optimal allocation of resources in response to forecasted conditions, enable state and local water managers to prepare for increased workloads, and also allow them to evaluate environmental and other regulatory constraints.

To determine the state of the science and what might be done to advance S2S programs, the Western States Water Council (WSWC) and the California Department of Water Resources (CDWR) co-hosted a series of workshops, to discuss program organization and budgets, to identify program knowledge gaps and other questions surrounding S2S forecasting, and also identify the resources necessary and obstacles to achieving greater skill levels. Ultimately, the workshops' goal was to call on the federal government to place a higher priority on the science, research, infrastructure, coordination, and financial resources that will be required to improve forecasts to a level where they can be useful for optimally managing water for the benefit of cities, towns, farms, and the environment.



A SUSTAINED VISION

Real improvements in sub-seasonal to seasonal (S2S) forecasting skill will require a substantial and sustained commitment of resources, and a need to leverage all members of the short-term climate prediction community including operational centers, federal labs, and other academic partners. WSWC will continue to work with the federal agencies, and state and local water resource managers to address opportunities for and challenges to advancing research and modeling to improve S2S forecasting and predictive capabilities.



CHALLENGES AND DATA GAPS

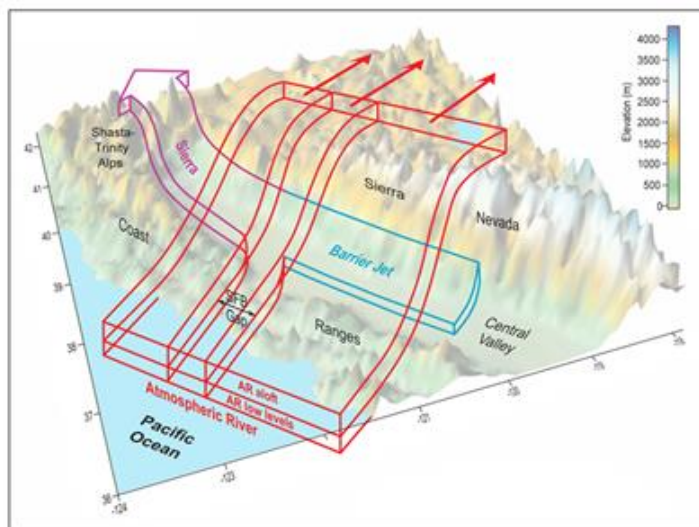
Our ability to increase the skill of S2S forecasting faces a number of challenges.

- Knowledge Gaps – There is a need for additional monitoring data, both in situ and satellite data, as well as better spatial distribution of sensors. Finer resolution models and improved physics within dynamical earth system models are an avenue for improvements, but their benefits and applications for hydrologic prediction and water management are not well understood.
- More and Better Tools – Improving the basic building blocks of forecasts, including enhancing observation networks, increasing data resolution, data assimilation between modeling steps, correction of modeling errors, exploring hybrid models (statistical/dynamical) and multi-model ensembles (MME), post-processing, etc.
- High Performance Computing (HPC) and modeling involves enormous amounts of data, an “order-of-magnitude” improvement in computer processing power, providing for much greater resolution and interactions between the ocean/atmosphere/land systems, with an increasing in the number of variables.

- Data Access and Understanding – Better communication and ways of presenting the data are needed so that consumers can readily understand and use new products or tools.
- Quantifying Benefits – accurate S2S forecasting will result in many benefits, but many of them are “avoided costs” or “losses”, which are difficult to measure.
- Measuring Improvements - Methods for estimating baseline skill and improvements need to be further developed and made easier to portray to the public, interested parties, and decision-makers.
- Sustained Funding – increasing S2S forecasting capabilities within federal agencies requires sustained funding.

RECOMMENDATIONS AND STRATEGIES FOR INCREASING S2S SKILL

- Crafting a narrative surrounding tangible benefits, including specific goals for increasing skill (e.g., a 20% improvement in forecast skill over the first-year baseline in 5 years)



- Further refine estimates of the funding requirement for a sustained program and find/seek congressional support (currently \$10 - \$15M per year over a ten to fifteen-year period).
- Develop a whitepaper/pathway toward S2S prediction skill improvements.
- Continue study of the mechanics and physics of weather phenomena that provide sources for additional skill, such as sea-surface temperatures (SST), El Niño, Madden-Julian Oscillation (MJO), atmospheric rivers (ARs), etc.
- Create a national plan for cyberinfrastructure that can address the lack of high-performance computing (HPC) capabilities

To see the full draft summary report for the WSWC/CDWR S2S workshops, please [CLICK HERE](#).

DRAFT

IRRIGATION MANAGEMENT INFORMATION SYSTEMS IN THE WEST: CAPABILITIES AND CHALLENGES

EXECUTIVE SUMMARY

Irrigation Management Information Systems (IMIS) coupled with weather station networks provide essential data that can be used to calculate the day-to-day water requirement for a given crop. When these evapotranspiration (ET) products are adopted and used more widely, they have the potential to greatly improve agricultural water use efficiency across the West. A number of larger and many smaller IMIS/weather station networks are operating across the western United States. These networks of weather stations measure temperature, solar radiation, wind speed, and humidity, among other variables, which are then used to estimate ET.

The Western States Water Council (WSWC) and the California Department of Water Resources (CDWR) circulated a survey and co-hosted a workshop to learn more about the capabilities and operation of selected, larger weather station networks that also operate as IMIS. The meeting helped the attendees gain a greater understanding of data collection, quality control techniques, dissemination, and adoption rates and usage of IMIS data in general and ET data products specifically. It also served to explore the networks' potential compatibility with the California Irrigation Management Information System (CIMIS), a network owned by CDWR, that could serve as a software platform for others. Results of the survey and workshop presentations and discussions identified challenges, and assisted in determining what resources may be available or needed by the networks to facilitate more regional collaboration.



BENEFITS

Network operators and managers reported a variety of users and applications which rely on their data and data products. These include growers and agricultural consultants for irrigation scheduling, fertilizer application, and pest management; water agencies and public agencies for estimating water consumption; home owners for lawn irrigation; and researchers who are exploring weather patterns and modeling water consumption or irrigation management strategies. The data are also used in firefighting, air quality monitoring, weather forecasting, and engineering designs. These applications result in a number of benefits, including: mitigating impacts of drought/climate change; improving the environment and the landscape; producing greater and higher quality crop yield; conserving water and helping to meet water use efficiency goals; and reducing costs of energy and water and other expenses for the grower.

CHALLENGES

IMIS networks face a number of challenges which affect the operation of the networks and dissemination of data.

- **Station Siting** – Networks may be unable to install stations in areas with ideal pitch/crop conditions, which can have a significant impact on the accuracy of parameters used to calculate ET. Some obstacles include finding willing partners with suitable crop types, changing crop types/irrigation practices due to research needs, and ease of access for technicians.
- **Different Standards** – different policies for data, sensors, scheduling maintenance, and sensor calibration create potential problems in sharing compatible data with other networks.

- **Limited Funding** – funding for station installation, maintenance costs, data/information technology systems, and personnel impacts data quality and analysis.
- **Sensor Failure** – damage to weather stations or failure of individual sensors results in poor or lost data, and requires additional resources for maintenance technicians (or partnerships with local entities) to perform repair work.
- **Public Outreach** – there are a number of challenges to data dissemination, assimilation, and public understanding, including simple awareness of a user's local weather station network, and what utility it can serve as an irrigation guide or for other applications.

RECOMMENDATIONS

- Increased collaboration between managers and coordinators of weather station networks and IMIS may help overcome some of the difficulties caused by differences in quality control methods and/or maintenance/calibration.
- Opportunities for collaborative efforts such as the Western Extension Research Activity (WERA) workshops, where network managers and operators discuss challenges and work together to share information and establish uniform standards, should be encouraged and expanded.
- Continue to develop relationships with entities and individuals who rely upon the data, building partnerships, including financial partnerships. These have served some networks well and provided an alternate reliable funding source.
- Increase public engagement and outreach with established users to continue to advocate network capabilities and data products. Contact users to determine the success of the application of data on irrigation operations.
- Include metrics on data downloads whenever possible.
- Establish consistent funding.
- Set standards for maintenance, calibration, and quality control of data.
- Move toward greater consistency when estimating and reporting ET.

THE FUTURE OF IMIS/WEATHER STATION NETWORKS

IMIS and weather station networks are growing to meet user needs, enhancing data products, increasing the number of applications offered, and adapting to available funding resources. A primary focus for future development should be on establishing consistent funding, as well as standards for maintenance, calibration, and quality control of data. This is especially important for strengthening the partnerships between networks and ensuring the integrity of data.

These networks are also moving toward greater consistency when estimating and reporting ET. Currently, networks use a variety of methods (or modifications of the standardized American Society of Civil Engineers (ASCE) Penman-Monteith equation) to calculate ET, and may report one or more of these values to users. This can cause confusion for end-users and can also be problematic when data are shared across networks, or when those data products are aggregated to create systems and decision-support tools for policy-making. A number of networks plan to move toward reporting only one standardized method.

Lastly, many networks are planning on physically expanding (i.e., installing new stations) and expanding their data products offerings, such as crop-specific ET estimates and forecasts, and other data-derived tools such as irrigation scheduling applications.



Tab F – Sustaining Surface Water Flow in the Upper Colorado River Basin

(<http://pubs.er.usgs.gov/publication/70170887>) (<http://dx.doi.org/10.1002/2015WR017963>)

The importance of base flow in sustaining surface water flow in the Upper Colorado River Basin

Water Resources Research

By: Matthew P. Miller, Susan G. Buto, David D. Susong, and Christine Rumsey

DOI: 10.1002/2015WR017963(<http://dx.doi.org/10.1002/2015WR017963>)

Tweet(<https://twitter.com/share>)

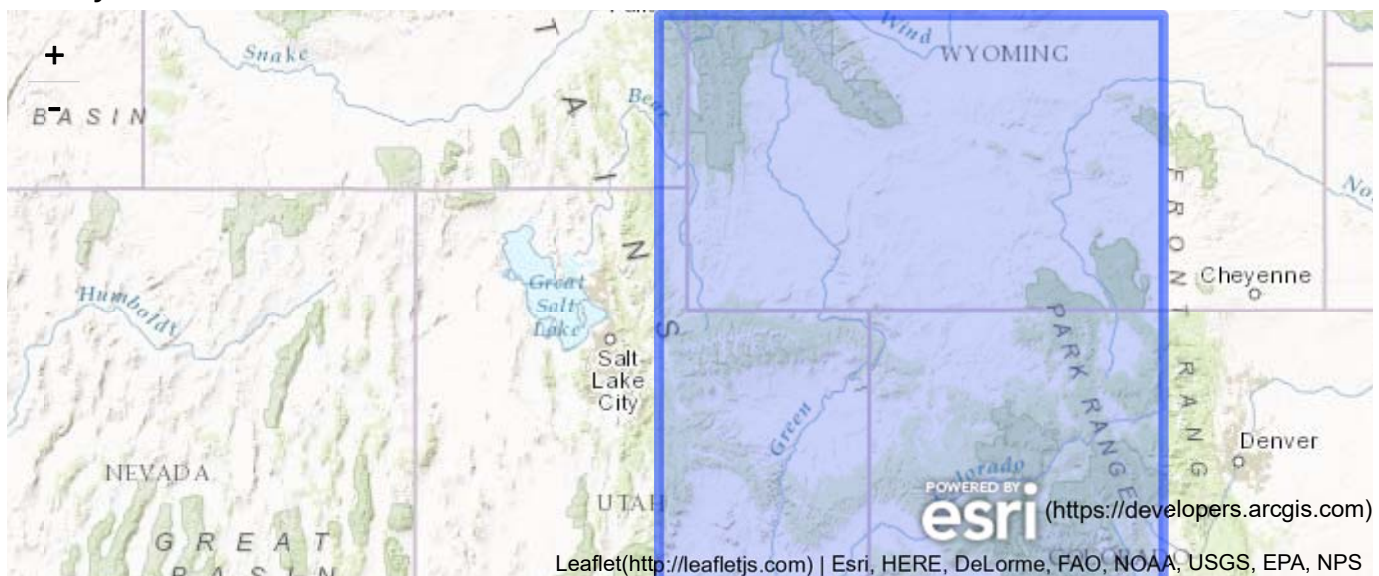
Links

- More information: **Publisher Index Page (via DOI)**(<http://dx.doi.org/10.1002/2015WR017963>)
- Download citation as: RIS(<http://pubs.er.usgs.gov/publication/70170887?mimetype=rise>)

Abstract

The Colorado River has been identified as the most overallocated river in the world. Considering predicted future imbalances between water supply and demand and the growing recognition that base flow (a proxy for groundwater discharge to streams) is critical for sustaining flow in streams and rivers, there is a need to develop methods to better quantify present-day base flow across large regions. We adapted and applied the spatially referenced regression on watershed attributes (SPARROW) water quality model to assess the spatial distribution of base flow, the fraction of streamflow supported by base flow, and estimates of and potential processes contributing to the amount of base flow that is lost during in-stream transport in the Upper Colorado River Basin (UCRB). On average, 56% of the streamflow in the UCRB originated as base flow, and precipitation was identified as the dominant driver of spatial variability in base flow at the scale of the UCRB, with the majority of base flow discharge to streams occurring in upper elevation watersheds. The model estimates an average of 1.8×10^{10} m³/yr of base flow in the UCRB; greater than 80% of which is lost during in-stream transport to the Lower Colorado River Basin via processes including evapotranspiration and water diversion for irrigation. Our results indicate that surface waters in the Colorado River Basin are dependent on base flow, and that management approaches that consider groundwater and surface water as a joint resource will be needed to effectively manage current and future water resources in the Basin.

Study Area



Additional publication details

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Online Only (Y/N): N

Additional Online Files (Y/N): N

Accessibility(<http://www.usgs.gov/laws/accessibility.html>) FOIA(<http://www.usgs.gov/foia/>) Privacy(<http://www.usgs.gov/laws/privacy.html>)

~~(Policies and Notices (<http://www.usgs.gov/laws/policies/notice.html>))~~ U.S. Geological Survey(<http://www.usgs.gov/>)

URL: [http://pubs.er.usgs.gov/publication/70170887\(/publication/70170887\)](http://pubs.er.usgs.gov/publication/70170887(/publication/70170887))

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Tab G – National Aeronautics and Space
Administration's Western Water
Applications Office

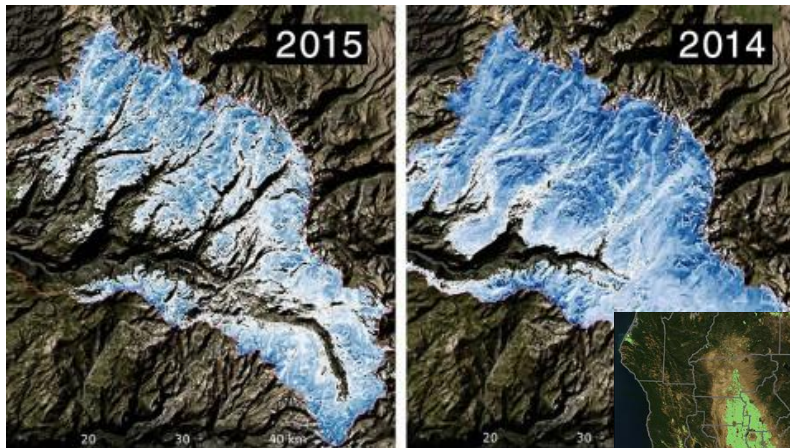
NASA's Western Water Applications Office

The "WWAO"

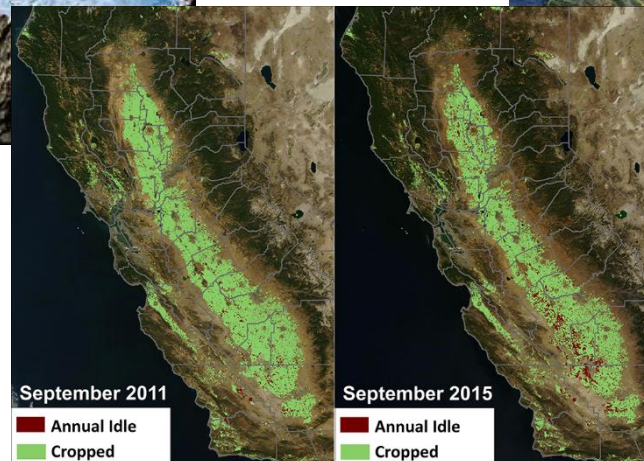
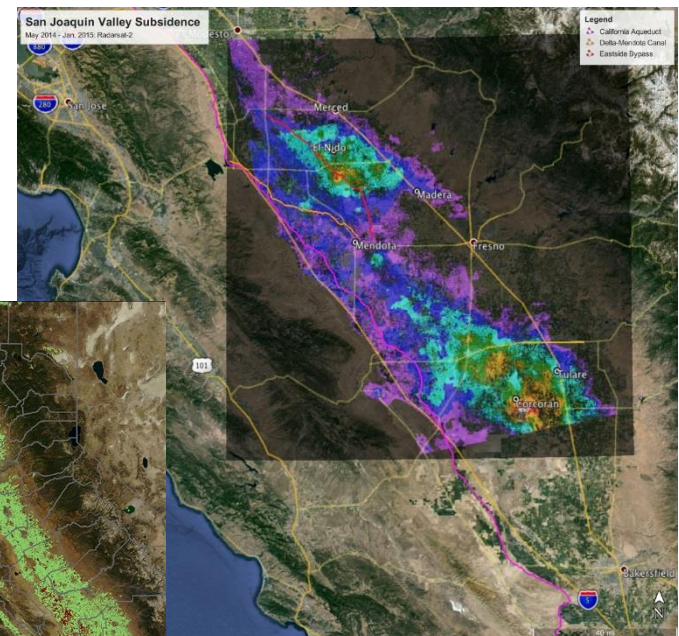
Accelerating the application of NASA Observations and scientific analysis techniques to tangible, important, and timely water management problems

A new NASA-wide program office located at JPL and sponsored by NASA Applied Sciences of the Earth Science Division

ASO Snow Water Equiv. Mapping, Tuolumne



UAVSAR – CA Central Valley Surface Subsidence



LANDSAT, Terra, AQUA Followed Land Mapping



Jet Propulsion Laboratory
California Institute of Technology

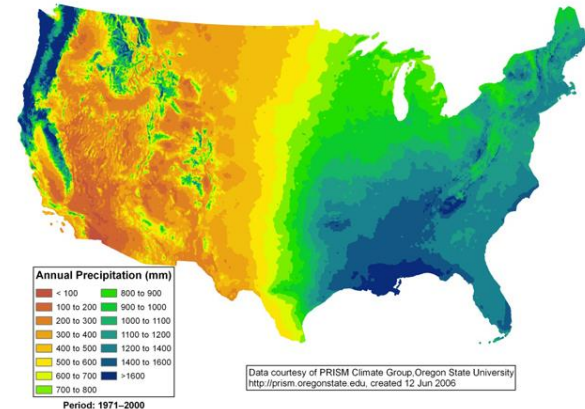
JPL is part of NASA and Caltech

- Pasadena (really La Cañada), California
- Federally-Funded Research and Development Center (FFRDC)
- University Operated (Caltech)
- 5,000 Employees
- 177 Acres; 139 Buildings; 36 Trailers
- 673,000 Net Square Feet of Office Space
- 906,000 Net Square Feet of Non-Office Space (e.g., Labs)





Western Water Use



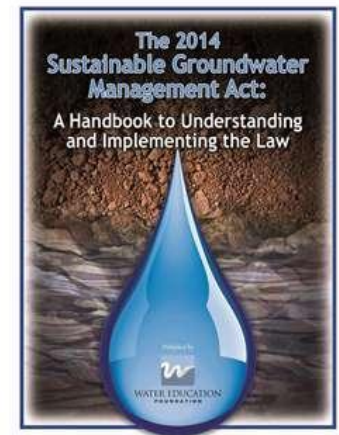
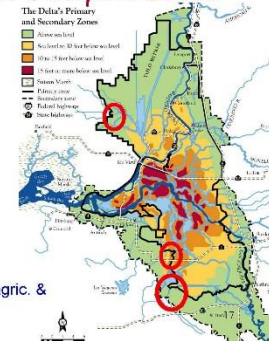
Precipitation Patterns



Exponential Population Growth

Problems of California's Sacramento-San Joaquin Delta

- **Physical instability**
 - Land subsidence
 - Sea level rise
 - Floods
 - Earthquakes
 - **Ecosystem instability**
 - Habitat alteration
 - Invasive species
 - **Economic instability**
 - High costs to repair islands
 - Worsening water quality for agric. & urban users
- 
- A map of the Pacific Islands region, showing various islands and archipelagos. A legend in the top right corner identifies different categories: Green for 'Green', Yellow for 'Yellow', Red for 'Red', Blue for 'Blue', and Black for 'Black'. The map also shows 'Sea Level Rise' and 'Floods' as threats. The map is titled 'Pacific Islands' and includes a scale bar.

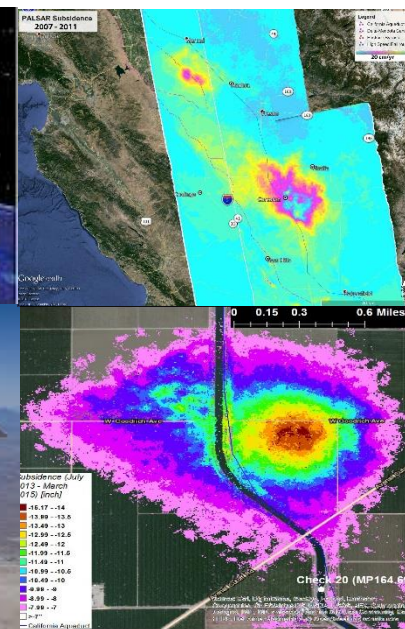
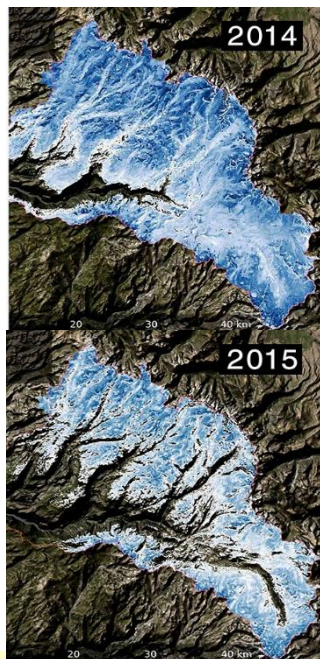




Why a NASA Western Water Applications Office

A Western local office at JPL will increase access to NASA capabilities for a broad class of Western stakeholders

- JPL is recognized as having many successes with local stakeholders



“ASP’s emphasis on developing federal partnerships for NASA, in effect since 2001 when ASP was established in its current structure, should be expanded to include partnership development with the many potential nonfederal users of NASA products.”

- *Assessment of NASA Applied Science Program, NRC 2007*



Why a NASA Western Water Applications Office

A statement of NASA's dedication to supporting the end-users

“Don’t hug us for 18 months and go away.”

T. Quinn, ACWA

To translate and clarify stakeholder needs for the mutual benefit of NASA scientists and practitioners.

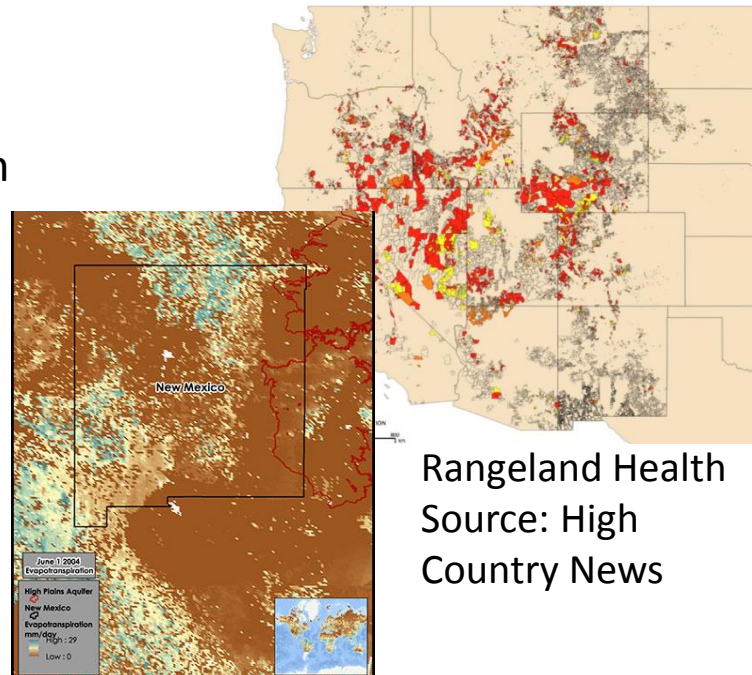
- NASA scientists often told us: “expand our reach to the end users”
- Understanding water resources needs enables appropriate matching of NASA capabilities (eg. Capacity building)

GOALS

Identify: WWAO will identify and address Western water management applications in which NASA's unique capabilities can have an impact

Deliver: It will foster and support cost-effective projects which bring NASA's Earth science results to Western water management organizations in an understandable and actionable format

Off-Ramp: WWAO will strive to have its projects advancing to the point where projects and products are handed off to the stakeholder.



Rangeland Health
Source: High
Country News

ET New Mexico
Source: NASA –
DEVELOP





WWAO Program Overview

- **Program Strategy**

- The WWAO will maintain an awareness of Western water challenges and where NASA may have a unique ability to make an impact.
- “Capabilities-to-needs matching”.
- “Projectization” of WWAO funded efforts.
- Development and maintenance of “Core Capabilities”.
 - “Effective and sustained” stakeholder engagement.
 - Unique “application transition” service.
- **WWAO plans to acquire projects using a variety of approaches.**
 - Solicitations, directed, “pull”, and innovative project development

WWAO is advancing through the formulation stage and will be fully open in late summer 2016.

Tab H – Upper Rio Grande Basin Snowfall
Measurement and Streamflow
Forecasting Improvement Project

Upper Rio Grande Basin Snowfall Measurement and Streamflow (RIO-SNO-FLOW) Forecasting Improvement Project



COLORADO
Division of Water Resources
Department of Natural Resources



January 22, 2016

Upper Rio Grande Basin Snowfall Measurement and Streamflow (RIO-SNO-FLOW) Forecasting Improvement Project

Prepared for: Colorado Water Conservation Board and the Conejos Water Conservancy District

Prepared by:

David J. Gochis, National Center for Atmospheric Research

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Aubrey Dugger, National Center for Atmospheric Research

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John Mickey, National Center for Atmospheric Research

Thomas H. Painter, NASA Jet Propulsion Laboratory

Megan Richardson, NASA Jet Propulsion Laboratory

S. Mckenzie Skiles, NASA Jet Propulsion Laboratory

Lin Tang, NOAA National Severe Storms Laboratory

January 22, 2016

EXECUTIVE SUMMARY:

This reports summarizes work and key findings to date from the Upper RIO Grande Basin SNOWfall Measurement and streamFLOW (RIO-SNO-FLOW) Forecasting Improvement Project conducted from Jan. 1, 2014 through Dec. 31, 2015. The project area was centered over the upper mainstem Rio Grande and Conejos River basins in southern Colorado. This report is organized into 7 chapters that detail the major elements of the project including; a Project Description, NOAA Gap-filling Radar, NASA Airborne Snow Observatory, *In-Situ* Ground Observations, Distributed Hydrologic Modeling, and Community Engagement. While several follow-on activities are still in progress, a number of conclusions and recommendations have emerged from the RIO-SNO-FLOW project. These major conclusions and recommendations are as follows:

- NOAA experimental gap-filling radar observations greatly improved the spatial and temporal distribution of precipitation over the Conejos River Basin in comparison to the existing operational National Weather Service (NWS) radar network
- Local radar adds value by reducing forcing-related biases in model-simulated runoff and providing more information in areas not currently monitored by SNOTEL stations
- More/better ground-based snowpack monitoring is needed at elevations above 11,000 ft. and in areas with greater/persistent snowpack
- Snowpack remote sensing platforms from the NASA Airborne Snow Observatory provide valuable sources of quantitative spatially distributed, high-resolution information on snow depth, snow water equivalent and snow albedo to uniquely constrain the modeling and assess WRF-Hydro and SNODAS simulations
- *In-situ* meteorological measurements identified significant biases in operational meteorological forcing datasets that need to be addressed through improved observation and/or assimilation and bias correction methodologies
- Physics-based, high-resolution (<1 km) hydrologic modeling with the soon-to-be operational community WRF-Hydro modeling system showed reasonable simulation skill in snowpack conditions and in seasonal runoff accumulation when compared against available data.
- Probabilistic streamflow forecasts from the National Weather Service synthesized within the Colorado Water Conservation Board (CWCB)-funded Rio Grande Decision Support Tool, developed by Riverside Technologies, Inc., provided useful, skillful probabilistic water supply forecast information compared with single value, regression-based forecasts.

A number of other findings and recommendations for future activities are provided in the individual chapters and in the Chapter 7.

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7. Conclusions and Recommendations

As a team that worked on this from all levels from water users, water administrators, water planners, research and development agencies, forecasters, and consultants, the following are our recommendations:

- Accurate determination of snowfall liquid water, snowpack and associated runoff remains a significant challenge in the local, state and federal water communities and only through collaborations and sponsorships, as fulfilled in the project, would fundamental progress be realized.
- Funding has been established to conduct one more year of NASA ASO flights, NOAA radar in the spring months, SNOTEL-lite hardening, and NCAR resources to continue to run a local version of WRF-Hydro in the Rio Grande. More local and grant funding will be needed to continue efforts in the Rio Grande beyond winter 2015-16 or Water Year 2016.
- Gap-filling, watershed-based radars would provide great benefit to Colorado for land, water, and weather management. Local, state, and federal coalitions should be built to purchase and maintain permanent and mobile radars to provide a more complete depiction of precipitation for use in hydrologic models such as WRF-Hydro and for flash flood prediction.
- A Colorado 'Data Gaps' strategic paper has been discussed with a draft currently being revised. A thorough analysis of radar data gaps has been completed and additional instrumentation to cover the gaps in the statewide observing network is being finalized by the CWCB, NOAA, and NCAR. The paper will be finalized by end 2016 and distributed to Stakeholders and state and federal officials.
- Additional snowfall and snowpack data are valuable and partnerships with NRCS Snow Survey program should be developed to: a) add additional SNOTEL sites, b) create SNOTEL-lite sites, convert manual NRCS snowcourses to SNOTEL sites, c) upgrade the data collection platform to include more sensors on the physics of snowpack evolution processes and d) enable real-time data transmission from as many sites as possible.
- Additional snowfall and snowpack data are valuable, and when there are willing and capable local caretakers of watersheds, additional SNOTEL-lites can be developed, operated and maintained at the local level.
- NASA ASO data are invaluable and provide unprecedented details of snowpack distribution and totals. The data can be used for hydrologic modeling and analysis for where future ground snowpack data should go. More frequent ASO acquisitions will

likely provide additional valuable constraint on runoff forecasting and allocation determinations.

- NASA was tasked by the State's All Hazard Mapping Program in partnership with FEMA to map LIDAR for several areas in the state. That effort should continue to collect LIDAR data to meet multiple needs. Water users should utilize the new mapping in San Miguel County, around Montrose, and in San Juan County for peak snowpack flights by NASA.
- Using data collected during the project new dual polarized radar applications are being developed and refined for use in National Weather Service and River Forecast Center operations. These new applications will benefit watersheds that are currently covered by the WSR-88D network and will serve as starting point for future 'gap' filling radar deployments.
- A national version of the WRF-Hydro modeling system will become operational in the summer of 2016, complementing existing forecasting tools. However, forecasts from WRF-Hydro system can benefit significantly and immediately from additional real-time snowpack, snowfall, soil moisture, and streamflow data. Also, short-term field projects to collect additional campaign-style snowpack and streamflow data can be used to improve the calibration of the model's snowpack, runoff, and streamflow physics, ultimately providing more reliable analyses and forecasts to the RFC and local water users.
- The report is a status and initial project outcomes for consideration to the sponsors. NASA, NCAR, and NOAA will continue to analyze the data and prepare the results for publication in peer reviewed scientific journals.
- The CWCB played a valuable role in bringing together a number different groups and interests to collaboratively address important water issues in the Upper Rio Grande basin. The CWCB demonstrated that it is especially well suited to support emerging water observation and modeling science and to bring that new science to Colorado's water managers and users.
- The CWCB 2016 Water Projects Bill authorization (called Water Forecasting Partnerships Program) will have \$300,000 available that can be used to leverage other local, state, regional, federal, and research funding for partnerships on water monitoring and forecasting projects.

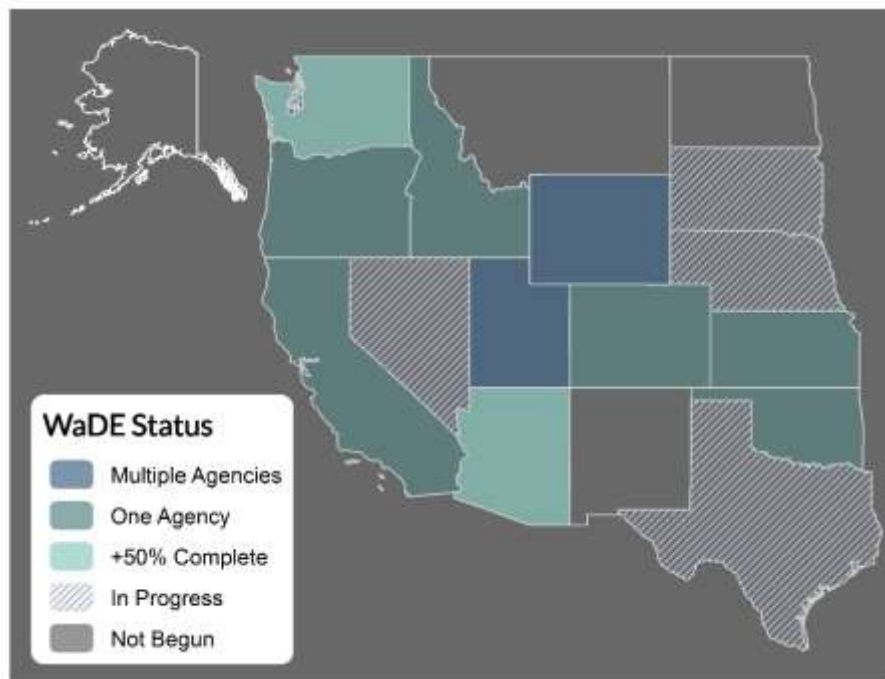
Tab I – Water Data Exchange (WaDE) Project Update

WSWC/WADE Update for the Fall 2016 Meeting

July 1, 2016 – Sept. 30, 2016

State Deployments. No new state datasets were introduced to the WaDE Central Portal over the reporting period; however, new state agencies were introduced. The doubling of state agencies occurs in some states where water administration and tasks are split between multiple agencies. This occurs in California, Utah, Colorado, Wyoming, Texas, and Kansas. The State of Utah Division of Water Resources also opted to migrate their WaDE application from the WSWC servers to their own “on site” server. This adjustment has enabled the Division of Water Rights to take advantage of the same servers to begin to share Utah’s water rights data. The Wyoming State Engineer’s Office is another new agency to begin flowing data in the WaDE Central Portal, alongside the Wyoming Water Development Commission’s basin planning data.

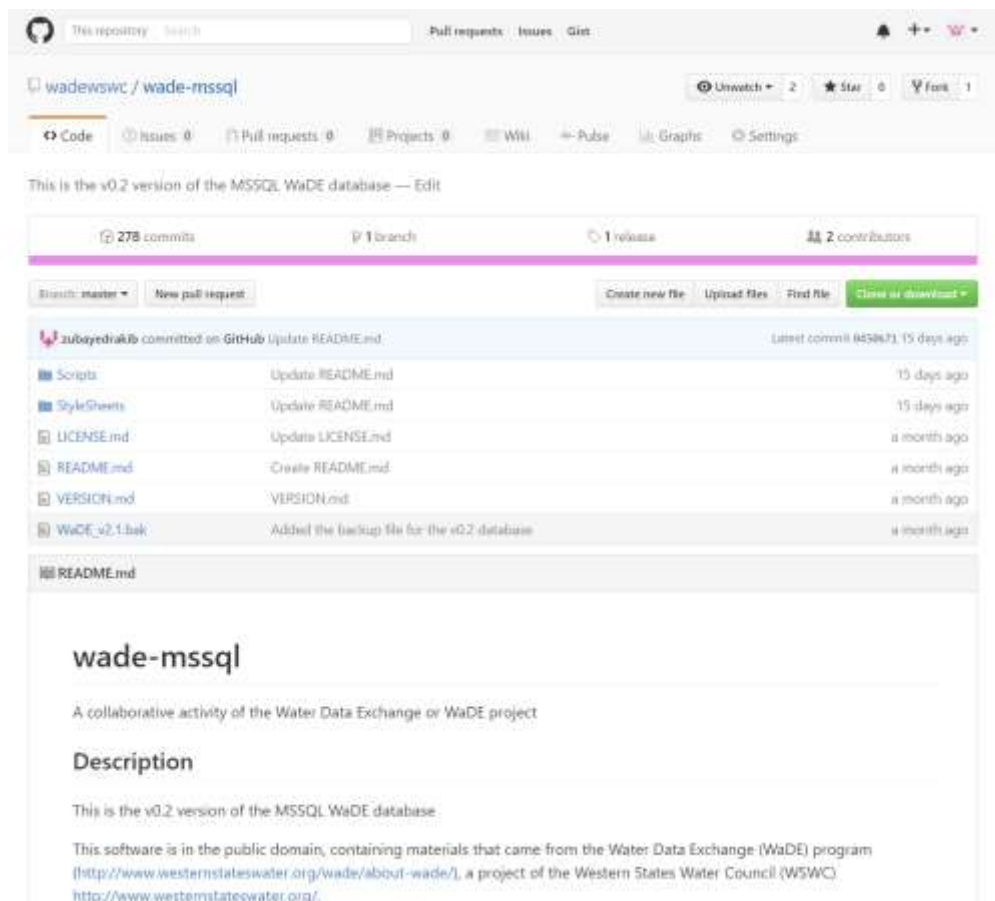
Other updates and revisions to state data have been made, and California was re-introduced recently. Arizona and Washington deployments have begun. Arizona has employed an innovative “off-site” approach that may benefit other states. They have opted to host their WaDE application on a web hosting platform (GoDaddy) that also supports MSSQL databases. Based on preliminary testing, this may be a good option for states that are interested in hosting their WaDE applications “off-site”, for a minimal expense. Figure 1 is a map of the status of participating WSWC member states.



During this reporting period, the WSWC Program Manager engaged with a few new state partners. A webinar with Alaska DNR to discuss potential grant funding and implementation was conducted, as well as some preliminary discussions with the California Water Control Board Open Data Coordinator on sharing water rights information.

WaDE Component Development. WaDE databases and code are largely finalized for the v0.2 deployments, but minor adjustments to the code and the way the data are visualized continue to be made. These minor adjustments are being made and documented for an eventual update (v0.3) for the states, projected to be delivered in late 2017. Beta-testing of the WaDE central portal has garnished a number of change-requests. Some of the larger requested changes include the ability to screen for available data by datatype (e.g. water supply, water use) instead of by geographic location. This functionality is currently being developed. Implementation of an authentication scheme for access to the Central Portal, and creation of a forum or engagement framework that could foster a WaDE community of users is also under development.

A significant step toward the collaborative component development involves sharing a subset of the WaDE components on a community code repository called GitHub (pictured below). The repository allows interested users to make specific change requests and even download/upload proposed modifications to the databases and code. Engaging developers to assist with the next release of WaDE will be critical to ensuring both the utility and the longevity of the WaDE program. Reinvigoration of the Water Information & Data Subcommittee (WIDS), and a WaDE Technical Development workgroup comprised of state agency IT staff members, will also be necessary for additional guidance and direction.



Registration of state web service endpoints and components in the Exchange Network Discovery Service (ENDS) and Reusable Component Service (RCS) is required to complete WSWC's grant obligations.

Accounts for both registries were granted to the WaDE Program Manager and the steps to complete grant obligations for all states currently flowing data were completed. The RCS is a repository of databases, web service components, and other resources that other EN grant recipients have shared publicly. WSWC has made use of the Github repository in the RCS to ensure that any interested party searching for components in RCS will then be able to download the most recent working version of the WaDE application.

Lastly, some new functionality was brought to bear to the WaDE Central Catalog. Until recently, updates of state data supported in WaDE in the Central Catalog were automated, but also required a degree of intervention and debugging in order to run seamlessly. With the help of the new WSWC intern, this is no longer the case. As part of the new automation technique, the Central Catalog update runs directly from a Postgres database and ingests the resulting query returns into the needed tables with minimal interaction – a significant improvement.

FY2013 Exchange Network Grant Partnership Status. Texas (the FY2013 grant lead state), Oklahoma, Idaho, Oregon, and Washington – the five state partners – have either finalized the WaDE deployment process (ID, OR, OK) or are now working to begin the WaDE deployment (WA, TX). During this reporting period, the WaDE Program Manager visited with Texas Commission on Environmental Quality (TCEQ) staff to “kickstart” the implementation of WaDE and to answer any questions on-site. It was a beneficial meeting and brought the WaDE installation to a higher priority on the state’s list of tasks.

The FY2013 EN-WaDE Grant partners steering committee continues to hold bi-monthly conference calls/webinars to stay up-to-date, and to evaluate progress toward finishing the WaDE EN grant obligations. An account of the group’s meetings and progress to date can be found online at: <http://www.westernstateswater.org/wade/fy2013-en-grant/>.

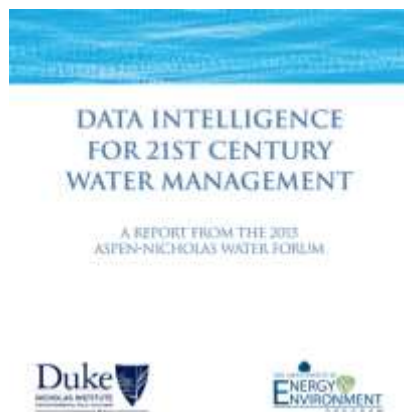
FY2015 Exchange Network Grant Partnership Status. California (the FY2015 grant lead state), South Dakota, and Nevada are the three state partners on the more recent grant procured by WSWC. California data was updated during this reporting period. The financial agreements that will allow the transfer of funding between the grant partners was also finalized. South Dakota and Nevada will begin the actual data-mapping phase in mid-late fall of 2016. The FY2015 grant partners have monthly meetings and their minutes and progress to date can be found online at: <http://www.westernstateswater.org/wade/fy2015-wade-en-grant-partnership/>.

Outreach and Collaboration. Outreach efforts over this reporting period include the “kickoff” meeting with TCEQ (mentioned earlier), and increased participation in regional and national efforts to support “open data.” WSWC staff continue to participate in the OWDI meetings that seek to make federal water-related datasets more widely available, and also support more heterogeneous data-partner sharing. WSWC anticipates that the WaDE infrastructure will be an important data source that can be accessed within the proposed OWDI infrastructure, as it will be providing authoritative water supply, availability, and use data from state water agencies in the West. The WSWC is no longer involved in leading workgroups or authoring papers, but continues to engage with WestFAST on the Water Supply/Drought Use Case, an active workgroup within OWDI.

Open Water Web			
water data Catalog	water data <i>As a Service</i>	Enriching Water Data	water data and tools <i>Marketplace</i>
Find source data	Consensus standards	Include routing	Community exercise of tools & data
Create water & climate themes	Visualization and delivery	Coupling with models	Data usage tracking
Recruit/engage partners	Catalog and serve	Grounded to geofabric	Community-built extensions (eg map)

The Open Water Data Initiative will seek to improve the Open Water Web. This diagram summarizes the components of the web of open water data, processing, and cataloging services.

Related to OWDI, the WaDE Program Manager was invited to present at the USGS Water Availability and Use Science Program (WAUSP) Leadership meeting in Augusta, ME. Use of the WaDE web services to access state water data, and specifically data related to the NWUIP and WUDR programs, was discussed and demonstrated. A highlight of the meeting was demonstrating how a portion of historical USGS water use data for counties and Hydrologic Unit Codes (HUCs) could be inserted into the WaDE database and made immediately available for visualization and download via web services. Participants also discussed how the OWDI framework involves a metadata crawler of provider data, indexed by HUCs or by catchments, and that this would be the mechanism for ingestion. WaDE will continue to interface with OWDI developers to ensure that WaDE data will be available for future OWDI indexing. For more information and meeting minutes, please see: <http://acwi.gov/spatial/owdi/>.



The WaDE Program Manager was also invited to a dialogue series hosted by the Aspen Institute on Sharing and Integrating Water Data for Sustainability in San Francisco, CA. This meeting brought together a select group of water managers, policy makers, regulators, and leaders from private and social sectors to develop principles and recommendations that articulate the value of investing in, sharing and integrating data systems for more sustainable water management. The dialogue series will continue through 2017 with periodic meetings that will then be compiled into an Aspen Institute report.

(<https://www.aspeninstitute.org/programs/energy-and-environment-program/aspen-institute-dialogue-series-water-data/>) and https://assets.aspeninstitute.org/content/uploads/files/content/docs/ee/2015_Water_Forum_Report_FINAL.pdf.

Tab J – Summary of WSWC Activities and Events

Western States Water Council 2016 Summary of Activities

WASHINGTON, DC VISITS

February 1, 2016 – WSWC member J.D. Strong was invited to attend the second in a series of White House OSTP Water, Technology and Innovation discussions.

March 22, 2016 – White House Water Summit WSWC member participation: Pat Tyrrell (WY) Chair; James Eklund (CO); John Tubbs (MT); and J.D. Strong (OK).

April 18-22, 2016 – WSWC Executive Director and WSWC Legal Counsel (tribal water rights/Ad Hoc Group) made 28 visits with members of Congress, Department of Interior, and the Office of Management and Budget to discuss the importance of and support for Indian water rights settlements.

September 21-22, 2016 – WSWC Executive Director attended the White House National Drought Resiliency Partnership (NDRP) Roundtable and made various visits with Administration and Congressional offices.

WSWC MEETINGS, SYMPOSIA AND WORKSHOPS

March 21-24, 2016 – The WSWC held its 180th WSWC Spring Council Meetings and Washington Roundtable, cosponsored with the Interstate Council on Water Policy (ICWP) in Washington, DC.

April 29, 2016 – The WSWC, California Department of Water Resources (CDWR), and the National Oceanic and Atmospheric Administration (NOAA) cosponsored a workshop on Advancing Sub-Seasonal to Seasonal Precipitation Forecasting for Western Water Management in College Park, Maryland.

June 6-7, 2016 – The WSWC, CDWR and the Jet Propulsion Laboratory sponsored a Water Resources Research Tools for Improving Observations, Forecasting and Management workshop in San Diego, California.

June 7-9, 2016 – The WSWC, CDWR and NOAA sponsored an Improving Sub-Seasonal and Seasonal Precipitation Forecasting for Drought Preparedness Workshop in San Diego, California.

July 13-15, 2016 – The WSWC held its 181st Council Meetings in Bismarck, North Dakota.

August 25-26, 2016 – The WSWC and CDWR cosponsored a workshop on Irrigation Management Information Systems and Networks in San Diego, California.

September 28-30, 2016 – The WSWC held its 182nd Council Meetings in St. George, Utah.

WGA COORDINATION

January 19, 2016 – WSWC Executive Director attended the WGA’s second workshop on Chairman Matt Mead’s Species Conservation and ESA Initiative held in Boise, Idaho.

March 9-10, 2016 – WSWC Executive Director attended the WGA’s third workshop on Chairman Matt Mead’s Species Conservation and ESA Initiative held in Denver, Colorado.

April 5, 2016 – WSWC Executive Director participated in WGA’s Species Conservation and Endangered Species Act Initiative webinar.

April 7-8, 2016 – WSWC Executive Director participated via live streaming in WGA’s final workshop on Species Conservation and Endangered Species Act Initiative held in Hawaii.

April 13, 2016 – WSWC Executive Director and WaDE Program Manager attended and presented on the WaDE program status at the WGA SAC Strategic Planning Meeting in Denver, Colorado.

June 12-14, 2016 – WSWC Executive Director attended the WGA Annual Meeting in Jackson Hole, Wyoming.

LETTERS

March 16, 2016 – WSWC/NARF letter expressing support for tribal water rights settlements and related federal support programs.

June 17, 2016 – WSWC letter to EPA Docket regarding the “Technical Report: Protecting Aquatic Life from Effects of Hydrologic Alteration.”

July 29, 2016 – WSWC Letter to the Office of Management and Budget regarding OMB’s Memorandum on Review Process for Proposed Water Rights Settlements.

September 13, 2016 – WSWC Letter expressing strong support for the National Weather Service (NWS) and Office of Atmospheric Research (OAR) and their efforts to maintain and expand NOAA’s observational capabilities, as well as to improve operational weather forecasting capability and advance research and development for improving sub-seasonal to seasonal precipitation (S2S) forecasting.

PUBLICATIONS

“Supporting Diverse Data Providers in the Open Water Data Initiative: Communicating Water Data Quality and Fitness for Use.” Journal of the American Water Resources Association, March 2016.

“Improving Sub-Seasonal to Seasonal Precipitation Forecasting for Water Management – a Workshop Series,” June 2016.

“Irrigation Management Systems Workshop: Summary Report,” September 2016.

WaDE DEVELOPMENT

April 8, 2016 – WSWC Executive Director and WaDE Program Manager gave a presentation to WECC Environmental Data Work Group in Salt Lake City, Utah.

April 22, 2016 – WaDE Program Manager gave a WaDE presentation to the Department of the Interior.

June 20-21, 2016 – WaDE Program Manager met with the Washington Department of Ecology to discuss WaDE Deployment in Lacey, Washington.

July 5-6, 2016 – WaDE Program Manager met with the Texas Commission on Environmental Quality (TCEQ) to discuss WaDE Deployment in Austin, Texas.

July 25-29, 2016 – WaDE Program Manager and WestFAST Liaison attend the Water Availability and Use Program Leadership Team Meeting in Augusta, Maine.

August 16-17, 2016 – WaDE Program Manager attended an Aspen Institute Dialogue Series on Sharing and Integrating Water Data for Sustainability in San Francisco, California.

August 31, 2016 – WaDE Program Manager presented at the WUDR Program USGS Water Use Data Forum via Webinar.

COORDINATION WITH WESTFAST AGENCIES

January 26, 2016 – WSWC Executive Director and WestFAST Liaison visited with the National Park Service Water Resources Division in Denver and Western Water Assessment (NOAA RISA) Leadership in Boulder, Colorado.

April 6, 2016 – USFS Mitigation Policy Webinar with Rob Harper.

April 26-27, 2016 – WSWC Executive Director attended a NASA Water Resources Team Meeting in Tuscaloosa, Alabama.

July 19, 2016 – WSWC Executive Director attended and addressed ACWI's Sustainable Water Resources Roundtable in Golden, Colorado.

August 8, 2016 – WSWC/EPA Webinar on Advance Notice of Public Rulemaking regarding Water Quality Standards and Treatment of Tribes as States.

August 17-18, 2016 – WSWC Executive Director attended the Western Regional Partnership meeting in Salt Lake City, Utah.

September 14, 2016 – WSWC Executive Director participated in ASU/USDA Fall Forum: Climate Variability, Water and Land Use in Tempe, Arizona.

COORDINATION WITH OTHER ORGANIZATIONS

January 20-22, 2016 – WSWC Legal Counsel gave a presentation at the Tribal Water in the Southwest Seminar in Phoenix, Arizona.

January 22, 2016 – WSWC Executive Director presented at the Water Management and Planning Seminar in Salt Lake City, Utah.

January 28-30, 2016 – WSWC Executive Director presented at the Little Colorado River RC&D Winter Watershed Conference in Eastern Arizona.

February 1, 2016 – WSWC Executive Director participated in a Western Electric Coordinating Council (WECC) State-Provincial Steering Group meeting in Salt Lake City, Utah.

March 29-30, 2016 – WSWC Legal Counsel presented at the ABA Water Law Conference in Austin, Texas.

May 2 -5, 2016 – WaDE Program Manager attended the National Water Quality Monitoring Council Meeting in Tampa, Florida.

May 10, 2016 – WaDE Program Manager attended the AWRA Utah Section Annual Conference in Salt Lake City, Utah.

June 3, 2016 – WSWC Legal Counsel attended the Carpe Diem West and Healthy Headwaters Leadership meeting in Salt Lake City, Utah.

June 6, 2016 – WSWC Legal Counsel participated via conference call on the future of the Urban Waters Federal Partnership.

July 29, 2016 – WSWC Executive Director presented at the Western Water Roundtable meeting in Salt Lake City, Utah.

August 9, 2016 – WSWC Executive Director addressed the National Association of State Budget Officers in Big Sky, Montana.

August 15, 2016 – WSWC Executive Director met with leadership of the National Center for Atmospheric Research (NCAR)/University Cooperation on Atmospheric Research (UCAR) in Boulder, Colorado.

September 6-9, 2016 – WSWC Executive Director attended the CSG West Annual Meeting in Cour d'Alene, Idaho.

September 14, 2016 – WSWC Executive Director attended ASU Wrigley Institute Fall Forum on Drought in Phoenix, Arizona.

COMMITTEES, TASK FORCES AND WORK GROUPS

Ad Hoc Group on Indian Water Rights Settlements – WSWC Executive Director and Legal Counsel

Advisory Committee on Water Information (ACWI) Climate Adaptation Workgroup – WSWC Member Jeanine Jones of California

ACWI Subcommittee on Spatial Water Data – WaDE Program Manager

American Bar Association Water Law Conference Planning Committee – WSWC Legal Counsel

American Water Resources Association (AWRA) – WSWC Executive Director and WaDE Program Manager

National Geospatial Advisory Committee, Landsat Advisory Group – WSWC Executive Director

National Integrated Drought Information System (NIDIS) Executive Council – WSWC Executive Director

National Water Census Ad Hoc Group - WaDE Program Manager

National Drought Resilience Partnership – WSWC Executive Director

Open Water Data Initiative (OWDI) Technical Development Workgroup, Drought/Water Supply Workgroup, and Water Use Data Workgroup Lead – WaDE Program Manager

WaDE - Exchange Network Grant FY2013/FY2015 Steering Committee – WaDE Program Manager

USGS Groundwater and Streamflow Information Program Collaborative Working Group – WaDE Program Manager

USGS Water Use Strategic Planning Team – WaDE Program Manager

USGS Water Use Data and Research (WUDR) Technical Review Committee – WaDE Program Manager

Western Electricity Coordinating Council (WECC) Scenario Planning Steering Group and Environmental Data Work Group – WSWC Executive Director

Tab K – Future Council Meetings

WESTERN STATES WATER COUNCIL

FUTURE MEETINGS

Upcoming Council Meetings/Host States

2017 Meetings

- Spring Meeting – Nebraska City, Nebraska
April 12-14, 2017
Lied Lodge & Conference Center

- Summer Meeting – Sonoma County, California
June 27-29, 2017
To Be Determined (DoubleTree Sonoma Wine Country)

- Fall Meeting – New Mexico (last hosted 4/15/11 in Santa Fe)

2018 Meetings

- Spring – Washington, D.C.
- Summer – Oregon (last hosted 7/29/11 in Bend)
- Fall – Idaho (last hosted 10/7/11 in Idaho Falls)

MEETING SCHEDULE

F:\USERS\CHERYL\COMTG\FUTURE MTGS CHART_2016.DOCX

	Alaska	Arizona	California	Colorado	Idaho	Kansas	Montana	Nebraska	Nevada	New Mexico	North Dakota	Oklahoma	Oregon	South Dakota	Texas	Utah	Washington	Wyoming	Other
150																			Wash. DC 3/29/06
151				Breckenridge 7/21/06															
152																		Sheridan 10/6/06	
153														Sioux Falls 5/4/07					
154							Bozeman 8/10/07												
155		Phoenix 11/16/07																	
156																			Wash. DC 3/7/08
157										Medora 7/11/08									
158												Oklahoma Cy 10/17/08							
159						Kansas Cy 4/24/09													
160																Park City 7/17/09			
161								Lincoln 10/16/09											
162																			Wash. DC 3/23/10
163									Lake Tahoe 7/23/10										
164			San Diego 10/29/10																
165										Santa Fe 4/15/11									
166													Bend 7/29/11						
167					Idaho Falls 10/7/11														
168																			Wash. DC 3/15/12
169																	Seattle 6/8/12		
170															San Antonio 10/12/12				

	Alaska	Arizona	California	Colorado	Idaho	Kansas	Montana	Nebraska	Nevada	New Mexico	North Dakota	Oklahoma	Oregon	South Dakota	Texas	Utah	Washington	Wyoming	Other
171				Denver 4/5/13															
172																		Casper 6/26/13	
173														Deadwood 10/4/13					
174																			Wash. DC 4/3/14
175							Helena 7/18/14												
176		Scottsdale 10/10/14																	
177												Tulsa 4/17/15							
178									50 th Anniversary Stateline 7/10/15										
179						Manhattan 10/9/15													
180																			Wash. DC 3/22/16
181											Bismarck 7/15/16								
182																St. George 9/30/16			

Tab L – Tribal Water Rights Update



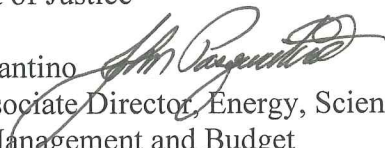
EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

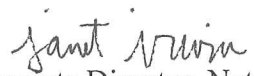
June 23, 2016

MEMORANDUM

TO: Letty Belin
Senior Counselor to the Deputy Secretary
Department of the Interior

Sam Hirsch
Principal Deputy Assistant Attorney General (PDAAG)
Department of Justice

FROM: John Pasquantino 
Deputy Associate Director, Energy, Science, and Water Division
Office of Management and Budget

Janet Irwin 
Deputy Associate Director, Natural Resources Division
Office of Management and Budget

THROUGH: Ali Zaidi
Associate Director, Natural Resources, Energy, and Science
Office of Management and Budget

SUBJECT: Review Process for Proposed Water Rights Settlements

It has been the policy of this and previous Administrations that disputes regarding Indian water rights should be resolved through negotiated settlements rather than litigation. Accordingly, in 1990 the Department of the Interior (DOI) adopted the *Criteria and Procedures for Indian Water Rights Settlements* to establish the basis for negotiation and settlement of claims concerning Indian water resources.¹ These *Criteria and Procedures* were developed by the DOI's Working Group on Indian Water Settlements, and have historically guided Administration analysis of settlements.

The review of recent settlements has underscored the necessity to improve the process that guides negotiation and review of Indian Water Settlements. For example there remains uncertainty over the definition of programmatic and trust responsibilities and the estimates used to determine the value of claims. Specifically, programmatic and trust responsibilities should be differentiated and clearly delineated in the analysis provided by DOI and DOJ. Further, pursuant to the *Criteria and*

¹ Criteria and Procedures for the Participation of the Federal Government In Negotiations for the Settlement of Indian Water Rights Claims, (Federal Register / Vol. 55, No. 4B / Monday, March 12, 1990 / Notices 9223)

Procedures, the analysis should include a justification as to why Federal contributions relating to programmatic responsibilities cannot be funded through the normal budget process.

The *Criteria and Procedures* provide a framework for negotiating settlements. They also provide the Administration with a basis to assess the adequacy of proposed settlements. In order to facilitate a thorough review of proposed settlements, OMB has, and will continue to, work closely with DOI and DOJ to acquire the information and analysis necessary to assess the degree to which settlements meet the *Criteria and Procedures*.

OMB expects that DOI and DOJ will implement the following steps to enable adequate and timely review of future proposed settlements:

1. DOI, DOJ, and OMB will establish a regular process for detailed discussions on individual proposed settlements as they are being discussed or negotiated, including written analysis of how proposed terms and conditions are consistent with the *Criteria and Procedures*, to allow opportunities for preliminary review, and to incorporate OMB feedback in the negotiations. For example, and in accordance with the *Criteria and Procedures*:
 - a. If DOI decides to establish a negotiating team, OMB shall be notified, in writing.
 - b. For all pending settlements, as specified in the *Criteria and Procedures* (Phase I, part 3), a fact-finding report outlining the current status of litigation and other pertinent matters will be submitted by the negotiating team to OMB, including quantification, to the extent possible, of each of the elements listed in the *Criteria and Procedures*.
 - c. Any recommendation to the Secretary on a negotiating position should contain views of OMB.
 - d. OMB should be notified of Secretarial approval of a negotiating position before negotiations commence.
 - e. DOI and DOJ will provide individual quarterly written status updates on each settlement under negotiation and document how the proposed terms being negotiated are consistent with each element of the *Criteria and Procedures*.
2. Prior to submission of a letter of Administration position on a proposed settlement for OMB clearance, DOI and DOJ will provide a detailed description of the proposed settlement, including a list of all of the *Criteria and Procedures* with specific descriptions of how the settlement meets each of those requirements, including, to the extent possible, quantification of costs and benefits associated with the settlement.
3. Final submission of a letter of Administration position on a proposed settlement for OMB clearance should clearly indicate DOI and DOJ concurrence and provide adequate and reasonable time for review by OMB and discussions among OMB, DOI, and DOJ.

We look forward to working with both Departments to review proposed settlements in a thorough and timely manner.



WESTERN STATES WATER COUNCIL

682 East Vine Street, Suite 7 / Murray, Utah 84107 / (801) 685-2555 / FAX (801) 685-2559

Web Page: www.westernstateswater.org

July 29, 2016

John Pasquantino
Deputy Associate Director, Energy, Science, and Water Division
Office of Management and Budget

Janet Irwin
Deputy Associate Director, Natural Resources Division
Office of Management and Budget

Ali Zaidi
Associate Director, Natural Resources, Energy, and Science
Office of Management and Budget

RE: OMB Memorandum on Review Process for Proposed Water Rights Settlements

I am writing on behalf of the Western States Water Council, a government entity and instrumentality of 18 member states, in reference to your Memorandum to the Departments of Interior and Justice on June 23, 2016, regarding the federal review process for Indian water rights settlements. We appreciate the Administration's commitment to the resolution of disputes through negotiated settlements, rather than litigation, a position long supported by the Council and western governors. We have a long-standing working relationship with the Native American Rights Fund (NARF) in promoting tribal settlements as the best means to fulfill U.S. tribal trust responsibilities and provide the stability and certainty necessary for continuing economic and water development both on and off Indian reservations.

On April 19, 2016, together with John Echohawk, NARF Executive Director, and other tribal representatives, we met with various OMB and other White House personnel¹ to discuss the importance of Indian water right matters. We are encouraged that OMB is moving to become more aware of settlements early in the settlement negotiation process -- rather than coming in after considerable resources have been committed, settlement provisions balanced, and legislation possibly introduced, when changes can be difficult to make. We hope that OMB's early awareness will lead to a greater understanding of what is at stake, what tribes give up, what States can contribute, and the tremendous benefits that accrue to all parties through resolution of Indian water rights claims through negotiated settlements.

Many of our western states have a strong interest in resolving reserved water rights claims and invest enormous amounts of time, effort and money into finding compromises that are workable

¹ Mariel Murray, Raina Thiele, Minh Le, Alex Hettinger, Niyat Mulugheta, Karen Diver, Timothy Male, Charles Kovatch, Jaaney Bavishi, Joshua Barnes, Aaron Ray.

for the federal government, tribes, states and other stakeholders with long-held rights to water. We appreciate OMB's willingness to be a part of that process to enable an adequate and timely review of proposed settlements, but it is unclear precisely how OMB's participation will proceed in harmony with that of the Departments of Interior and Justice. We are concerned that tribes and western states were not consulted with respect to the OMB guidance prior to its release. We have practical concerns about how the guidance presented in this memo will be implemented, and whether or not it will further enable or hinder the ability of the federal agencies, states and tribes to communicate and negotiate in a timely manner.

For example, item 1(d) indicates that OMB should be notified of a negotiating position before negotiations commence. However, the parties rarely know what their negotiating position will be until they hear each party's needs and concerns. Further, during the course of negotiations, positions may necessarily change relative to the positions of other parties and the specific facts and circumstances of a particular settlement. Obviously, some degree of flexibility will be necessary.

The main objective in any water rights settlement must be fulfilling the U.S. tribal trust responsibility while fairly balancing the rights and interest of all the affected parties. This can be a complex, difficult, and time consuming challenge. Western States would hope to be part of a conversation among those principally involved in past and present negotiations regarding the best path forward for everyone, including such things as formulating the metrics the federal government uses to calculate its liability and determine the value of settlements.

We look forward to future conversations (with OMB, DOI, DOJ and the tribes) regarding the intent and means of implementing the memo to ensure the best possible processes and outcomes.

Sincerely,



Tony Willardson
Executive Director
Western States Water Council

cc: Letty Belin, Senior Counselor to the Deputy Secretary, Department of the Interior
Sam Hirsch, Principal Deputy Assistant Attorney General, Department of Justice



NATIONAL CONGRESS OF AMERICAN INDIANS

August 4, 2016

Attorney General Loretta E. Lynch
U.S Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, DC 20530-001

Secretary Sally Jewell
Department of the Interior
1849 C Street N.W.
Washington, DC 20240

EXECUTIVE COMMITTEE

PRESIDENT
Brian Cladoosby
Swinomish Tribe

FIRST VICE-PRESIDENT
Fawn Sharp
Quinalt Indian Nation

RECORDING SECRETARY
Aaron Payment
*Sault Ste. Marie Tribe of Chippewa
Indians of Michigan*

TREASURER
W. Ron Allen
Jamestown S'Klallam Tribe

REGIONAL VICE- PRESIDENTS

ALASKA
Jerry Isaacs
Native Village of Tanacross

EASTERN OKLAHOMA
Joe Byrd
Cherokee Nation

GREAT PLAINS
Leander McDonald
Spirit Lake Nation

MIDWEST
Roger Rader
Pokagon Band of Potawatomi

NORTHEAST
Lance Gumbs
Shinnecock Indian Nation

NORTHWEST
Mel Sheldon, Jr.
Tulalip Tribes

PACIFIC
Jack Potter, Jr.
Redding Rancheria

ROCKY MOUNTAIN
Darrin Old Coyote
Crow Nation

SOUTHEAST
Larry Townsend
Lumbee Tribe

SOUTHERN PLAINS
Liana Onnen
Prairie Band of Potawatomi Nation

SOUTHWEST
Joe Garcia
Ohkay Owingeh Pueblo

WESTERN
Bruce Ignacio
Ute Indian Tribe

EXECUTIVE DIRECTOR
Jacqueline Pata
Tlingit

NCAI HEADQUARTERS
1516 P Street, N.W.
Washington, DC 20005
202.466.7767
202.466.7797 fax
www.ncai.org

Director Shaun Donovan
Office of Management and Budget
725 17th Street, N.W.
Washington, DC 20503

Director Cecilia Muñoz
White House Domestic Policy Council
1600 Pennsylvania Avenue N.W.
Washington, DC 20502

Re: Request for OMB, DOI, and DOJ Joint Consultation on the OMB Memorandum on the "Review Process for Proposed [Indian] Water Rights Settlements" (June 23, 2016)

Dear Attorney General Lynch, Secretary Jewell, Director Donovan, and Director Muñoz:

On behalf of the National Congress of American Indians (NCAI), the oldest, largest, and most representative American Indian and Alaska Native organization serving the broad interests of tribal governments and communities, I write follow-up on our Executive Committee Resolution #EC-16-002 (attached) and to request that the Administration initiate tribal consultation on the June 23, 2016 Memorandum issued by the Office of Management and Budget (OMB) which seeks to create a new review process for Indian water rights settlements. Due to the interagency jurisdiction of Indian water rights settlements and since the OMB Memorandum cites to the 1990 Criteria and Procedures for Indian Water Rights Settlements, 55 Fed. Reg. 9223 (Mar. 12, 1990), this consultation should include OMB, the Department of the Interior (DOI), and the Department of Justice (DOJ).

With our NCAI Annual Convention and Marketplace taking place from October 9, 2016 to October 14, 2016 in Phoenix, Arizona, we believe this provides a timely and important forum to begin consultation on the OMB Memorandum. Tribal water rights will be a major focus of our Annual Convention, as we will also be hosting a full day National Tribal Water Summit to discuss current issues regarding Indian water rights and settlements on Sunday, October 9, 2016. We propose that consultation begin on October 9th or at the front end of the conference.

NCAI would happy to assist in any way we can to schedule this OMB, DOI, and DOJ consultation so that we can open a dialogue on the process and manner in which the United States plans to participate in and support current and future Indian water rights settlements. Thank you. If you have any questions, please contact myself or Colby Duren, NCAI Staff Attorney & Legislative Counsel, at cduren@ncai.org or (202) 466-7767.

Sincerely,

Jacqueline Pata, *Executive Director*

Enclosure: NCAI Resolution #EC-16-002



NATIONAL CONGRESS OF AMERICAN INDIANS

The National Congress of American Indians Resolution #EC-16-002

TITLE: Oppose Office of Management and Budget's Review Process for Proposed Indian Water Rights Settlements

EXECUTIVE COMMITTEE

PRESIDENT
Brian Cladoosby
Swinomish Tribe

FIRST VICE-PRESIDENT
Fawn Sharp
Quinault Indian Nation

RECORDING SECRETARY
Aaron Payment
*Sault Ste. Marie Tribe of Chippewa
Indians of Michigan*

TREASURER
W. Ron Allen
Jamestown S'Klallam Tribe

REGIONAL VICE- PRESIDENTS

ALASKA
Jerry Isaac
Native Village of Tanacross

EASTERN OKLAHOMA
Joe Byrd
Cherokee Nation

GREAT PLAINS
Leander McDonald
Spirit Lake Nation

MIDWEST
Roger Rader
Pokagon Band of Potawatomi

NORTHEAST
Lance Gumbs
Shinnecock Indian Nation

NORTHWEST
Mel Sheldon, Jr.
Tulalip Tribes

PACIFIC
Jack Potter, Jr.
Redding Rancheria

ROCKY MOUNTAIN
Darrin Old Coyote
Crow Nation

SOUTHEAST
Larry Townsend
Lumbee Tribe

SOUTHERN PLAINS
Liana Onnen
Prairie Band of Potawatomi Nation

SOUTHWEST
Joe Garcia
Ohkay Owingeh Pueblo

WESTERN
Bruce Ignacio
Ute Indian Tribe

EXECUTIVE DIRECTOR
Jacqueline Pata
Tlingit

NCAI HEADQUARTERS
1516 P Street, N.W.
Washington, DC 20005
202.466.7767
202.466.7797 fax
www.ncai.org

WHEREAS, we, the members of the National Congress of American Indians of the United States, invoking the divine blessing of the Creator upon our efforts and purposes, in order to preserve for ourselves and our descendants the inherent sovereign rights of our Indian nations, rights secured under Indian treaties and agreements with the United States, and all other rights and benefits to which we are entitled under the laws and Constitution of the United States, to enlighten the public toward a better understanding of the Indian people, to preserve Indian cultural values, and otherwise promote the health, safety and welfare of the Indian people, do hereby establish and submit the following resolution; and

WHEREAS, the National Congress of American Indians (NCAI) was established in 1944 and is the oldest and largest national organization of American Indian and Alaska Native tribal governments; and

WHEREAS, American Indian and Alaska Native tribal governments are sovereign nations that pre-date the United States, with prior protected rights to self-government and to our lands and natural resources; and

WHEREAS, the conservation and preservation of tribal land and water resources is a priority for all tribes and a critical component of the federal trust responsibility; and

WHEREAS, water is a sacred resource for tribes and is essential to tribal self-determination, economic development and the exercise of cultural and spiritual beliefs; and

WHEREAS, the United States has a trust responsibility to protect tribes' rights and water resources; and

WHEREAS, for nearly 40 years many Administrations have supported the resolution of Indian water rights claims through negotiated settlements in lieu of protracted and costly litigation which has led to the settlement of 29 individual tribes' water rights claims; and

WHEREAS, Executive Order 13175 requires all executive departments and federal agencies consult with Indian tribes and respect tribal sovereignty as they develop policy on issues that impact Indian tribes; and

WHEREAS, M10-06 - Memorandum for the Heads of Executive Departments and Agencies directs all executive departments and agencies to take specific actions to implement the principles of transparency, participation, and collaboration; and

WHEREAS, the resolution of longstanding disputes is a key pillar of the United States' trust relationship with American Indians and Alaska Natives; and

WHEREAS, the stated mission of the Office of Management Budget is to implement and enforce the President's policies and priorities across the Executive Branch; and

WHEREAS, on June 23, 2016, the Office of Management and Budget issued a memorandum to the Department of the Interior (DOI) and Department of Justice (DOJ) providing a new process for the review of proposed Indian water rights settlements without consultation, transparency, or recognition of the United States' trust responsibility and obligations to work on a government-to-government basis with Indian tribes; and

WHEREAS, the Office of Management and Budget memorandum makes significant changes and requirements of DOI and DOJ which severely limit the agencies' discretionary authority in resolving Indian water rights claims; and

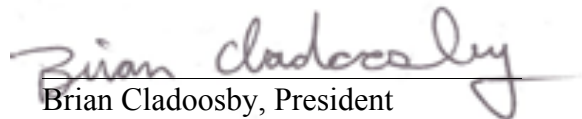
NOW THEREFORE BE IT RESOLVED, that the National Congress of American Indians (NCAI) opposes the Office of Management and Budget June 23, 2016 memorandum which diminishes the authority of the Secretary of the Interior, the Attorney General, and their employees in the determination of how each agency will implement and execute the President's policy for transparency and open government, to resolve long-standing legal disputes through negotiation involving Indian water rights, and to consult with tribal governments on policy directly impacting Indian tribes; and

BE IT FURTHER RESOLVED, that NCAI requests that the Office of Management and Budget Memorandum be withdrawn immediately; and

BE IT FURTHER RESOLVED, this resolution shall be the policy of NCAI until it is withdrawn or modified by subsequent resolution.

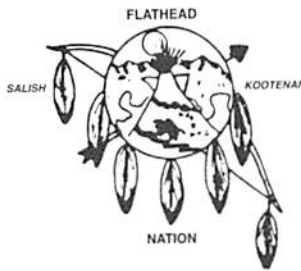
CERTIFICATION

The foregoing resolution was adopted by the Executive Committee of the National Congress of American Indians on July 6, 2016.


Brian Cladoosby, President

ATTEST:


Aaron Payment, Recording Secretary



A Confederation of the Salish,
Pend d' Oreille
and Kootenai Tribes

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION

P.O. BOX 278
Pablo, Montana 59855
(406) 275-2700
FAX (406) 275-2806
www.cskt.org



TRIBAL COUNCIL MEMBERS:

Vernon S. Finley - Chairman
Len Twoteeth - Vice Chair
Troy Felsman - Secretary
Anita Matt - Treasurer
Ronald Trahan
Shelly R. Fyant
Leonard W. Gray
Carole Lankford
Dennis Clairmont
Patty Stevens

July 21, 2016

[White House]

Attorney General Loretta E. Lynch
U.S Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530-001

Secretary Sally Jewell
Department of the Interior
1849 C Street N.W.
Washington, D.C. 20240

Director Shaun Donovan
Office of Management and Budget
725 17th Street, N.W.
Washington, D.C. 20503

Re: Office of Management and Budget Memorandum on the "Review
Process for Proposed [Indian] Water Rights Settlements" (June 23,
2016)

Dear Attorney General Lynch, Secretary Jewell and Director Donovan,

The Confederated Salish and Kootenai Tribes write to express serious concern about and disappointment with the recent Memorandum issued by the Office of Management ("OMB") and Budget on June 23, 2016. The Memorandum sets forth a new process and protocol that the Departments of Justice and Interior must follow when negotiating and reviewing all pending and future Indian water rights settlements.

The Memorandum essentially prohibits any employee of the Departments of Justice and Interior from recommending a negotiating position to the Secretary without first going through OMB. The Memorandum also purports to give OMB a significant role in determining whether a water settlement complies with the *1990 Criteria and Procedures for Indian Water Rights*

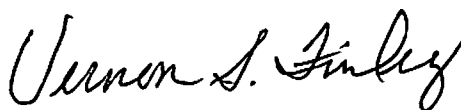
Settlements, 55 Fed. Reg. 9223 (Mar. 12, 1990), which set forth Interior policy and processes utilized by the Secretary to determine whether an Indian tribe should be appointed a federal negotiating team and is utilized by the Secretary to determine whether to support an Indian water rights settlement. The Criteria and Procedures pertain only to the Department of Interior and the authority and discretion of the Secretary participating in negotiations and evaluating Indian water rights settlements. The OMB Memorandum appears to now interject OMB policy and review authority to participate in Indian water rights negotiations and settlement, including having OMB determine whether it believes the Criteria and Procedures have been met.

The Obama Administration has taken herculean efforts to restore the trust relationship with Indian tribes and move past decades of adversarial litigation that tainted the ability of Indian tribes and the United States to work hand in hand to uphold and protect treaty rights and tribal sovereignty. Yet contrary to the Obama Administration's policies and priorities, the OMB Memorandum was issued without any consultation with or notice to Indian tribes in direct contravention of Executive Order 13175; and there remains a question of OMB's underlying authority to usurp the power and negotiating authority of Interior and Justice. To say that the issuance of the OMB Memorandum is disappointing is a gross understatement. Moreover, the Memorandum takes significant back step in the strides made by the Obama Administration and undermines transparency and the government-to-government relationship with Indian tribes.

As such, the Confederated Tribes of the Salish and Kootenai have passed the attached resolution calling for immediate withdrawal of the OMB Memorandum. Any action short of withdrawal cannot be tolerated.

We respectfully request a meeting with each of you to further discuss our request. Thank you.

Sincerely,

A handwritten signature in black ink, reading "Vernon S. Finley". The signature is written in a cursive, flowing style.

Vernon S. Finley
Chairman

**RESOLUTION
OF THE GOVERNING BODY OF
THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION**

**RESOLUTION TO OPPOSE OFFICE OF MANAGEMENT AND BUDGET'S REVIEW
PROCESS FOR PROPOSED INDIAN WATER RIGHTS SETTLEMENTS**

**BE IT RESOLVED BY THE COUNCIL OF THE CONFEDERATED SALISH AND
KOOTENAI TRIBES THAT:**

WHEREAS, we, the Confederated Tribes of the Salish and Kootenai in order to preserve for ourselves and our descendants the inherent sovereign rights of our Tribes and to promote the health, safety and welfare of our citizens do hereby establish and submit the following resolution;

WHEREAS, the conservation and preservation of our tribal land and water resources is a priority and a critical component of the federal trust responsibility;

WHEREAS, water is a sacred resource and is essential to tribal self-determination, economic development and the exercise of our cultural and spiritual beliefs;

WHEREAS, the United States has recognized and continues to recognize its trust responsibility to protect tribes' rights and water resources;

WHEREAS, many previous and the current Administration(s) (Administration) support(s) resolution of Indian water rights claims through negotiated settlement in lieu of protracted and costly litigation;

WHEREAS, Executive Order 13175 requires all executive department and federal agencies consult with Indian Tribes and respect tribal sovereignty as they develop policy on issues that impact Indian tribes;

WHEREAS, the Administration has taken significant steps to promote and require open government and transparency of all executive departments and agencies (M10-06 - Memorandum for the Heads of Executive Departments and Agencies (December 8, 2009));

WHEREAS, the resolution of longstanding disputes is a key pillar of President Obama's priorities for restoring the United States' relationship with American Indians and Alaska Natives;

WHEREAS, the stated mission of the Office of Management Budget is to implement and enforce the President's policies and priorities across the Executive Branch;

WHEREAS, on June 23, 2016, the Office of Management and Budget issued a memorandum to the Departments of Interior and Justice providing a new process for review of proposed Indian water rights settlements without consultation, transparency or recognition of the United States' trust responsibility and obligations to work on a government-to-government basis with Indian tribes;

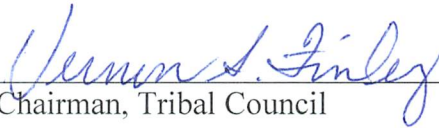
WHEREAS, the Office of Management and Budget memorandum impinges on tribal sovereignty and disrespects the government-to-government relationship with Indian tribes by making significant changes and requirements in a way in which the Departments of the Interior and Justice can negotiate with tribes in derogation of both agencies' discretionary authority in resolving Indian water rights claims;

NOW THEREFORE BE IT RESOLVED, that the Confederated Tribes of the Salish and Kootenai opposes unilateral issuance of the Office of Management and Budget June 23, 2016 memorandum and purported attempt to usurp and diminish the authority of the Secretary of the Interior, the Attorney General, and their employees in the determination of how each agency will implement and execute the President's policy for transparency and open government, to resolve long-standing legal disputes through negotiation involving Indian water rights, and to consult with tribal governments on policy directly impacting Indian tribes; and

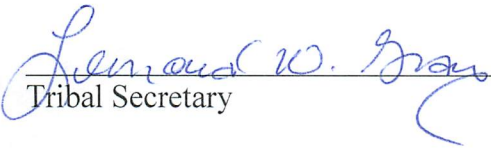
BE IT FURTHER RESOLVED, that Tribes request that the Office of Management and Budget Memorandum be withdrawn immediately.

CERTIFICATION

The foregoing resolution was adopted by the Confederated Tribes of the Salish and Kootenai Tribal Council on July 12, 2016, with a vote of 9 for, 0 opposed, and 1 not voting, pursuant to authority vest in it by Article VI, Section 1 (a), (c) and (u) of the Tribe's Constitution and Bylaws; said Constitution adopted and approved under Section 16 of the Act of June 18, 1934 (48 Stat. 984), as amended.


Chairman, Tribal Council

ATTEST:


Tribal Secretary

Tab M – Legislation and Litigation Update

LEGISLATION AND LITIGATION UPDATE
182ND WSWC MEETINGS
ST. GEORGE, U.T. – SEPTEMBER 29, 2016

Compiled By:
Michelle Bushman
 WSWC Legal Counsel
mbushman@wswc.utah.gov

This summary describes developments regarding notable legislation and litigation that pertain to WGA/WSWC policies or are otherwise of interest. It focuses primarily on developments that have taken place since the beginning of the 114th Congress. This update is current as of September 19, 2016, and the legislative portion is organized in reverse chronological order according to bill number. For some bills, this document uses modified versions of summaries prepared by the Congressional Research Service.

NOTABLE LEGISLATION

Bill Number(s)	Summary	Dates/Status	Sponsor(s)
H.R. 6022	Issue – Infrastructure Title: New Water Available To Every Reclamation State (New WATER) Act. For Reclamation states, plus Alaska and Hawaii, the bill would promote increased development of critical water resources infrastructure by establishing additional opportunities for financing water resources projects; attract new investment capital to infrastructure projects that are capable of generating revenue streams through user fees or other dedicated funding sources; and leverage private investment in water resources infrastructure. Project applications to the Secretary of the Interior for non-federal infrastructure projects (which can be combined) under \$20M would be eligible for financial assistance in the form of secured loans or loan guarantees if they: enhance energy efficiency of water system operations, accelerate repair and replacement of aging water distribution facilities; acquire real property for water storage, reclaimed water, desalination. The bill would authorize appropriations of \$20M for FY2017, \$25M for FY2018; \$35M for FY2019; \$45M for FY2020; and \$50M for FY2021, with a limit of \$2.2M in expenditures by the Secretary of the Interior in any given year.	9/14/16: H.R. 6022 introduced in the House, referred to Committee on Natural Resources	Rep. Jeff Denham (R-CA) introduced H.R. 6022
H.R. 5979	Issue – Energy-Water Nexus Title: Energy and Water Research Integration Act. Requires the Department of Energy (DOE) to integrate water considerations into its energy research, development, and demonstration programs and projects by: (1) advancing energy and energy efficiency technologies and practices that meet the objectives of minimizing freshwater withdrawal and consumption, increasing water use efficiency, and utilizing nontraditional water sources with efforts to improve the quality of the water from those sources; (2) considering the effects climate variability may have on water supplies and quality for energy generation and fuel production; and (3) improving the understanding of the energy required to provide reliable water supplies and the water required to provide reliable energy supplies. Requires a 5-year strategic plan from DOE to carry out the integration, with the establishment of an Energy-Water Subcommittee of the Energy Advisory Board to promote and enable improved energy and water	9/9/16: H.R. 5979 introduced in the House, referred to the Committee on Science, Space, and Technology	Rep. Eddie Johnson (D-TX) introduced H.R. 5979, with co-sponsor Matt Cartwright (D-PA)

	resource data collection, reporting, and technological innovation. This bill shall not be construed to require state, tribal, or local governments to take any action that may result in an increased financial burden by restricting their water use.		
S. 3300	Issue: Indian Water Rights Title: Hualapai Tribe Water Rights Settlement Act. To approve the settlement of water rights claims of the Hualapai Tribe and certain allottees in the State of Arizona. Also to authorize construction of a water project relating to those water rights claims, designed to divert, treat, and convey not less than 3,414 afy from the Colorado River for municipal, commercial, and industrial uses on the Hualapai Reservation, with authorization for up to \$5M to carry out the project and \$2M for technical assistance including operation and management training, and title to the project to eventually pass to the Hualapai Tribe. Section 10 provides new trust land, with explicit requirements that the new lands will include water rights only under state law, with no federally reserved water rights. Section 11 reallocates the tribe's Central Arizona Project water.	9/8/16: S. 3300 introduced in the Senate, referred to the Committee on Indian Affairs 9/14/16: Committee on Indian Affairs held hearings	Senator Jeff Flake (R-AZ) introduced S. 3300 with Senator John McCain (R-AZ)
S. 2950	Issue: Gold King Mine Spill Title: Gold King Accountability and Compensation for Taxpayers. To require the EPA to receive, process, and pay certain claims relating to the Gold King Mine spill.	5/18/16: S. 2950 introduced in the Senate, referred to the Committee on the Judiciary	Senator Cory Gardner (R-CO) introduced S. 2950 with co-sponsor Senator Orrin Hatch (R-UT)
H.R. 5313	Issue: Water and Sewer Infrastructure Title: Water Affordability, Transparency, Equity, and Reliability Act. To establish a trust fund with an annual appropriation up to \$34.8B to provide for adequate funding for water and sewer infrastructure. The bill would authorize EPA to allocate 0.5% of the funds for CWA §104(b)(8) grants; 1.5% for §106 grants, 2.5% for §222 grants; 2.5% for §319 grants; 45% for §601 capitalization grants; 0.5% for §1442(e) technical assistance; 44.5% for §1452 capitalization grants, and 3% for §1465 grants. The bill would increase the §603(i)(3)(B) limitation from 30% up to 50% for states using capitalization grant funds for subsidization. The bill increases the grant amount for tribal public drinking water systems from 1.5% up to 3% and makes the expenditure mandatory.	5/24/16: H.R. 5313 introduced in the House, referred to multiple committees	Rep. John Conyers (D-MI) introduced H.R. 5313, with 15 Democratic co-sponsors
S. 3022	Issue: Designating new river segments as part of the Wild and Scenic Rivers Act Title: Northern Rockies Ecosystem Protection Act. This bill designates specified National Forest System lands, National Park System lands, and public lands in Idaho, Montana, Oregon, Washington, and Wyoming as wilderness and as components or additions to existing components of the National Wilderness Preservation System. The bill also designates specified federal lands as biological connecting corridors and as special corridor management areas. The Wild and Scenic Rivers Act is amended to designate segments of specified rivers and creeks in Idaho, Montana, and Wyoming as components of the National Wild and Scenic Rivers System. The bill designates specified areas as	6/6/16: S. 3022 introduced in the Senate, referred to Committee on Energy and Natural Resources	Senator Sheldon Whitehouse (D-RI) introduced S. 3022, with 8 Democratic co-sponsors

	wildland recovery areas. The Department of Agriculture shall develop a wildland recovery plan for each recovery area.		
H.R. 5595	Issue: Revisions to Corps Water Manuals Title: Reservoir Operations Improvement Act. To direct the Secretary of the Army, acting through the Chief of Engineers, to revise the water manuals of certain flood control projects, not more than 15, to incorporate (1) a forecast-informed reservoir operations plan, in accordance with subsection (c); (2) new watershed data; and (3) as applicable, the effects of any structural improvement completed after the date of the most recent revision of the water manual.	6/28/16: H.R. 5595 introduced in the House, referred to Committee on Transportation and Infrastructure	Rep. Jared Huffman (D-CA) introduced H.R. 5595, with 8 Democratic co-sponsors
S. 2835	Issue: Infrastructure Title: None. This bill amends the National Dam Safety Program Act to direct the Federal Emergency Management Agency (FEMA) to establish a program to provide technical, planning, design, and construction assistance grants to non-federal sponsors for rehabilitation of eligible high hazard potential dams. The bill defines an "eligible high hazard potential dam" as a non-federal dam that (1) is classified as high hazard potential by the dam safety agency of the state in which the dam is located; (2) has an emergency action plan approved by such agency; and (3) fails to meet minimum state dam safety standards and poses an unacceptable risk to the public. An eligible high hazard potential dam does not include a licensed hydroelectric dam or a dam built under the authority of the Secretary of Agriculture. FEMA shall require a grant recipient to provide an assurance that the owner of the dam has developed and will carry out a plan for maintenance of the dam during its expected life. A grant must be approved by the relevant state dam safety agency. Grant funds shall be allocated to all states from which applications are submitted based on each state's relative number of eligible high hazard potential dams compared to all states. Grant funds may not be used to rehabilitate a federal dam, perform routine operation or maintenance of a dam, modify a dam to produce hydroelectric power, increase water supply storage capacity, or make any other modification that does not also improve the safety of the dam.	4/21/16: S. 2835 introduced in the Senate, referred to the Environment and Public Works Committee	Senator Jack Reed (D-RI) introduced S. 2835, with 6 bipartisan co-sponsors
S. 2820	Issue: Title: Contaminant and Lead Electronic Accounting and Reporting Requirements (CLEARR) for Drinking Water Act. To amend the Safe Drinking Water Act to update and modernize the reporting requirements for contaminants, including lead, in drinking water.	4/20/16: S. 2820 introduced in the Senate, referred to the Committee on Environment and Public Works	Senator Edward Markey (D-MA) introduced S. 2820
H.R. 4954	Issue: Technical assistance for rural wastewater treatment systems Title: Water Quality Protection and Job Creation Act. To amend the CWA to authorize appropriations for State water pollution control revolving funds, and for other purposes.	4/15/16: H.R. 4954 introduced in the House, referred to the Committee on Transportation and	Rep. Peter DeFazio (D-OR) introduced H.R. 4954, with 43 Democratic co-

		Infrastructure	sponsors
S. 2768	Issue: Rural clean water infrastructure programs Title: Clean Water Affordability Act. To amend the CWA to update a program to provide assistance for the planning, design, and construction of treatment works to intercept, transport, control, or treat municipal combined sewer overflows and sanitary sewer overflows, and to require the EPA to update certain guidance used to develop and determine the financial capability of communities to implement clean water infrastructure programs.	4/7/16: S. 2768 introduced in the Senate, referred to Committee on Environment and Public Works	Senator Sherrod Brown (D-OH) introduced S. 2768
H.R. 4862	Issue: Water Supply Title: Sustainable Water Supplies Act. This bill directs the Department of the Interior: (1) in order to determine the feasibility of agreements for long-term use of existing or expanded non-federal storage and conveyance facilities to augment federal water supply, ecosystem, and operational flexibility benefits, to enter into cooperative agreements with non-federal entities to provide replacement water supplies for drought relief for Central Valley Project contractors, units of the National Wildlife Refuge System, state wildlife areas, and private wetland areas; and (2) complete a report (to be made available to the Chief of the National Wildlife Refuge System and Central Valley Project contractors) on the feasibility of such agreements within two years of this Act's enactment. Such agreements must: (1) include the purchase of storage capacity in non-federal facilities from willing sellers; and (2) provide reimbursement for the temporary use of available capacity in existing above-ground, off-stream storage, and associated conveyance facilities owned by local water agencies.	3/23/16: H.R. 4862 introduced in the House, referred to the Natural Resources Committee	Rep. Mark DeSaulnier (D-CA) introduced H.R. 4862 with co-sponsor Rep. Jerry McNerney (D-CA)
S. 3013	Issue: Indian Water Rights Settlement Title: Salish and Kootenai Water Rights Settlement Act. The bill would authorize, provide funding for, and implement the water rights compact between the Flathead Indian Reservation Tribes, the State of Montana, and the United States. The bill would authorize \$1.5B deposited to a Flathead Indian Irrigation Project Account to carry out the activities defined in §8, including: (1) \$471M for rehabilitation of aging irrigation structures, canals, and pumping facilities; (2) \$378M for modernization of the irrigation project, including planning, design, and construction of additional pumping facilities and improvements to infrastructure; and (3) \$670M for mitigation, reclamation, and restoration of streams, wetlands, banks, slopes, and wasteways affected by the irrigation project. The State of Montana's contribution to carry out the irrigation project is set at \$55M. Section 9 would create a Selis-Qlispe Ksanka Settlement Trust Fund with three accounts: (1) \$365M for agriculture development; (2) \$93M for economic development; and (3) \$233M for community development. The agriculture development account would be used to rehabilitate agricultural lands, construct or repair livestock fencing, mitigate and control noxious weeds, and improve irrigation facilities on the Reservation, whether served by the Flathead Irrigation project or not, and to install screens or ladders to prevent fish entrainment in the irrigation systems. The economic development	5/26/16: S. 3013 introduced in the Senate, referred to the Indian Affairs Committee 6/29/16: Senate Indian Affairs held hearings	Senator John Testor (D-MT) introduced S. 3013

	account would be used for community water distribution and wastewater treatment facilities and to develop geothermal resources. The community development account would be used to establish community services, including centers for native language and cultural education for children and adults. Section 10 would establish the Salish and Kootenai Compact Fund. In addition to the Flathead Indian Irrigation Project Account noted above, the Fund would hold a second account, the Compact Implementation Account, with \$116M for the administration, implementation, and management of the tribal water rights within the Reservation. Following Congressional authorization and tribal ratification of the Compact, \$7M from the Compact Implementation Account would be made immediately available. Section 11 provides instream flow rights for the Tribe in the Bitterroot, Flathead, Kootenai, and Lolo National Forests, as well as the National Bison Range Complex and affiliated Waterfowl Production Areas. Section 12 contains waivers and releases of claims for water rights in the State of Montana and liability for grievances against the United States, conditioned upon the various provisions of the bill being authorized and carried out.		
S. 2959/H.R. 5433	Issues: Indian Water Rights Settlements and Infrastructure Title: None. To amend the White Mountain Apache Tribe Water Rights Quantification Act of 2010 to clarify the use of amounts in the WMAT Settlement Fund. The WMAT pulls its drinking water from a depleted well contaminated with uranium, and with no other groundwater sources, must turn to surface water. S. 2959 would ensure access to necessary funds from the WMAT Settlement Fund for a reservoir with water from the White River that would provide safe, reliable drinking water for the tribe. Construction of the rural water system and reservoir were already authorized by P.L. 111-291, a budget neutral Act that resolved many tribal water rights claims. However, DOI has indicated that it is not clear whether the Settlement Fund can be used for cost overruns, and the technical amendment would clarify the intended authority. DOI hasn't evaluated yet whether S. 2959 is needed to complete the infrastructure.	5/19/16: S. 2959 introduced in the Senate, referred to the Committee on Indian Affairs. 6/9/16: H.R. 5433 introduced in the House, referred to the Committee on Natural Resources 6/29/16: Senate Indian Affairs hearings held.	Senator John McCain (R-AZ) introduced in S. 2959 with co-sponsor Senator Jeff Flake (R-AZ) Rep. Ann Kirkpatrick (D-AZ) introduced H.R. 5433 with Rep. Paul Gosar (R-AZ)
H.R. 5159	Issue: Water Reuse Title: Western Water Recycling and Drought Relief Act. To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize certain recycled water projects, and for other purposes. Authorizes appropriations and federal cost share up to 25% for water reuse projects primarily in the State of California. The bill also authorizes the Department of the Interior to participate in the design, planning, and construction of recycled water system facilities in Hawaii in cooperation with Hawaii Water Service Company, Waikoloa.	4/29/16: H.R. 5159 introduced in the House, referred to the Committee on Natural Resources	Rep. Jerry McNerney (D-CA) introduced H.R. 5159

S. 2907	Issue: Water Resources; Colorado River System Title: None. To amend §206 of the 2015 Energy and Water Development and Related Agencies Appropriations Act, to strike the termination date for funding for pilot projects to increase Colorado River system water in Lake Mead. The bill would authorize \$50M for FY2017, to remain available until expended.	5/9/16: S. 2907 introduced in the Senate 5/17/16: Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing	Senator Harry Reid (D-NV) introduced S. 2907
S. 2902	Issue: Water Supply Title: Western Water Supply and Planning Enhancement Act. A bill to provide for long-term water supplies, optimal use of existing water supply infrastructure, conservation of Lake Mead water, and protection of existing water rights. It addresses federal lands and the longstanding authority of states to allocate and manage groundwater. During the hearing, Leslie Weldon, Deputy Chief, U.S. Forest Service, expressed concerns about S. 2902's provision on groundwater rights. She said the prohibitions in the bill would restrict the USDA's ability to protect water resources and could potentially adversely affect water resources on Forest Service lands. Laura Zeimer, Trout Unlimited, agreed, stating that the bill's language would "jeopardize the ability of federal resource agencies to condition federal permits and apply for state water rights needed to protect valuable fisheries" and protect headwater flows on federal lands.	5/9/16: S. 2902 introduced in the Senate 5/17/16: Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing	Senator Jeff Flake (R-AZ) introduced S. 2902, with 5 Republican co-sponsors
S. 2616	Issue: Rural Drinking Water Title: None. To modify cost sharing and revenue provisions relating to the Bureau of Reclamation's Fryingpan-Arkansas multi-use water project and delivery of rural drinking water in Colorado The regional surface water supply project would deliver treated drinking water to farming and ranching communities, replacing contaminated groundwater sources that are too costly to treat to standards set by the Safe Drinking Water Act.	3/2/16: S. 2616 introduced in the Senate 5/17/16: Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing 7/13/16: Energy and Natural Resources ordered S.2616 reported favorably without amendment	Senator Cory Gardener (R-CO) introduced S. 2616 with co-sponsor Michael Bennet (D-CO)
S. 2524/H.R. 4510	Issue: Access to irrigation headgate on federal land for maintenance Title: Bolts Ditch Access and Use Act. Seeks to resolve maintenance issues for a ditch headgate located on wilderness land in Colorado's White River National Forest. The parties have a stipulated settlement agreement on the point of diversion for the Bolts Ditch, removing it from the wilderness area absent other Congressional or Presidential authorization. S. 2524 would direct the USDA to issue	2/9/16: S. 2524 introduced in the Senate; H.R. 4510 introduced in the House 5/17/16: Senate Energy and Natural Resources	Senator Cory Gardener (R-CO) introduced S. 2524 with co-sponsor Senator Michael Bennet (D-CO)

	a special use permit authorizing non-motorized access for routine maintenance on the Bolts Ditch headgate, but does not authorize new construction or reconstruction.	Subcommittee on Water and Power held a hearing; S.Rept. 114-327 7/14/16: House Committee on Natural Resources reported H.R. 4510, H.Rept. 114-689 9/6/16: House passed H.R. 4510	Jared Polic (D-CO) introduced H.R. 4510 with co-sponsors Doug Lamborn (R-CO) and Scitt Tipton (R-CO)
H.R. 2028	Issue: Water Development Title: Energy and Water Development and Related Agencies Appropriations Act. Provides \$37.5B in FY2017 appropriations for the U.S. Department of Energy, Corps of Engineers and Bureau of Reclamation projects and programs, including the Central Utah Project and civil works projects, as wells as appropriations to fund the Nuclear Regulatory Commission, and other independent agencies. It provides \$355M more than the FY2016 enacted level and \$261M more than the President's budget request, although it funds Reclamation at the FY2016 level. The bill includes an amendment (S. Amdt. 3876) by Senator Jeff Flake (R-AZ) that sets aside funds to revise certain water project and flood control operations where the Corps and Reclamation projects are located within the same state.	4/24/15: H.R. 2028 introduced in the House, H. Rpt. 114-91 5/1/15: House passed H.R. 2028 by a vote of 240-177 5/12/16: Senate passed H.R. 2028 with amendments by a vote of 90-8	Rep. Michael Simpson (R-ID)
S. 2012	Issues: Energy-Water Nexus, Yakima River Basin and Klamath Basin Title: Energy Policy Modernization Act. Modifies the hydropower licensing process, allowing longer extensions of preliminary permits and facilitating more efficient license proceedings with best practices; non-duplication of studies; concurrent biological opinions; and deadlines for water quality certifications under CWA §401(a) after the certifying agency determines a request for certification is complete. Among other provisions, the bill includes a section on basin water management, authorizing the initial portion of Phase III of the Yakima River Basin Water Enhancement Project and implementing power and water management parts of the 2010 Klamath Basin Restoration Agreement (KBRA). The bill authorizes the first ten years of a 30-year water-sharing plan in the Yakima River Basin, a project managed by the Bureau of Reclamation. The provision was previously introduced by Senator Maria Cantwell (D-WA) as S.1694, and has since undergone several changes. The plan would install fish passages at dams to restore access to salmon runs important to the Yakama Nation, and would improve water storage for farmers in the region. The plan includes water conservation targets and	9/9/15: S. 2012 introduced and reported by the Committee on Natural Resources, S. Rpt. 114-138 4/20/16: Senate passed S. 2012 with an amendment by a vote of 85-12 5/25/16: House passed S. 2012 by a vote of 241-178, with an amendment and request for conference 9/8/16: Conference	Senator Lisa Murkowski introduced S. 2012

	water transfers, and studies on feasibility and environmental impacts. The bill does not authorize the remainder of the plan, including the construction of new dams, which Senate Energy and Natural Resources Committee minority members noted will require feasibility studies and environmental reviews before being considered for authorization. The Klamath Basin project language, approved by the affected states, water users and environmental groups, authorizes programs for irrigators under KBRA, including groundwater development and surface water pumping, up to \$100M. The bill also instructs the Department of Interior to reduce power costs for irrigators, authorizes reimbursement for pumping costs and canal replacements, authorizes local water banking, and reduces permitting requirements for using federal facilities to transport non-federal water. The bill includes two sections on the Energy-Water Nexus. Section 4101 tasks the Secretaries of Energy and Interior to establish an Interagency Coordination Committee (ICC) and a joint Nexus of Energy and Water for Sustainability (NEWS) Office. The ICC would serve as a forum for developing common Federal goals and plans on energy-water nexus programs in coordination with the National Science and Technology Council. The ICC would submit biannual strategic plans and various other reports to Congress on the effectiveness of the ICC, the feasibility of establishing an energy-water center of excellence within the National Laboratories, and an interagency crosscut budget report for past and current fiscal years. The ICC would coordinate the energy-water nexus programs, activities, data collection, methodologies, grant and matching programs, information exchange and leverage existing programs of the following Federal departments and agencies: Corps of Engineers, Department of Agriculture, Department of Defense, Department of State, Environmental Protection Agency, Council on Environmental Quality, National Institute of Standards and Technology, NOAA, National Science Foundation, Office of Management and Budget, Office of Science and Technology Policy, National Aeronautics and Space Administration, and any other departments and agencies the ICC deems appropriate. The ICC would not have any authority to regulate or set standards. Section 4102 would establish a smart energy and water efficiency pilot program, with \$15M for competitive, merit-reviewed grants to 3-5 eligible entities within a year of enactment. The purpose of the pilot program is to demonstrate unique, advanced, or innovative technology-based solutions that will: (1) increase or improve the energy efficiency of water, wastewater, and water reuse systems to conserve water, save energy and reduce costs; (2) support the implementation of innovative and unique processes and the installation of established, advanced automated systems that provide real-time data on energy and water; and (3) improve energy-water conservation, quality, and predictive maintenance through internet-connected technologies, including sensors, intelligent gateways, and security embedded in hardware.	committee held meeting	
H.R. 2993	Issue: Water Reuse and the WaterSMART Program Title: Water Recycling Acceleration Act. Would authorize funding for water recycling in areas experiencing extreme drought. Projects under the existing Reclamation Wastewater and Groundwater	7/9/15: H.R. 2993 introduced, referred to the House Natural Resources Committee	Rep. Doris Matsui (D-CA) introduced H.R. 2993 with five California Democratic

	Study and Facilities (RWGSF) Act must be authorized by Congress, a slow and cumbersome process, and the bill would accelerate the authorization of wastewater recycling projects in California as they meet certain criteria and at the discretion of the Secretary of the Department of the Interior(DOI). The project criteria would include the ability to: (1) deliver a reliable water supply; (2) protect, restore, and enhance ecosystems; (3) improve water resource flexibility; (4) be regional in nature; (5) involve multiple stakeholders; and (6) have multiple benefits, including groundwater management and water quality improvements. Testimony at the 4/20/16 hearing indicated that the bill would assist water reuse and groundwater replenishment programs carried out by public-private partnerships, but DOI noted that the program is already oversubscribed, and without additional funding, this bill would only increase the competition for the program.	4/20/16: House Natural Resources Subcommittee on Water, Power and Oceans held a hearing	co-sponsors
S. 2717	Issue: Infrastructure Title: Dam Repairs and Improvements for Tribes (DRIFT) Act. The bill is intended to improve the safety and address the deferred maintenance needs of Indian dams under the Bureau of Indian Affairs (BIA), and to prevent flooding on Indian reservations by seeking reform of tribal programs within the Army Corps of Engineers. The Act would authorize the establishment of two funds – a high hazard fund for a maximum of \$22.75M a year for twenty years (2017-2037) and a low hazard fund for \$10M each year for the same time period -- for a total allocation of \$655M to the BIA Safety of Dams special funds. Any subsequent expenditure from these funds would be subject to appropriations. The Act would allow the BIA to improve maintenance of high-hazard potential dams in the Safety of Dams Program, establish a program for inspecting and maintaining low-hazard potential dams, establish a Tribal Safety of Dams Committee for recommending updates to the Indian Dam Safety Act of 1994 (P.L. 103-302), and run a four-year floodplain management pilot program. Under the 1994 Indian Dams Safety Act, the BIA is responsible for maintaining and rehabilitating 137 high--hazard dams and 700 low--hazard dams across the country, the majority of which are located across the West. The BIA has contracts or compacts with Indian tribes to perform various aspects of the Safety of Dams Program, but retains ultimate responsibility for the dams. The primary goal of the Program is to protect downstream residents from risks associated with dam failures. Many dams have not had a hazard classification assigned. On average, the dams are 70 to 80 years old. The estimated current value of deferred maintenance costs is \$556M. Since 2010, the cost of deferred maintenance has increased approximately 6% per year.	3/17/16: S. 2717 introduced, referred to Senate Indian Affairs Committee. 4/13/16: Senate Indian Affairs Committee held hearings; ordered to be reported with an amendment.	Senator John Barrasso (R-WY) introduced S. 2717, with co-sponsors Senator John McCain (R-AZ) and Martin Heinrich (D-NM)
S. 2724 H.R. 4768	Issue: Chevron deference to federal agencies Title: Separation of Powers Restoration Act. The bills are intended to restore accountability to the regulatory process. The bill would clarify APA §706 to state that courts, not agencies, are to interpret	3/17/16: S. 2764 and H.R. 4768 introduced and referred to respective Judiciary Committees	Senator Orrin Hatch (R-UT) introduced S. 2764, with 12 Republican co-

	“de novo” all relevant questions of law, covering both statutes and regulations. Referencing <i>Chevron USA, Inc. v. Natural Resources Defense Council, Inc.</i>, 467 US 837 (1984), they note that the change would make clear that courts are no longer allowed to defer to an agency’s assessment of the legality of its own actions. Senators and Representatives supporting the bills noted that the use of the Chevron doctrine undermines Congressional authority and their legislative role under the separation of powers, allowing unelected agencies to make and interpret law without accountability for the impact their rules and regulations have on the American people. See WSW #2183. On June 23, the House set debate parameters for five Democratic amendments to H.R. 4768, including a proposal from Rep. John Conyers (D-Mich.) to exempt U.S. EPA rules pertaining to the regulation of lead or copper in drinking water. A White House statement of administration policy said the bill would "unnecessarily overrule decades of Supreme Court precedent, is not in the public interest, and it would add needless complexity and delay to judicial review of regulatory actions. Both Federal statutes and case law provide Federal courts with the appropriate tools to review regulatory actions and afford appropriate deference to the expertise of the agencies that promulgated the rules and regulations under review."	5/17/16: Subcommittee on Regulatory Reform, Commercial And Antitrust Law held hearings on H.R. 4768 6/8/16: House Committee on the Judiciary held a markup session on H.R. 4768 6/14/16: H.R. 4768 reported by the House Committee on the Judiciary, H. Rept. 114-622, and added to the House calendar. 6/23/16: House Rules Committee Resolution H. Res. 796 to limit debate on H.R. 4768 to 1 hour. 7/12/16: H.R. 4768 passed the House by a vote of 240-171.	sponsors Rep. John Ratcliffe (R-TX) introduced H.R. 4768 with 113 Republican co-sponsors
S. 2902	Issue –Water Supply; Securing Colorado River Basin Conserved Water Title: Western Water Supply and Water Enhancement Act. To provide for long-term water supplies, optimal use of existing water supply infrastructure, and protection of existing water rights. Section 101 directs re-evaluation of flood control operations at Corps or Reclamation dams to enhance water storage and provide clarity and potentially streamline the process to creating temporary storage. Section 103 requires the National Academy of Sciences conduct a study on the efficiency of controlling tamarisk to increase water supplies and improve riparian habitats and for Reclamation to create a feasible plan that builds upon the 2012 Colorado River Basin Supply and Demand Study to implement tamarisk control. In the Lower Basin more than 600,000 Acre-feet of water is lost annually due to evaporation, transmission losses and consumption by non-native vegetation. Cost effective methods to control tamarisk that create additional flow in the Colorado River system can help to alleviate those losses, reduce impacts of the drought, and can add resiliency to the system.	5/9/16: S. 2902 introduced in the House, referred to the Committee on Energy and Natural Resources. 5/17/16: Energy and Natural Resources Subcommittee on Water and Power held hearings. 7/13/16: Energy and Natural Resources ordered S. 2902 reported with an amendment	Senator Jeff Flake (R-AZ) introduced S. 2902, with co-sponsor Senators John Barasso (R-WY), John McCain (R-AZ), James Risch (R-ID), Dean Heller (R-NV), and Steve Daines (R-MT)

	Section 104 amends Title II of the Energy and Water Development and Related Agencies Appropriations Act, 2015 (division D of P.L. 113-235) by replacing section 206 (43 U. S.C. 620 note; 128 Stat. 2312). It effectively provides authority for the Secretary of the Interior to fund or participate in projects to conserve water for the benefit of the Colorado River system. It also authorizes an appropriation of \$10 million each fiscal year 2017 through 2027. The provisions of this Section build upon the collaborative efforts of the Colorado River Basin States and the Department of the Interior to proactively manage the Colorado River system to improve its health. The creation of system conservation water is a critical component of efforts to protect Lake Mead elevations because Arizona, Nevada and California and their water users all benefit from this system water. Additionally, system water can have benefits to the Upper Basin by reducing the probability that low lake levels in Lake Mead will lead to increased Lake Powell balancing releases. Intentionally Created Surplus is also a valuable tool in protecting Lake Mead but that water is intended to be released from the Lake unlike system water. Secretary of the Interior has chosen not to release any of the system water created to date, but the provisions in Sec. 104 inserting language at Sec. 206 (a) (2), Division D, PL 113-235 to achieve the outcome of absolute certainty that system water will remain as system water to the benefit of the Basin States, providing incentive for all water users in the Lower Basin to continue to incrementally add to system conservation measures with the knowledge that the conserved water will provide the benefit that was intended. Sections 111-114 apply a streamlined permitting process to forest and wildland restoration activities in critical water supply watersheds. The implementation of certain forest management methods, spanning decades, and including well-intentioned yet restrictive administrative and regulatory constraints, have been counterproductive. Among other things, the practices have resulted in over-stocked and even-aged stands of trees. These dense thickets of low value younger trees, combined with ineffective or injurious fire management schemes, have yielded the conditions for catastrophic landscape scale wildfires, endangering people, flora, fauna, and watersheds. Unhealthy forests and resulting catastrophic wildfires affect the short and long term management, sustainability, and quality of water supply. <i>Adapted from a summary provided by 5/17/16 Testimony of Thomas Buschatzke Director Arizona Department of Water Resources</i>		
S. 1331	Issue: Seasonal Forecasting Title: Seasonal Forecasting Improvement Act. Section 2 of the bill directs the National Weather Service (NWS) and the National Oceanic and Atmospheric Administration (NOAA) to (1) collect and utilize information in order to make usable, reliable, and timely forecasts of seasonal temperature and precipitation in agriculture; (2) leverage existing research and models from the academic sector to improve such forecasts; (3) determine and provide information on how such forecasted conditions may impact the number and severity of droughts, fires, tornadoes, hurricanes, floods, heat waves, coastal inundation, winter storms, high impact weather, or other relevant disasters, snowpack, and sea ice	5/13/15: S. 1331 introduced in the Senate, referred to the Committee on Commerce, Science, and Transportation. 5/20/15: Committee on Commerce, Science, and Transportation ordered to	Senator John Thune (R-SD) introduced S. 1331 with co-sponsor Senator Brian Schatz (D-HI)

	conditions; (4) provide these forecasts and information on national and regional levels; and (5) develop an Internet clearinghouse, and provide forecasts and information on their impacts to the public. The bill directs the Department of Commerce to consult with the Departments of Defense and Homeland Security on the highest priority seasonal forecast needs to enhance national security, and to build upon existing forecasting and assessment programs and partnerships. It would also authorize grants of up to \$100,000 each to states and territories to appoint a forecast communication coordinator. It directs Commerce to provide matching funds to support a liaison between any state requesting assistance and NOAA and other federal departments and agencies. Section 3 would require annual reports on ongoing research projects relating to observations, weather, or seasonal-scale forecasts, and reauthorizes the weather and climate information in agriculture program through FY2020. Section 4 directs NOAA to improve procurement practices for polar and geostationary satellites and assess operational viability of alternate observation platforms, such as microsatellite constellations and permits NOAA and NASA to acquire such satellites in order to manage the expense of ocean and environmental observations. It requires an objective, non-governmental scientific study of the future of the NOAA satellite systems. It also directs NOAA to complete the existing radio occultation program by deploying constellations of microsatellites in both the equatorial and polar orbits, integrating resulting data and research into all national operational weather forecast models. The resulting data is to be free and open to all communities. For ocean and coastal data, NOAA would integrate additional coastal and ocean observations, and other data and research from NOAA Integrated Ocean Observing System (IOOS) into regional weather forecasts. It supports the development of real time data-sharing products and forecast products in collaboration with the IOOS regional associations, including the private sector, academia, and research institutions. Section 5 creates a Federal Coordinator for Meteorology. Section 6 creates a Weather Commission to assess NOAA forecasts and advise the federal government on the highest priority forecast needs of the community of users. Section 7 directs the NWS to review existing research, products, and services that meet the specific needs of the urban environment, including those with the potential for improving modeling and forecasting capabilities by taking into account factors such as varying building heights, impermeable surfaces, lack of tree canopy, traffic pollution, and interbuilding wind. Section 10 directs NOAA to maintain a National Water Center to: (1) initiate research and development activities to develop operational water resource prediction products; (2) collaborate with, and provide decision-support regarding total water prediction for the Army Corps of Engineers, U.S. Geological Survey, the Environmental Protection Agency, and state water resource and emergency management agencies; and (3) develop capabilities necessary for total water predictive capacity. Section 11 directs NOAA to improve hurricane forecasting and communication about storm surges in collaboration with NWS and appropriate weather industry and academic entities.	be reported with an amendment 5/9/16: S. 1331 reported S. Rpt. 114-248, and placed on the Senate calendar.	
H.R. 4653	Issue – SRFs Title - Assistance, Quality, and Affordability Act. To amend the Safe Drinking Water Act to increase assistance for States, water systems, and disadvantaged communities; to encourage good financial and environmental management of water systems; to strengthen the Environmental Protection Agency’s ability to enforce the requirements of the Act. The bill would amend the Safe Drinking	2/29/15: H.R. 4653 introduced in the House and referred to the Committee on Energy and Commerce	Rep. Paul Tonko (D-NY) introduced H.R. 4653 with 66 Democratic co-sponsors

	Water Act to increase assistance for States, water systems, and disadvantaged communities, and would reauthorize EPA's Drinking Water State Revolving Fund with funding for states at \$3.1B for FY2017, increasing to \$5.5B in FY2021, to offer low-interest loans to replace crumbling infrastructure. The bill would encourage good financial and environmental management of water systems, and strengthen the EPA's ability to enforce the requirements of the Act. The SRF authorization expired in 2003, but Congress has continued to fund the program, appropriating \$863M in last year's spending bill. The FY2017 Budget requests \$1.02B (\$2B for both Clean Water and Drinking Water SRFs.)		
S. 1983	Issue - Tribal Water Rights Title - Pechanga Band of Luiseno Mission Indians Water Rights Settlement Act Would authorize the Pechanga Settlement Agreement, entered into by the Pechanga Band of Luiseno Mission Indians, the Rancho California Water District (RCWD), and the United States, and confirm a Tribal Water Right held in trust by the U.S. on behalf of the Band and its allottees. The bill would authorize allottees to lease their lands together with any water right. Requires the Band to enact a Pechanga Water Code that governs the storage, recovery, and use of the Tribal Water Right, subject to the Department of the Interior's approval. Waives water rights claims within the Santa Margarita River Watershed and other specified claims against RCWD. Establishes the Pechanga Settlement Fund in the Treasury. The bill requests less than \$30M in congressional funding. If the bill passes the Senate, it will be (one of) the first to navigate House Natural Resources Chairman Rob Bishop's (R-UT) new system for tribal water rights settlements, enabling them to avoid the earmark designation, which has been an obstacle to the consideration of settlement legislation since the 2010 earmark ban.	8/5/15: S. 1983 introduced in the Senate and referred to the Committee on Indian Affairs 2/3/16: Committee on Indian Affairs approved without amendment.	Senator Barbara Boxer (D-CA) introduced S. 1983 with co-sponsor Senator Dianne Feinstein (D-CA)
S. 1724/H.R. 3692	Issue: Water Quality Title: Lake Tahoe Restoration Act The bills would authorize funding for the management of forest resources, aquatic invasive species, and wildfire prevention for environmental restoration of Lake Tahoe. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	7/9/15: S.1724 introduced referred to EPW 10/6/15: H.R. 3692 introduced, referred to various committees 1/20/16: EPW approved S. 1724 with an amendment. 5/18/16: S. Rpt. 114-256, placed on calendar	Senator Dean Heller (R-NV) introduced S. 1724 with co-sponsor Senators Harry Reid (D-NV), Barbara Boxer (D-CA), and Dianne Feinstein (D-CA) Representative John Garamendi (D-CA) introduced H.R. 3692 with 6 California Democrat co-sponsors.

H.R. 3382	Issue: Water Quality Title: Lake Tahoe Restoration Act The bill would authorize funding for the management of forest resources, aquatic invasive species, and wildfire prevention. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	7/29/15: H.R. 3382 introduced in the House and referred to several committees. 10/7/15: NR consideration and mark-up session 2/1/16: H. Rept 114-404, placed on calendar	Rep. Tom McClintock (R-CA) introduced H.R. 3382 with co-sponsor Rep. Mark Amodei (R-NV)
S. 2533/H.R. 5247	Issue – California Drought Title – California Long-Term Provisions for Water Supply and Short-Term Provisions for Emergency Drought Relief Act: Would provide short-term water supplies to drought-stricken California without taking water from fish protected by the Endangered Species Act (ESA), and would provide long-term investments in drought resiliency throughout the Western United States. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/10/16: S. 2533 introduced in the Senate and referred to ENR 5/16/16: H.R. 5247 introduced in the House, referred to various committees 5/17/16: Subcommittee on Water and Power held hearings	Senator Dianne Feinstein (D-CA) introduced S. 2533 Rep. Garamendi (D-CA) introduced H.R. 5247, with 3 California Democratic co-sponsors
H.R. 4456	Issue – Mine Reclamation Title: Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More (RECLAIM) Act. The bill prescribes general requirements for projects to reclaim abandoned mine lands and waters that are likely to create favorable conditions for the economic development of the project site or promote the general welfare through economic and community development of the area in which the project is conducted. Any such project shall be located in a community affected by a recent decline in mining. A state or Indian tribe that receives funds under this bill may retain a portion of them as necessary to supplement its acid mine drainage abatement and treatment fund for future operation and maintenance costs for the treatment of acid mine drainage associated with individual projects. Amends the Surface Mining Control and Reclamation Act of 1977 to make specified funds available to the Department of the Interior for each of FY2017-FY2021 for distribution to states and Indian tribes to promote economic revitalization, diversification, and development in economically distressed communities through the reclamation and restoration of land and water resources adversely affected by coal mining carried out before August 3, 1977.	2/3/16: H.R. 4456 introduced in the House, referred to the Committee on Natural Resources	Rep. Harold Rogers (R-KY) introduced H.R. 4456, with bipartisan support from 19 co-sponsors, including Rep. Jared Polis (D-CO), Pete Sessions (R-TX), and Tom Cole (R-OK)

<u>Draft Legislation</u>	Issue - Good Samaritan/Abandoned Mine Cleanup Title: Good Samaritan Cleanup of Orphan Mines Act: Would allow state and local governments and other groups to apply for Environmental Protection Act (EPA) permits to cleanup abandoned mine sites, with liability protection for inadvertent damage caused as long as they abide by the terms of the permit agreement, or failure to follow the permit results in only minor environmental impact. The bill would promote remediation of “historic mine residue,” defined to include “any acidic or otherwise polluted flow in surface water or groundwater that originates from, or is pooled and contained in, an inactive or abandoned mine site.” <i>See full summary through the end of February 2016 in the <u>Washington, D.C. briefing binder, Tab N, March 2016</u></i>	1/20/16: Draft legislation released	Colorado Senators Cory Gardner (R) and Michael Bennet (D), and Representative Scott Tipton (R)
H.R. 4323	Issue - Abandoned Mines Title - Abandoned Mine Reclamation Safety Act: The bill would direct the Secretary of the Interior to regulate the reopening of abandoned mines for the sole purpose of cleanup or remediation, to ensure safety and environmental responsibility. It would also direct the creation of a program to identify and monitor surface and underground abandoned mine sites that pose the highest risk of inadvertent release of water into the environment. The bill incorporates the Bureau of Reclamation’s recommendations from the October 22 Technical Evaluation of the Gold King Mine Incident. (WSW #2163)	1/6/12: H.R. 4323 introduced in the House and referred to the Committee on Natural Resources	Rep. Raul Grijalva (D-AZ) introduced H.R. 4323, with 5 Democratic co-sponsors
H.R. 4220	Issue - Water Infrastructure/Tax Incentive Title - Water and Agriculture Tax Reform Act: To facilitate water leasing and water transfers to promote conservation and efficiency. The bill would amend the Internal Revenue Code Section 501(c) to provide tax exemptions for mutual ditch or irrigation companies for any income received or accrued from the sale, lease, or exchanges of fee or other interests in real and personal property, including interests in water; from the sale or exchange of stock in any like organization or contract rights for the delivery or use of water; or from the subsequent investment of related proceeds. See related S.384 below.	12/10/15: H.R. 4220 introduced in the House, referred to the Committee on Ways and Means	Rep. Ken Buck introduced H.R. 4220 with co-sponsors Rep. Paul Gosar (R-AZ), Rob Bishop (R-UT), Cynthia Lummis (R-WY), Mia Love (R-UT), Scott Tipton (R-CO), and Mike Coffman (R-CO)
H.R. 4175	Issue - Groundwater Conservation/Tax Incentive Title - Groundwater Conservation Incentive Act: To allow tax deductions for expenses related to conservation measures to reduce groundwater consumption, including the construction of reservoirs, impoundments, tail-water recovery systems, and surface water retention structures.	12/3/15: H.R. 4175 introduced in the House, referred to the Committee on Ways and Means	Eric Crawford (R-AR) introduced H.R. 4175

H.R. 4149	Issue - CWA §404 Lawsuits/EPA Veto Title - Discouraging Frivolous Lawsuits Act: Aimed at limiting settlements that require compensatory mitigation and granting litigation costs, including attorneys' fees, to prevailing parties. The bill would bar the federal government from requiring excess mitigation for dredging or disposal of material, and would repeal the power of the EPA to veto dredge-and-fill permits granted by the U.S. Army Corps of Engineers under CWA §404.	12/1/15: H.R. 4149 introduced in the House, referred to the Committee on Transportation and Infrastructure	Representative Tom Rice (R-SC) introduced H.R. 4149, with 30 Republican co-sponsors
S. 2358	Issue – CWA Wastewater/Stormwater Infrastructure Compliance Title: Clean Water Compliance and Affordability Act: The bill would direct the EPA to develop a program in collaboration with state and local entities to work with municipalities seeking to comply with wastewater and stormwater obligations under the Clean Water Act. The program, to be developed within five years, would help communities facing costly upgrades to their aging water and wastewater infrastructure to find long-term funding solutions, and would provide flexible compliance mechanisms.	12/3/15: S. 2358 introduced in the Senate, referred to the Committee on Environment and Public Works	Senator Sherrod Brown (D-OH) introduced S. 2358 with co-sponsor Senators Rob Portman (R-OH) and Roy Blunt (R-MO)
S.1153/H.R. 2130	Issue – BLM Property/Red River Banks Title - Red River Private Property Protection: The bill disclaims any right of the Bureau of Land Management to certain lands along a 116-mile stretch of the Red River between Texas and Oklahoma south of the South Bank boundary line, and sets requirements for a new third-party land survey, paid for by BLM, to be submitted to the Texas General Land Office in consultation with the Oklahoma Commissioners of the Land Office for approval. It also allows affected landowners to appeal the determinations of the survey to the Department of the Interior. Absent appeal, BLM must issue patents to the surface rights of parcels, upon application by landowners, payment of \$1.25 per acre, and a showing that the landowner has held the parcel in good faith and in peaceful adverse possession for more than 20 years. Specified adjacent landowners would have the opportunity to purchase the surface rights after the application period expires. The federal government would retain the rights to minerals and an easement to access the minerals. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	4/3/15: S. 1153 introduced referred to the ENR 4/30/15: H.R. 2130 introduced, referred to NR 9/10/15: H. Rept. 114-327 12/9/15: H.R. 2130 passed by a vote of 253-177 12/10/15: Senate received H.R. 2130, referred to ENR	Senator John Cornyn (R-TX) introduced S. 1153 with co-sponsor Sen. Ted Cruz (R-TX) Rep. Mac Thornberry introduced H.R. 2130, with 7 Texas Republican Representatives
H.R. 3946	Issue - Reserved Water Rights for National Monuments Title - Protecting Local Communities from Executive Overreach Act: To protect private property rights and water rights from infringement as a result of the creation of a national monument. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	11/5/15: H.R. 3946 introduced in the House, referred to the Committee on Natural Resources	Rep. Paul Gosar (R-AZ) introduced H.R. 3946, co-sponsored by 29 Republicans.

H.R. 3880	Issue - EPA Climate Change Regulations Title - Stopping EPA Overreach Act: The bill would prevent the EPA from exceeding its statutory authority by prohibiting the regulation of climate change or global warming through the Clean Air Act, the Federal Water Pollution Control Act, the National Environmental Policy Act, the Endangered Species Act, or the Solid Waste Disposal Act, noting that the Acts neither authorize nor require such regulation.	11/3/15: H.R. 3880 introduced in the House, referred to various committees	Rep. Gary Palmer (R-AL) introduced H.R. 3880 with 152 Republican co-sponsors
S. 2848/H.R. 5303	Issue – WRDA Project Authorizations Title – Water Resources Development Act [summary of H.R. 5303]: authorizes: (1) critical flood control and coastal hurricane protection projects across the country, including rebuilding levees in Kansas, Missouri, and Texas; (2) the Federal Emergency Management Agency to provide assistance to rehabilitate high hazard dams; (3) the Corps to rebuild flood control projects stronger than originally designed if it will reduce risk of loss of life and property and minimize life cycle rehabilitation costs; and (4) the Corps to implement nonstructural alternatives, including wetland, stream, and coastal restoration. Title IV would authorize 28 water resource infrastructure improvements recommended in the latest Corps of Engineers (Corps) Chief's Reports, including: Alaska--Little Diomed and Craig Harbors; California-- American River Common Features, West Sacramento, San Diego County, Los Angeles River, and South San Francisco Bay Shoreline; Kansas--City of Manhattan and Upper Turkey Creek Basin; Kansas and Missouri-- Amourdale and Central Industrial District Levee Units; Oregon-- Willamette River; Texas--Brazos Island Harbor, Upper Trinity River, and Leon Creek Watershed; and Washington--Skokomish River. These improvements and others were proposed at the local level in cooperation with the Corps, recommended to Congress as priorities, and vetted by Congress at hearings held earlier this year. Title III would require the Corps to develop a list identifying inactive projects to deauthorize (§137), offsetting the approximately \$5B in new authorizations. The bill also modifies and/or deauthorizes portions of several projects, including: Valdez, Alaska; Los Angeles County Drainage Area and Sutter Basin, California; Port of Cascade Locks, Oregon; and Joe Pool Lake, Salt Creek and Texas City Ship Channel, Texas. It also sunsets new authorizations after seven years to prevent future project backlogs. Title II would authorize 29 Corps feasibility studies, including: California--Cache Creek Settling Basin, Coyote Valley Dam, Del Rosa Channel, and Merced County Streams; Oklahoma--Tulsa and West Tulsa Levees; Texas--Brazos River, Chacon Creek, Corpus Christie Ship Channel, City of El Paso, Gulf Intercoastal Waterway, and Port of Bay City; and Washington--Burley Creek Watershed. Title I provides support to drought-stricken communities, streamlining the project modification approval process and allowing non-Federal interests to provide funding to update or modify the operation of Corps reservoirs to better meet project purposes, including water supply needs. Section	4/25/16: S. 2848 introduced in the Senate, referred to the Committee on Environment and Public Works 5/23/16: H.R. 5303 introduced in the House, referred to Committees on Transportation and Infrastructure and Natural Resources. 5/25/16: Transportation and Infrastructure mark-up session held, order to be reported with an amendment. 6/20/16: Senate Committee on Environment and Public Works reported S. 2848 with amendments and placed on Senate calendar. S. Rpt. 114-283. 9/15/16: S. 2848 passed the Senate 95-3 with an amendment.	Senator James Inhofe (R-OK) introduced S. 2848, with co-sponsor Senator Barbara Boxer (D-CA). Rep. Bill Schuster (R-PA) introduced H.R. 5303, with co-sponsor Representatives Peter DeFazio (D-OR), Bob Gibbs (R-OH, and Grace Napolitano (D-CA)

	109 would establish a pilot program with ten diverse cost-sharing projects for the economically and environmentally beneficial use of dredged material. The Corps would create regional beneficial use teams to carry out the projects that would include representatives of relevant state and local agencies in an effort to foster state-local-federal collaboration. Section 110 would establish a pilot program for up to ten projects to accept non-federal services to remove reservoir sediment, restoring the authorized storage capacity of the project. Section 111 would amend 33 USC §701h to allow contributions of state and other non-federal funds to review or revise operational documents for reservoir storage water. Section 112 authorizes the Corps to evaluate and enter into water supply conservation agreements with non-federal partners for stormwater capture, releases for groundwater replenishment or aquifer storage and recovery, and to augment water supply releases at another federal or non-federal storage facility, or other conservation measures that enhance usage of a Corps project for water supply. Section 113 amends 43 USC §390b by striking subsection (f), which currently defers to interstate water agreements for the resolution of problems relating to the Apalachicola-Chattahoochee-Flint and Alabama-Coosa-Tallapoosa River System Projects. Section 125 makes it easier for non-Federal partners to build portions of a project in advance and receive financial credit for work completed, and allows local partners to contribute goods and services. Section 126 amends 42 U.S.C. 1962d–16 to include multi-state activities in cooperative state-federal plans for the development, utilization, and conservation of water, and would allow two or more states to combine funds from the Corps to create comprehensive plans. Section 135 establishes a system for the electronic preparation, submittal, and tracking of §10 (Rivers and Harbors Act) or §404 (Clean Water Act) permit applications, and requests for jurisdictional determinations from the Corps. It would require written documentation supporting the Corps' decision or determination to be made publicly available for review and reproduction. Section 136 amends data transparency requirements in 33 USC §2342 by: (1) requiring the Corps to share its data "as quickly as practicable;" (2) changing the mandatory language from "shall" to "may" for partnerships with state, tribal, local governments and other Federal agencies; (3) limiting data disclosure to exclude sensitive, national security, law enforcement or other information prohibited by law; and (4) further specifying the data to be made publicly available to include planning, design, construction, operation, and maintenance of water resources development projects, as well as water quality and water management of projects owned, operated, or managed by the Corps. [Summary of S. 2848]: S.2848 provides for the conservation and development of water and related resources, authorizes the Secretary of the Army to construct various projects for improvements to rivers and harbors, and to conduct 25 final feasibility studies. Several existing projects would be authorized for modifications, including the Turkey Creek Basin Project in Kansas. It includes a \$220M aid package for Flint Michigan, and creates a grant program for efforts to remove lead pipes across the country. It would also amend the Safe Drinking Water Act to better notify residents when tap water contains high levels of lead. The bill makes significant changes to clean water and drinking water infrastructure programs, and offers support for communities struggling with the cost of Clean Water Act compliance to take an integrated planning approach with EPA. The bill reauthorizes Lake Tahoe restoration at \$415M over 10 years. It would expand definitions of		
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	“desalination” and “water recycling” under the Water Infrastructure Finance and Innovation Act (WIFIA). It would make technical and conforming changes to the 2014 WRRDA, including imposing a 60-day time limit on Corps decisions regarding requests for surplus water. The bill requires the Corps to review its water control manuals and rule curves for dam optimization, with priority given to reservoirs located in areas of prolonged drought (excluding reservoirs on the Upper Missouri River), to determine whether a change in operations, including the use of improved weather forecasts and run-off forecasting method will enhance the authorized project purposes. S. 2848 includes a provision on leveraging federal infrastructure for increased water supply, authorizing the Corps to review non-federal proposals to: (1) increase a reservoir’s storage capacity; (2) divert reservoir water for groundwater recharge, aquifer storage and recovery, or to any other storage facility; and/or (3) construct facilities to deliver or access water. A non-federal entity would bear the full costs of developing, reviewing, and implementing the proposal; however, it would only be required to pay the Corps the “separable costs associated with operation and maintenance of the dam that are necessary to implement the proposal.” On April 28, the Senate Environment and Public Works Committee reported S. 2848 by a vote of 19-1, with amendments to identify risks related to sea-level rise in their projects; to encourage regional collaboration on coastal resilience; and to address the harmful effects of navigation structures on shorelines. On September 15, the Senate passed the Water Resources Development Act (WRDA) (S.2848) by a vote of 95-3. During the previous week, the Senate agreed on a plan to limit amendments to those approved by both Senate Environment and Public Works Chairman Jim Inhofe (R-OK) and Ranking Member Barbara Boxer (D-CA). Senators Inhofe and Boxer drafted a manager’s amendment to S.2848, proposing several changes to the bill, and collected additional proposed amendments through the end of the week. The bill includes many of the same provisions as when introduced on April 25. One notable exception, under Title I Program Reforms, is the section on Review of Reservoir Operations. As introduced, §1032 required the Corps to review its water control manuals and rule curves for dam optimization during prolonged drought. The modified version approved by the Senate, §1048, strikes the provisions relating to the Corps reservoirs, and applies it only to some Reclamation reservoirs. Section 1012, on Leveraging Federal Infrastructure for Increased Water Supply, was also revised, to provide protections for existing water users. Non-federal proposals may not reallocate water, reduce water available for any authorized purpose, adversely impact water rights, or increase costs paid by others. Three Indian water rights settlements were included among the WRDA approved amendments: (1) Title IX authorizes the Montana-Blackfeet Tribe settlement; (2) §8002 authorizes the Choctaw-Chickasaw Nations of Oklahoma settlement; and (3) §8009 authorizes the Pechanga Band of Luiseno Mission Indians settlement. Additionally, §3007 establishes two funds for Indian dam safety maintenance, authorizing the transfer of \$22.7M annually through FY2037, from the general fund to		
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	the Bureau of Indian Affairs for high hazard dams, and \$10M for low hazard dams. This is similar to language introduced in S.2717. WRDA Title VII creates a new grant program to assist rural and small communities with water and wastewater infrastructure compliance under the Safe Drinking Water Act. Section 7117 prohibits the use of State Revolving Funds (SRFs) for construction, alteration, maintenance, or repair of a public water system unless all the iron and steel products used in the project are produced in the United States, but creates an exception where doing so would increase the cost by more than 25%, or the necessary materials are unavailable in the U.S. (See WSWC Position #364). In response to the August 2015 Gold King Mine spill, §8010 would appropriate funds as necessary for eligible CERCLA claims, expedite the claim process, and provides for long-term water quality monitoring of any river contaminated by the Environmental Protection Agency (EPA) Administrator, in cooperation with affected States, Indian tribes, and local governments. Section 7207 approves an EPA Great Lakes harmful algal bloom coordinator to work with federal agencies, state, local, tribal and foreign governments to coordinate efforts to address the issue. <i>See additional information on pre-legislative hearings through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>		
H.R. 3764	Issue – Tribal Recognition Process Title - Tribal Recognition Act: Provides federal recognition of Indian tribes exclusively through an Act of Congress, reorganizing the process and limiting the Department of the Interior’s ability to recognize tribes. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	10/20/15: H.R. 3764 introduced in the House, referred to the NR 10/28/15: Hearings Part I 12/8/15: Hearings Part II 9/8/16: NR consideration and mark-up, ordered reported with an amendment by a vote of 23-13	Rep. Rob Bishop (R-UT) introduce H.R. 3764, with co-sponsors Rep. Paul Gosar (R-AZ) and Bob Goodlatte (R-VA)
H.R. 3844	Issue - Good Sam/Abandoned Mine Cleanup Title - Energy and Minerals Reclamation Foundation Establishment Act: Would create an Energy and Mineral Reclamation Foundation to fund abandoned mine and petroleum well reclamation projects with some federal funding and the ability to solicit donations. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N,</i>	10/28/15: H.R. 3844 introduced in the House, referred to the Natural Resources Committee 6/14/16: Natural Resources Committee held	Rep. Jody Hice (R-GA) introduced H.R. 3844, with co-sponsor Rep. Alan Lowenthal (D-CA)

	March 2016	mark-up session and ordered H.R. 3843 reported, H.Rept. 114-651 7/5/16: Passed House 7/6/16: Received in the Senate, referred to Committee on Energy and Natural Resources	
H.R. 3843	Issue - Good Sam/Abandoned Mine Cleanup Title - Locatable Minerals Claim Location and Maintenance Fee Act: Would (1) create a DOI abandoned mine program; (2) create an EPA program to encourage Good Samaritan cleanups with CWA and Superfund liability protections; and (3) provide similar liability protection for states and tribes cleaning up abandoned mines under the Surface Mining Control and Reclamation Act. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	10/28/15: H.R. 3843 introduced in the House, referred to the Natural Resources Committee 6/14/16: Natural Resources Committee held mark-up session and ordered H.R. 3843 reported, H.Rept. 114-717 9/6/16: Placed on the House calendar	Rep. Doug Lamborn (R-CO) introduced H.R. 3843, with co-sponsors Rep. Don Young (R-AK) and Rep. Scott Tipton (R-CO)
S. 1894	Issue – Drought/Infrastructure Title – California Emergency Drought Relief Act: Provides short-term water supplies to drought-stricken California. Title IV includes the Reclamation Infrastructure Finance and Innovation Act, which would authorize new financing, funding and investment opportunities for infrastructure in the contiguous western United States <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i> **On November 24, Governors Matt Mead (R-WY) and Steve Bullock (D-MT) sent a letter on behalf of WGA to convey its position (2015-08) on water resources management.	7/29/15: S. 1894 introduced in the Senate and referred to the Committee on Energy and Natural Resources 10/8/15: Committee held hearings on S. 1894	Senator Dianne Feinstein (D-CA) introduced S. 1894 with co-sponsor Senator Barbara Boxer (D-CA)
S. 1837	Issue – Drought Title – Drought Recovery and Resilience Act: Provides drought assistance and improve water supply reliability in California, other western states and the nation. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	7/22/15: S. 1837 introduced in the Senate and referred to the Committee on Finance	Senator Barbara Boxer (D-CA) introduced S. 1837

	**WGA position (2015-08) on water resources management		
H.R. 2898	Issue – California/Drought Title – Western Water and American Food Security Act: Titles I - VI of the bill would provide emergency drought relief in California through several means. Title VIII is the Bureau of Reclamation Project Streamlining Act, which directs the acceleration of new project feasibility studies within three years of initiation. Title X would amend the Reclamation Safety of Dams Act to authorize additional feasible project benefits. Title XI is the Water Rights Protection Act., prohibiting the Secretaries of the Interior and Agriculture from conditioning land use permits or agreements upon water rights transfers, etc. Section 1104 recognizes the longstanding authority of the states relating to evaluating, protecting, allocating, and adjudicating groundwater. Section 1105 makes clear that the Water Rights Protection Act neither limits nor expands federal reserved water rights or Indian water rights. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	6/25/15: H.R. 2898 introduced in the House and referred to the Committees on Natural Resources and Agriculture 7/16/15: House passed H.R. 2898 by a 245-176 vote, which included five Democrats. 10/8/15: Senate Committee on Energy and Natural Resources held hearings on H.R. 2898	Rep. David Valado (R-CA) introduced H.R. 2898 with 25 Republican and 1 Democratic co-sponsor
S. 1694	Issue – Infrastructure Title – Yakima River Basin Water Enhancement Project Phase III Act: Amends P.L. 103-434 to authorize water management improvements. Various section of Title XII would be amended by the bill. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	6/25/15: S. 1694 introduced in the Senate. 7/7/15: ENR hearings. S. Hrg 114-142. 12/16/15: Added to Senate calendar. S. Rept. 114-187.	Senator Maria Cantwell (D-WA) introduced S. 1694, with co-sponsor Senator Patty Murray (D-WA)
S. 1552	Issue – Rural Water Projects Title – Clean Water for Rural Communities Act: To authorize the Dry-Redwater Regional Water Authority System and the Musselshell-Judith Rural Water System, defining the service areas of the projects in North Dakota and Montana. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	6/11/15: S.1552 introduced in the Senate and referred to ENR 6/18/15: Subcommittee on Water and Power held hearings	Senator Steve Daines (R-MT) introduced S.1552 with co-sponsor Senator Jon Tester
H.R. 2705	Issue – Clean Water Act/EPA “Waters of the United States” Rule Title – Federal Regulatory Certainty for Water Act: To clarify the definition of navigable waters as navigable-in-fact or permanent or continuously flowing bodies of water (streams, oceans, rivers, lakes)	6/9/15: H.R. 2705 introduced in the House and referred to the	Rep. Mac Thornberry (R-TX) introduced H.R. 2705

	connected to navigable-in-fact waters. The bill excludes waters without a continuous surface water connection, man-made/natural channels containing intermittent or ephemeral flow, and wetlands, playa lakes, prairie potholes, wet meadows, we prairies, and vernal pools that lack a continuous surface water connection. The bill prohibits the aggregation of wetlands and waters for determinations of navigable waters.	Committee on Transportation and Infrastructure	
S. 1533	Issue – Reclamation/Infrastructure Title – Water Supply Permitting Coordination Act: authorizes the Secretary of the Interior to coordinate Federal and State permitting processes related to the construction of new surface water storage projects on lands under the jurisdiction of the Secretary of the Interior and the Secretary of Agriculture and to designate the Bureau of Reclamation as the lead agency for permit processing <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	6/9/15: S. 982 introduced in the Senate and referred to the Committee on Energy and Natural Resources 6/18/15: Subcommittee on Water and Power held hearings on S. 1533	Senator John Barrasso (R-WY) introduced S.1533, with co-sponsor Sen. Michael Enzi (R-WY)
H.R. 2689	Issue – WRRDA Title – None: To clarify the scope of eligible water resources projects under the Water Resources Development Act of 1986 and the Water Resources Reform and Development Act of 2014, and for other purposes.	6/9/15: H.R. 2689 introduced in the House and referred to the Committee on Transportation and Infrastructure	Representative Mimi Walters introduced H.R. 2689 with 29 Democratic co-sponsors and 9 Republican co-sponsors
S. 1500	Issue – FIFRA Pesticide Permits Title – Sensible Environmental Protection Act: The bill would amend the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. 136a(f)), ending the requirement that a CWA permit is needed for spraying FIFRA-approved pesticides as a discharge from a point source into a navigable body of water. The bill would reverse a court decision in <i>National Cotton Council v. EPA</i> (6th Cir. 2009), which requires EPA to issue CWA permits for spraying pesticides over navigable waters. <i>See WSWC Position #359 supporting legislation amending CWA and FIFRA so FIFRA-compliant pesticide applications are exempt from NPDES permitting. See related House bill, H. R. 897 introduced 2/11/15 and passed on 5/24/16.</i>	6/3/15: S. 1500 introduced in the Senate 8/5/15: EPW Committee reported S. 1500 favorably without amendment. S. Rept. 114-60 10/29/15: S. 1500 placed on Senate calendar	Senator Mike Crapo (R-ID) introduced S.1500, with 16 Republican and 5 Democratic co-sponsors, including Senators John Barasso (R-WY), Michael Enzi (R-WY), James Inhofe (R-OK), Heidi Heitkamp (D-ND), Deb Fischer (R-NE), James Rische (R-ID), Jerry Moran (R-KS), and Pat Roberts (R-KS)

H.R. 2599	Issue – Clean Water Act/EPA “Waters of the United States” Rule Title – Don't Ignore the Will of the American People Act: To prohibit the obligation of certain funds until the Administrator of the Environmental Protection Agency withdraws the rule relating to the definition of “waters of the United States”.	6/1/15: H.R. 2599 introduced in the House and referred to Committees on Energy and Commerce, Agriculture, T&I, and Science, Space and Technology	Rep. David Rouzer (R-NC) introduced H.R. 2599
H.R. 2489	Issue – Reclamation/Infrastructure Title – Dam Rehabilitation and Repair Act: To amend the National Dam Safety Program Act to establish a program to provide grant assistance to States for the rehabilitation and repair of deficient dams, and for other purposes	5/21/2015: H.R. 2489 introduced in the House and referred to Committee on Transportation and Infrastructure	Rep. Sean Maloney (D-NY) introduced H.R. 2489 with co-sponsor Rep. Christopher Gibson (R-NY)
S.1416	Issue – Federal Reserved Water Rights Title – None: amends Title 54, US Code, to limit the authority of the President to reserve implied or express water rights in designating a national monument, and to require that water rights associated with the designation of a national monument be acquired under state laws.	5/21/15: S.1416 introduced in the Senate and referred to the Committee on Energy and Natural Resources	Senator Jeff Flake (R-AZ) introduced S. 1416 with three Republican co-sponsors
S. 1365	Issue – Reclamation/Infrastructure/Rural and Tribal Water Projects Title – Authorized Rural Water Projects Completion Act: The bill would provide \$80 million per year for each of fiscal years 2015 through 2035 to complete the construction of rural water projects that have already received Congressional authorization. Other projects may be eligible for funding if: (1) a feasibility study is submitted to the Secretary of the Interior by February 27, 2015; and (2) Congress authorizes the project’s construction after S. 1365’s enactment. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i> <i>*WSWC Position #343 supports previous legislative efforts to establish a dedicated funding source for the completion of federal rural water projects authorized by Congress for construction by the Bureau of Reclamation. WSWC Position #376 supports steps to ensure that any water settlements will be funded without a corresponding offset, including cuts to some other tribal or essential Interior Department program</i> <i>***Tony Willardson, WSWC Executive Director, testified 6/18/15 before Senate Committee on Energy and Natural Resources Subcommittee on Water and Power (contained as attachments WSWC Policies #343 and #376)</i>	5/18/15: S.1365 introduced in the Senate and referred to the Committee on Energy and Natural Resources 6/18/15: Subcommittee on Water and Power held hearings on S.1365	Senator John Testor (D-MT) introduced S. 1365 with 5 Democratic and 1 Republican co-sponsors

S. 1305/H.R. 2273	Issue – Reclamation/Infrastructure Title –None: Amends the Colorado River Storage Project Act to authorize the Department of the Interior, in cooperation with the state of Wyoming, to amend the Definite Plan Report for the Seedskadee Project to provide for the study, design, planning, and construction activities that will enable the use of all active storage capacity of Fontenelle Dam and Reservoir, including the placement of sufficient riprap on the upstream face of the Dam to allow such storage capacity to be used for authorized Project purposes. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	5/12/15: S.1305 introduced in the Senate and referred to ENR 5/12/15: H.R. 2273 introduced in the House and referred NR 9/9/15: Placed on Senate calendar. S. Rept. 114-135 3/14/16: Placed on House calendar. H. Rept. 114-450. 7/5/16: H.R. 2273 passed by the House; received in the Senate on 7/6	Senator John Barrasso (R-WY) introduced S. 1305 with co-sponsor Senator Michael Enzi (R-WY) Rep. Cynthia Lummis (R-WY) introduced H.R. 2273
S.1291	Issue – Reclamation/Infrastructure Title – None: The bill authorizes any landowner within the Northport Irrigation District in Nebraska to repay, at any time, the construction costs of project facilities allocated to the landowner's land within the District. Provides that upon discharge in full of the obligation for repayment of all such costs, the parcels of land shall not be subject to the ownership and full-cost pricing limitations under federal reclamation law. Directs the Department of the Interior, upon request, to provide to the landowner who has repaid such costs in full a certificate acknowledging that the landholding is free of such limitations.	5/12/15: S.1291 introduced in the Senate and referred to the Committee on Energy and Natural Resources 6/18/15: Subcommittee on Water and Power held hearings on S.1291	Senator Deb Fischer (R-NE) introduce S.1291
H.R. 2227	Issue – Extreme Weather Events Title – Strengthening the Resiliency of Our Nation on the Ground Act: To minimize the economic and social costs resulting from losses of life, property, well-being, business activity, and economic growth associated with extreme weather events by ensuring that the United States is more resilient to the impacts of extreme weather events in the short- and long-term, and for other purposes.	5/1/2015: H.R. 2227 introduced in the House and referred to Committee on Transportation and Infrastructure	Rep. Scott Peters (D-CA) introduced H.R. 2227 with 19 Democratic and 2 Republican co-sponsors
S. 1140	Issue – Clean Water Act/ EPA “Waters of the United States” Rule Title – Federal Water Quality Protection Act: directs the agencies to follow a number of principles in clarifying that the Clean Water Act is intended to protect waters of the U.S. from pollution, and which waters should be included.	4/30/15: S.1140 introduced in the Senate and referred to the Environmental and Public Works Committee	Senator John Barrasso introduced S. 1140 with 43 Republican and 4 Democratic co-sponsors

	See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016 <i>*The bill addresses many of the concerns regarding consultation with the states raised by the Western States Water Council.</i>	11/3/15: Motion to proceed to consideration presented then withdrawn following failure of cloture on the motion to limit debate	
S. 1178	Issue – Clean Water Act/EPA “Waters of the United States” Rule Title – Defending Rivers from Overreaching Policies Act of 2015: finds that the WOTUS rule was premature due to the current lack of scientific “consensus regarding the best methods or metrics to quantify or predict hydrologic or chemical connectivity.” The bill proposes the temporary creation of a 9-member Supplemental Scientific Review Panel and a 15-member Ephemeral and Intermittent Stream Advisory Commission, to make majority recommendations to quantify degrees of connectivity between traditionally navigable waters and other bodies of water. See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016	4/30/15: S.1178 introduced in the Senate and referred to the Environmental and Public Works Committee 6/10/15: The Committee on the Judiciary held hearings on S.1178	Senator Jeff Flake (R-AZ) introduced S.1178 with co-sponsor Senators John McCain (R-AZ), Deb Fischer (R-NB), John Cornyn (R-TX), Johnny Isakson (R-GA), Orrin Hatch (R-UT), and James Risch (R-ID)
H.R. 2097	Issue – Reclamation/Infrastructure Title – Bureau of Reclamation Surface Water Storage Streamlining Act: Sets forth provisions governing feasibility studies for surface water storage projects initiated by the Department of the Interior under the Reclamation Act of 1902 (project studies). See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016	4/29/15: H.R. 2097 introduced in the House and referred to the Committee on Natural Resources	Rep. Dan Newhouse (R-WA) introduced H.R. 2097 with four Republican co-sponsors
S. 1125/H.R. 5633	Issue – Indian Water Rights Settlement Title – Blackfeet Water Rights Settlement Act: To authorize and implement the water rights compact among the Blackfeet Tribe of the Blackfeet Indian Reservation, the State of Montana, and the United States. See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016 On May 24, the House Natural Resources Committee’s Subcommittee on Water, Power and Oceans held a hearing on Rep. Ryan Zinke’s (R-MT) draft Blackfeet Water Settlement Act. This is the first hearing on any settlement legislation held since a February 2015 letter, from Committee Chairman Rob Bishop (R-UT), requesting specific information from the Administration before he would allow particular Indian water rights settlements to be considered. The Departments of the Interior and Justice transmitted a joint letter, on May 16, supporting the	4/28/15: S. 1125 introduced in the Senate and referred to the Committee on Indian Affairs 2/3/16: Committee on Indian Affairs approved S. 1125, ordering it to be reported with an amendment 5/24/16: House	Senator John Testor (D-MT) introduced S.1125 with co-sponsor Steve Daines (R-MT) Rep. Ryan Zinke (R-MT) introduced the H.R. 5633

	Blackfeet settlement. The letter affirms that the settlement meets the Administration's Criteria and Procedures (55FR 9223). However, the letter also notes: "The Office of Management and Budget advises that it is still assessing and evaluating the information necessary for it to definitively conclude whether the proposed settlement meets all of the Criteria and Procedures." Significantly, Bishop's letter requested that the Administration ensure that the settlement benefit taxpayers, with a total cost that does not exceed existing claims. At the hearing, Bishop told Interior to press OMB for a response. He said, "We cannot move forward until this has taken place." (See WSW #2193) H.R. 5633 would authorize and implement the Montana-Blackfeet Tribe water rights compact and a \$420M federal contribution toward infrastructure and implementation programs in exchange for a waiver of tribal trust claims against the U.S., in part reserved in Blackfeet Tribe v. U.S. (Federal Claims Court, No. 02-127L). The proposed funding in Sections 7, 10-13, and 16-17 includes: (1) \$3.8M for studies on management and development of water supplies in the St. Mary and Milk River Basins, including dams and reservoirs; (2) \$20.7M for the Swiftcurrent Creek bank stabilization project; (3) \$3.1M for the Milk River Project; (4) \$40.9M for deferred maintenance and dam safety improvements; (5) \$14M for rehabilitation and construction of water delivery infrastructure, with a Montana state contribution of \$20M; (6) \$76.2M for the design and construction of the municipal, rural and industrial (MR&I) system, with the Bureau of Reclamation serving as the lead agency with the tribe; (7) \$87.3M for the design and construction of water storage and irrigation facilities; (8) \$91M for water, storage and development projects; (9) \$28.9M for an Administration and Energy Account, within the Blackfeet Settlement Trust Fund, plus \$27.8M for an operation, maintenance and repair (OM&R) Account, \$27.8M for the St. Mary Account, and \$91M for the Blackfeet Water, Storage, and Development Projects Account; and (10) within the Settlement Implementation Fund, \$163.5M for the MR&I System, Irrigation, and Water Storage Account, and \$28.1M for the St. Mary/Milk Water Management Activities Account.	Committee on Natural Resources, Subcommittee on Water, Power and Oceans held hearing on draft legislation and DOI/DOJ letter supporting the settlement. 7/6/16: H.R. 5633 introduced in the House, referred to the Committee on Natural Resources	
S. 1045/ H.R. 1935	Issue – 10th Amendment/State Primacy Title – Restoring the 10th Amendment Act: for the public comment period of proposed agency rules, authorizes a designated state official to submit to the head of the federal agency a legal brief challenging the constitutionality of the rule under the Tenth Amendment to the Constitution. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	4/22/15: H.R. 1935 and S. 1045 introduced in the House and Senate and referred to the Committee on the Judiciary	Senator Roger Wicker introduced S.1045 with 8 Republican co-sponsors Rep. John Culberson (R-TX) introduced H.R. 1935, with 8 Republican co-sponsors
H.R. 1830/S.982	Issue – Department of Interior/Department of Agriculture/State Primacy over Water Rights Title – Water Rights Protection Act: Prohibits the Department of the Interior and the Department of Agriculture from conditioning or withholding the issuance, renewal, amendment, or extension of any permit, approval, license, lease, allotment, easement, right-of-way, or other land use or occupancy agreement (permit) on the limitation or encumbrance of any water right or the transfer of any water	4/16/15: H.R. 1830 introduced in the House and referred to the NRA 4/16/15: S. 982 introduced	Representative Scott Tipton introduced H.R. 1830 with 26 Republican co-sponsors

	right to the United States or any other designee, or any other impairment of any water right under state law by federal or state action; requiring any water user (including a federally recognized Indian tribe) to apply for or acquire a water right in the name of the United States under state law as a condition of such a permit; asserting jurisdiction over groundwater withdrawals or impacts on groundwater resources, unless consistent with state groundwater resource laws, regulations, and policies; or infringing on the rights and obligations of a state in evaluating, allocating, and adjudicating state waters originating on or under, or flowing from, land owned or managed by the federal government.	in the Senate and referred to ENR 6/18/15: Subcommittee on Water and Power held hearings on S.982	Senator John Barrasso introduced S.982 with 11 Republican co-sponsors
S. 980	Issue – Clean Water Act (CWA)/Navigable Waters/Waters of the United States (WOTUS) Title – Defense of Environment and Property Act of 2015: would amend the CWA to define “navigable-in-fact” waters, excluding isolated water bodies and wetlands without a continuous surface water connection, and natural or man-made channels with intermittent or ephemeral water flow as drainage from periodic rainfall. The bill would prohibit the promulgation of WOTUS rules or guidance without express Congressional authorization. For determinations of CWA jurisdiction, the bill would mandate payment of double damages for regulatory takings (diminishing fair market value/economic viability), and expedited judicial review of determinations affecting State and individual water use or development. The bill would prohibit the aggregation of waters to determine Federal jurisdiction, and groundwater are expressly considered State water.	4/16/15: S.980 introduced in the Senate and referred to the Environmental and Public Works Committee	Senator Rand Paul introduced S.980 with co-sponsor Senators Ted Cruz (R-TX), Mitch McConnell (R-KY), Marco Rubio (R-FL), Orrin Hatch (R-UT), Mike Lee (R-UT), and Chuck Grassley (R-IA).
H.R. 1732	Issue – Clean Water Act/EPA “Waters of the United States” Rule Title – Regulatory Integrity Protection Act: The bill requires the EPA and Corps to withdraw their proposed WOTUS rule (79 Fed. Reg. 22188, April 21, 2014), and any related rule (e.g. RIN 2040-AF30) within 30 days, and to go through a collaborative and transparent consultation process with state and local stakeholders, beginning within the next 3 months. The bill also requires the agencies to further consider public comments, economic analyses, the EPA Science Advisory Board report on “Connectivity of Streams and Wetlands to Downstream Waters,” and “recognize, preserve, and protect the primary rights and responsibilities of the States to protect water quality...and to plan and control the development and use of land and water resources in the States.” <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	4/13/15: H.R. 1732 introduced, referred to T&I 4/27/15: T&I reported an amended version of H.R. 1732. H. Rept. 114-93 5/12/15: House passes, 261-155 5/13/15: Senate received H.R. 1732; referred to Committee on Environment and Public Works 7/14	Senator Bill Schuster (R-PA) introduced H.R. 1732 with 68 Republican and 2 Democratic co-sponsors
H.R. 1710	Issue – Water Resources Reform and Development Act (WRRDA) of 2014/Drought Title – Drought Resilience Investment Act of 2015: Would amend the 2014 WRRDA, which passed last year, to provide additional financing options for water infrastructure projects carried out in states in which the Governor has issued a drought emergency declaration. The bill exempts water resource	3/26/15: H.R. 1710 introduced in the House and referred to the Committees on Transportation and	Rep. Jerry McNerney (D-CA) introduced H.R. 1709 with co-sponsor Representatives

	infrastructure projects that receive federal credit assistance under the Water Infrastructure Finance and Innovation Act, allowing financing from the proceeds of tax exempt obligations, qualified tax credit bonds or a Build America Bond, which would otherwise be prohibited by the WRRDA.	Infrastructure and Energy and Commerce	Michael Honda (D-CA), Doris Matsui (D-CA) and Jared Huffman (D-CA)
H.R. 1709	Issue – Safe Drinking Water Act (SDWA)/Drought Title – None: Would amend the SDWA to provide for the assessment and management of the risks of drought to drinking water. The bill would authorize the development of a strategic plan to evaluate the risks of drought to public water systems, to establish a comprehensive list of effects of drought on drinking water and human health, and to summarize factors that cause drought and exacerbate its effects. The strategic plan would also establish guidance on the quantification and detection of such effects, recommend treatment options, and authorize cooperative agreements with and technical assistance to states and public water systems to manage the risks. The bill would require information coordination and consultation with states, local water systems, federal agencies and others with relevant knowledge of the effects of drought on drinking water.	3/26/15: H.R. 1709 introduced in the House and referred to the House Committee on Energy and Commerce	Rep. Jerry McNerney (D-CA) introduced H.R. 1709 with 6 co-sponsor Democrats from California and New York
H.R. 1705	Issue – Clean Water Act (CWA)/Water Infrastructure Title – Clean Water Affordability Act: would amend the CWA to assist municipalities and regional sewer authorities that would experience a significant hardship raising the revenue necessary to finance projects and activities related to the implementation of a CWA program. The bill would authorize an assessment of local or regional economic conditions to determine the financial capability of communities to invest in water quality improvements and affordability or hardship to individual utility customers. The bill also amends the CWA to modify the effluent limitations during peak wet weather events, allowing states to adopt water quality standards to accommodate receiving waters and establish management practices for the discharge of pollutants from collection systems servicing publicly owned treatment works. The peak wet weather flow practices and techniques are intended to prevent damage to treatment facilities, maximize delivery of flow to treatment facilities, and provide cost-effective controls during peak wet weather events.	3/26/15: H.R. 1705 introduced in the House and referred to the Committee on Transportation and Infrastructure	Rep. Robert Latta (R-OH) introduced H.R. 1705 with co-sponsors Rep. Timoth Walz (D-MN) and Brad Ashford (D-NE)
H.R. 1668	Issue – Endangered Species Act (ESA)/Drought Title – Save Our Water Act: During times of severe, extreme and exceptional drought (as designated by the U.S. Drought Monitor and determination of the Secretary of the Army, the Secretary of Interior, or Governor), the bill would suspend the application of the ESA to releases from water storage facilities by federal and state agencies. The bill does not prohibit the application of state law, and water releases are still permitted upon certification by the Secretary or Governor that the water release will not harm the economy or require water uses to take conservation measures. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	3/26/15: H.R. 1668 introduced in the House and referred to the Committee on Natural Resources	Rep. Tom McClintock (R-CA) introduced H.R. 1668, with co-sponsor Dana Rohrabacher (R-CA)

H.R. 1623	Issue – CWA/ National Pollutant Discharge Elimination System (NPDES) Permits Title – None: Would amend the CWA to authorize states to increase the length of the NPDES permit cycle under Section 402 from five to twenty years. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	3/25/15: H.R. 1623 introduced in the House and referred to the Committee on Transportation and Infrastructure	Rep. Sam Graves (R-MO) introduced H.R. 1623 with the other Republican members of Missouri’s Congressional delegation, Rep. Steve Russell (R-OK) and Dana Rohrabacher (R-CA)
S. 828	Issue – Hydraulic Fracturing Title – The Fracturing Regulations are Effective in State Hands (FRESH) Act: Would declare that states have the sole authority to regulate hydraulic fracturing on all land within their boundaries, including federal land. Under the bill, oil and gas companies would still be required to comply with applicable state laws. <i>*WSWC Policy #353 urging federal hydraulic fracturing efforts to leverage state expertise and opposing efforts to diminish state primacy over the allocation of water resources used in hydraulic fracturing. WGA Resolution 2013-09, paragraph B(3) stating that states “have effectively regulated the practice of hydraulic fracturing and redundant federal regulation is not required.”</i> <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	3/19/15: S. 828 introduced in the Senate and referred to the Committee on Energy and Natural Resources	Senate Environment and Public Works Committee Chair Jim Inhofe (R-OK) introduced S. 828 with 28 Republican co-sponsors
H.R. 1515	Issue – Hydraulic Fracturing/SDWA Title: Safe Hydration is an American Right in Energy Developed (SHARED) Act of 2015: Would amend the SDWA to require testing of underground sources of drinking water in connection with hydraulic fracturing and public disclosure of the results of the testing. <i>*WSWC Policy #353, WGA Resolution 2013-09</i> <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	3/19/15: H.R. 1515 introduced in the House and referred to the Committee on Energy and Commerce.	Rep. Jan Schakowsky (D-IL) introduced H.R. 1515 with 27 Democratic co-sponsors
S. 785/H.R. 1482	Issue – Hydraulic Fracturing/SDWA Title – Fracturing Responsibility and Awareness of Chemicals (FRAC) Act of 2015: Would require the disclosure of the chemicals used in hydraulic fracturing and would remove the oil and gas industry’s exemption from requirements in the SDWA’s Underground Injection Control program, otherwise known as the “Halliburton Exemption.”	3/18/15: S. 785 introduced, referred to EPW 3/19/15: H.R. 1482 introduced, referred to the	Senator Robert Casey (D-PA) introduced S. 785 with 12 Democratic co-sponsors

	*WSWC Policy #353, WGA Resolution 2013-09 See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016	E&C	Rep. Diana DeGette (D-CO) and Rep. Chris Gibson (R-NY) introduced H.R. 1482 with 62 Democratic and 1 Republican co-sponsors
H.R. 1460/ S.1554	Issue – CWA/Hydraulic Fracturing Title – Focused Reduction of Effluence and Stormwater Runoff Through Hydrofracking Environmental Regulation (FRESHER) Act of 2015: Would amend Section 402 of the CWA to revoke an exemption for and gas companies regarding stormwater runoff permits. Would also require the Department of the Interior to conduct a study to understand the effects of oil and gas operations on surface waters. *WSWC Policy #353, WGA Resolution 2013-09 See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016	3/19/15: H.R. 1460 introduced, referred to T&I 6/11/15: S. 1554 introduced, referred to EPW	Rep. Matt Cartwright (D-PA) introduced H.R. 1460 with 89 Democratic co-sponsors Senator Benjamin Cardin (D-MD) introduced S. 1554 with 5 Democratic co-sponsors
H.R. 1370	Issue – U.S. Army Corps of Engineers/Missouri River Title – None: Directs Corps to revise the Missouri Mainstem Reservoir System Master Water Control Manual and any related regulations to delete fish and wildlife as an authorized purpose of the Corps and elevate flood control as the highest priority of authorized purposes of the Corps at all times. (CRS Summary)	3/16/15: H.R. 1370 introduced and referred to the Committee on Transportation and Infrastructure	Rep. Sam Graves (R-MO) introduced H.R. 1370, with co-sponsor Rep. Vicky Hartzler (R-MO)
H.R. 1296	Issue – California/San Luis Rey Indian Water Rights Settlement Title – None: Would amend the San Luis Rey Indian Water Rights Settlement Act (P.L. 100-675) regarding the unquantified reserved water rights claims of the La Jolla, Ricon, San Pasqual, Pauma, and Pala Band of Mission Indians in California to clarify certain settlement terms. The legislation would also authorize the federal government to execute the settlement agreement, recognize the Bands' reserved water rights claims, and confirms benefits to allottees in the agreement. The bill does not authorize any federal funding. The bill would release the federal government from some liability and remove it as a required party in future proceedings, while leaving the reserved water rights unquantified at the present time. Letty Belin, Counselor to the Deputy Secretary, DOI, testified on Administration efforts to negotiate and implement Indian water rights settlements, improve settlement terms and reduced federal costs.	3/4/15: H.R. 1296 introduced in the House and referred to the Committee on Natural Resources 10/28/15: Natural Resources Subcommittee on Water, Power and Oceans held hearings on H.R. 1296 2/3/16: Natural Resources	Rep. Duncan Hunter (R-CA) introduced H.R. 1296 with eight co-sponsors, including a bipartisan group of Representatives from California and Rep. Tom Cole (R-OK)

	She noted approval of the San Luis Rey Mission Bands' settlement would not require any new federal spending, as the 1988 Act established a fund sufficient for the infrastructure needed to provide a reliable water source for the tribes. She also expressed appreciation for the "...Committee's support of the longstanding policy of the United States that disputes regarding Indian water rights should be resolved through negotiated settlement rather than through litigation." <i>*WSWC Policy #376 supporting the negotiated resolution of Indian water rights settlements. WGA Resolution #2015-08, paragraph B(3)(e) supporting the negotiated resolution of Indian water rights settlements.</i>	Committee mark-up session, ordering H.R. 1296 to be reported by unanimous consent 2/24/16: Scheduled vote on H.R. 1296 did not occur	
S. 741/H.R. 1278	Issue – EPA/Water Infrastructure Title – Water Infrastructure Resiliency and Sustainability Act of 2015: Would require EPA to establish and implement a program, to be known as the Water Infrastructure Resiliency and Sustainability Program. Under the program, EPA would award grants in each of fiscal years 2016 through 2020 to owners or operators of water systems to increase the resiliency or adaptability of infrastructure to ongoing or forecasted changes (based on the best available research and data) to the hydrologic conditions of a region of the United States. Grants would require a non-federal cost share up to 50%. The legislation would authorize \$50M for each of fiscal years 2016 through 2020 under H.R. 1278 and \$50M for each of fiscal years 2015 through 2019 under S. 741. (CRS Summary) <i>**WGA Resolution #2015-08, paragraph B(2) regarding water infrastructure needs.</i>	3/4/15: H.R. 1278 introduced in the House and referred to the Committees on Transportation and Infrastructure, Energy and Commerce, and Natural Resources 3/16/15: S. 741 introduced in the Senate and referred to the Committee on Environment and Public Works	Senator Benjamin Cardin (D-MD) introduced S. 741 with cosponsors Senate Majority Leader Harry Reid (D-NV), Senators Barbara Boxer (D-CA) and Sheldon Whitehouse (D-RI) Rep. Lois Capps (D-CA) introduced H.R. 1278 with 18 Democratic co-sponsors
S. 653	Issue – Water Resources Research Amendments Act of 2015 Title – Would amend the Water Resources Research Act of 1984 to: (1) declare that additional research is required to increase the effectiveness and efficiency of new and existing treatment works through alternative approaches, including non-structural alternatives, decentralized approaches, energy use efficiency, water use efficiency, and actions to extract energy from wastewater; (2) require each water resources research and technology institute to arrange for research that fosters the exploration of new ideas that expand understanding of water resources (currently, of water-related phenomena); (3) direct the Department of the Interior to report to specified congressional committees annually on each institute's compliance with matching fund requirements and provisions permitting the use of funds only to reimburse direct cost expenditures incurred for the conduct of the water resources research program; and (4) authorize a total of \$9.5M per year through 2020 for such institutes. (CRS Summary) Related bills include Water Resources Research Amendments Act (H.R. 4497) and Water in the 21st Century Act (S. 176/H.R. 291) <i>*WSWC Policy #368 supporting the Water Resources Research Institutes.</i>	3/4/15: S. 653 introduced in the Senate and referred to the Committee on Environment and Public Works 6/9/15: S. 653 passed the Senate without amendment by unanimous consent 6/10/15: S.653 received in the House and referred to the Committee on Natural Resources	Senator Benjamin Cardin (D-MD) introduced S. 653 with co-sponsor Senator John Boozman (R-AR)

H.R. 1203	Issue – CWA/Section 404 Title – None: Would amend the CWA to clarify that the EPA does not have the authority to retroactively disapprove of a Section 404 permit after it has been issued by the U.S. Army Corps of Engineers. The bill would apply to discharge permits issued (1) after the bill’s enactment, and (2) on or before enactment if EPA failed to submit to the Corps a written objection to the permit prior to the Corps issuance of the permit. See summaries for H.R. 896 and S. 234 for similar legislation.	3/2/15: H.R. 1203 introduced in the House and referred to the Committee on Transportation and Infrastructure	Rep. David McKinley (R-WV) with co-sponsors Rep. Collin (D-MN) Peterson, the Ranking Member of the House Agriculture Committee, and Representatives Evan Jenkins (R-WV), Alexander Mooney (R-WV), Paul Gosar (R-AZ), and Andy Barr (R-KY)
S. 593/H.R. 1107	Issue – Bureau of Reclamation/Maintenance and Rehabilitation Title – Bureau of Reclamation Transparency Act: would require the Secretary of the Interior to: (1) report to Congress on Reclamation efforts to manage all Reclamation facilities and to standardize and streamline data reporting and processes for purposes of managing such facilities, and (2) update such report biennially. The bill would also require the report to include a detailed assessment of major repair and rehabilitation needs at all Reclamation projects and an itemized list of major repair and rehabilitation needs of individual facilities at each project. Mandates an annual assessment of major repair and rehabilitation needs for reserved works with an estimate of appropriations needed to complete each item and an assignment of a categorical rating to inform the annual budget process. The bills would also direct Interior to coordinate with the non-federal entities responsible for transferred works to develop reporting requirements and a categorical rating system. <i>*WSWC Policy #360 urging Congress and the Administration to work together to develop a standardized process to provide information regarding its maintenance and rehabilitation (M&R) needs, and urging Reclamation to ensure that information regarding its M&R needs is accessible and easy to understand.</i> <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/26/15: S. 593 introduced in the Senate, referred to ENR 2/26/15: H.R. 1107 introduced in the House and referred to NR 6/18/15: Hearings on S. 593 6/25/15: Hearings on H.R. 1107 9/9/15: S. Rept. 114-28, placed on Senate calendar 12/3/15: H. Rept. 114-366, placed on House calendar.	Senator John Barrasso (R-WY) introduced S. 593 with co-sponsor Senator Brian Schatz (D-HI) Rep. Paul Gosar (R-AZ) introduced H.R. 1107 with 25 bipartisan co-sponsors
H.R. 1093	Issue – EPA/CWA/Wastewater and Stormwater Title – Clean Water Compliance and Ratepayer Affordability Act of 2015: Would authorize EPA, in coordination with appropriate state, local, and regional authorities, to carry out a pilot program under which EPA work cooperatively with and facilitate the efforts of municipalities to develop and	2/26/15: H.R. 1093 introduced in the House and referred to Committee on Transportation and Infrastructure	Rep. Steve Chabot (R-OH) introduced H.R. 1093 with 21 bipartisan co-sponsors

	implement integrated plans to meet their wastewater and stormwater obligations under the CWA in a more cost-effective and flexible manner.		
H.R. 1060	Issue – Reclamation/Infrastructure Title – Sacramento Valley Water Storage and Restoration Act: Directs the Department of the Interior, acting through the Bureau of Reclamation to take actions to support non-Federal investments in water structure improvements in the Sacramento Valley. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/25/2015: H.R. 1060 introduced in the House and referred to the Committee on Natural Resources	Rep. Doug LaMalfa (R-CA) introduced H.R. 1060 with three Republican co-sponsors from California
S. 544/H.R. 1030	Issue – Environmental Protection Agency (EPA) Science Title – Secret Science Reform Act of 2015: Would prevent EPA from creating regulations based on science that is not the “best available,” “specifically identified,” and publically available online in a manner “...sufficient for independent analysis and substantial reproduction of research results.” Republicans say the bill addresses concerns that EPA has based some of its regulations on “secret” data and information that it has not made public. However, Democrats say the bill prevents EPA from using relevant scientific data, including confidential medical information that is legally protected from public disclosure. President Obama has threatened to veto the bill. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/24/15: H.R. 1030 introduced in the House and referred to the Science Committee 3/18/15: House passes H.R. 1030 241-175, largely along party lines with Republican support 6/22/15: S.544 placed on the Senate calendar. S. Rept. 114-69	Senator John Barrasso (R-WY) introduced S. 544 with 7 co-sponsors House Science Committee Chair Lamar Smith (R-TX) introduced H.R. 1030 with 28 co-sponsors
S. 543/H.R. 1029	Issue – EPA Science Advisory Board (SAB) Title – EPA Science Advisory Board Reform Act of 2015: Would require EPA to disclose the identity of persons nominated to the SAB, including the entities that made the nomination, and accept comments on nominees. The bill would also require nominees to disclose financial relationships and interests that are relevant to the SAB’s advisory activities. In addition, the bill would require that at least 10% of the SAB be from state, local, or tribal government. <i>**Testimony of WGA Executive Director Jim Ogsbury before the House Appropriations Subcommittee on Interior, Environment, and Related Agencies on April 10, 2014, page 3, urging Congress to ensure that state experts comprise at least 10% of the SAB and its panels.</i> <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/24/15: S. 543 introduced in the Senate and referred to the Senate EPW 3/17/15: House passes H.R. 1029 236-181, largely along party lines with Republican support 5/20/15: Senate hearings held by the Subcommittee on Superfund, Waste Management, and Regulatory Oversight	Senator John Boozman (R-AR) introduced S. 543 along with co-sponsors Senators Joe Manchin (D-WV) and James Inhofe (R-OK), the Chair of the Senate EPW Rep. Frank Lucas (R-OK) introduced H.R. 1029 with 24 co-sponsors

H.R. 963	Issue – CWA/Abandoned Hardrock Mines/Good Samaritan Remediation Title – Hardrock Mining Reform and Reclamation Act of 2015: Would authorize a number of activities and reforms to facilitate the clean-up of abandoned hardrock mines. Title IV of the bill would enact the Good Samaritan Cleanup of Abandoned Hardrock Mines Act of 2015, which would encourage third parties with no legal responsibility for the mine (Good Samaritans) to engage in remediation efforts by amending the CWA to create a new permitting program. Good Samaritans who comply with the terms of the permits issued under the program would be shielded from CWA liability so long as they comply with the terms of the permit. <i>**WGA Resolution 2013-05, paragraph B(2) calling on Congress to amend the CWA to protect Good Samaritans from becoming perpetually liable for discharges that continue at an abandoned mine after clean-up.</i>	2/13/15: H.R. 963 introduced in the House and referred to the Committees on Natural Resources and Transportation and Infrastructure	House Natural Resources Committee Ranking Member Raul Grijalva (D-AZ) introduced H.R. 963 along with 30 Democratic co-sponsors
S. 438	Issue – Reclamation Fund/Indian Irrigation Projects Title – Irrigation and Rehabilitation for Indian Tribal Governments and Their Economies Act (“Irrigate” Act): Would direct \$35M per year through 2036 from the Reclamation Fund into an Indian Irrigation Fund to build and maintain Indian irrigation projects. The legislation is similar to an amendment Senator Barrasso introduced last Congress to S. 715. In addition to funding Indian irrigation projects, S. 715 would have used funding from the Reclamation Fund to support authorized rural water projects and projects that are part of authorized Indian water rights settlements. <i>*WSWC Policy 367 supporting the use of the Reclamation Fund to support western water infrastructure projects.</i>	2/10/15: Introduced in Senate and referred to Senate Indian Affairs Committee 3/4/15: Senate Indian Affairs Committee holds hearing on S. 438 4/27/16: Placed on Senate Calendar. S. Rept. 114-245	Senate Indian Affairs Committee Chair John Barrasso (R-WY) introduced S. 438 with co-sponsors Senators Jon Tester (D-MT), Orrin Hatch (R-UT), Michael Enzi (R-WY), Steve Daines (R-MT), and Michael Bennet (D-CO)
H.R. 897	Issue – CWA/Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)/NPDES Permits/Pesticide Applications Title – Zika Vector Control Act (introduced as Reducing Regulatory Burdens Act of 2015): Would amend the CWA and FIFRA to clarify that FIFRA-compliant pesticide applications do not require NPDES permits. The bill would overturn the Sixth Circuit Court of Appeals’ <i>National Cotton Council v. EPA</i>, 533 F.3d 927 (6th Cir. 2006). Note: The version that passed does <u>not</u> include an amendment proposed by Rep. Ruiz to include a section protecting pregnant women and children from pesticides known or suspected to cause adverse health impacts on pregnant women, fetal growth, or early childhood development. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i> <i>*WSWC Policy #359 supporting legislation to amend FIFRA and the CWA to clarify that FIFRA-</i>	2/11/15: H.R. 897 introduced in the House and referred to the Committees on Agriculture and T&I 3/19/15: House Agriculture Committee reports H.R. 897 by voice vote 5/24/16: H.R. 897 passed the House with amendments by a vote of 258-156 largely along	Rep. Bob Gibbs (R-OH) introduced H.R. 897, with co-sponsors Rep. Sam Graves (R-MO) and Rep. Steve Scalise (R-LA)

	<i>compliant pesticide applications do not require NPDES permits. WGA Resolution #14-04, paragraph B(2)(d), supporting primary role of FIFRA in regulating pesticide applications.</i>	political lines. 7/14/16: Placed on Senate calendar	
H.R. 896	Issue: CWA/Section 404 Permits Title: Regulatory Certainty Act of 2015: Would amend the CWA to prevent EPA from retroactively vetoing Section 404 permits issued by the Corps. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/11/15: Introduced in the House and referred to the Committee on Transportation and Infrastructure	Rep. Bob Gibbs (R-OH) introduced H.R. 896
S. 384	Issue – Internal Revenue Service/Water Leasing Title – Water and Agriculture Tax Reform Act of 2015: Would amend the Internal Revenue Code to permit tax-exempt mutual ditch or irrigation companies to earn income from dispositions of certain real property and stock interests without affecting their tax-exempt status. The bill would also require that such income be used to pay the costs of operations, maintenance, and capital improvements of such a company. See H.R. 4220 above.	2/5/15: Introduced in the Senate and referred to the Committee on Finance	Senator Mike Crapo (R-ID) introduced S. 384 with co-sponsors Senators Michael Bennet (D-CO), Cory Gardner (R-CO), Michael Enzi (R-WY), and James Risch (R-ID)
H.R. 813	Issue – Corps Reservoir Operations Title: Fixing Operations of Reservoirs to Encompass Climatic and Atmospheric Science Trends (FORECAST) Act: Would require the Corps to review reservoir operations within one year after receiving a request from a nonfederal sponsor of a reservoir. In conducting the review, the Corps would consider the water control manual and rule curves and use improved weather forecasts and run-off forecasting methods. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	2/9/2015: H.R. 813 introduced in the House and referred to the Committee on Transportation and Infrastructure	Rep. Jared Huffman (D-CA) introduced H.R. 813 with 11 Democratic co-sponsors
S. 338/ H.R. 1814	Issue – Land and Conservation Fund Title – None: Would permanently reauthorize the Land and Water Conservation Fund, which provides funds and matching grants to federal, state, and local governments for the acquisition of land and water, and easements on land and water. Requires not less than 1.5% of the annual authorized funding amount or \$10 million, whichever is greater, to be used for projects that secure recreational public access to existing federal public land for hunting, fishing, and other recreational purposes.	2/2/15: S. 338 introduced in the Senate and placed on the Senate Legislative Calendar 4/15/15: H.R. 1814 introduced in the House	Senator Richard Burr (R-NC) introduced S. 338 (18 co-sponsors) Rep. Raul Grijalva (D-AZ) introduced H.R. 1814 (209 co-

	See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016	and referred to the Committee on Natural Resources	sponsors)
S. 176/H.R. 291	Issue – Bureau of Reclamation/U.S. Geological Survey (USGS)/EPA/Water Infrastructure/Water Reuse/Water Resources Research Institutes Title – Water in the 21st Century Act: would create a financing program within the Department of the Interior to offer long-term, low-cost financing for eligible water infrastructure projects in the West that are directly and indirectly associated with Bureau of Reclamation projects. See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016 *WSWC Policy #368 supporting the Water Resources Research Institutes. *WSWC Policy #362 regarding the transfer of federal water and power projects and related facilities. **WGA Resolution #2015-08, paragraph B(2) regarding water infrastructure needs.	1/31/15: S. 176 introduced in the Senate and referred to the Committee on Environment and Public Works 1/31/15: H.R. 291 introduced in the House and referred to the Committees on Natural Resources, Transportation and Infrastructure, and Science	Senator Barbara Boxer (D-CA) introduced S. 176 with Senate Minority Leader Harry Reid (D-NV) and Senator Dianne Feinstein (D-CA) Rep. Grace Napolitano (D-CA) introduced S. 176 with 31 Democratic co-sponsors
H.R. 594	Issue – CWA Jurisdiction/Waters of the U.S. Rulemaking Title – Waters of the U.S. Regulatory Overreach Protection Act of 2015: Would require EPA and the U.S. Army Corps of Engineers to withdraw their proposed rule regarding CWA jurisdiction. See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016 *WSWC Comments on the rule (Policy #373), Policy #369 regarding CWA jurisdiction, Policy #370 requesting withdrawal of the interpretive rule regarding agricultural exemptions, and related letters dated 3/10/14 12/23/13, 11/20/13, 11/5/13, 4/10/13, and 7/29/11 (attached to WSWC Policy #373). **WGA Resolution #2014-04, paragraph B(1)(a) regarding CWA jurisdiction and related letters dated 8/27/14, 5/30/14, and 3/25/14 and Congressional testimony before the Senate Appropriations Subcommittee on Interior, Environment, and Related Agencies on 5/23/14 and before the House Appropriations Subcommittee on Interior, Environment, and Related Agencies on 4/10/14. ***Joint WSWC-WGA Congressional testimony dated 6/11/14 before the House Transportation and Infrastructure Subcommittee on Water Resources and Environment (contained as an attachment to WSWC Policy #373).	1/28/15: H.R. 594 introduced in the House and referred to the Committee on Transportation and Infrastructure's Subcommittee on Water Resources and the Environment	Rep. Paul Gosar (R-AZ) introduced H.R. 594 along with 186 co-sponsors, including House Appropriations Committee Chair Hal Rogers (R-KY) and House Agriculture Committee Ranking Member Collin Peterson (D-MN)
H.R. 499	Issue – State Volume Caps/IRS Title – Sustainable Water Infrastructure Act of 2015: Would amend the Internal Revenue Code to exempt from state volume caps tax-exempt facility bonds for sewage and water supply facilities.	1/22/15: H.R. 499 introduced in the House and referred to the Committee on Ways and	Representatives John Duncan (R-TN) introduced H.R. 499 with 18 bipartisan co-

	**WGA Resolution #2015-08 , paragraph B(2)(b) urging Congress to remove state volume caps.	Means	sponsors
S.234	Issue: CWA/Section 404 Permits Title: Regulatory Fairness Act of 2015: Would present the EPA from retroactively vetoing Section 404 permits approved by the Corps by amending the CWA to define the period of time in which EPA is authorized to restrict or deny a permit for the discharge of dredged or fill materials into navigable waters under Section 404. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	1/22/15: S. 234 introduced in the Senate and referred to the Environment and Public Works Committee	Senator David Vitter (R-LA) introduced S. 234 with 9 co-sponsors, including
S.208/H.R. 399	Issue – Borders/ESA/National Environmental Policy Act (NEPA) Title – Secure our Borders First Act: Seeks to improve border security by requiring the Department of Homeland Security to achieve “operation controls” along the nation’s borders with Canada and Mexico. As part of this goal, the bill would waive over a dozen environmental laws on federal lands within 100 miles of either border, including the ESA, NEPA, the Wilderness Act, the Wild and Scenic Rivers Act, the Federal Land Policy Management Act, the National Wildlife Refuge System Administration Act, and the National Park Service Organic Act. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>	1/16/15: H.R. 399 introduced in the House 1/21/15: S. 208 introduced in the Senate and referred to the Committee on Homeland Security 1/27/15: H.R. 399 placed on House calendar	Senator Ron Johnson (R-WI) introduced S. 208 with 4 Republican co-sponsors Rep. Michael McCaul (R-TX) introduced H.R. 399 with 29 Republican co-sponsors
S. 133	Issue – Klamath Basin/Oregon/California/Indian Water Rights/Hydropower Title – The Klamath Basin Water Recovery and Economic Restoration Act of 2014: Intended to authorize federal efforts to help implement three related agreements: (1) the Klamath Hydroelectric Settlement Agreement (KHSA); (2) the Klamath Basin Restoration Agreement (KBRA); and (3) the Upper Klamath Basin Comprehensive Agreement (UKBCA). On December 31, the 2010 KBRA expired without the necessary Congressional authorization proposed as part of S.133. The two inter-related agreements, KHSA and UKBCA, are still in effect and awaiting Congressional authorization. <i>See full summary through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i> On April 6, the Governors of Oregon and California, the U.S. Departments of Interior and Commerce, PacifiCorp and several other state, federal, irrigation and environmental officials signed an amended Klamath Hydroelectric Settlement Agreement that would continue the largest river restoration and dam removal project in the nation. The amendment would not require Congressional approval as the	1/8/15: Introduced in the Senate and referred to the Committee on Energy and Natural Resources	Senator Ron Wyden (D-OR) introduced S. 133 with co-sponsors Senators Jeff Merkley (D-OR), Dianne Feinstein (D-CA), and Barbara Boxer (D-CA)

	expired 2010 agreement did, and eliminates the U.S. Secretary of the Interior's role in making a determination on dam removal. Several tribes have not yet signed the amended agreement. The amended agreement would transfer the four Klamath River dams owned by PacifiCorp to the Klamath River Renewal Corporation, which would work with the Federal Energy Regulatory Commission to decommission and remove the dams by 2020. *WSWC Policy #376 supporting the negotiated resolution of Indian water rights settlements ** WGA Resolution #2015-08, paragraph B(3)(e) supporting the negotiated resolution of Indian water rights settlements		
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NOTABLE LITIGATION

Case Names	Issue – State Authority over Interstate Groundwater, Equitable Apportionment
<i>Mississippi v. Tennessee</i>, No. 220143 Earlier complaints dismissed: <i>Hood ex rel. Mississippi v. City of Memphis, Tenn.</i>, 533 F. Supp. 2d 646 (N.D. Miss. 2008) (aff'd 570 F.3d 625 (5th Cir. 2009)) <i>Mississippi v. City of Memphis</i>, 559 U.S. 901	On June 6, 2014, the State of Mississippi filed an original jurisdiction complaint against the State of Tennessee, the City of Memphis, and Memphis Light, Gas & Water Division (MLGW) for wrongful conversion of groundwater from the Sparta-Memphis Aquifer (Aquifer). Mississippi alleges that groundwater pumping by MLGW in Tennessee has depleted water that is subject to Mississippi's ownership and control because, absent the effects of the pumping, the water would remain in the Aquifer beneath Mississippi's territory. Mississippi seeks declaratory and injunctive relief, as well as over \$600 million in damages. Mississippi presented three questions: (1) Whether the Court will grant Mississippi leave to file an original action to seek relief from respondents' use of a pumping operation to take approximately 252 billion gallons of high-quality groundwater; (2) whether Mississippi has sole sovereign authority over and control of groundwater naturally stored within its borders, including in sandstone within Mississippi's borders; and (3) whether Mississippi is entitled to damages, injunctive, and other equitable relief for the Mississippi intrastate groundwater intentionally and forcibly taken by respondents.
Courts	
U.S. Supreme Court	
Relevant Dates	
6/6/2014: Motion for leave to file complaint	
6/29/2015: Motion granted	
9/11/2015: Answer of Memphis Defendants filed	
9/14/16: Answer of State of	On August 12, the Special Master issued a Memorandum of Decision on various motions to dismiss and to exclude information from the record. The Special Master reviewed details of a previous complaint against the Memphis Defendants, <i>Hood ex rel. Mississippi v. City of Memphis, Tenn.</i> The U.S. District Court for the Northern District of Mississippi ruled that the doctrine of equitable apportionment has historically been the means by which disputes over interstate waters are resolved, that the aquifer in question had never been apportioned, and that, without an apportionment determining which portion of the aquifer's water is the property of which state, the Court could not grant relief on Mississippi's claims. The 5th Circuit affirmed, noting that the groundwater is an interstate source, and the amount of water to which each state is entitled must be allocated before one state may sue an entity for invading its share. The 5th Circuit also rejected Mississippi's argument that it owns a fixed portion of the aquifer because it controls the resources within its state boundaries, reasoning that the Supreme Court has consistently rejected the argument advanced by different states that state boundaries determine the amount of water to which each state is entitled from an interstate water source (citing <i>Hinderlider v. La Plata River & Cherry Creek Ditch Co.</i>, 304 U.S. 92, 102 (1938)). The case was dismissed for failure to join Tennessee as a required party.

Tennessee filed. 11/10/2015: Special Master appointed 8/12/2016: Special Master's Memorandum of Decision on various motions	The Special Master noted that Mississippi's complaint explicitly disclaims a request for equitable apportionment and appears to implausibly allege that water in the aquifer lacks an interstate character. On its face, the complaint should probably be dismissed under FRCP 12(b). However, the Federal Rules of Civil Procedure are guidelines rather than strict mandates in original jurisdiction cases, and in the absence of an interstate compact, the Supreme Court has authorized only one avenue, equitable apportionment, for states to pursue a claim that another state has depleted the availability of interstate waters within its borders. The Special Master, tasked with erring on the side of over-inclusiveness to assist the Supreme Court in making its ultimate determination, recommended that an evidentiary hearing be held on the limited issue of whether the aquifer and the water constitutes an interstate resource. "Evidence that would likely be relevant to this determination includes the nature and extent of hydrological and geological connections between the groundwater in Memphis and that in Mississippi, the extent of historical flows in the aquifer between Mississippi and Tennessee, and similar considerations." For more information, see http://www.ca6.uscourts.gov/special-master
Case Name	Issue – Reserved Water Rights include Groundwater as a Potential Source
<i>Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District, et al.</i>	The Agua Caliente Band of Cahuilla Indians filed a lawsuit in May 2013, asking the Court to declare and quantify the existence of the tribe's water rights as the senior rights in the Coachella Valley under federal law. In March 2015, the Court ruled on summary judgment that the Agua Caliente Band of Cahuilla Indians has a reserved right to water, and groundwater is a water source available to fulfill that right. The Court denied the Tribe's claim for aboriginal title to groundwater. The water districts filed a petition with the 9th Circuit for interlocutory review of the portion of the District Court's order addressing the inclusion of groundwater in the Tribe's reserved right to water. The parties briefed the issue with written arguments by May 2016, and oral arguments are scheduled for October 18, 2016. The parties agreed to trifurcate the case, and proceeded forward with Phase 2 in a limited way. On February 23, the District Court ruled on the Motion for Partial Summary Judgment against the water district's equitable defenses and arguments. The remainder of Phase 2 issues, which were stayed by the court pending the Ninth Circuit's resolution of the water district's appeal, will address whether the tribe owns pore space beneath the reservation, whether there is a right to water of a certain quality and how to quantify the tribe's reserve water right. If necessary, Phase III will quantify the tribe's rights to underground water and pore space and order injunctive relief.
Courts	
U.S. District Court, Central District of California, EDCV 13-883 9th Circuit (for interlocutory review) 5:13-cv-883	
Relevant Dates	
5/2013: Agua Caliente filed suit 3/27/2015: Summary judgment re: groundwater available as part of reserved water right 10/18/16: Oral arguments on interlocutory appeal, 9th Cir.	
Case Names	Issue – Whether CWA Jurisdictional Determinations are Final Agency Actions Subject to Judicial Review
<i>U.S. Army Corps of Engineers v. Hawkes Co. Inc</i> <i>Kent Recycling Services LLC v. U.S. Army Corps of Engineers</i>	On December 11, 2015 the U.S. Supreme Court granted certiorari to hear <i>U.S. Army Corps of Engineers v. Hawkes Co. Inc.</i>, appealed from the 8th Circuit, to consider whether a jurisdictional determination that a wetland qualifies for Clean Water Act protection constitutes a final agency decision subject to judicial review. In <i>Hawkes</i>, the Corps determined that a Minnesota property was subject to Clean Water Act permitting rules. The owner challenged the determination and costly permitting process, seeking to mine peat moss from wetlands to use in landscaping. The 8th Circuit held that the jurisdictional determination was a final agency action that could be challenged under the

	Administrative Procedures Act. This created a split from the 5 th Circuit, which ruled the opposite way in 2014 in <i>Kent Recycling Services LLC v. U.S. Army Corps of Engineers</i> . In <i>Hawkes</i> , the Corps has asked the Supreme Court to overturn the Eighth Circuit’s decision. The Corps is not required to issue jurisdictional determinations, and the Administration has argued that doing so merely provides a landowner with information without creating any obligations, and should not be considered a final agency decision that can be reviewed by courts under the Administrative Procedure Act.
Courts 8 th Circuit, 5 th Circuit Supreme Court	On May 31, the U.S. Supreme Court issued its decision in <i>Corps of Engineers v. Hawkes</i> , with six Justices joining Chief Justice Robert’s opinion, and Justice Ginsburg concurring in the judgment and part of the reasoning. In 2010, the respondents applied to the Corps of Engineers (Corps) for a Clean Water Act (CWA) §404 permit to mine peat from a wetland on their property for stable golf greens. In 2012, the Corps issued a jurisdictional determination (JD) that the property contained “waters of the United States” because the wetlands had a “significant nexus” to the Red River of the North, located 120 miles away. To continue with the permitting process, the Corps required the respondents to submit numerous property assessments that would cost upwards of \$100,000. The respondents appealed the JD administratively and then sought judicial review.
Relevant Dates 12/11/2015 – Cert. granted 1/22/2016 – Corps opening brief 3/2/2016 – Amicus brief filed by North Dakota, Alaska, Colorado, South Dakota, Nebraska, and Idaho in support of Hawkes and the 8 th Cir. Decision; amicus brief filed by West Virginia and 22 other states, including Arizona, Kansas, Montana, Nevada, Oklahoma, Texas, Utah and Wyoming, arguing that the outcome of Hawkes is critical to enforcing CWA limits. 5/31/16: S. Ct. decision re: Hawkes 6/6/16: S. Ct. decision re: Kent Recycling 7/29/16: 5 th Cir. remand to District Court re: Kent Recycling and Belle Company v. Corps	The Court held that when the Corps issues an “approved” JD that a property contains “waters of the United States” subject to permitting under the CWA, the agency’s decision is final and subject to court review under the Administrative Procedures Act (APA). While a “preliminary” JD simply advises a property owner that such waters “may” be present, an “approved” JD is issued after extensive hydrologic factfinding by the Corps, and gives rise to legal consequences. Under a Memorandum of Agreement (MOA) between the Corps and the Environmental Protection Agency (EPA), a “negative” JD that a property does not contain jurisdictional waters is binding on the federal government for five years, providing a safe harbor from civil enforcement proceedings. On the other hand, an “affirmative” JD deprives property owners of that safe harbor. The Court rejected the Corps’ argument that property owners with affirmative JDs may either proceed without a permit, or complete the permit process and then seek judicial review. The permitting process is costly and lengthy, the risks of criminal and civil penalties (up to \$37,500/day) for proceeding without a permit are serious, and continuing through the permitting process typically does not change the outcome of an affirmative JD. The fact that the Corps may revise an approved JD “does not make an otherwise definitive decision nonfinal.” Additionally, while a §404 permit is explicitly reviewable under the CWA, that does not preclude a standalone, approved JD issued earlier in the permitting process from court review. The Court also rejected the Corps’ argument that, had it never adopted the practice of issuing JDs upon request, which are not mentioned in the CWA, the only avenues available for review would be at the end of the permitting process or during enforcement proceedings. Roberts’ opinion noted: “It is often difficult to determine whether a particular piece of property contains waters of the United States, but there are important consequences if it does.” He then cited the time and costs involved in obtaining a general permit or specialized individual permit as provided in <i>Rapanos v. U.S.</i>, 547 U.S. 715, 721 (2006). Justice Kennedy wrote a concurring opinion, joined by Justices Thomas and Alito, adding that “the reach and systemic consequences of the Clean Water Act remain a cause for concern. ...the Act’s reach is ‘notoriously unclear’ and the consequences to landowners even for inadvertent violations can be crushing.” If one accepts the Corps’ arguments that the MOA with EPA has no legally binding effect and can be revoked or amended at any time, Kennedy said, the Act’s ominous reach would again be unchecked by the limited relief of the Court’s decision. “The Act, especially without the JD procedure were the Government permitted to foreclose it, continues to raise troubling questions regarding the Government’s power to cast doubt on the full use and enjoyment of private property throughout the Nation.” Justice Kagan added a concurring opinion that for her, the MOA is central to the disposition of the case, as it gives rise to the legal rights and obligations that make a JD reviewable. Justice Ginsburg concurred in the decision, except for its reliance on the MOA, due to the

	“scant briefing” the Court received and the fact that the Corps interprets the MOA differently from the Court. However, she noted that the JD at issue is definitive and has an immediate and practical impact, and therefore agreed that it was a final agency decision. On June 6, the Supreme Court granted the petition for rehearing for <i>Kent Recycling Services LLC v. U.S. Army Corps of Engineers</i>, granted certiorari, and without oral argument vacated the 5th Circuit’s earlier opinion, remanding the case for a ruling consistent with its <i>Hawkes</i> decision. The tract of land at issue would be used as a landfill if Kent Recycling purchased the property, and it sought to challenge the Corps’ jurisdictional determination that the property is a wetland requiring a CWA permit. On July 29, the 5th Circuit vacated the U.S. District Court’s dismissal and remanded the case back to the U.S. District Court for the Middle District of Louisiana (3:12-cv-247). <i>See full summary of the Hawkes case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Case Names	Issue – EPA Pre-emptive Veto under CWA 404(c)
<i>Pebble Limited Partnership v. EPA</i>	On September 3, 2014, Pebble LP filed a Federal Advisory Committee Act (FACA) complaint, alleging violations of FACA and the APA when EPA formed Federal Advisory Committees to assist EPA in preempting Pebble LP from exercising its mineral rights in the Pebble Mine. Under CWA 404(c), EPA may veto a decision by the Corps to permit the discharge of dredged or fill material where the Agency expressly finds that the activity will have unacceptable, adverse effects, or restrict defined areas as disposal sites. This veto authority has always been exercised after an applicant has submitted its application or proposed development plan to the Corps for a 404 permit. The Pebble Mine is the first time EPA has exercised that authority before any application was submitted. On January 13, 2016, the EPA issued the Inspector General’s report on the Bristol Bay watershed assessment, finding no evidence of bias or a predetermined outcome, although it did find a possible unethical misuse of position by a retired Region 10 employee, which Pebble asserts is scientist Phil North, who was unavailable for depositions until recently. On April 13, EPA filed a motion requesting documentation of Pebble’s financial harm due to EPA’s project review, and various discovery-related motions have been filed over the summer 2016. <i>See full summary of the Pebble case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Courts	
U.S. District Court of Alaska, 3:14-cv-00199	
Relevant Dates	
9/3/14: Pebble files its FACA complaint	Case Name <i>Mingo Logan Coal Company v. EPA</i>(#14-5305) Court D.C. Circuit Court Relevant Dates
10/14/14: Pebble filed its FOIA complaint	
11/24/14: Preliminary injunction against EPA to advance or finalize work on Pebble Mine project	
	On July 19, the D.C. Circuit Court affirmed the district court’s decision on <i>Mingo Logan Coal Company v. EPA</i>, holding that EPA did not violate the Administrative Procedures Act (APA) by withdrawing certain disposal areas specified in the Clean Water Act (CWA) §404 permit issued by the U.S. Army Corps of Engineers (Corps). Mingo Logan argued that EPA’s post-permit revocation is the epitome of arbitrary-and-capricious agency action, noting that: (1) EPA failed to consider Mingo Logan’s permit reliance costs; (2) that EPA relied on factors which Congress did not intend for EPA to consider—namely, downstream water quality delegated to West Virginia; and (3) that the post-permit environmental impact evidence cited does not support EPA’s delayed decision. The court rejected these arguments for various reasons, determined that “EPA’s ex post withdrawal is a product of its broad veto authority under the CWA, not a procedural defect,” and that EPA’s Final Determination complied with the APA.

	The Corps retains discretion to modify, suspend, or revoke the permit under 33 C.F.R. §325.7(a). In 2009, the Corps rejected EPA’s request to reconsider the Mingo Logan permit, noting that EPA’s concerns were based on information already considered at the time the permit was issued. In 2010, four years after the permit issued, EPA intervened directly, invoking its §404(c) veto authority, which allows EPA to deny, restrict, or withdraw site specifications, regardless of whether this occurs before or after a permit is issued (Mingo Logan II). Further, although West Virginia has delegated authority to grant §402 NPDES permits, the court determined that EPA has overriding §404(c) authority to evaluate water quality and its adverse effects on wildlife However, the court was careful to point out that it was not issuing decisions on whether EPA: (1) is generally exempt from considering costs or other balancing factors when exercising its §404(c) authority; or (2) must always satisfy the detailed justification standard articulated in <i>FCC v. Fox Television</i>, 556 U.S. 502, 515-16 (2009). The court concluded: “Finally, we note that post-permit withdrawal under Section 404(c) is a mighty power and its exercise will perhaps inevitably leave a permittee feeling as if the rug has been pulled out from under it. Nonetheless, this power is one the Congress has authorized the EPA to exercise and where, as here, the EPA has adequately explained why mine spoil disposal at two sites would cause unacceptable adverse effects on wildlife, we must uphold its decision.”
Case Names	Issue – ANILCA §103(c), NPS Authority to Regulate State Navigable Water as an Inholding within Park Boundaries
<i>Sturgeon v. Masica, Sturgeon v. Frost</i>	The 1980 Alaska National Interest Lands Conservation Act (ANILCA), 16 USC §1301 et seq., created/expanded the 150 million acres of National Park Service (NPS) land in Alaska, with boundaries of “conservation system units” (CSUs) enclosing State, Tribal, and privately-owned land. The non-federal enclaves were made exempt from federal regulations otherwise applicable to federal land within the CSU pursuant to ANILCA §103(c). In 2007, while John Sturgeon was stopped on a gravel to make repairs to his hovercraft, NPS law enforcement employees told Sturgeon it was a federal crime to operate the hovercraft within the boundaries of the Yukon-Charley, an ANILCA CSU. Sturgeon subsequently filed suit, arguing that the Nation River is a State-owned navigable river, exempt from NPS regulations against hovercraft under ANILCA §103(c). The 9th Circuit held that ANILCA §103(c) only exempted the State, Tribal and privately-owned land from regulations “solely” applicable to CSUs in Alaska. Since the NPS hovercraft ban (36 CFR 1.2(a), 2.17(e)) is applicable nationwide and not just in Alaska, the 9th Circuit held that the hovercraft ban applied to Alaskan land owned by the State, Native Corporations and individuals within the CSU boundaries. On March 22, the U.S. Supreme Court issued a unanimous 8-0 opinion by Chief Justice John Roberts rejecting the 9th Circuit’s interpretation of Section 103(c) of the Alaska National Interest Lands Conservation Act (ANILCA) in <i>Sturgeon v. Frost</i>. The Supreme Court held that the 9th Circuit’s interpretation of the statute is implausible and inconsistent with both the text and context of ANILCA, violating a fundamental canon of statutory construction. The Supreme Court noted that ANILCA repeatedly recognizes that Alaska is different and carves out numerous Alaska-specific exceptions to the National Park Service’s (NPS) general authority over federally managed preservation areas. Section 103(c) clearly draws a distinction between public and non-public lands. The 9th Circuit’s reading would prevent the NPS from recognizing Alaska’s unique conditions and would allow NPS to regulate non-public lands only through rules applicable outside Alaska, while public lands could be regulated through Alaska-specific provisions. Notably, the Supreme Court declined to decide: (1) whether the waters of the Nation River qualify as “public land” or belong to the State of Alaska for purposes of ANILCA; (2) whether the NPS has authority under Section 100751(b) to regulate Sturgeon’s hovercraft activities on the Nation River regardless of whether it is “public land;” or (3) whether the NPS has authority under ANILCA over both
Courts	
U.S. District Court of Alaska, 3:11-cv-0183	
9 th Cir., 13-36165, 768 F.3d 1066	
U.S. Supreme Court, 14-1209	
Relevant Dates	
10/30/13: District Court decision	
10/6/14: 9 th Cir. Decision	
10/1/15: Petition for writ of certiorari granted	
1/20/16: Oral arguments by Sturgeon, Alaska, NPS	
3/22/16: S. Ct. decision, remand to 9 th Cir.	

10/25/16: Oral arguments scheduled before 9 th Cir.	public and non-public lands within the boundaries of conservation system units in Alaska. The Court left those issues to be resolved on remand. Oral arguments are scheduled for October 25 before the 9th Circuit, and will address the issues that remain, but there will be no further briefing filed. <i>See full summary of the ANILCA case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Case Names	Issues – Groundwater as a CWA Point Source
<i>Sierra Club v. Virginia Electric and Power Company, CA 2:15cv112</i>	On November 6, the Court denied a motion to dismiss, finding that the Sierra Club had standing to bring a lawsuit alleging that the energy company was discharging coal ash, contaminating groundwater with arsenic that eventually leads to a navigable body of water. Rather than try to argue that the groundwater is part of the “waters of the U.S.” under the Clean Water Act (CWA), the Sierra Club asserted that the groundwater acted as a “conduit” for the pollution, reaching the navigable water and creating a point source, requiring an NPDES permit. Notably, the First, Fifth and Seventh Circuits have each held that the CWA does not cover discharges that enter surface waters through groundwater. Other courts have held that hydrologically-connected groundwater is covered under the CWA. On June 24, the court concluded a four-day trial and directed the attorneys to submit post-trial briefs in July, indicating that the court would issue a ruling thereafter. The parties submitted their respective post-trial briefs and proposed findings of fact in July 2016. <i>See full summary of the Dominion Virginia Power case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Courts	
U.S. District Court for the Eastern District of Virginia	
Relevant Dates	
11/6/15: Motion to Dismiss denied 5/20/16: Sierra Club filed a Motion for Partial Summary Judgment 6/2/16: Virginia Electric and Power Company (dba Dominion Virginia Power) filed a Motion for Summary Judgement	
Case Names	Issue – Application of CWA §404 to farming operations
<i>Duarte Nursery v. Corps of Engineers, Members of the Board of the Central Valley Regional Water Quality Control Board, 2:13-cv-02095</i>	<i>The following summary is provided in part by Anthony Francois from the Pacific Legal Foundation, attorneys for the Plaintiff:</i> On February 25, 2013, the Corps sent a cease and desist letter to Duarte, ordering suspension of farming operations on a parcel of land in Tehama County, California, based on alleged violations of the Clean Water Act during farming operations. The cease and desist order "determines that [plaintiffs] have discharged dredged or fill material into seasonal wetlands, vernal pools, vernal swales, and intermittent and ephemeral drainages, which are waters of the United States, without a . . . permit. . . . Since a DA [Department of Army] permit has not been issued authorizing this discharge, the work is in violation of the Clean Water Act." On April 23, 2013, the Central Valley Regional Water Quality Control Board issued a notice of violation, stating that RWQCB staff inspected the Property on December 6, 2012, and determined "you have discharged dredged or fill material into wetlands and other waters associated with Coyote Creek, a water of the U.S., without a permit." The notice of violation states plaintiffs are in violation of the Clean Water Act for failing to obtain a permit from the Corps and a State Water Quality Certification under Section 401 of the Act, and directs plaintiffs to submit a plan for mitigating the impacts of the unauthorized fill. The notice of violation threatens additional enforcement
Courts	
U.S. District Court Eastern District of California	
9 th Circuit, 16-16325	
Relevant Dates	
8/20/14: Complaint filed.	

3/23/15: Motion to Dismiss denied in part and granted in part. 10/23/15: Duarte filed Motion for Summary Judgment 11/20/15: Oral arguments on MSJ 6/10/16: MSJ decision, Duarte violation of CWA 7/27/16: Duarte appealed to the 9th Circuit	action, including daily fines of up to \$10,000.00. Duarte filed suit, claiming due process violations. The United States counterclaimed, claiming violations of the CWA and seeking civil penalties. On June 10, 2016, the court ruled on a Motion for Summary Judgment that Duarte violated the Clean Water Act by plowing its property, even though the Act exempts normal farming practices, 33 C.F.R. §323.2(f) and §323.2(d)(3)(iii). The Court rejected the Agency’s defense of sovereign immunity on the dual grounds that (1) where a party raises constitutional challenges to agency action the action at issue does not need to be "final agency action" and (2) a cease and desist order would constitute a final agency action sufficient to trigger APA review in any case. However, the Court found that a strongly worded cease and desist letter that merely points to the possibility of future enforcement is not a deprivation of property, and without deprivation there can be no due process claim. The Court found that Duarte had knowledge of a third party draft delineation map and report, indicating the locations potential acres of pre-jurisdictional waters and recommending a Corps verification of the delineations prior to any grading activities. The court reviewed precedent holding that soil is a pollutant, and that plaintiffs caused the soil to be loosened and tilled with a ripper, which the court considered a “point source” following case precedent, in a way that created furrows and ridges, moving the soil horizontally and causing it to be redeposited into waters of the United States, in areas of wetlands delineated on the map. Thus, the activities discharged a pollutant without a permit in violation of the CWA. The court then found that the wetlands had a significant nexus and hydrologic connection to Coyote Creek and downstream waters of the U.S. The exemptions did not apply where farming has been discontinuous, finding a 24-year gap in active farming operations, and noting that grazing operations in the interim were not analogous to farming. On July 27, 2016, Duarte appealed its 1st Amendment retaliation claim to the 9th Circuit, also requesting a stay of the remaining trial court proceedings pending the appeal. In August, the Corps moved to dismiss the appeal on sovereign immunity grounds, which Duarte opposed, arguing that success on the merits would bar the government from further pursuing a retaliatory Clean Water Act enforcement against Duarte, and relying on constitutional waiver of immunity in <i>Presbyterian Church v. U.S.</i>, 870 F.2d 518 (9th Cir. 1989) <i>See full summary of the Duarte case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Case Names	Issue - EPA’s/USACE’s Waters of the United States Rule
<i>North Dakota, et al. v. EPA et al.</i>, (D. N. Dak.), Case 3:15-cv-59 <i>Texas, et al. v. EPA et al.</i>, (S. D. Tex.), Case 3:15-cv-162 <i>Georgia et al. v. EPA</i> (11th Cir) Case 2:15-cv-79 Consolidated 33 USC §1369 Petitions in 6th Circuit (Ohio) (from 2nd, 5th, 6th, 8th, 9th, 10th 11th and D.C. Circuit Courts): <i>Murray Energy Corp. v. EPA</i>	On June 29, 2015, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) published their Final Rule on the Waters of the United States (WOTUS) in the Federal Register (80 Fed. Reg. 37054). From June 29 to July 31, 69 plaintiffs filed 11 lawsuits, including 15 WSWC member states: Alaska, Arizona, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico (agencies), North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming. Other plaintiffs include 15 additional states, 14 industrial groups, as well as environmental groups. Simultaneous petitions were filed in 2nd, 5th, 6th, 8th, 9th, 10th 11th and D.C. Circuit Courts from most of the same plaintiffs out of an “abundance of caution,” since certain EPA actions are generally exclusively reviewable by the Circuit Courts of Appeals under 33 USC §1369(b)(1). These petitions were consolidated before the 6th Circuit by order of the Multi-District Litigation (MDL) Panel. On February 22, a divided 6th Circuit panel ruled 2-1 that it has jurisdiction over the consolidated appellate court cases challenging the EPA and Corps’ WOTUS rule, rather than the District Courts, and denied the petitioners’ motions to dismiss. The 6th Circuit’s nationwide stay on the WOTUS rule implementation remains in effect. On July 1, Oklahoma’s Attorney General appealed the U.S. District Court for Northern Oklahoma decision that it lacked jurisdiction to hear the case following the 6th Circuit’s “splintered” decision ruling that it had jurisdiction to hear the WOTUS rule challenges. Oklahoma argued that the 6th Circuit’s decision does not control the outcome of the case, noting that “...courts are obligated to

Courts	
6 th Circuit, 11 th Circuit, District North Dakota, Southern District of Texas	independently assess jurisdiction in each case that comes before them.” It also added that oral arguments regarding jurisdiction in the 10th Circuit would help the court make the determination whether the state’s challenge to the WOTUS rule falls within the narrow category of EPA Administrator actions subject to direct appellate court review.
Relevant Dates	
6/29/15: EPA & Corps published WOTUS rule (80 Fed. Reg. 37054); various lawsuits filed, including 15 WSWC member states: Alaska, Arizona, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico (agencies), North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming, and 15 other states. 2/22/16: A divided 6th Circuit panel ruled 2-1 that it has jurisdiction over the MDL consolidated appellate court cases, under 33 USC §1369(b)(1); nationwide stay of WOTUS rule remains in effect 3/3/16: Corps & EPA moved to dismiss <i>North Dakota et al. v. EPA</i> 4/21/16: 6th Cir. denied 6 petitions for en banc hearing 5/5/16: Corps & EPA moved to dismiss <i>State of Texas v. EPA</i> from U.S. Dist. Ct. 5/9/16: 6th Cir. designated <i>Murray Energy Corporation v. EPA</i> (No. 15-3751) as the lead case for the 22 consolidated petitions for review 5/15/16: Additional briefing filed with 11th Cir. in <i>State of Georgia v. McCarthy</i> re: 6th Cir. §1396(b)(1) jurisdiction	On August 16, the 11th Circuit stayed the WOTUS rule appeal proceedings in <i>Georgia et al. v. McCarthy</i>, ruling that, “It would be a colossal waste of judicial resources for both this Court and the Sixth Circuit to undertake to decide the same issues about the same rule presented by the same parties.” In the months since the 6th Circuit issued its order holding that it has original jurisdiction under CWA §1369(b)(1), the parties “have devoted considerable time and effort to the task of paring down the contents of the administrative record (which is more than a million pages long) and to developing a workable briefing schedule for briefing the merits of the challenges to the rule.” The 11th Circuit exercised its discretion to hold the appeal in abeyance, considering that a decision by the 6th Circuit would likely “narrow and refine, if not render moot, at least some of the issues we asked the parties to brief.” On August 19, EPA and U.S. Army Corps of Engineers (Corps) filed their response brief to dismiss <i>Oklahoma v. EPA</i>, (10th Circuit), arguing that the 6th Circuit has exclusive jurisdiction over the challenges to the Clean Water Rule. “Plaintiffs are entitled to their day in court, and they shall have it—in the Sixth Circuit. They are not entitled to two separate days, in two separate courts, on the same claims.” They assert that even if the 6th Circuit’s decision were not controlling, under 33 U.S.C. §1369(b)(1), “...the Clean Water Act precludes district-court review of the limitations established by the Clean Water Rule.” Citing the recent decision in <i>Georgia et al. v. EPA</i>, they added, “Parallel court-of-appeals and district-court proceedings would also create protracted and duplicative litigation over preliminary matters in cases, such as this one, that are based on a large and complex administrative record.” On September 2, the National Association of Manufacturers (NAM) petitioned the U.S. Supreme Court for a writ of certiorari, appealing the 6th Circuit’s decision that the challenge to the Waters of the United States (WOTUS) rule, filed by states, municipalities, environmental groups, and industries, falls under the Clean Water Act’s (CWA) judicial review provision, 33 U.S.C. § 1369(b)(1). NAM noted, “Although two [of the three 6th Circuit] panel members concluded that §1369(b)(1) [should preclude 6th Circuit jurisdiction], one of them reasoned that he was bound by ‘incorrect’ circuit precedent to take jurisdiction under §1369(b)(1)(F), which requires that agency actions ‘in issuing or denying any permit under’ §1342 be reviewed by the court of appeals.” Arguing against this interpretation of the statute, NAM said: “What should be a straightforward gatekeeping provision has in this and other cases generated widespread judicial disagreement, caused needless delay, and wasted valuable resources for no substantive purpose.” NAM also argued that allowing the 6th Circuit’s decision to stand denies the parties and the courts of the benefits of multilateral review of agency rulemaking. See full summary of the WOTUS cases through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016 and in the North Dakota briefing binder, Tab V, July 2016.

5/24/16: U.S. District North Dakota denies motion to dismiss, but issues a stay pending further 6th Cir. or S. Ct. decision	
Case Names	Issue – BLM’s Hydraulic Fracturing Rule
<i>Wyoming and Colorado v. US Department of the Interior and Bureau of Land Management</i>, U.S. District Court Wyoming, Case 2:15-cv-43 Wyoming et al. v. Jewel, 10th Cir. #16-8068	On March 20, 2015, the Department of the Interior finalized regulations to govern hydraulic fracturing on federal land. (80 FR 16128). The States of Wyoming, Colorado, and North Dakota, as well as the Ute Indian Tribe, the Independent Petroleum Association of America, and the Western Energy Alliance, sued over the rule, arguing that the rule exceeds the BLM’s jurisdiction as limited by Congress under the 2005 Energy Policy Act, leading to the irreparable harm of an immediate loss of the states’ “exclusive sovereignty over hydraulic fracturing,” and that the rule is unnecessarily duplicative of state regulations On September 30, 2015 the District Court issued a nationwide preliminary injunction, enjoining the BLM from enforcing its final fracking rule, and the Administration appealed the injunction on December 10 to the 10th Circuit.
Courts	
U.S. District Court of Wyoming 10th Circuit	
Relevant Dates	
3/26/15: Case filed 4/29/15: North Dakota intervenes 05/29/15: Wyoming and Colorado file Motion for Preliminary Injunction to halt the June 24 implementation of BLM’s hydraulic fracturing rule until the case is decided 6/16/15: Utah intervenes 06/23/15: D. Wyo. issues temporary stay 9/30/15: D. Wyo. issues nationwide preliminary injunction.	On June 21, 2016 the U.S. District Court for Wyoming issued its decision, ruling that the DOI and BLM have no authority from Congress to regulate fracking on public and tribal lands. The Court explained that “regulation of an activity must be by Congressional authority, not administrative fiat.” The Court reviewed agencies’ sources of authority, noting that the provisions they cited merely: (1) dictated the terms of leases; (2) protected petroleum resources from the effects of water incursion and waste; and (3) required balanced management of the land to protect multiple uses and competing interests and prevent degradation of resources. The Court said none of the sources cited provided BLM with specific authority to regulate hydraulic fracturing or underground injections of any kind, nor did Congress delegate authority for environmental protection of underground water resources to BLM. The U.S. Environmental Protection Agency (EPA), which does have such delegated authority, does not have the specific authority to regulate hydraulic fracturing following the limitations enacted in the 2005 Energy Policy Act, which “expressly and unambiguously” revised the definition of “underground injection” to exclude most hydraulic fracturing operations. The Court called BLM’s fracking rule an attempted end-run around those limitations, stating: “[I]t cannot be reasonably concluded that Congress intended regulation of the same activity...” through a more general statute administered by BLM. Chevron deference is not warranted in the absence of a specific statutory grant of authority to BLM, nor where Congress has further spoken through an express removal of agency authority to regulate fracking. “No matter how important, conspicuous, and controversial the issue, an administrative agency’s power to regulate in the public interest must always be grounded in a valid grant of authority from Congress.” The Court also noted: “BLM’s present characterization of their ‘regulation’ of oil and gas well stimulation techniques to protect groundwater as ‘longstanding’ is without merit. Moreover, an agency’s regulatory authority emanates from Congress, not an agency’s self-proclaimed prior regulatory authority.” On June 24, BLM appealed the decision to the 10th Circuit. On August 19, bipartisan former officials from the Department of the Interior (DOI) filed an amicus brief in Wyoming et al. v. Jewel (10th Circuit), arguing that the Bureau of Land Management (BLM) has solid legal grounds for authority “to promulgate uniform rules to protect federal lands and natural resources from the risks posed by hydraulic

12/10/15: Agencies appeal the injunction 6/21/16: D. Wyo. issues ruling that agencies lack authority from Congress to create fracking rule	fracturing.” The amicus group includes Lynn Scarlett, Deputy Secretary for Interior under George W. Bush; David Hayes, Deputy Secretary under Presidents Clinton and Obama; James Caswell, BLM Director under Bush; and Michael Dombeck, BLM Acting Director under Clinton and Special Assistant and Science Adviser under George H.W. Bush. The group asserts that the decision of the District Court of Wyoming threatens the ability of the DOI to fulfill Congress’ mandate to protect federal lands. They argue that Congress’ decision to remove fracking from U.S. Environmental Protection Agency’s (EPA) oversight under the Safe Drinking Water Act has no bearing on Interior’s long-standing authority over oil and gas activities on public lands that are under the stewardship of the federal government. The group relies on authorities granted by the Constitution’s Property Clause, “which grants Congress plenary authority over the land that the federal government superintends on behalf of all Americans,” as well as broad organic statutes, including the Mineral Leasing Act (MLA) and the Federal Land Policy and Management Act (FLPMA), which “grant the Department of the Interior broad authority to protect federal lands from injury caused by the activities of lessees of that land, including lessees who wish to conduct hydraulic fracturing operations on federal lands.” <i>*WGA’s energy resolution (#2013-09) recognizes that states have effectively regulated hydraulic fracturing and that “redundant federal regulation is not required.” (WSW #2019)</i> <i>See full summary of the BLM Fracking Rule case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016</i>
Case Names	Issue – EPA’s Water Transfers Rule
<i>Friends of the Everglades v. EPA</i>, 699 F.3d 1280 (11th Cir. 2009) <i>Catskills Mountains Chapter of Trout Unlimited, et al v. EPA</i>, (SDNY 2014) (appeal to 2nd Cir.) <i>Oregon Natural Resources Center Action v. U.S. Bureau of Reclamation</i>, No. 12-35831 (9th Cir. 2015)	In 2008, following a decision in <i>South Fla. Water Mgmt. Dist. v. Miccosukee Tribe</i>, 541 US 95 (2004), EPA promulgated its “Water Transfers Rule” (40 C.F.R. §122.3(i)) clarifying that certain water transfers do not require NPDES permits under the CWA. When EPA finalized the rule in 2008, opponents immediately challenged it in the Southern U.S. District Court of New York (SDNY). Protective challenges filed in multiple circuits were consolidated in the 11th Circuit, and the SDNY challenge was stayed pending the outcome of the 11th Circuit action. The 11th Circuit upheld the Rule in <i>Friends of the Everglades v. S. Fla. Water Mgmt. Dist.</i>, 570 F.3d 1210 (11th Cir. 2009). Following precedent in the related Lake Okeechobee case, the 11th Circuit dismissed the consolidated challenges for lack of original subject matter jurisdiction. The SDNY case was decided on March 28, 2014, vacating EPA’s rule to the extent it is inconsistent with the statute – in particular the phrase “navigable waters” – and remanded the Rule to the extent EPA did not provide a reasoned explanation for its interpretation.
Courts	EPA subsequently appealed the SDNY’s decision to the 2nd Circuit, together with 11 western intervening states and western water providers. Opening briefs were filed by EPA and the western states in September 2014, and various parties involved in the action filed response and reply briefs in early 2015. The states assert <i>inter alia</i> that the Supreme Court’s Clear Statement Rule and Avoidance Canon preclude altering traditional federal deference to state water law by extending NPDES permitting to water transfers authorized by the States.
Southern U.S. District Court of New York (SDNY) 2nd, 11th and 9th Circuit Courts of Appeals	
Relevant Dates	On December 1, the 2nd Circuit Court of Appeals held oral argument on EPA’s Water Transfers Rule. The decision will likely contribute to a split among the circuits, facilitating an appeal to the Supreme Court to resolve the issue.

Special thanks to Peter Nichols, Special Asst. Attorney General for Colorado and New Mexico, who provided much of the information used in the summary of this litigation. See full summary of Catskills Mountains Chapter of Trout Unlimited, et al v. EPA in the [Tulsa](#).

	Oklahoma briefing binder, Tab U, April 2015 and through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016, including related litigation in a 9th Circuit case, <i>Oregon Natural Resources Center Action v. U.S. Bureau of Reclamation</i>. *WSWC Policy #342, generally supporting EPA’s water transfers rule. WGA Resolution #14-04, Paragraph B(2)(c), generally supporting EPA’s water transfers rule. Joint letter from WGA and WSWC urging EPA to appeal the SDNY decision dated 5/12/14.
Case Names	Issue - Abandoned Hard Rock Mines
New Mexico v. EPA et al., 1:16-cv-465 New Mexico v. Colorado Navajo Nation v. EPA, 1:16-931	On May 23, New Mexico filed a lawsuit in the U.S. District Court in New Mexico (1:16-cv-465) against the U.S. Environmental Protection Agency (EPA) and mining companies for injuries relating to releases of heavy metals and waste from the Gold King Mine and Sunnyside Mine. Claims for relief include: (1) recovery under CERCLA, 42 USC §9607(a) for costs incurred in the state’s response to the contamination; (2) a declaratory judgment of liability for future response costs under CERCLA, 42 USC §9613(g)(2); (3) injunctive relief under RCRA, 42 USC §9672(a)(1)(B) to require the defendants to eliminate the danger of further contamination and require a full investigation and remediation of downstream sites; (4) injunctive relief to compel EPA to abate pollution from hundreds of inactive and abandoned mines discharging pollutants into the river under CWA, 33 USC §1365(h), due to Colorado’s failure to issue NPDES permits for the mines; and (5) tort claims against the mining companies for public nuisance, trespass, negligence and gross negligence.
Courts	
U.S. Supreme Court U.S. District Court, District of New Mexico	On June 20, New Mexico filed a lawsuit in the U.S. Supreme Court against Colorado over responsibility for downstream contamination of New Mexico watersheds from the 2015 Gold King Mine spill. New Mexico claims relief for (1) cost recovery under CERCLA, 42 USC §9607(a); (2) liability under CERCLA, 42 USC §9613(g)(2) for recovery of further costs; (3) a full investigation and remediation of downstream sites under RCRA, 42 USC §6972(a)(1)(B); and (4) tort claims of public nuisance, negligence and gross negligence. These claims mirror several of the claims filed against EPA and mining companies in the U.S. District Court of New Mexico. (See WSW #2193).
Relevant Dates	
	The CERCLA and RCRA statutes grant exclusive jurisdiction to U.S. District Courts, but the U.S. Supreme Court has exclusive jurisdiction over controversies between states under 28 USC §1251(a). New Mexico notes that this conflict of jurisdiction appears to be a matter of first impression for the Court. However, since its claims are intertwined with its EPA lawsuit, New Mexico suggested the Court consider referring the case to a Special Master for all discovery and pre-trial proceedings to conserve judicial resources and to ensure consistent pre-trial determinations in both lawsuits. On August 16, the Navajo Nation Department of Justice filed suit against EPA and mining companies in the U.S. District Court of New Mexico (No. 16-931). Although EPA has said that it is taking full responsibility for the Gold King Mine spill in August 2015, the tribe says that “efforts to be made whole over the past year have been met with resistance, delays, and second-guessing.” Recent payments reimbursing initial cleanup costs don’t address the full costs of the spill, according to the tribe. The lawsuit seeks declaratory and injunctive relief, with past and future cost recovery from all parties under CERCLA 42 USC §§9601, 9607, 9613, and tort claims of negligence, trespass, and nuisance against the mining companies.
Case Name	Issue – Rio Grande Compact
<i>Texas v. New Mexico and Colorado</i>	The state of Texas filed a lawsuit in the United States Supreme Court against the states of New Mexico and Colorado alleging that New Mexico is violating the 1939 Rio Grande Compact, which governs the distribution of Rio Grande water among the three states. New Mexico denies this allegation. The United States filed a motion to intervene on the grounds that the case affects the Department of

Courts	Interior’s management of the Reclamation’s Rio Grande Project, its calculation of diversion allocations, and its responsibility to deliver water to intended Project beneficiaries and to Mexico pursuant to Treaty. New Mexico filed a motion to dismiss on the grounds that the language of the compact could not provide the relief requested by Texas, and that the United States is not a party to the Compact. The case was referred to Special Master in November 2014. Two political subdivisions (water districts supplied by and the sole direct beneficiaries of the Rio Grande Project) of New Mexico and Texas also sought to intervene on the grounds that they have compelling interest in the case not properly represented by their respective states. On June 28, Special Master Gregory Grimsal issued the public draft of his first special report in <i>Texas v. New Mexico</i> (#220141). The draft report provides extensive historical context for the local, interstate, and international uses of and disputes over the Rio Grande, as well as attempts to resolve problems through treaty, compact and legislative efforts. The report makes recommendations to the U.S. Supreme Court on several preliminary motions, including: (1) denying New Mexico’s Motion to Dismiss Texas’ complaint, which alleges a claim under the text and structure of the compact; (2) rejecting the United States’ federal Reclamation claims as outside the interstate compact, but recommending that the Supreme Court exercise its discretion to hear the claims together since they impact the same project; and (3) denying the motions to intervene from the Elephant Butte Irrigation District and the El Paso County Water Improvement District No. 1, as both districts failed to satisfy the burden to establish compelling interests separate from the interests of New Mexico or Texas. <i>See full summary of the Rio Grande Compact case through the end of February 2016 in the Washington, D.C. briefing binder, Tab N, March 2016, including the positions of Texas and New Mexico.</i>
U.S. Supreme Court	
Relevant Dates	
1/8/13: Texas filed its complaint (motion for leave to file granted 1/27/14)	
2/27/14: United States Motion to Intervene	
12/3/14: Elephant Butte Irrigation District Motion to Intervene	
4/22/15: El Paso County Water Improvement District No. 1 Motion to Intervene	Issue – Indian Water Rights On June 29, the Crow Creek Sioux Tribe filed suit in the U.S. Court of Federal Claims against the U.S. government, seeking damages of \$200M for failure to fulfill its trust responsibilities, which include “refraining from self-dealing” and “providing accountings and consulting with the tribe about management of water resources on its reservation.” The tribe also sued for Fifth Amendment taking of the tribe’s water without just compensation. The complaint alleges that the U.S. has “squandered” the tribe’s water and ignored its reserved water rights in favor of non-Indian use, reclamation, urban development and consumption. Additionally, the U.S. has failed to appropriately manage and protect the tribe’s water rights, “and has never attempted to even quantify or render an accounting of those rights.”
6/30/16: Status conference with the Special Master	
Case Name	
Crow Creek Sioux Tribe v. U.S., 1: 16-cv-760	
Court	
U.S. Court of Federal Claims	
Relevant Dates	

Tab N – 2017 Nationwide Permits



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August 1, 2016

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Re: Comments on Proposal to Reissue and Modify Nationwide Permits: Docket Number COE-2015-0017

The States of North Dakota and Arizona, Arkansas, Colorado, Idaho, Louisiana, Montana, Nebraska, Nevada, South Dakota, and Texas ("States") respectfully submit these comments on the U.S. Army Corps of Engineers ("Corps") Proposal to Reissue and Modify Nationwide Permits ("NWPs"), 81 Fed. Reg. 35,186 (June 1, 2016) ("Proposed Rule").

North Dakota is interested in this proceeding because it administers delegated permitting programs under the federal Clean Water Act's ("CWA") system of cooperative federalism. North Dakota also routinely requires permits under these provisions for road maintenance and construction, utilities, and other state programs and projects and is thus familiar with the costs and benefits associated with the NWP program. The other undersigned States are interested in this proceeding for one or both of these same reasons and also because of the need to obtain State 401 water quality certification of the NWPs.

The States appreciate the Corps' efforts to insure that the NWPs are timely reissued by March 19, 2017, which is necessary to ensure stability and certainty to the state and its citizens. Sixty days, however, is not sufficient time to provide appropriate and detailed feedback regarding the numerous and complex questions, including the potential impact on the applicability and efficiency of the NWP program of the highly contentious definitional change to the "waters of the United States" presented in the Corps' Federal Register Notice.

That definitional change is set forth in the Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (June 29, 2015), codified at 33 CFR 328.1, *et seq.* ("WOTUS Rule"), issued on June 29, 2015, by the Corps and U.S. Environmental Protection Agency ("EPA"). Given the ongoing legal challenges to the WOTUS Rule and the nationwide stay of that Rule issued by the U.S. Court of Appeals for the Sixth Circuit, discussed further below, the States strongly urge the Corps to defer action on the Proposed Rule – and extend the comment period – until ninety days after final resolution of that litigation. The Corps should also re-issue all existing NWPs, without change, for a comparable period. Any other course may lead to new NWPs that are legally infirm from the outset due to their relationship to and reliance on the potentially invalid WOTUS Rule.

If the Corps nevertheless proceeds to issue new NWP's in accordance with the Proposed Rule, it must take appropriate action to limit the disruption that will occur if the WOTUS Rule is finally adjudicated to be invalid.

A. It is premature to consider and incorporate elements of the WOTUS Rule into the NWP's in light of the United States District Court and Sixth Circuit proceedings.

The WOTUS Rule, which redefined the phrase "waters of the United States" as used in the Clean Water Act, had an effective date of August 28, 2015, but was stayed by order of the Sixth Circuit on October 9, 2015, *In re E.P.A.*, 803 F.3d 804 (6th Cir. 2015). Extending the comment deadline for the Proposed Rule is required by this stay. Under established precedent, the stay order "halt[s] or postpone[s]" the WOTUS Rule, including "by temporarily divesting [the WOTUS Rule] of enforceability." *Nken v. Holder*, 556 U.S. 418, 428 (2009). In other words, the stay "suspend[s] the source of authority to act" by "hold[ing] [the WOTUS Rule] in abeyance." *Id.* at 427-28. That means the Corps possesses *no authority* to take any action that relies on the WOTUS Rule, including issuing new revised NWP's.

In addition, in issuing the stay, the Sixth Circuit observed that petitioners challenging the WOTUS Rule had "demonstrated a substantial possibility of success on the merits of their claims." *In re E.P.A.*, 803 at 807. The court observed that "it is far from clear that the new Rule's distance limitations are harmonious with" applicable case law and that "the rulemaking process by which the distance limitations were adopted is facially suspect." *Id.* There is thus a "substantial possibility" that the WOTUS Rule will be struck down by the court. *Id.* Similarly, the United States District Court for the District of North Dakota issued a preliminary injunction against enforcement of the rule, finding that "[t]he States are likely to succeed on the merits of their claim that the EPA has violated its grant of authority in its promulgation of the Rule," *N. Dakota v. U.S. E.P.A.*, 127 F. Supp. 3d 1047, 1051 (D.N.D. 2015); there is "irreparable harm" because "the States will lose their sovereignty over interstate waters" and will "incur monetary losses as a result of an unlawful exercise of regulatory authority," *id.* at 1059; and the balance of harms favors the States because the harm is "both imminent and likely," *id.* at 1060.

The Sixth Circuit held that it was inadvisable for federal and state agencies and regulated parties to go to the expense and effort of bringing their procedures and permits into conformance with the WOTUS Rule when there was a good chance that it would not survive judicial review: "the sheer breadth of the ripple effects caused by the Rule's definitional changes counsels strongly in favor of maintaining the status quo for the time being." *In re E.P.A.*, 803 at 807. In fact, the judicial stays themselves "preserve the status quo." *Cobell v. Kempthorne*, 455 F.3d 301, 314 (D.C. Cir. 2006). The States respectfully submit that the same principle should guide the Corps here. The Corps should defer modifying any of the NWP's and instead re-issue the existing NWP's for a period ending ninety days after legal challenges to the WOTUS Rule conclude.

It is both premature and unwise to change the NWP structure to incorporate new regulations that are currently stayed and that may well never be applied. This change is not consistent with the Sixth Circuit's decision to maintain the status quo until the issue can be

thoroughly adjudicated.¹ Worse, if the WOTUS Rule is struck down after it has been incorporated into the NWP, this could cast doubt on the validity of the entire NWP program, giving rise to uncertainty and unnecessary litigation.

B. Incorporating elements of the WOTUS Rule into the Proposed Rule will have a significant impact on the Corps' cumulative impacts analysis.

The States strongly recommend against the proposed modifications to existing NWP definitions, specifically any amendment that would promote consistency with the WOTUS Rule. An attempt to incorporate the WOTUS Rule may prove fatal to the complex and detailed assessment of cumulative effects underlying the Corps' conclusion that the issuance and reissuance of NWPs referenced in this proposal presents a "minimal cumulative adverse effect on the environment." The legal sufficiency and accuracy of the Corps' assessment of cumulative effects, undertaken at the national, regional, and project specific levels, would be seriously questioned and subject to extensive legal scrutiny.

The National Environmental Policy Act ("NEPA") requires that the Corps conduct a complex and comprehensive cumulative impacts analysis when it issues or reissues an NWP in order to ensure the NWP will have "only minimal cumulative adverse effect on the environment."² The Corps conducts an assessment of cumulative effects at three levels – national, regional, and local (the verification stage). The Council on Environmental Quality's ("CEQ") regulations, which implement the procedural provisions of NEPA, define cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."³

CEQ's guidance on cumulative impacts recognizes the inherent difficulty in identifying and quantifying a proposed action's effect on the labyrinthine network of interrelationships that comprise an ecosystem and recommends a strategy to analyze cumulative impacts. CEQ's handbook, "Considering Cumulative Effects Under the National Environmental Policy Act," states that determining the cumulative environmental consequences of an action, "requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern," and stipulates that analysts "tease from the complex networks of possible interactions those that substantially affect the resource."⁴ Scoping is regarded as the "key to analyzing cumulative effects: it provides the best opportunity for identifying important cumulative effects issues, setting appropriate boundaries for analysis, and identifying relevant past, present, and future actions."⁵

¹ *Id.*

² 33 U.S.C. 1344(e)(1). If an NWP authorizes the discharge of dredged or fill material into "waters of the United States," the Corps also conducts a national-scale cumulative impacts analysis in accordance with the Clean Water Act's (CWA) 404(b)(1) Guidelines. *See* 40 CFR 230.7(b).

³ 40 CFR § 1508.7.

⁴ "Considering Cumulative Effects Under the National Environmental Policy Act," Council on Environmental Quality Executive Office of the President (January 1997) at vi, available at http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf

⁵ *Id.* at v.

The CEQ handbook sets forth a detailed, step-by-step process by which scoping should be undertaken. The first step is identifying significant cumulative effects associated with the proposed action, including identifying the affected resources (including species and habitats), ecosystems, and human communities.⁶ The second and arguably most critical step of the scoping process is establishing the geographic boundaries of the analysis.⁷ Defining the geographic scope is essential to an accurate analysis of impacts to proximate and related resources and ecosystems. The appropriate geographic boundary for a cumulative effects analysis is referred to as a “project impact zone.”⁸ For water quality resources, “the project impact zone would be limited to the hydrologic system that would be affected by the proposed action,” including a stream, watershed, river basin, estuary, aquifer, or various parts thereof.⁹ Thus, due to the exceedingly complex nature of identifying and measuring cumulative impacts, CEQ has established a specific, step-by-step scoping methodology, involving the identification of affected resources and the establishment of a project impact zone.

In light of the exceedingly difficult task of identifying and measuring a proposed action’s cumulative environmental impacts on a complex resource or ecosystem – and the nearly innumerable intricate relationships that may be affected – any attempt to promote consistency with the WOTUS Rule, or incorporate certain highly contentious and unsettled WOTUS Rule definitions, would have a major deleterious impact on the Corps’ cumulative impact analysis and will render the sufficiency and scope of the Corps’ analysis susceptible to additional legal challenges.

As noted above, CEQ regulations stipulate that the first two steps of scoping, which is the “key to analyzing cumulative effects,” are properly identifying the affected resource and establishing a project impact zone. However, numerous courts and commentators have noted that the WOTUS Rule potentially significantly expands the definition of what is considered a federally-regulated water or wetland. The Sixth Circuit has stated that the WOTUS Rule will have a “pervasive nationwide impact...on state and federal regulation of the nation’s waters,” and will have a significant “impact on the public in general, implicated by the Rule’s effective redrawing of jurisdictional lines over certain of the nation’s waters.” *In re E.P.A.*, 803 F.3d 808. The District of North Dakota has noted that the WOTUS Rule “asserts jurisdiction over waters that are remote and intermittent waters,” and “the breadth of the definition of a tributary set forth in the Rule allows for regulation of any area that has a trace amount of water so long as ‘the physical indicators of a bed and banks and an ordinary high water mark’ exist.” *N. Dakota v. U.S. E.P.A.*, 127 F.Supp. 3d at 1056. Additionally, numerous commentators have noted that various elements of the WOTUS Rule, including the revised definitions of “tributary” and “adjacent waters,” differ significantly from the concept of federally-regulated waters stipulated in earlier regulations and will markedly increase the scope of what is considered a federally-regulated water and related watershed and ecosystem.

⁶ *Id.* at 11.

⁷ *Id.* at 12.

⁸ *Id.* at 15.

⁹ *Id.* Please note that “Fishery Resources,” “Vegetative Resources,” “Coastal Zone,” and “Recreation” resources include an analysis of watershed, stream, river basin, estuary, lake, and coast region impacts.

As such, the WOTUS Rule, even if it is not invalidated, significantly alters the scope of federally-designated jurisdictional waters from what is currently designated so by the Corps. This potential change of jurisdictional areas, including the possible inclusion of large swaths of previously non-federal waters and lands, comprising entirely new and distinct ecosystems, renders the necessary step of scoping impossible. No affected resource could be identified nor project impact zone established, rendering the first two steps in the CEQ cumulative impacts assessment process moot. How can resources be properly identified and project impact zones established if the waters that serve as the critical element of an ecosystem are expanded beyond the boundaries employed for the existing underlying cumulative impact analysis, set forth in the draft decision document for each NWP?

The fact that the incorporation of the WOTUS Rule would preclude completion of the necessary first two steps in CEQ's cumulative impacts assessment scoping process would render the entirety of the underlying environmental assessment particularly susceptible to legal challenges. The issuance and impact of each NWP could be subject to extensive legal scrutiny, and the underlying rationale of the NWP program to process certain applications with as little paperwork and delay as possible would be undercut.

C. In light of the Supreme Court's stay of the Clean Power Plan, it is premature to consider changes in the terms and conditions of NWPs that may be affected by its implementation.

On February 9, 2016, the Supreme Court of the United States ("Supreme Court") stayed the EPA's rule entitled "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" (referred to hereafter as the "Clean Power Plan"). *State of West Virginia v. EPA*, U.S. Supreme Court Order No. 15A773 (Feb. 9, 2016). North Dakota submitted one of the applications for stay that was granted. Here again, the stay reflected a finding by the Court that challenges to the Clean Power Plan regulations have a good likelihood of success on the merits. The Supreme Court stayed the Clean Power Plan through the entirety of the pending D.C. Circuit proceeding and until the Supreme Court disposes of any subsequent petitions for certiorari. Specifically, the stay is in effect until the earliest of the following occurs: 1) the D.C. Circuit decides the case and no petition for certiorari is filed; 2) the D.C. Circuit decides the case, petition for certiorari is filed, and the Supreme Court denies the petition; or, 3) the D.C. Circuit decides the case, a petition for certiorari is granted, and the Supreme Court decides the merits of the case.

The stay is likely to be lengthy and could well last through 2017 or 2018. The case is scheduled to be heard by the D.C. Circuit en banc on September 27, 2016. Even if the D.C. Circuit issues an opinion with remarkable speed, certiorari briefing at the Supreme Court would almost certainly not be complete before early 2017. If certiorari is granted, the case may be argued in the 2017 Term or perhaps not until the 2018 Term begins in late 2017, and a decision will likely not issue until mid-2017, at earliest, and very possibly not until the end of 2017.

In light of the length of the Supreme Court's stay, which will undoubtedly last beyond the mandatory NWP reissuance date of March 19, 2017, North Dakota strongly recommends against any changes being made to the NWP program to accommodate the provisions of the Clean Power Plan. The Proposed Rule notes that the Corps is seeking comments to changes in the

terms and conditions of various NWPs, including increasing acreage limits and pre-construction notification thresholds, in response to the potential impact of the Clean Power Plan on certain regulated industries. It is premature to consider changes to NWPs in order to incorporate new regulations that are currently stayed and that may well never be applied. To ensure that the NWPs are fully authorized by March 19, 2017, the Corps should either temporarily re-issue the existing NWPs as discussed above, or at least assure that any new NWPs not include any changes, including conditions or procedures, associated with the Clean Power Plan. The States urge that the proposed changes to the terms and conditions of various NWPs not be considered until judicial review of the Clean Power Plan has been finalized.

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Tab O – National Drought Resilience
Partnership on Climate
Preparedness and Resilience /
WSWC “Cross-walk”

Long-Term Drought Resilience Goals of the National Drought Resilience Partnership

Goal 1: Data Collection and Integration

Goal Leader: Mark Brusberg, U.S. Department of Agriculture

Objective: Agencies shall share data and information related to drought, water use and water availability, including data on snowpack, groundwater, stream flow and soil moisture with State, regional, tribal and local officials to strengthen decision-making to support more adaptive responses to drought and drought risk.

Using existing resources, the Federal Family is working to improve both the quality and volume of products available for drought planning and decision-making. Agencies have intensified their efforts to share data and information related to drought, water use, and water availability (including data on snowpack, groundwater, stream flow, and soil moisture); with the ultimate goal of providing State, regional, tribal, and local officials with the tools necessary to create more adaptive responses to drought and drought risk.

Initial implementation actions include efforts to integrate existing data and information sources, with a focus on improving the usability of current resources and identifying gaps. Additionally, in acknowledgement of the important role of citizen scientists, the Administration is encouraging the public to assist in the collection of weather and climate data and record their experiences with drought. These activities will lay the groundwork for a stronger private and public partnership for identifying and mitigating the impacts of drought on vulnerable communities.

Goal 2: Communicating Drought Risk to Critical Infrastructure

Goal Leader: Katherine Ledesma, National Protection and Programs Directorate, Department of Homeland Security

Objective: Agencies shall communicate with State, regional, tribal, local, and critical infrastructure officials, targeted information about drought risks, including specific risks to critical infrastructure.

Public health, the economy, and our ways of life depend on the reliable functioning of critical infrastructure, including electric power networks, water and wastewater systems, and agricultural production. Critical infrastructure stakeholders at all levels of government and in the private sector must make decisions and tradeoffs that affect their resilience to long-term drought. The Federal Family is committed to providing stakeholders in State, local, tribal, territorial, regional, and private sector roles with the best available information to help them make sound decisions and investments in drought resilience. An essential first step in this process is to assess and describe risks to specific sectors and regions.

The Department of Homeland Security (DHS) is working with other Federal Agencies to strengthen its capability to assess drought impacts to critical infrastructure and provide useful analysis and guides for critical infrastructure stakeholders.

Goal 3: Drought Planning and Capacity Building

Goal Leader: Claudia Nierenberg, National Integrated Drought Information System, National Oceanic and Atmospheric Administration; Co-Leader: Roger Pulwarty, National Integrated Drought Information System, National Oceanic and Atmospheric Administration

Objective: Agencies shall assist State, regional, tribal and local officials in building local planning capacity for drought preparedness and resilience.

Although drought is a normal part of our climate system, its effects are magnified when it is perceived to be an unanticipated surprise. Reducing and effectively mitigating the impacts of drought requires planning and preparation that is integrated into regular practice well before drought conditions become critical, and in ways that carry through specific events into long-term resilience efforts.

With partnerships across mission and science agencies and collaboration across local, state, tribal, and regional entities, Goal 3 partners will focus on opening new opportunities for drought planning and capacity development that bridge the diverse challenges of securing water resources for people, communities, and the environment. This portfolio of Federal activities reaches across sectors and geographies to focus on building connections across various types, stages, and administrative units of drought planning, improving our understanding of drought impacts on ecosystems and strengthening resources for identifying and addressing risks to water supplies, energy, and human health risks associated with dry conditions.

Goal 4: Coordination of Federal Drought Activity

Goal Leader: David Raff, Bureau of Reclamation, Department of the Interior

Objective: Agencies shall improve the coordination and integration of drought-related activities to enhance the collective benefits of Federal programs and investments

Agencies throughout the Federal Government have been taking significant action, working with State, local, and tribal governments along with private entities to help plan, adapt, and mitigate drought. Recognizing the collective benefits of greater integration of these efforts, Federal agencies have been working to coordinate funding and programs, and extend best practices.

Goal 5: Market-Based Approaches for Infrastructure and Efficiency

Goal Leader: Jim Gebhardt, Water Infrastructure and Resilience Finance Center, Environmental Protection Agency

Objective: Agencies shall support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems.

The President's Drought Resilience Goals encourage Federal agencies to use their existing authorities in support of market-based approaches to increase investment in water infrastructure and promote water efficiency. EPA, USDA, and DOI, who are supporting this work, have

established financing centers connected to the Administration's efforts to promote private investment in infrastructure under the President's Build America Investment Initiative.

The first action included in this goal is focused on the work of EPA's Water Infrastructure and Resiliency Finance Center (WIRFC), USDA's Rural Opportunity Investment Initiative (ROI), and DOI's Natural Resource Investment Center (NRIC). The centers are staffed with experts versed in alternative approaches to project finance that include financial partnerships between the public and private sectors. This action seeks to focus and highlight the work of the centers on alternative financing solutions for water infrastructure and efficiency in drought prone areas of the West.

The second and third actions included under this goal are focused on DOI and its efforts to encourage private investors to increase their participation in financing irrigation infrastructure and water markets in the West. These actions include supporting state and local strategies for more flexible water management and disseminating information on water pricing and construction cost repayments. Taken together, the three actions under this goal reflect a concentrated effort by EPA, USDA, and DOI to lower some of the barriers that discourage private investors from participating in financing water infrastructure and trading in water markets.

Goal 6: Innovative Water Use, Efficiency and Technology

Goal Leader: Roger Gorke, Office of Water, Environmental Protection Agency

Objective: Agencies shall support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems

Goal 6 exemplifies the diversity of sectors where drought has a specific impact: from agricultural water-use efficiency, to the needs of the energy sector, to providing clean and safe drinking water for municipalities, to what we can learn from active engagement with our international partners who are also struggling with drought conditions.

The Actions under Goal 6 require significant input and collaboration from stakeholders on the ground in order to ensure that the NDRP is meeting specific needs. Additionally, the Actions under Goal 6 align with actions under the other NDRP Action Plan Goals. For example, Action 4: Highlight Resilience Successes from the Municipal Sector will showcase where cities and towns have successfully implemented actions to build long-term resilience to drought. These successes will serve as case studies that connect to the work under Goal 3 for capacity building and contingency planning. Making these cross-goal connections will continue to break down barriers so the NDRP and all Federal agencies can more effectively support long-term drought resilience at the State, regional, local, and tribal levels.

DRAFT
Crosswalk Summary

On March 21, in conjunction with a White House Water Summit, President Obama issued a Memorandum¹ and Action Plan² describing the role of the National Drought Resilience Partnership (NDRP), a team of federal agencies, in helping communities manage the impact of drought by linking information, such as forecasts and early warnings, with drought preparedness strategies in critical sectors like agriculture, municipal water systems, tourism, and transportation. The Western States Water Council (WSWC) recognizes the challenges of drought and supports many existing programs and opportunities to collaborate with federal agencies to meet those challenges. The NDRP has identified six long-term drought resilience goals that coincide with several positions supported by WSWC.

Goal 1: Data Collection and Integration

NDRP Objective: To share data and information related to drought, water use and water availability, including data on snowpack, groundwater, stream flow and soil moisture, to strengthen decision-making to support more adaptive responses to drought and drought risk.

WSWC Position: Sound decision-making depends on our ability to understand, monitor, predict, and adapt to droughts, floods, extreme storms, and other weather events and changing conditions.³ All levels of government must prioritize the collection, analysis and open sharing of reliable data regarding water availability, quality, and usage given its importance to research for sound science and data-driven decision-making.⁴ This requires accurate and timely data on precipitation, temperature, altimetry, topography, evapotranspiration, soil moisture, snow depth, snow water content, streamflow, groundwater, land use, land cover, water use, water quality and similar information.⁵

Critical and vital information is gathered and disseminated through a number of important federal programs in need of ongoing funding, including, but not limited to:

- (1) USDA's Natural Resources Conservation Service (NRCS) Snow Survey and Water Supply Forecasting Program, related SNOTEL sites, and its Soil Climate Analysis Network (SCAN), administered by the National Water and Climate Center (NWCC) in Portland, Oregon;
- (2) The U.S. Geological Survey's (USGS) Cooperative Streamgaging Program and National Streamflow Information Program (NSIP), Water-Use Data and Research (WUDR) programs, and ground water measurement and monitoring;

¹ Building National Capabilities for Long-Term Drought Resilience

² Long-Term Drought Resilience: Federal Action Plan Of The National Drought Resilience Partnership

³ WSWC Positions #392, #395

⁴ WSWC Vision, #384

⁵ WSWC Positions #359, #385

(3) Landsat thermal data, archived and distributed by the USGS, and other remotely-sensed data acquired through the National Atmospheric and Space Administration (NASA) and its water-related missions (such as thermal infrared imaging data, InSAR, LiDAR, and future Decadal Survey missions);

(4) The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service and Climate Programs Office, Cooperative Observer network, National Integrated Drought Information System (NIDIS), Regional Integrated Sciences and Assessments (RISA) program, and Hydrometeorological Testbed program on West Coast atmospheric rivers; and

(5) The Environmental Protection Agency's (EPA) National Environmental Information Exchange Network (NEIEN).⁶

WSWC urges the Administration and the Congress to give a high priority to the allocation and appropriation of sufficient funds for these critical, vital programs, which benefit so many, yet have been or are being allowed to erode to the point that it threatens the quantity and quality of basic data provided to a myriad, growing and diffuse number of decisionmakers and stakeholders, with significantly adverse consequences.⁷

Goal 2: Communicating Drought Risk to Critical Infrastructure

NDRP Objective: To communicate targeted information about drought risks, including specific risks to critical infrastructure.

WSWC Position: The Bureau of Reclamation's (Reclamation) hundreds of dams, reservoirs, and related infrastructure are the primary source of water for numerous regions and communities throughout the West, providing essential benefits such as drinking water, irrigation for food and fiber, hydropower, flood control, and recreation, while also supporting wildlife and habitat.⁸ Many of Reclamation's facilities are nearing, or have already exceeded, their design lives and are in need of maintenance, repair, and/or rehabilitation (MR&R), threatening public safety as well as private and public property.⁹ Reclamation estimates that the backlog of projects needed to address its MR&R needs is \$2.6 billion (2014).¹⁰

EPA's Clean Water State Revolving Fund and Drinking Water State Revolving Fund (SRF programs) provide states with capitalization grants that are leveraged with state contributions to offer financial assistance to cities, towns, communities, and others for the planning, design, construction and rehabilitation of drinking water and wastewater-related infrastructure.¹¹ The SRF programs are one of the most successful delivery mechanisms for federal assistance.¹² New competing water and wastewater infrastructure

⁶ WSWC Positions #356, #366, #385, #389, #392

⁷ WSWC Position #385

⁸ WSWC Positions #360, #361

⁹ WSWC Position #360

¹⁰ WSWC Position #360

¹¹ WSWC Position #364

¹² WSWC Position #364

funding programs should not come at the expense of the SRFs, which are a proven model for addressing water and wastewater infrastructure needs.¹³ The nation's wastewater and drinking water infrastructure is aging and in need of repair and replacement, and EPA's most recent estimates (2014) show a total capital investment need of \$298 billion for wastewater and stormwater infrastructure and \$334.8 billion for drinking water infrastructure nationwide over the next 20 years.¹⁴ Restrictions aimed at advancing policy objectives reduce flexibility, increase administrative burdens and capital costs, and hinder the states' ability to manage the SRFs in the most cost effective manner.¹⁵

A 2009 National Committee on Levee Safety (NCLS) report¹⁶ included recommendations for a national program of safety standards and tolerable risk guidelines for levees that have the potential to be inappropriately applied to water supply canals throughout the West.¹⁷ Unlike levees, water supply canals are standalone features that do not share the potential for systemic failure, and any public safety problems are due more to the inability to finance improvements rather than a lack of engineering expertise or design standards.¹⁸ Reclamation and the states are in the best position to address the public safety issues presented by water supply canals because such issues are localized and minor in comparison to the risks associated with inadequately designed and maintained levees.¹⁹

Authorized rural water projects need to be completed to provide clean drinking water to communities facing not only water shortages, but inadequate infrastructure to meet stringent federal water quality mandates.²⁰

Goal 3: Drought Planning and Capacity Building

NDRP Objective: To assist in building local planning capacity for drought preparedness and resilience.

WSWC Position: The Western Governors' Association (WGA)²¹ has taken a lead role in identifying needs and best management practices through an ongoing series of forums,

¹³ WSWC Position #364

¹⁴ WSWC Position #364

¹⁵ WSWC Position #364; restrictions include (1) mandating the use of between 20% and 30% of appropriated funds for principal forgiveness, negative interest loans, grants, or a combination thereof; (2) setting aside 10% of funds for green infrastructure, water or energy efficiency, or other environmentally innovative activities; and (3) "Buy American" provisions that limit the use of SRF funds to purchase certain types of materials and services

¹⁶ Recommendations for a National Levee Safety Program – A Report to Congress from the National Committee on Levee Safety, January 2009.

¹⁷ WSWC Position #363

¹⁸ WSWC Position #363

¹⁹ WSWC Position #363

²⁰ WSWC Position #381

²¹ WGA represents the Governors of 19 Western states and 3 U.S.-flag islands, is an instrument of the Governors for bipartisan policy development, information exchange and collective action on issues of critical importance to the Western United States. See <http://www.westgov.org/about>

webinars and reports.²² Western states, WGA, and the WSWC have a long history of promoting drought preparedness, planning and response, as well as related policy and program development and implementation, in cooperation with federal agencies.²³

In the West, water is often scarce even in “wet” years and drought is a recurring threat to our environment, economy and way of life – affecting not only the West, but also the Nation.²⁴ Many watersheds are already over-appropriated, and new stresses are emerging from climate, population growth, land use changes, increasingly stringent environmental regulations, and water needs for energy development and in-stream uses.²⁵ Prolonged drought affects the performance of interstate compacts and international treaties.²⁶ Western water law and policy are based on the reality of scarcity and the need to use water wisely.²⁷

Any federal water policy, water plan or planning process must recognize, defer to and support state, tribal and local government water laws, agreements, and management processes.²⁸ A number of recent proposals, federal regulatory initiatives, and directives have been made with little substantive consultation with state governments, a violation of the long-standing principles of cooperative federalism.²⁹ 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; (b) the withdrawal, control, use, or distribution of water; (c) affect or interfere with any interstate compact, decree or negotiated water rights agreement; or (d) application, development or implementation of rules, laws, and regulations related to water.³⁰

Goal 4: Coordination of Federal Drought Activity

NDRP Objective: To improve the coordination and integration of drought-related activities to enhance the collective benefits of Federal programs and investments.

WSWC Position: There is a continuing need for greater collaboration between and among federal agencies, state agencies, local governments, non-governmental organizations and public/private organizations and businesses.³¹ WSWC supports improvements to collaboration and coordination among agencies and organizations at all levels; increased consultation with state, local and tribal governments; recognition of regional differences; identification of federal agency responsibilities; and the maintenance and enhancement of

²² WSWC Position #386

²³ WSWC Positions #386, 387

²⁴ WSWC Positions #386, 387

²⁵ WSWC Positions #395, #379

²⁶ WSWC Position #392

²⁷ WSWC Position #357

²⁸ WSWC Position #365

²⁹ WSWC Position #371

³⁰ WSWC Position #371

³¹ WSWC Position #392

data gathering and monitoring, as well as communication capabilities, identifying and addressing gaps and overlap.³²

The Western Federal Agency Support Team (WestFAST), created by recommendation of WGA and WSWC,³³ is a collaboration between 12 Federal agencies³⁴ with water management responsibilities in the West. Its members are designated by their respective agencies to serve as points-of-contact, with a federal intergovernmental liaison representing those agencies to the WSWC. WestFAST provides a mechanism for coordinating federal efforts among the agencies to effectively and efficiently carry out their water related missions, to foster cooperation and collaboration between the federal agencies and States and state agencies in addressing water resource needs, and to provide support and information to WSWC and WGA.³⁵ For example, WestFAST worked with WSWC and WGA to implement recommendations in WGA's report *Water Needs and Strategies for a Sustainable Future*,³⁶ and on other appropriate issues.

Goal 5: Market-Based Approaches for Infrastructure and Efficiency

NDRP Objective: To support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems.

WSWC Position: Market transactions for western water rights require certainty, which depends upon documentation and quantification of water rights claims to reduce conflict over water usage in a prior appropriations framework. The adjudication of water rights claims is absolutely essential for the orderly allocation and administration of water rights. This includes waters claimed by the United States on behalf of tribes, parks, forests, military bases, or for other federal purposes, under either state or federal law. The United States has a responsibility to assist in resolving conflicts over competing uses in a manner least disruptive to existing uses of water, including: (1) educating leaders and staff to minimize the filing of questionable claims that hinder and delay the adjudication process; (2) payment of filing fees to offset judicial and administrative expenses to resolve costly and complex federal claims; (3) effective, high level federal involvement in negotiations and mediations; and (4) cost sharing where necessary to resolve unquantified and disputed claims.³⁷

³² WSWC Position #392

³³ WSWC Position #371

³⁴ U.S. Department of Agriculture (U.S. Forest Service, Natural Resources Conservation Service); U.S. Department of Commerce; National Oceanic and Atmospheric Administration; U.S. Department of Defense (U.S. Army Corps of Engineers); U.S. Department of the Interior (U.S. Bureau of Land Management; U.S. Bureau of Reclamation); U.S. Fish and Wildlife Service; U.S. Geological Survey; National Park Service; U.S. Environmental Protection Agency; and National Aeronautics and Space Administration.

³⁵ <http://www.westernstateswater.org/westfast/>

³⁶ <http://www.westernstateswater.org/wp-content/uploads/2012/10/water-needs-and-strategies-finalrev.pdf>; see also 2008 *Next Steps*, <http://www.westernstateswater.org/wp-content/uploads/2012/10/water-needs-strategies-608-final4.pdf>; and 2010 *Progress Report*, http://www.westernstateswater.org/wp-content/uploads/2012/10/wswc_2010_complete-compressed.pdf

³⁷ WSWC Positions #358, #375, 376

WSWC has long supported watershed and basin-wide coordination that involves all governmental entities and stakeholders interested in finding solutions to present and future water management challenges.³⁸ The SECURE Water Act's authorized activities further this coordination and provide much needed support that States and other non-federal entities in the West use to provide adequate and safe supplies of water for human health, the economy, and the environment, as well as enhancing public safety.³⁹

Water transfers can be an efficient way of reallocating water, allowing those in need of water to buy or lease water rights from designated users. However, water transfers between different types of users or across water basin boundaries can present significant challenges to economies and communities. In 2012, WSWC and WGA identified water transfer practices, including successful case studies from around the west that mitigated or avoided adverse impacts, and published their *Water Transfers in the West* report.⁴⁰ The report recognizes unique circumstances that differ between states, but provides policy options and information for states to consider as they work to make the transfer process more effective. Water transfers that convey waters of the United States through constructed conveyances to other waters of the United States should not trigger federal NPDES requirements, which would make water transfers cost prohibitive; each state has the authority to place appropriate conditions on water transfers to protect water quality.⁴¹

WSWC supports technical and financial assistance to states and local watershed groups and water districts as an appropriate federal role, consistent with authorized Reclamation programs, and as a suitable Reclamation Fund expenditure.⁴² With respect to funding sources, WSWC continues to strongly support the expenditure of Reclamation Fund revenues for their intended purposes, to finance federal western water and power projects.⁴³ Its receipts—derived from water and power sales, project repayments, public land sales, leases and rentals in the 17 western states—have grown in part due to declining federal expenditures for Reclamation purposes. The unobligated figure gets larger (\$14.336 billion by FY2015), while the money is actually spent elsewhere for other federal purposes contrary to the Congress' original intent.⁴⁴ The \$2 billion in receipts that accrue to the Reclamation Fund each year are more than sufficient to cover all current Reclamation expenditures and more.⁴⁵

Opportunities also exist to leverage non-federal funding through federal loan guarantees and other financial instruments to ensure that water districts can access private sources of financing.⁴⁶ Inconsistent, inadequate and untimely Federal and State funding increases project construction costs, risk and financing costs. Private capital markets are willing and able to help close the funding gap in meeting our water infrastructure needs, and may

³⁸ WSWC Position #357

³⁹ WSWC Position #357

⁴⁰ http://www.westernstateswater.org/wp-content/uploads/2012/12/Water_Transfers_in_the_West_2012.pdf

⁴¹ WSWC Position #382

⁴² WSWC Position #357

⁴³ WSWC Positions #390, #367

⁴⁴ WSWC Position #367

⁴⁵ WSWC Position #357

⁴⁶ WSWC Position #390

at times be an appropriate remedy for some of the problems inherent to public funding. Revising federal law and lifting the current volume cap on tax exempt water and sewer private activity bonds would further open up access to private capital markets. State and local governments may lack general revenue funding or ability to raise the needed capital through bonds to construct projects. Investors may be able to step in with private capital and benefit from eliminating the potentially long delay needed to obtain project “buy in” or regulatory approvals.⁴⁷

Public private partnerships (PPPs) are contractual agreements between public and private entities to deliver a project or service. They are not the equivalent of privatization, but they have the potential to reduce overall development risk and capital investment, improve efficiencies and cost effectiveness, and maximize the respective strengths of the public and private sectors. Successful PPPs require: (1) an appropriate balance between public and private resources; (2) established political leadership; (3) a supportive statutory and political environment; (4) an organized structure; (5) detailed business plans; (6) a guaranteed revenue stream; (7) stakeholder support; (8) the careful selection of partners; and (9) an understanding of each partner’s motivations.⁴⁸

Goal 6: Innovative Water Use, Efficiency and Technology

Objective: To support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems.

WSWC Position: WSWC supports the development and implementation of appropriate water conservation programs at all levels to minimize demands placed on our natural resources and ecosystems.⁴⁹ Managing water demand through efficient water use and conservation can yield crucial savings that may help avoid or delay the need for developing new water supplies and related infrastructure; however, those efforts must be coupled with federal, state, and local investments to develop new and alternative sources of supply.⁵⁰ Sustainable water resource management and development should yield long-term economic growth, enhanced protection and restoration of significant aquatic ecosystems, and improved economic and environmental security and quality of life.⁵¹

⁴⁷ *Western Water Resources Infrastructure Strategies: Identifying, Prioritizing and Financing Needs*, http://www.westernstateswater.org/wp-content/uploads/2012/10/infrastructure-report_final_lowresolution.pdf

⁴⁸ *Western Water Resources Infrastructure Strategies: Identifying, Prioritizing and Financing Needs*, http://www.westernstateswater.org/wp-content/uploads/2012/10/infrastructure-report_final_lowresolution.pdf

⁴⁹ WSWC Position #390

⁵⁰ *Western Water Resources Infrastructure Strategies: Identifying, Prioritizing and Financing Needs*, http://www.westernstateswater.org/wp-content/uploads/2012/10/infrastructure-report_final_lowresolution.pdf

⁵¹ WSWC Vision, #384

As traditional surface and ground water supplies become stressed, alternative evolving technologies such as desalination, water recycling and reuse, and weather modification offer opportunities for augmentation and increased efficiency. The primary constraints for desalination are construction and operational costs, especially energy costs, pre-treatment costs, and disposal of the brines produced, as well as regulatory and other barriers to colocating desalination and coastal energy plants so as to take advantage of production synergies. Aquifer storage and recovery (ASR) projects may offer significant benefits, which should be evaluated on a case-by-case basis, including potential economic and environmental advantages over traditional surface water storage. Cost-effective opportunities exist to expand the use of weather modification, and the environmental consequences of weather modification operations appear to be benign. The 2008 WSWC report, *Water Needs and Strategies for a Sustainable Future: Next Steps*, addresses these alternative technologies and next steps that states and federal agencies can take to encourage further research, data, and development of those technologies.⁵²

Water reuse, or the use of treated effluent or wastewater for secondary purposes, represents a vital means of satisfying increasing water demands in the face of decreasing supply. There are still considerable obstacles to overcome, including concerns related to public health, environmental contamination, institutional and regulatory barriers, and unintended impacts to water rights holders. In 2010, the WSWC commissioned a report, *Water Reuse in the West: State Programs and Institutional Issues*, to describe how western states regulate water reuse and the common issues and barriers they face.⁵³

The water and hydropower resources of the West have been developed through partnerships between energy and water users, and continue to be inextricably connected.⁵⁴ Public-private partnerships are increasingly important in addressing our future water and energy challenges.⁵⁵ Western water and energy planners, policymakers, managers and regulators should consider: (1) promoting integrated water and energy conservation and use efficiency; (2) seeking to minimize economic, environmental and other costs of providing adequate, reliable and sustainable supplies of water and energy; (3) ensuring decisions related to the siting, construction and operation of water and energy development projects include an evaluation and appropriate consideration of the interrelated impacts of such development; (4) tailoring the use of alternative cooling technologies and other energy-related options to the availability of water, and the related opportunity costs related to other water uses; (5) seeking to develop a diversified portfolio of water and energy resources and assets to maximize reliability and flexibility; (6) integrating short and long-range water and energy supply planning; (7) promoting the development and use of “smart” technologies for management of water and energy demands and production.⁵⁶

⁵² <http://www.westernstateswater.org/wp-content/uploads/2012/10/water-needs-strategies-608-final4.pdf>

⁵³ <http://www.westernstateswater.org/wp-content/uploads/2012/10/Water-Reuse-Report-Final-Published-Version-Summer-2012-1.pdf>

⁵⁴ WSWC Position #391

⁵⁵ WSWC Position #378

⁵⁶ WSWC Position #378

**NATIONAL DROUGHT
RESILIENCE PARTNERSHIP**

**REPORT TO THE COUNCIL ON CLIMATE
PREPAREDNESS AND RESILIENCE**

AUGUST 2016

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The National Drought Resilience Partnership

August 2016 Progress Report

Since 2012, significant portions of the country have experienced extreme to exceptional drought conditions, challenging the viability of agricultural production, impacting drinking water supplies, jeopardizing the integrity of critical infrastructure, increasing energy costs, harming ecosystems, and causing extensive economic and health impacts. On March 21, 2016, President Obama signed a [Presidential Memorandum](#) directing Federal agencies to build national capabilities for long-term drought resilience. The President tasked the [National Drought Resilience Partnership \(NDRP\)](#) to work collaboratively to deliver on a [Federal Action Plan](#) including six goals and 27 associated actions to promote drought resilience nationwide. Importantly, these goals reflect many of the priorities identified by the on-the-ground leaders and experts who work daily to build a more resilient future for their communities. The actions are designed to complement state, regional, tribal and local drought preparedness, planning and implementation efforts.

The President's action continues the momentum to help the millions of Americans affected by drought. Federal agencies have mobilized to provide improved information and data, emergency and planning assistance, landscape-scale land management improvements, and investments in new technologies and approaches to water resource management. Continued drought conditions in the West and projections of more extreme droughts in the future underscore the urgency to pursue long term solutions for protecting our water resources and the communities and ecosystems that depend on them. The Presidential Memorandum brings greater vision and precision to our efforts.

This report highlights accomplishments against the President's Action Plan and provides an overview of some of the Administration's work on drought response since 2009. It is the first of what will be regular updates on the NDRP's commitment to work across federal agencies to deliver on-the-ground results.

Sincerely,

The National Drought Resilience Partnership Co-Chairs

Robert Bonnie
Under Secretary for Natural Resources and Environment
U.S. Department of Agriculture

Dr. Christine Blackburn
Performing the Duties of Assistant Secretary of Commerce for Conservation and Management
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Goal 1: Data Collection and Integration

Objective: Agencies shall share data and information related to drought, water use and water availability, including data on snowpack, groundwater, stream flow and soil moisture with State, regional, tribal and local officials to strengthen decision-making to support more adaptive responses to drought and drought risk.

Using existing resources, the Federal Family is working to improve both the quality and volume of products available for drought planning and decision-making. Agencies have intensified their efforts to share data and information related to drought, water use, and water availability (including data on snowpack, groundwater, stream flow, and soil moisture) with the ultimate goal of providing State, regional, tribal, and local officials with the tools necessary to create more adaptive responses to drought and drought risk.

Initial implementation actions include efforts to integrate existing data and information sources, with a focus on improving the usability of current resources and identifying gaps. Additionally, in acknowledgement of the important role of the citizen scientist, the Administration is encouraging the public to assist in the collection of weather and climate data and record their experiences with drought. These activities will lay the groundwork for a stronger private and public partnership for identifying and mitigating the impacts of drought on vulnerable communities.

Goal Leader: Mark Brusberg, U.S. Department of Agriculture

Action 1: Integrate Data from Key Platforms

A National Conversation on Integrated Water Information for the 21st Century

Lead Coordinating Agency: Department of Commerce, National Oceanic and Atmospheric Administration

From May to June 2016, the National Oceanic and Atmospheric Administration (NOAA) Administrator, Dr. Kathryn Sullivan, convened a series of stakeholder engagements entitled “A National Conversation on Integrated Water Information for the 21st Century.” Two regional meetings were organized by the University Corporation for Atmospheric Research (UCAR), in Tuscaloosa, Alabama, and Sacramento, California. A final national meeting was organized in Washington, DC, by the U.S. Water Partnership and UCAR, along with senior officials from the Department of the Interior (DOI), Army Civil Works, and other Federal agencies.



Above: Data experts participate in the Roundtable on Water Data for Decisions at the National Conversation on Integrated Water Information For the 21st Century, July 12-14, 2016, organized by NOAA, DOI, Army Civil Works, the US Water Partnership, and UCAR.

The objectives of these sessions included: (1) identifying key steps and best practices to deliver more robust and integrated water-related data, information, and prediction services to help communities and businesses manage risk, build resilience, and plan for the future; (2) discussing opportunities and challenges for the future U.S. water information architecture; and (3) exploring potential public-private partnerships to catalyze solutions and “actionable information” that address U.S. and international water data and information challenges. More than 300 experts from government, private sector, universities, and civil society participated in the 3 sessions.

Going forward, NOAA will use these dialogues as a basis for improving its water information services and for stimulating further interagency collaboration to integrate Federal data for water and drought.

Integrating Data into the Remote Automatic Weather Stations Network

Lead Coordinating Agency: Department of Agriculture, Forest Service

Strategically located throughout the United States, 2,200 interagency [Remote Automatic Weather Stations](#) (RAWS) monitor the weather and provide weather data that assist land management agencies with a variety of projects such as monitoring air quality, rating fire danger, and providing information for research applications. RAWS units collect, store, and forward data to a computer system at the National Interagency Fire Center in Boise, Idaho, via the Geostationary Operational Environmental Satellite.



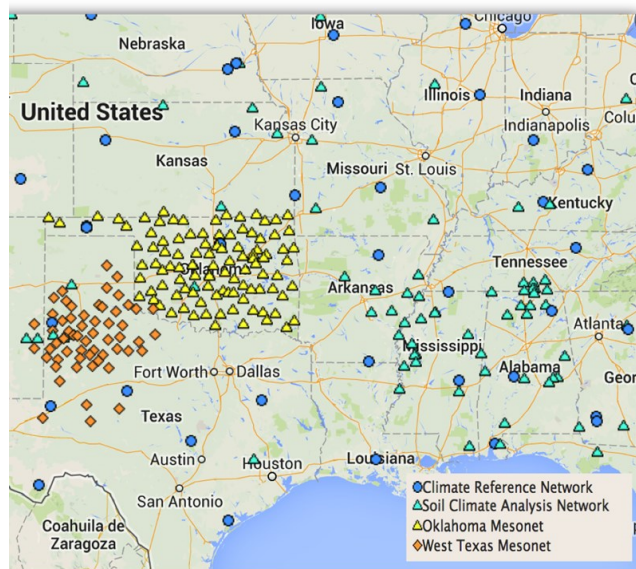
Above: A Forest Service Remote Automatic Weather Station

Going forward, the Department of Agriculture, Forest Service (FS) will work collaboratively with NOAA and the U.S. Department of the Interior, Bureau of Land Management to ensure that data from RAWS stations are available to stakeholders via existing services and platforms. By October 2016, these partners will have completed a scoping document assessing potential next steps and areas for improvement. Additionally, these agencies are working to include soil moisture sensors on FS RAWS stations, and by December 2016, will have completed an initial assessment of current circumstances and opportunity.

Building a Coordinated National Soil Moisture Monitoring Network

Lead Coordinating Agency: Department of Commerce, National Oceanic and Atmospheric Administration, National Integrated Drought Information System

Technical Leadership: Department of Agriculture, Department of the Interior, Department of Commerce, National Oceanic and Atmospheric Administration, and the National Aeronautics and Space Administration



Above: A regional soil moisture network pilot of Oklahoma, Texas and other Southern states created by USGS

Soil moisture data are vital to assessing and understanding the impacts of drought on agriculture and other industries that rely on secure and sustainable supplies of water. Several networks have been created to measure soil moisture at various depths, but data have been of limited use and often incompatible between different networks and data systems. Currently, NOAA, Department of the Interior, U.S. Geological Survey (USGS) and Department of Agriculture, Natural Resources Conservation Service (NRCS) are working with Ohio State University to coordinate the collection of soil moisture data and their integration and dissemination to decisionmakers, the research community, agricultural producers and the general public. To date, these partners have completed a pilot program designed as a proof-of-concept model for real-time integration of distributed soil moisture data and developing products of use to the drought community.

Going forward, organizers plan to establish a common location for soil moisture data and develop standards for installation of new sensors and sharing of data. Additionally, the organizers will work closely with modelers and the satellite community to develop a more comprehensive system for monitoring soil moisture on a national level that integrates remote sensing and modeling with ground-based data.

Improvement and Expansion of the United States Drought Monitor to the U.S. Virgin Islands and Affiliated Pacific Islands

Lead Coordinating Agencies: Department of Agriculture and Department of Commerce, National Oceanic and Atmospheric Administration

The [U.S. Drought Monitor](#) is a weekly map of drought conditions that is produced jointly by NOAA, U.S. Department of Agriculture (USDA), and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. Policy-makers and citizens alike use this vital tool to make informed decisions for drought-affected communities. This year, the U.S. Drought Monitor is expanding to include the U.S. Virgin Islands and the U.S. Affiliated Pacific Islands. On August 30, scientists and decisionmakers around the country will convene in St. Croix, Virgin Islands to discuss the launch of the U.S. Drought Monitor in the Virgin Islands and U.S. Affiliated Pacific Islands. *Going forward*, authors will launch a pilot drought monitor that includes the islands in October 2016.

Action 2: Improve Modeling and Prediction

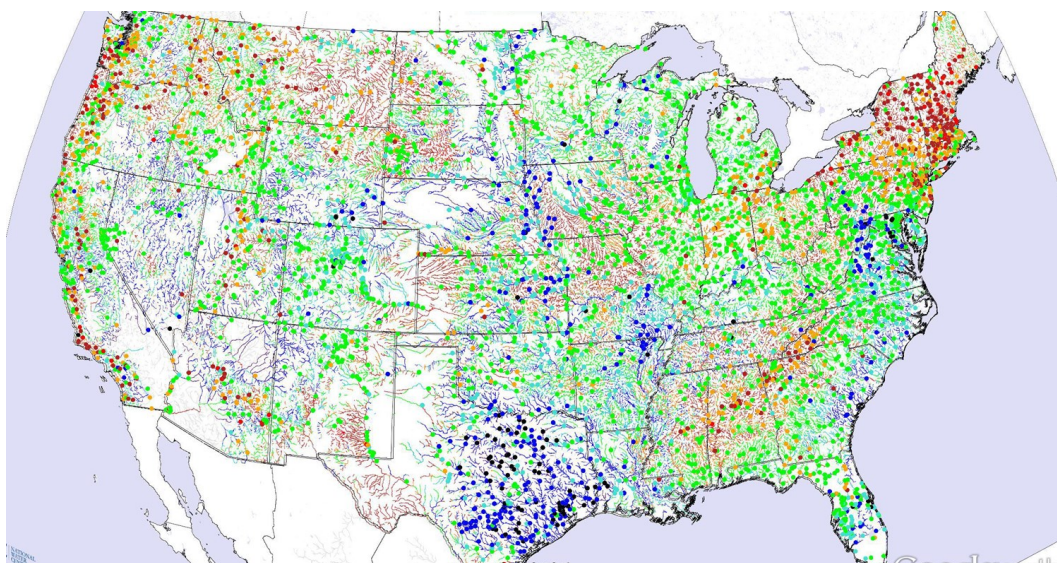
Improving Water Forecasts from Days to Seasons

Lead Coordinating Agency: Department of Commerce, National Oceanic and Atmospheric Administration

On August 16, 2016, Secretary of Commerce Penny Pritzker announced the release of NOAA's new [National Water Model](#) (Version 1.0), a continental-scale model of the Nation's river and stream network to be run alongside the routine weather forecast models of the National Weather Service. This announcement marks a significant step forward in the transformation of the Nation's water-prediction services. The new model expands NOAA's current water quantity forecasts, delivered from approximately 4,000 gauged river locations, to 2.7 million locations in the continental United States. The National Water Model will provide high-resolution gridded forecasts of soil moisture, evapotranspiration, runoff, snow water equivalent, and other parameters vital for integrated water resource management in flood and drought conditions, particularly in flood conditions that follow drought.

In the summer of 2016, NOAA used innovative calibration techniques to upgrade the North American Multi-Model Ensemble (NMME) seasonal climate forecast tool, which will allow for more reliable and skillful seasonal forecasts of precipitation and temperature nationwide. In addition, NOAA released funding solicitations for research to further improve modeling, prediction, and monitoring capabilities at NOAA, with the involvement of other Federal agencies and academic scientists, building on years of previous research.

Going forward, NOAA plans to refine and upgrade the National Water Model to provide enhanced hydrologic guidance to end users through future coupling with weather and coastal models, and in future years, ground water and other modules will be added to further advance long-term drought resilience.

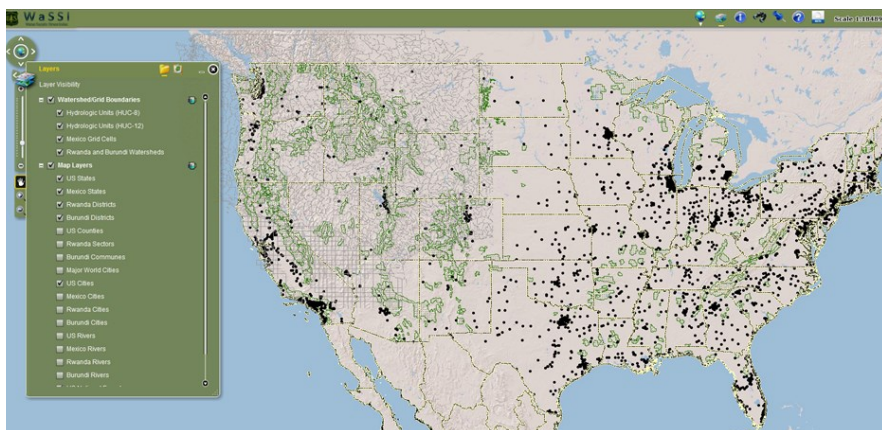


Left: National Water Model: A new continental-scale forecasting model of the nation's river and stream network. Here, the model augments streamflow anomaly data from the USGS (dots) with streamflow anomaly data for the full network (lines). Anomaly data helps decision makers understand whether streams are in high or low flow, as compared to normal conditions.

Integrating Data from the Water Supply Stress Index

Lead Coordinating Agencies: Department of Agriculture, Forest Service and Department of Commerce, National Oceanic and Atmospheric Administration

The recently developed [Water Supply Stress Index \(WaSSI\)](#) ecosystem services model can predict how climate, land cover, and human population change may impact water availability and carbon sequestration at the watershed level



Above: The core of WaSSI is a water balance model that is sensitive to land cover and climate and operates on a monthly time step at the 8-digit Hydrologic Unit Code (HUC) watershed scale across the conterminous U.S.

and across the lower 48 States. For example, FS Research & Development scientists recently used the tool to estimate how water yield and carbon sequestration in the National Forest and Grassland System were impacted by periodic droughts over the past 60 years. This [benchmark study](#) provides a reference point to assess drought impacts for each of the 170 National Forests, and can help land managers better optimize limited resources during watershed restoration efforts in response to climate and land use changes.

Going forward, FS researchers are working to integrate the WaSSI model into national

water-prediction efforts of NOAA's National Water Center. This data will improve prediction of periodic droughts' impacts on water yield and carbon sequestration from forested landscapes to lower watersheds.

Action 3: Facilitate Citizen Science

Expansion of the Community Collaborative Rain, Hail, and Snow Network into Southwestern Tribal Lands

Lead Coordinating Agencies: Department of Agriculture and Department of Commerce, National Oceanic and Atmospheric Administration

The [Community Collaborative Rain, Hail and Snow network \(CoCoRaHS\)](#) is a unique grassroots network of thousands of trained volunteers of all ages and backgrounds working together to improve meteorological science by measuring and



Above: The latest NWS outreach and training session was held on July 18 in the Navajo Nation community of Chilchibeto. A newly recruited observer is pictured with a CoCoRaHS rain gauge, standing alongside Tony Merriman, NWS Warning Coordination Meteorologist.

reporting precipitation amounts. CoCoRaHS is the largest provider of daily precipitation observations in the United States. USDA and NOAA use the data from these observations for tools such as the United States Drought Monitor.

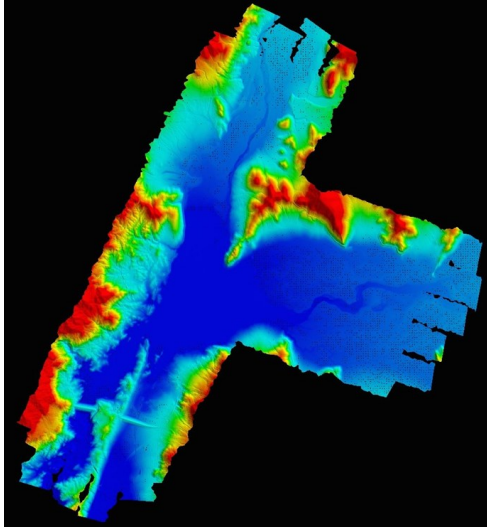
In order to expand the reach of this network, USDA recently purchased 72 CoCoRaHS gauges for volunteers on Navajo and Hopi Tribal lands. National Weather Service (NWS) Scientists delivered the gauges to Navajo Nation chapter houses and to the 15 villages on the Hopi Reservation. NWS staff have begun to train volunteers to accurately report precipitation.

Going forward, USDA and NOAA plan to continue the expansion of rainfall observations in the Four Corners region and to other Tribal areas. Additionally, NOAA and USDA will continue to encourage CoCoRaHS observers to increase their role as citizen scientists by submitting observations, including photographs, to a coordinated [Drought Impact Reporter](#) maintained by the National Drought Mitigation Center.

Action 4: Encourage Federal Reservoir Surveys

Lead Coordinating Agency: U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) is taking advantage of drought-induced low reservoir levels to conduct reservoir surveys that will provide detailed information needed to understand how sedimentation has impacted the available reservoir storage volume. This effort will benefit managers and planners by reducing the cost of reservoir surveys, improving methods of data sharing, and making it possible to develop long-term management plans to extend the reliable performance of reservoirs.



Above: A LiDAR image of Lake Isabella, CA showing data colored by elevation. USACE collected data of drought-impacted Lake Isabella as a test of potential methods for opportunistic ALS surveys of drought-impacted reservoirs.

USACE has taken steps to improve the utility of [the USGS Reservoir Sedimentation Database](#) to the public, including the incorporation of data from Department of the Interior's Bureau of Reclamation (Reclamation), to provide credible evaluations of reservoir sedimentation and its relationship to drought resilience. In addition, an Airborne Laser Scanning (ALS) system was tested throughout California during the recent drought, to refine the data acquisition process. Light detection and ranging (LiDAR) data was collected for one drought-impacted reservoir in California as a test of potential methods for ALS surveys of drought-impacted reservoirs. Leveraging the development of the LiDAR program within USACE with the Bureau of Reclamation in order to incorporate high-accuracy, high-resolution ALS systems onto low operational cost aircraft, will result in efficient data collection for sharing of reservoir sedimentation data.

Going forward, USACE is creating geospatial analysis tools to allow users to rapidly calculate area and capacity data for reservoir elevations using 3D data from ALS and similar surveys. USGS will produce indicators of sedimentation rates and assessments of how these rates are changing with observed and projected climate change, to better understand reservoir sustainability and drought resilience as well as communicate risks to critical infrastructure. Exploration of various data collection technologies will help to align reservoir characteristics with the most efficient (time and money) techniques to quickly facilitate data collection.

Action 5: Develop Data Models to Identify Populations at Risk to the Health Effects of Drought

Developing Models and Tools to Predict Populations Vulnerable to Drought-Related Disease

Lead Coordinating Agency: Department of Health and Human Services, Centers for Disease Control and Prevention

The [health and quality-of-life impacts](#) of drought can be severe and include infectious and non-infectious diseases as well as mental health conditions. The Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) is working with partners to develop models and tools to better predict locations and populations vulnerable to drought-related disease in order to initiate protective measures. Since many of the health issues associated with drought can occur after substantial periods of time, CDC is committed to long-term surveillance of these outcomes.

Going forward, CDC and partners are developing three tools to assist public health providers serving communities vulnerable to drought. By March 2017, CDC will develop two databases of drought indicator variables, using various climate data from NOAA, and convert the databases into useable data for public health purposes. Ultimately, the databases will be available online through the [National Environmental Public Health Tracking Network](#). By December 2017, CDC will create a data and analysis guide describing the sources, variables, and analyses of climatic and health data to determine the health effects from drought. Additionally, CDC will collaborate with USGS and other partners to develop national-level maps indicating estimated arsenic concentrations in private wells, a priority contaminant of concern. These maps will be used to determine how existing models estimating contaminants in private well water can be used to assess the effects of drought on well water quality, and may be used to monitor the exacerbation of existing contaminants over time. State, local, tribal, and territorial entities will have access to these models.

Goal 2: Communicating Drought Risk to Critical Infrastructure

Objective: Agencies shall communicate with State, regional, tribal, local, and critical infrastructure officials, targeted information about drought risks, including specific risks to critical infrastructure.

Public health, the economy, and our ways of life depend on the reliable functioning of critical infrastructure, including electric power networks, water and wastewater systems, and agricultural production. Critical infrastructure stakeholders at all levels of government and in the private sector must make decisions and tradeoffs that affect their resilience to long-term drought. The Federal Family is committed to providing stakeholders in State, local, tribal, territorial, regional, and private sector roles with the best available information to help them make sound decisions and investments in drought resilience. An essential first step in this process is to assess and describe risks to specific sectors and regions.

The Department of Homeland Security (DHS) is working with other Federal Agencies to strengthen its capability to assess drought impacts to critical infrastructure and provide useful analysis and guides for critical infrastructure stakeholders.

Goal Leader: Katherine Ledesma, National Protection and Programs Directorate, Department of Homeland Security

Action 1: Study Long-Term Drought Impacts on Critical Infrastructure

Assessing and Modeling Long-Term Drought Impacts on Critical Infrastructure

Lead Coordinating Agency: Department of Homeland Security

DHS is developing several products related to understanding drought impacts to critical infrastructure, including an analysis of water dependencies for data centers in California, an analysis of drought impacts on thermal electric generation, and an assessment of drought impacts on critical manufacturing in California. Additionally, DHS is developing modeling and simulation capability to assess the impacts of hydrological drought on dam operations, hydroelectric generation, and electric power dispatch. Additionally, DHS is developing modeling and simulation capability to assess the impacts of hydrological drought on dam operations, hydroelectric generation, and electric power dispatch.

California Drought: Data Center Risk and Resilience

The report will provide leaders and decision makers a brief overview on the effects of the California drought on California data centers. It explores both the nexus between data centers and water and the nexus between data centers and electric power, because electric power availability and cost are affected by drought. Data collection, research, analysis and writing are complete for this product, which is currently being coordinated with external partners. It is expected to be released in November 2016.

Thermoelectric Power Plant Water Quality Dependencies

The recent droughts in California and Texas have highlighted the link between thermoelectric power plant generation capacity and the availability/quality of surface water. All sectors of critical infrastructure require reliable electric power, so understanding this relationship is foundational to understanding drought impacts to other infrastructure sectors. This project is in the data collection and research stage and is tentatively planned for release in early 2017.

California Drought: Impacts to the Critical Manufacturing Sector

This study focuses on key types of critical manufacturing (transportation equipment manufacturing, computer and electronic product manufacturing, fabricated metal product manufacturing, and machinery manufacturing) in the areas of California hardest hit by drought. These industries were prioritized because they are major contributors to California's employment and economy. This project is in the data collection and research stage and is tentatively planned for release in late spring 2017.

Capability Development: Drought

The long-term goal of this effort is to develop a comprehensive approach to assessing the impacts of drought on the operation of critical infrastructure. Connecting water supplies to the ability to generate electricity is the first step along the pathway that will eventually link water supply and availability to other critical infrastructure. When fully mature, this capability will allow DHS to understand better the linkages between water availability and electrical generation (hydroelectric and thermal), water for public (municipal) water systems, transportation and agriculture. It will also allow DHS to understand, on a regional scale, water supply allocations across these competing uses and how reductions in water supply or availability might affect the division of water. Recently completed work in this area focused on hydroelectric power by extending a single dam-single reservoir model to multi dam-multi reservoir model that includes all of the Columbia and Snake river systems. The model solves on an hourly time-step and can simulate periods as long as one year. Continued development will be contingent on funding and competing DHS priorities.

Creating Sustainable Recreation Infrastructure

Lead Coordinating Agency: Department of Agriculture, Forest Service



FS is committed to maintaining safe, accessible infrastructure for recreation, including green infrastructure, on National Forests and Grasslands. *Going forward*, the Forest Service is revising the Sustainable Recreation Site Design Guide to meet current thinking around sustainability and promote best practices. Forest Service employees will use the guide to inform decisionmaking and decisions about recreational spaces. The guide is anticipated to be complete by mid-2017 and include best practices for minimizing water consumption; minimizing impacts to riparian, shoreline, and floodplain resources; and protecting stormwater runoff quality and reducing the volume and velocity of stormwater runoff.

Action 2: Create Drought Decision-Support Guides for Critical Infrastructure Stakeholders

Developing Decision-support Tools for State, Regional, Tribal, and Local Officials

Lead Coordinating Agency: Department of Homeland Security

Going forward, the Department of Homeland Security, Office of Infrastructure Protection (DHS-IP) will conduct analyses regarding the impacts of long-term drought on critical infrastructure and develop decision-support guides for State, regional, tribal, local, and critical infrastructure officials. These guides will incorporate targeted information about drought risks, including specific risks to critical infrastructure. By December 2016, DHS-IP will begin stakeholder engagement and outreach to identify requirements for the decision support guide and develop targeted information about drought risks to critical infrastructure.

Supporting Water Utilities Serving Communities Vulnerable to Drought

Lead Coordinating Agency: Environmental Protection Agency

As part of ongoing efforts to highlight the importance of drought preparedness to water utilities and impacts of drought on our critical infrastructure, the Environmental Protection Agency (EPA) Office of Water developed an online tool, [Drought Response and Recovery: A Basic Guide for Water Utilities](#), which relays lessons learned from analyzing seven, diverse, drought-impacted small- to medium-sized water utilities. Using an interactive format, the Guide features worksheets, best practices, and overview videos that outline key emergency response actions that also build long-term drought resilience. The Guide contains three main sections: (1) staffing, response plans, and funding; (2) water supply and demand management; and (3) communication and partnerships.

Goal 3: Drought Planning and Capacity Building

Objective: Agencies shall assist State, regional, tribal and local officials in building local planning capacity for drought preparedness and resilience.

Although drought is a normal part of our climate system, its effects are magnified when it is perceived to be an unanticipated surprise. Reducing and effectively mitigating the impacts of drought requires planning and preparation that is integrated into regular practice well before drought conditions become critical and in ways that carry through specific events into long-term resilience efforts.

With partnerships across mission and science agencies and collaboration across local, state, tribal, and regional entities, Goal 3 partners will focus on opening new opportunities for drought planning and capacity development that bridge the diverse challenges of securing water resources for people, communities, and the environment. This portfolio of Federal activities reaches across sectors and geographies to focus on building connections across various types, stages, and administrative units of drought planning, improving our understanding of drought impacts on ecosystems and strengthening resources for identifying and addressing risks to water supplies, energy, and human health risks associated with dry conditions.

Goal Leader: Claudia Nierenberg, National Integrated Drought Information System, National Oceanic and Atmospheric Administration; **Co-Leader:** Roger Pulwarty, National Integrated Drought Information System, National Oceanic and Atmospheric Administration

Action 1: Coordinate Planning and Capacity-Building Programs

Lead Coordinating Agency: Department of Commerce, National Oceanic and Atmospheric Administration, National Integrated Drought Information System; **Supporting Agency:** Department of Agriculture

NIDIS and USDA are collaborating with the National Drought Mitigation Center at the University of Nebraska, Lincoln, to supplement their existing drought-plan clearinghouse with a geospatial capability that will enable drought planning to be viewed in a map form. These plans correspond to ongoing and potentially complementary implementation of drought at the State, tribal, and local watershed scale. As this tool develops, layers of maps will be added. The effort will start in prototype mode, to test the concept, with a focus in the Missouri River Basin.

The first set of maps will identify where elements of drought planning exist (e.g. contexts such as states' emergency/hazard management plans, river compacts, state water plans) and will depict the geographical scope of relevant plans. Potential users of an enhanced map-based interface will be consulted on an ongoing basis and different use-case questions explored. For example: Are there coordination opportunities across plans and how best might such coordination occur? What resources or policies might be associated or leveraged with planning processes? Is it useful to be able to search by zip code? Promoting connectivity and coordination on planning and implementation across larger geographic drought-sensitive areas will enhance the effectiveness of risk mitigation policies and practices.



Left: National Integrated Drought Information System Oklahoma Drought Planning Meeting, 2014

Disseminating Science-based Knowledge at a Regional Scale

Lead Coordinating Agencies: Department of Agriculture, Department of the Interior, and Department of Commerce, National Oceanic and Atmospheric Administration

Science-based regional support for capacity building with respect to planning for extremes is provided in part through programs such as the USDA Climate Hubs, the NOAA Regional Integrated Science and Assessment (RISA) teams, and the DOI Climate Science Centers and their partnerships across Federal agencies and university communities. [Emerging coordination](#) across these regional research and outreach assets is evident in new work on drought and ecosystem resilience, community-level impacts, and strategies for coping with changes in water resources. This growing coordination allows communities, land managers, and State and local governments to know where they should go for comprehensive information and expertise to allow them to recognize opportunities, and to prepare for and respond to risks.

For example, USDA's Forest Service, in coordination with USDA Climate Hubs, is planning to host nine regional workshops starting in October 2016. The goal of these workshops is to provide regionally-specific drought information to forest managers and staff, including management constraints and opportunities imposed by future drought conditions. The information will be based on findings from the recently completed assessment, "[Effects of Drought on Forests and Rangelands in the United States.](#)" Likewise, many RISA teams are conducting research and engagement around drought impacts and preparedness through partnerships in their respective regions. Coordination helps ensure that these efforts take an integrated approach to addressing needs, preparation, and responses in integrated ways to best meet the needs of the public, and that information and products are shared across diverse sets of stakeholders.

Going forward, Federal investments in understanding and communicating risks associated with extreme events such as drought will be undertaken in coordination and in close collaboration with the affected communities. Specific drought related research and engagement activities across federal entities (USDA Hubs, NOAA RISAs, and DOI Climate Science Centers) will continue to be coordinated regionally, and where relevant, in partnership with the development of Regional Drought Early Warning Systems of NIDIS. The Climate Hubs will promote climate literacy in the agricultural community, engaging agricultural service provider partners and audiences. NDRP place-based activity will work to enhance connections that identify pathways and innovations necessary for long term drought resilience.

Action 2: Examine the Ecological Impacts of Drought across the United States

Synthesizing Information and Best Practices to Manage Ecological Drought

Lead Coordinating Agency: Department of the Interior, U.S. Geological Survey

USGS is leading the Science for Nature and People Partnership (SNAPP) ecological drought working group with stakeholders and partners. The group aims to help people and nature prepare for climate-change enhanced drought and to provide information, tools, and strategies that help planners and practitioners reduce risks, anticipate surprise, and decrease the chances that people will take actions to prepare for drought that could result in degraded ecosystems. To achieve these goals, the working group is focused on synthesizing the available information on ecological effects of drought under current and future climates, and examining potential approaches for reducing drought impacts that could benefit people and nature. Additionally, the group is analyzing risks facing biodiversity conservation and human well-being, and connecting these risks to ecosystem-based solutions.

Currently, the SNAPP ecological drought working group is in the process of publishing a synthesis paper, "Framing Ecological Drought in the 21st Century." The paper highlights the need for a new way to view drought that considers human drivers of drought alongside more typical natural and climatic drivers. This approach will improve the Federal government's ability to predict future drought impacts to ecosystems and human communities. The paper also provides insight into innovative policy solutions and management actions that can reduce the negative effects of ecological drought in the future. *Going forward*, the group plans to publish several analyses including *Modeling Ecological Drought Vulnerabilities and Impacts* in March 2017; working papers on subtopics of ecological drought including *Impacts on Ecosystem Services* and case studies of *Strategies for Reducing Ecological Drought Impacts on People and Nature* in June 2017; and a comprehensive *National Synthesis on Ecological Drought* in December 2017.

Action 3: Strengthen Rural Drinking Water Contingency Plans

Lead Coordinating Agency: Department of Agriculture, Rural Development

USDA's Rural Development (RD) has been working with States and tribes to identify rural communities most at risk for compromised drinking water supplies as a result of drought, including those that are at risk as a result of depleted or contaminated groundwater. RD has included drought impact planning in emergency response plans as a condition of funding for new water and waste infrastructure projects. Additionally, RD created an El Nino-related fact sheet for communities, particularly in drought and fire areas, related to potential impacts of increased and rapid precipitation due to El Nino. The fact sheet encouraged updating emergency response plans.

USDA supports the National Rural Water Association (NRWA) and Rural Community Assistance Partnership (RCAP) which provide technical assistance to rural communities and the water and waste utilities that serve them, including assistance with developing, updating, and exercising emergency response plans. In 2016, USDA RD funded 116 NRWA Circuit Riders, serving 50 States and territories, as well as 150 RCAP technical assistance providers. In June 2016, Rural Development provided training to the Circuit Riders including guidance on inclusion of drought scenarios and impacts into vulnerability and emergency response plans for rural water and waste systems.

Action 4: Support State, Tribal, Local and Territorial Health Departments

Lead Coordinating Agency: Department of Health and Human Services, Centers for Disease Control and Prevention

CDC is committed to serving communities affected by extreme weather and drought. The agency is currently working on a drought-related Community Assessment for Public Health Emergency Response (CASPER) reports for Arizona and Oregon. The reports will assess the two states' drought-affected populations, identify populations vulnerable to drought in those states, and identify each states' communication, education and public-health needs. Ultimately, these assessments will be available to State, local, tribal and territorial health departments and decisionmakers across the nation to guide better-informed decisions when serving drought-affected and drought-vulnerable populations.

Going forward, CDC is creating a resource guide describing the current state of drought-related public health activities, including resources to help States prepare for and respond to drought. The resource guide will describe the recent and current involvement of the public health sector in drought planning and response, and will include best practices, data sources and tools, lessons learned, and any gaps in data and information. The resource guide will serve to update the public health community about drought-related activities since the 2010 publication of "When Every Drop Counts" and be completed by March 2018.

How drought can affect health

Drought can have many harsh effects on plants, animals, and the environment. This can contribute to increased risk to human health. Here are only a few examples of what drought can do:



Cause stress, anxiety, and depression. Drought causes economic losses to businesses that rely on water (for example, farms and landscape companies) and job loss for people who work in these areas.



Change the amount and patterns of certain diseases. For example, mosquitoes carrying West Nile virus can move into new areas when stagnant bodies of water create new breeding grounds. Also, dry and dusty soil conditions can increase the risk of Valley Fever, a lung infection caused by a fungus in the soil.



Intensify wildfires and dust storms, thus increasing the number of particulates in the air. This can worsen asthma and other heart and lung diseases.



Intensify heatwaves causing increased risk of injury and death from heat exhaustion or heat stroke.



Stress city- or county-wide water systems that supply water not only to households but also at-risk populations such as people in hospitals and nursing homes.

Goal 4: Coordination of Federal Drought Activity

Objective: Agencies shall improve the coordination and integration of drought-related activities to enhance the collective benefits of Federal programs and investments

Agencies throughout the Federal Government have been taking significant action, working with State, local, and tribal governments along with private entities to help plan, adapt, and mitigate drought. Recognizing the collective benefits of greater integration of these efforts, Federal agencies have been working to coordinate funding and programs and extend best practices.

Goal Leader: David Raff, Bureau of Reclamation, Department of the Interior

Action 1: Drive Coordination and Sharing of Information Related to Federal Investments in Water Infrastructure

Mapping Federal Investments in the Yakima Basin

Lead Coordinating Agencies: Department of Agriculture and Department of the Interior

DOI and USDA are partnering to create a pilot geospatial map of Federal investments in Washington State's Yakima Basin. Over the last several years, federal agencies have worked with local stakeholders to develop a table of Federal investments made since 2010, in order to support the implementation of a comprehensive water management plan for the Basin. Going forward, by December 2016, DOI and USDA will work to provide a geospatial framework to map investments on the landscape. This geospatial tool will be used by local, state and Federal officials to prompt broad collaboration by providing visibility on existing Federal investments and to coordinate pending applications within a watershed.

Action 2: Extend Best Practices of Coordinated Federal Water-Resource Programs

Expansion of the EQIP-WaterSMART Partnership

Lead Coordinating Agencies: Department of Agriculture and Department of the Interior

Since 2011, The Bureau of Reclamation WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant program and the Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) have provided millions of dollars in financial assistance to water districts and growers on private working lands to improve wa-

ter management and agricultural water-use efficiency. In California, Reclamation and NRCS have worked together to focus and complement their water efficiency investments. Reclamation works with water and irrigation districts to improve operations of water delivery systems, water districts, and water basins. NRCS then works with producers within the delivery system area or district to increase on-farm efficiencies and introduce conservation practices such as drip irrigation, low center pivots, and cover crops.

On June 23, 2016, USDA Secretary Tom Vilsack and Reclamation Commissioner Estevan Lopez announced more than \$47 million in investments to help water districts and producers on private working lands through an expansion of the EQIP-WaterSMART partnership. The funds include \$15 million from USDA and \$25.6 million from Reclamation for local projects to provide a strengthened Federal response to ongoing and potential drought across 11 States in the West. Reclamation funding will support 53 projects through the Department of the Interior's WaterSMART program. Funding from

NRCS will support on-farm water delivery system improvements through EQIP, in tandem with the 56 Interior-funded projects. *Going forward*, USDA and DOI are holding stakeholder engagements and identifying a more strategic approach to leveraging these two programs. The agencies will submit a plan outlining the approach by December 2016.



Above: Reclamation Commissioner Estevan López and Agriculture Secretary Tom Vilsack announce a new partnership and investments that will better conserve water resources in 13 Western states, including the Colorado River Basin, in Brighton, CO on June 23, 2016.

Action 3: Launch a Prize Competition or Ideation Challenge

Lead Coordinating Agency: Department of the Interior

DOI is leading an effort with multiple agencies to help incentivize new technologies or scale up existing methods of water-use innovation through prize competitions and ideation challenges. In 2016, Reclamation and collaborating agencies are planning several competitions focused on finding better solutions for problems within three main theme areas critical to improving the overall reliability of water supplies: water availability, infrastructure sustainability, and aquatic ecosystem restoration.

Going forward, DOI and partners will host four competitions in 2016: [*Preventing Rodent Burrows in Earthen Embankments*](#), September 2016; *Improving Arsenic Detection in Source Waters in Order to Optimize Water Treatment Processes*, October 2016; *Managing Desalination Concentrate*, November 2016; and *Forecasting Drought and Water Supply*, December 2016. The challenges will be posted publically on Challenge.gov.

Action 4: Increasing Water Management Flexibility

Lead Coordinating Agencies: Army Corps of Engineers and Department of the Interior, Bureau of Reclamation



Above: Lake Powell is one of five reservoir operations pilots studies initiated by the Bureau of Reclamation. The others include Upper Washita, Fort Cobb and Foss Reservoirs; Klamath River Basin, Klamath Project; Ochoco Creek and Crooked River; Upper Colorado River Drought Contingency Plan, Climate and Operations Assessment Methodology; and the Salt River Project, Salt and Verde Rivers.

Reclamation is improving drought preparedness by developing and implementing new processes and considerations into reservoir management. In January 2016, Reclamation implemented five pilot activities to explore the tracking of water supplies affected by climate change and other reservoir operations opportunities. Reclamation is coordinating with USACE where storage is co-managed, to identify opportunities to leverage deviation requests through updates to Drought Contingency Plans in USACE Water Control Manuals. Reclamation is also collaborating with USACE to explore updates to Water Control Manuals that include forecast-based operations.

Going forward, USACE will use assessments from the pilot activities, to examine methods to develop and incorporate drought contingency language from water control manuals for real-time application. This will enable USACE to develop site-specific, actionable guidance as part of specific projects' drought contingency plans. This guidance will help streamline real-time decision making for daily operations of projects under drought conditions

Additionally, USACE is working to update and compile a database of electronic water control information. The database will enable USACE to evaluate current water control manuals to assess if revisions are warranted. Revisions could encompass a wide array of needs, including assessment of changed conditions from a meteorological standpoint (to include climate change indicators); watershed characteristics (including land

use alterations); increased forecast capabilities that may influence water management release decisions; and alteration of water management regulation schedule guidance. USACE plans to finish updating the database by November 2016.

Action 5: Promoting Stronger Drought Resilience on Federal Lands

Federal Coordination through the Western Watershed Enhancement Partnership

Lead Coordinating Agencies: Department of the Interior and Department of Agriculture, Forest Service



Above: The Glacier Creek to Mill Creek Fuel Reduction Project focuses on reduction of fuel loads to help prevent wildfires from spreading and improve watershed health by focusing on enhancing existing fire barriers such as roads, trails and rivers on 210 acres in Rocky Mountain National Park in the headwaters of the Colorado-Big Thompson Project.

The Western Watershed Enhancement Partnership was formally established in July 2013, by Secretary of the Interior Sally Jewell and Secretary of Agriculture Tom Vilsack. The partnership is a part of President Obama's Climate Action Plan, and is part of a comprehensive approach to preparing the United States for the impacts of climate change, including increased risk of wildfires and drought. In May 2016, DOI [announced](#) \$500,000 in Western Watershed Enhancement Partnership grants to five projects to improve watershed health, reduce wildfire risk, restore wildlife habitat and mitigate the impacts of post-wildfire erosion and sedimentation loss. Projects included: Boise River Pilot Project (Idaho), Cragin Watershed Protection Project (Arizona), Hemlock Project (California), Glacier Creek to Mill Creek Fuel Reduction Project (Colorado), and the Yakima Watershed Enhancement Project (Washington).

Increasing Drought Resilience on Public and Private Lands through the Collaborative Forest Landscape Restoration Program and the Joint Chiefs Landscape Restoration Partnership

Lead Coordinating Agency: Department of Agriculture

The Forest Service is working to foster and enhance collaborative restoration partnerships across large forested landscapes through the [Collaborative Forest Landscape Restoration Program](#) (CFLRP) and the Forest Service and Natural Resources Conservation Service (NRCS) Joint Chiefs Landscape Restoration Partnership. Through the CFLRP, over 200 partner organizations are working with the Forest Service to implement 23 ten-year projects on landscapes ranging from 130,000 to 2,400,000 acres. The projects are reducing the risk of catastrophic wildfire and improving watershed health, which will increase the resilience of these lands to drought. Between 2012 and 2015, CFLRP projects leveraged over \$200 million in partnership support for projects underway in 15 States.

One example of this is the Ozark Highlands Ecosystem Collaborative Project. Over the life of the project, from 2011-2020, the Forest Service will invest over \$20 million, with a partnership match of over \$6 million. This investment is improving the stream and lake health with fewer invasive species, less silt and sedimentation, better habitat for fish, and improved recreation opportunities for visitors.

In 2014, the Forest Service and NRCS initiated the [Joint Chiefs Landscape Restoration Partnership](#) to address landscape-scale objectives for reducing wildfire threats, protecting water quality and supply, and improving habitat quality for at-risk species. The Joint Chiefs Partnership enables the two agencies to design and implement treatments where private and public lands meet and where restoration objectives cross ownership boundaries. Activities such as thinning, prescribed burning, invasive species eradication, and riparian road decommissioning on and off national Forest Service lands have resulted in improved resiliency and land health on thousands of acres across the country.

One example of this work is in the Hiwassee River Watershed. In cooperation with the Tennessee Division of Forestry, U.S. Fish and Wildlife Service, and other partners, USDA will invest over \$1 million in the watershed to improve water quality and an at-risk aquatic ecosystem which serves as the surface water source for over 150,000 residents and multiple industrial users. Currently, 28 Joint Chiefs' cross-boundary projects are partnering to accomplish restoration objectives. *Going forward*, new projects will be selected in January 2017.

Action 6: Enhance Federal Drought Resilience Investments at the Watershed Scale

Building Drought-Resilient Private Working Lands through the Regional Conservation Partnership Program

Lead Coordinating Agency: Department of Agriculture, Natural Resources Conservation Service

Created by the 2014 Farm Bill, the Regional Conservation Partnership Program (RCPP) is a partner-driven, locally led approach to conservation. It offers new opportunities for USDA's Natural Resources Conservation Service (NRCS) to harness innovation, welcome new partners to the conservation mission, and demonstrate the value and efficacy of voluntary, private lands conservation. The program creates opportunities for partners to develop regionally appropriate strategies to address conservation challenges across the country, including challenges created by drought and water scarcity. NRCS plans to invest up to \$1.2 billion through 2018, with a partner match of at least \$2.4 billion.

In 2016, NRCS funded 84 high-impact projects, many of which focused on water conservation and drought resilience. One example of this is a project through Nebraska Game and Parks Commission supporting cropland cover for soil health and wildlife. In Nebraska, the lack of sufficient water, frequent drought and soil erosion cause significant impacts to yields and producers' bottom lines. Similarly, vanishing habitat and increasingly intensive agricultural practices create struggles for wildlife. This project helps both producers and wildlife cope with constantly changing conditions by encouraging producers to enact practices such as tall standing stubble, cover crops, and diverse seedings. These practices can help improve water quantity, soil erosion, soil quality, and air quality while also providing valuable habitat for grassland birds, including at-risk species and pollinators like honey bees and monarchs.

Going forward, USDA-NRCS is reviewing project proposals for FY 2017 and will make selection announcements in December 2016. NRCS is encouraging Federal agencies to join State, regional, tribal, and local partners in drafting project proposals for innovative approaches to enhancing drought resilience on farms, ranches, and private forest lands. Additionally, NRCS is encouraging applicants to submit proposals that build on other Federal, State, and private resilience investments—including those made through DOI's WaterSMART program and the EPA's State Revolving Loan programs.

Goal 5: Market-Based Approaches for Infrastructure and Efficiency

Objective: Agencies shall support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems

The President's Drought Resilience Goals encourage Federal agencies to use their existing authorities in support of market-based approaches to increase investment in water infrastructure and promote water efficiency. EPA, USDA, and DOI, who are supporting this work, have established financing centers connected to the Administration's efforts to promote private investment in infrastructure under the President's Build America Investment Initiative.

The first action included in this goal is focused on the work of EPA's Water Infrastructure and Resiliency Finance Center (WIRFC), USDA's Rural Opportunity Investment Initiative (ROI), and DOI's Natural Resource Investment Center (NRIC). The centers are staffed with experts versed in alternative approaches to project finance that include financial partnerships between the public and private sectors. This action seeks to focus and highlight the work of the centers on alternative financing solutions for water infrastructure and efficiency in drought prone areas of the West.

The second and third actions included under this goal are focused on DOI and its efforts to encourage private investors to increase their participation in financing irrigation infrastructure and water markets in the West. These actions include supporting state and local strategies for more flexible water management and disseminating information on water pricing and construction cost repayments. Taken together, the three actions under this goal reflect a concentrated effort by EPA, USDA, and DOI to lower some of the barriers that discouraged private investors from participating in financing water infrastructure and trading in water markets.

Goal Leader: Jim Gebhardt, Water Infrastructure and Resilience Finance Center, Environmental Protection Agency

Action 1: Explore Innovative Financing Options for Drought Resilience

Lead Coordinating Agencies: Environmental Protection Agency, Department of Agriculture, and Department of the Interior

EPA, DOI and USDA have been working through their existing authorities to promote additional investment in water infrastructure and efficiency projects by the private sector and other non-Federal sources of capital. Additionally, these agencies have begun to focus efforts on projects and investments that have specific application to the arid West. Recent efforts include:

EPA's Water Infrastructure and Resiliency Finance Center (WIRFC) is working with State managers of its Clean Water and Drinking Water State Revolving Funds (SRF) to highlight projects that address drought, with a particular focus on water conservation, water reuse, desalination, and groundwater protection/restoration projects. WIRFC is also exploring new financing models to advance market-based solutions in drought prevention, mitigation banking, and municipal separate storm sewer systems. Additionally, WIRFC is working with EPA's Environmental Finance Center at the University of North Carolina to develop case studies that serve as resources for project sponsors seeking reviews of existing public-private partnerships in drought-prone areas, including Santa Paula, Woodland- Davis, and Rialto, California; and Phoenix, Arizona.

USDA's Rural Opportunity Investment Initiative (ROI) is working with the managers of the Department's rural water infrastructure programs on increasing engagement with private sector lenders that finance similar or related water infrastructure projects. The goal of this increased engagement is to develop financial partnerships that will allow USDA to expand the reach and impact of its current programs. One focus of this market research is how to encourage bundling of rural projects in order to attract institutional lenders to the projects and lower the cost of financing. Project bundling is particularly relevant to the arid West where many rural communities are exploring watershed-level solutions to the impact of drought.

DOI's Natural Resource Investment Center (NRIC) is providing technical assistance to a number of water infrastructure projects in the West that are in the early stages of development. For example, in one major project, the NRIC is working to facilitate federal review and the use of federal infrastructure to enable a locally-designed water management strategy that would significantly diversify a large municipal water district's long-term water supply portfolio. The NRIC is also working with agricultural water users in Colorado, Washington and Oregon to design new investments in water efficiency, reuse and hydropower that can increase drought resilience for farmers and improve aquatic ecosystems.

Going forward, WIRFC, ROI, and NRIC will work collaboratively to:

- ◆ Build support for their recent efforts across the Administration through agencies participating in the Build America Investment Initiative. Launched by President Obama in July 2014, this initiative promotes increased investment in infrastructure projects.
- ◆ Identify new initiatives and pilot projects to support drought resilience financing. Some recent opportunities include partnering public, private and social impact capital to suppress forest fire risk and protect water supplies on both federally owned and private lands; exploring lessons-learned from a recent public-private partnership that encourages better water management in order to protect/restore groundwater supplies; and supporting local infrastructure exchanges in drought prone areas, such as the Intermountain Infrastructure Exchange and the West Coast Infrastructure Exchange.
- ◆ Participate in a high-level dialogue organized by the Harvard Kennedy School's Ash Center to explore policy solutions to the underinvestment in federally owned and operated water infrastructure. Some topics include: project prioritization, revenue generation, and flexible contracting tools.
- ◆ Support NRIC's work coordinating with the Bureau of Reclamation as Reclamation develops a new funding category under the WaterSMART program to encourage irrigation districts, municipalities, and other entities to explore the use of water markets. In addition, support NRIC's work coordinating with Reclamation to identify ways that WaterSMART grant recipients could attract private capital to maximize project benefits.

Action 2: Support State and Local Strategies for more Flexible Water Management

Lead Coordinating Agency: U.S. Department of the Interior

In many cases, States and local water users are exploring new strategies to increase water-use flexibility during drought, including the use of water transactions. The DOI Natural Resource Investment Center is developing a document to facilitate locally led water transactions and to promote best practices at Reclamation facilities. The paper will provide a focused look at transfers occurring on selected Reclamation projects, where locally and regionally led water transfers have occurred in the past and are currently occurring. The document will seek to identify opportunities where Reclamation can further support local and regional entities who are engaged in water transfers. Additionally, it will include examples of several cases where Reclamation has acquired water to support fish and wildlife management objectives. The document is slated to be publically available in autumn 2016.

Action 3: Disseminate Information on Water Pricing and Construction Cost Repayments

Lead Coordinating Agency: U.S. Department of the Interior, Bureau of Reclamation

In order to promote greater transparency about the per-unit price of water resourced from Federal reservoirs and to better inform water users and other market suppliers about current market pricing, Reclamation made Project Construction Cost and Repayment Statements [available by request](#).

Reclamation has been accumulating construction cost and repayment data since the first reimbursable project began and created the Statement of Project Construction Cost and Repayment to capture cost and repayment data by project for internal use. These statements are now available through Reclamation regional finance offices: Pacific Northwest Region, Mid-Pacific Region, Lower Colorado Region, Upper Colorado, and Great Plains Region.

Goal 6: Innovative Water Use, Efficiency and Technology

Objective: Agencies shall support the advancement of innovative investment models and market-based approaches to increase resilience, flexibility, and efficiency of water use and water-supply systems

Goal 6 exemplifies the diversity of sectors where drought has a specific impact: from agricultural water-use efficiency, to the needs of the energy sector, to providing clean and safe drinking water for municipalities, to what we can learn from active engagement with our international partners who are also struggling with drought conditions.

The Actions under Goal 6 require significant input and collaboration from stakeholders on the ground in order to ensure that the NDRP is meeting specific needs. Additionally, the Actions under Goal 6 align with actions under the other NDRP Action Plan Goals. For example, Action 4: Highlight Resilience Successes from the Municipal Sector will showcase where cities and towns have successfully implemented actions to build long-term resilience to drought. These successes will serve as case studies that connect to the work under Goal 3 for capacity building and contingency planning. Making these cross-goal connections will continue to break down barriers so the NDRP and all Federal agencies can more effectively support long-term drought resilience at the State, regional, local, and tribal levels.

Goal Leader: Roger Gorke, Office of Water, Environmental Protection Agency

Action 1: Conduct Research to Optimize and Improve Agricultural Water Use

Lead Coordinating Agencies: U.S. Department of Agriculture and the White House National Science and Technology Council, Subcommittee on Water Availability and Quality

In April 2016, the White House Office of Science and Technology Policy (OSTP) re-chartered the Subcommittee on Water Availability and Quality (SWAQ), whose mission is to advise and assist on policies, procedures, plans, issues, scientific developments, and research needs related to the availability and quality of water resources of the United States. The SWAQ focuses on science issues and associated policy options related to research and improvements in technology to advance the goal of ensuring a safe and sustainable supply of water in the United States.

Currently, USDA and the re-established SWAQ are convening a workgroup of Federal technical specialists and managers to identify and promote more efficient agricultural water use methods that can be implemented throughout Federal, State, tribal, local, and academic institutions. The workgroup will include career experts from across the Federal family including the Department of the Interior, U.S. Geological Survey, Bureau of Reclamation; Department of Commerce, NOAA, National Institute of Standards and Technology; Environmental Protection Agency; National Science Foundation; Department of Energy; USACE; National Aeronautics and Space Administration; and The White House Office of Science and Technology Policy to participate in the agricultural water use working group. *Going forward*, by December 2016, the workgroup will convene and discuss a plan for researching the five focus areas outlined in the President's Memorandum.

Action 2: Conduct Research to Optimize and Improve Energy-Sector Water Use

Lead Coordinating Agency: Department of Energy

The Department of Energy (DOE) is pursuing research into technologies that reduce the need for cooling water in thermoelectric generation and related industrial processes. In furtherance of that research agenda, in May 2016, DOE organized a joint workshop with the Electric Power Research Institute (EPRI) where attendees from industry, government, academia, and non-governmental organizations were asked to develop regional water goals for the U.S. power sector and outline strategies to reach those goals. *Going forward*, DOE will use the meaningful insights gained through this workshop to help inform ongoing efforts, including Research and Development investments and policy analysis.

Action 3: Conduct Research to Improve Performance and Reduce Energy Requirements and Carbon Emissions from Water-Treatment Technologies

Lead Coordinating Agency: U.S. Department of Energy

DOE is pursuing research into technologies that reduce energy requirements and carbon emissions of water-treatment technologies in order to make alternative water resources more accessible. Recently, DOE has taken steps to catalyze this research. In May 2016, eight selections were made for desalination research by DOE's Advanced Manufacturing Office through a Small Business Innovation Research funding opportunity announcement. In support of small businesses and innovation research, these water desalination projects will pursue a range of cost effective solutions to meet the growing need for more secure sources of water and power.

Additionally, DOE is working to establish a network of water resource recovery test bed facilities that will link these

facilities to one another and to innovators, manufacturers, utilities, regulators, policymakers, and educators. The goal of this network is to reduce the energy footprint for resource recovery and water treatment by accelerating energy efficiency and energy positive wastewater recovery technology. In June, DOE, EPA, and the National Science Foundation (NSF) held a workshop to envision the structure of a national test bed network and define several key metrics that new technologies should measure and report when being evaluated at the national test bed network. This workshop focused on identifying stakeholder needs and objectives, and developing plans for the formation, operation, and assessment of the test bed network.



Above: A desalination plant in California. DOE's Advanced Manufacturing Office recently funded 8 projects to undertake innovative research on desalination.

Action 4: Highlight Resilience Successes from the Municipal Sector

Lead Coordinating Agencies: U.S. Environmental Protection Agency and the White House National Science and Technology Council, Subcommittee on Water Availability and Quality

Many communities throughout the country are successfully implementing long-term drought-resilience action and programs. These communities span the entire Nation from the Southeast to the Pacific Northwest, to the desert Southwest. EPA, in conjunction with the White House National Science and Technology Council, Subcommittee on Water Availability and Quality (SWAQ), has begun identifying these successful local programs.

Going forward, EPA and SWAQ will work with communities to identify best practices and case studies that highlight effective planning, multi-sector collaboration, and financing for drought resilience. EPA has identified several websites to host the case studies once they are developed, including Drought.gov and EPA's Climate Ready Water Utilities website. By December 2016, EPA and SWAQ anticipate developing six or more case studies. Additionally, EPA and SWAQ are investigating how communities can develop and submit their own case studies for inclusion.

Action 5: Establish a Soil Health Monitoring and Enhancement Network

Lead Coordinating Agency: U.S. Department of Agriculture, Natural Resources Conservation Service

NRCS is working to establish a network to provide geographically-referenced information on soil health to assess the effect of management practices on different soils and under various climate and land uses that will serve as a significant indicator of agriculture-related demand for water and to identify methods for improving soil health and pre-



venting future degradation. NRCS is developing a project plan for a soil health network that will be complete by December 2016. In June, NRCS finalized the initial plan and will present it to the NRCS Chief for concurrence and approval.

Going forward, NRCS is laying the groundwork for implementation of the proposed plan. By October 2016, NRCS will assign staff and teams to work on one or more specific sub-project components, and by November, the teams will begin initiating data collection and database development.

Action 6: Develop Municipal Water-Recycling Technical Assistance

Lead Coordinating Agency: Environmental Protection Agency

The EPA Office of Water conducted a risk assessment to evaluate the potential microbial risks associated with various potable reuse treatment combinations for recycled water. The results illustrated human health-based advantages for potable reuse projects in which product water is introduced into the raw water supply immediately upstream of a conventional drinking water treatment facility, compared to those in which product water is introduced directly into a potable water supply distribution system. *Going forward*, EPA plans to create a Technical Guide highlighting some of the findings of this work. This work will be useful to Federal and State regulators considering highly treated reused water as source water, State and local decisionmakers considering whether to permit a particular potable reuse project, or engineers considering which unit treatment processes should be employed for particular projects.

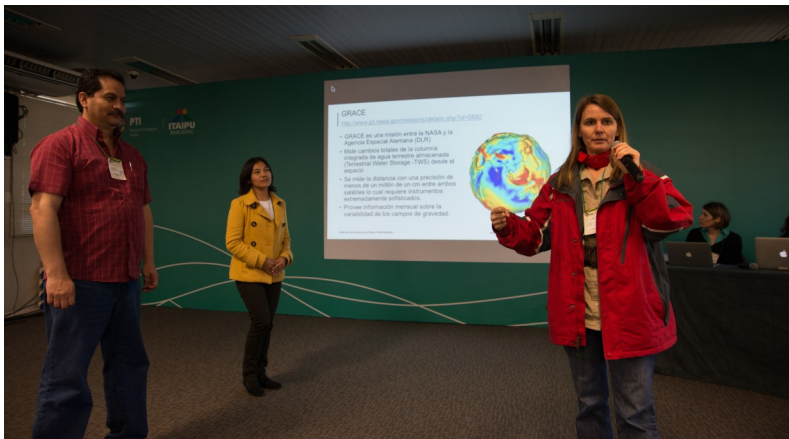
EPA's Office of Research and Development's Safe and Sustainable Water Resources Research Program (SSWR) is conducting studies on risk assessment methods for potable and non-potable reuse systems, and on the application of innovative bioassays for use in safety screening of fit-for-purpose treatment of reused water. *Going forward*, EPA scientists are using existing data from internal studies and external projects to provide transformative water management systems for communities where water reuse and stormwater capture plays a central role. SSWR funded 5 water reuse-related STAR grants for quantifying water reuse impacts in the Potomac watershed. Projects included topics such as advancing ultraviolet light and solar disinfection systems to reduce viral pathogens, stormwater harvesting, quantifying microbial risk and sustainability of potable reuse systems, and assessing plant accumulation of chemicals from reused irrigation water in agriculture. EPA is developing technical guides based upon this research.

Action 7: Maximize Use of Existing Diplomatic Engagement Structures to Advance International Drought-Related Research and Collaboration

Lead Coordinating Agencies: Department of State, Department of the Interior and Army Corps of Engineers

The Department of State (DOS) DOI, and USACE are engaging with key countries and multilateral institutions to share best practices and research on drought with United States technical experts. The agencies have identified three main strategies for engagement.

First, enhancing interagency participation in global intergovernmental drought initiatives, including multilateral institutions such as the World Meteorological Organization Integrated Drought Management Program and the United Nations International Hydrological Program. For example, in July 2016 the United States hosted a training course on “Application of Satellite Remote Sensing to Support Water Resources Management in Latin America and the Caribbean,” in Foz do Iguacu, Brazil. This course presented U.S.-based tools to an international audience, including several days on drought tools. Additionally, the event offered an opportunity to learn from other countries' knowledge and experiences.



Left: The GRACE satellite is presented at the remote sensing international training course in Foz do Iguacu, Brazil.

Secondly, Federal partners are working to enhance bilateral interagency collaboration on drought, based on existing diplomatic engagements, specifically with countries such as Australia and South Africa. A few examples of this collaboration include:

- ◆ *Boulder, Colorado, USA*- June 2016- Federal partners from NOAA, DOS, DOI, and EPA attended the Drought in Federal Rivers Symposium and Martz Conference on Water Scarcity. The conference hosted officials, researchers, and practitioners from Australia, Spain, South Africa, and Brazil to discuss drought and water management.
- ◆ *Johannesburg, South Africa*- June 2016- The United States participated in a roundtable discussion on Drought/Climate Resilience in Johannesburg, South Africa. The bilateral and interagency dialogue focused on the establishment of a hydrology center/facility for South Africa.
- ◆ *Washington, D.C., USA* - July 2016- DOI, DOS, and USACE met with the Center for Water Security and Cooperation about participating in a new US-Spain cooperative program that will focus on drought resilience and governance.
- ◆ *Washington, D.C., USA*- July 2016- State hosted a Science & Technology information exchange between the South African Water Research Commission and members of the U.S. Government, including Reclamation, USGS, NASA, and the Air Force.

Third, partners are enhancing interagency communication on international drought activities and upcoming events internally through channels such as Drought.gov.

- ◆ USACE is working to expand the existing Federal portal (watertoolbox.com) to help partners, stakeholders, and the private sector understand climate risks for international investments and drought-related issues, and to incorporate Integrated Regional Water Management case studies. This project is expected to be complete by December 2016.
- ◆ USACE will also expand the portal to include information on international techniques useful for communities in the United States, especially information helpful for remote, low-income or isolated communities or tribes.

Appendix A: List of Abbreviations

ALS	Airborne Laser Scanning
CASPER	Community Assessment for Public Health Emergency Response
CDC	Centers for Disease Control and Prevention, Department of Health and Human Services
CFLRP	Collaborative Forest Landscape Restoration Program, U.S. Forest Service
CoCoRaHS	Community Collaborative Rain, Hail and Snow Network
DHS	Department of Homeland Security
DHS-FEMA	Department of Homeland Security, Federal Emergency Management Agency
DHS-IP	Department of Homeland Security, Office of Infrastructure Protection
DOC	Department of Commerce
DOE	Department of Energy
DOI	Department of the Interior
DOS	Department of State
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
EQIP	Environmental Quality Incentives Program, U.S. Department of Agriculture
FS	U.S. Forest Service, U.S. Department of Agriculture
HHS	Department of Health and Human Services
LiDAR	Light Detection and Ranging Remote Sensing
NASA	National Aeronautics and Space Administration
NDMC	National Drought Mitigation Center, University of Nebraska, Lincoln
NDRP	National Drought Resilience Partnership
NIDIS	National Integrated Drought Information System
NMME	North American Multi-Model Ensemble
NOAA	National Oceanic and Atmospheric Administration, Department of Commerce
NRCS	Natural Resources Conservation Service, U.S. Department of Agriculture
NRIC	Natural Resources Investment Center, U.S. Department of the Interior
NRWA	National Rural Water Association
NSF	National Science Foundation
NSTC	National Science and Technology Council
NWS	National Weather Service, National Oceanic and Atmospheric Administration
OSTP	Office of Science and Technology Policy, The White House
PM	Presidential Memorandum, Building National Capabilities for Long-Term Drought Resilience
RAWS	Remote Automatic Weather Stations
RCAP	Rural Community Assistance Partnership
RCPP	Regional Conservation Partnership Program
RD	Rural Development, U.S. Department of Agriculture
Reclamation	Department of the Interior, United States Bureau of Reclamation
ROI	Rural Opportunity Investment Initiative, U.S. Department of Agriculture
RISA	Regional Integrated Science and Assessment, National Oceanic and Atmospheric Administration
SNAPP	Science for Nature and People Partnership
SRF	Clean Water and Drinking Water State Revolving Funds
SSWR	Safe and Sustainable Water Resources Research Program, Environmental Protection Agency
SWAQ	Subcommittee on Water Availability and Quality
UCAR	University Corporation for Atmospheric Research
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey, Department of the Interior
WaSSI	Water Supply Stress Index
WaterSMART	Water (Sustain and Manage American Resources for Tomorrow) Program, Department of the Interior
WIRFC	Water Infrastructure and Resiliency Finance Center, Environmental Protection Agency

Appendix B: National Drought Resilience Partnership Leadership

Principals Committee Co-Chairs

Robert Bonnie

Under Secretary for Natural Resources and Environment
Department of Agriculture

Dr. Christine Blackburn

Performing the Duties of Assistant Secretary of Commerce for Conservation and Management
National Oceanic and Atmospheric Administration
Department of Commerce

Steering Committee Co-Chairs

Ann Mills

Deputy Under Secretary for Natural Resources and Environment
Department of Agriculture

Peter Colohan

National Oceanic and Atmospheric Administration
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Executive Officer:

Caroline Dvorsky

Department of Agriculture
Caroline.dvorsky@osec.usda.gov

Goal Leaders:

Goal 1: Mark Brusberg, Department of Agriculture

Goal 2: Katherine Ledesma, Department of Homeland Security

Goal 3: Claudia Nierenberg, Department of Commerce,
National Oceanic and Atmospheric Administration

Goal 4: David Raff, Department of the Interior

Goal 5: Jim Gebhardt, Environmental Protection Agency

Goal 6: Roger Gorke, Environmental Protection Agency



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Earth System Research Laboratory
325 Broadway – David Skaggs Research Center
Boulder, Colorado 80305-3337

September 9, 2016

Mr. John Tubbs
Director
Montana Department of Natural Resources and Conservation

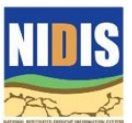
Dear John:

We would like invite you to serve for a year-long term on the Executive Council of NOAA's National Integrated Drought Information System (NIDIS) as a Governor's Office representative. This role on the Executive Council provides rotational representation at the State Executive level, and is held by a Governor (or his/her designee) chairing one of the Governors' Associations.

NIDIS is a multi-agency partnership led by the National Oceanic and Atmospheric Administration (NOAA) to coordinate drought monitoring, forecasting, and early warning at watershed, state, and county levels across the United States. Authorized and established by Congress in December 2006, NIDIS's goal is to improve our nation's capacity to manage drought-related risks by providing the best available information and tools to assess the potential impacts of drought, and to prepare for and mitigate the effects of drought. Over the course of its first 10 years, NIDIS has:

- Developed a national interagency and interstate implementation team
- Launched a web-based drought portal, providing comprehensive, national-level information on emerging and ongoing drought conditions and planning resources
- Helped to tailor climate forecasts and tools to watersheds and local scales; and
- Fostered collaborative work among Federal agencies, tribes, states, and local governments to leverage existing observation and monitoring systems to help communities cope with the impacts of drought.

In 2014, NIDIS was reauthorized by Congress (Public Law 113-86) with strong bipartisan support. The Executive Council is the overarching governing body for the NIDIS program, providing oversight to all aspects of the program. That oversight includes ensuring collaboration among federal and state agencies in order to advance the goals of NIDIS; developing new partnerships that strengthen the integration of NIDIS activities across levels of government and community; and providing guidance on critical policy and implementation issues and ideas from those engaged with NIDIS.



The 2007 NIDIS Implementation Plan specifies three interacting components to govern NIDIS, including the Executive Council, the NIDIS Program Office, and the NIDIS Program Implementation Team (consisting of six Working Groups). As stated in the Plan, members of the Executive Council consist of “senior representatives from the lead agencies (such as USDA, DOI, and others) and also include the Regional Governors’ Associations and Water Councils, River Basin Commissions, state government, the private sector, and academia.”

We request that you save the date to participate in the NIDIS Executive Council meeting on Thursday, October 27, 2016 from 9:00am-3:00pm (EDT) at the Hall of States in Washington, D.C. This will be the first meeting of the Executive Council since NIDIS was reauthorized in 2014, and we are excited to discuss the 2016 Update to the Implementation Plan, the status of NIDIS, and future milestones.

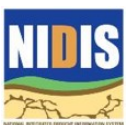
Thank you for considering to join this important governing body. Please respond to NIDIS Program Coordinator Elizabeth Ossowski (Elizabeth.Ossowski@noaa.gov) with your willingness to participate. We also look forward to speaking further with you on the phone in the next few days to discuss this opportunity.

Very Respectfully,

Dr. Roger S. Pulwarty
Co-Chair, NIDIS Executive Council
Senior Advisor for Climate Research, NOAA, Climate Program

Tony Willardson
Co-Chair, NIDIS Executive Council
Executive Director, Western States Water Council

Veva Deheza
NIDIS Executive Director



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Tab XYZ – Sunsetting Positions for Spring
2017 WSWC Meetings (#360 -
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**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
regarding the
BUREAU OF RECLAMATION'S
MAINTENANCE, REPAIR AND REHABILITATION NEEDS
Arlington, Virginia
April 3, 2014**

WHEREAS, the Bureau of Reclamation operates hundreds of dams, reservoirs, and related infrastructure in the West, supplying water and power to millions of people, irrigating millions of acres for food and fiber, providing flood control and recreation, and supporting wildlife and habitat; and

WHEREAS, the importance of maintaining these projects cannot be overstated; and

WHEREAS, many of Reclamation's facilities are nearing, or have already exceeded, their design lives and are in need of maintenance, repair, and/or rehabilitation (MR&R), threatening public safety as well as private and public property; and

WHEREAS, Reclamation's funding has not kept pace with its MR&R needs; and

WHEREAS, Reclamation estimates that the backlog of projects needed to address its MR&R needs is \$2.6 billion; and

WHEREAS, Congress and the Administration must have access to consistent and accurate information on Reclamation's MR&R needs to address these needs through investments that are based on long-term capital budgeting efficiencies rather than annual incremental choices; and

WHEREAS, state water managers require this information to carry out their water planning and other water administration activities; and

WHEREAS, in recent years, Reclamation has made progress in developing and improving estimates of MR&R needs for infrastructure under its jurisdiction; and

WHEREAS, notwithstanding these improvements, much of the currently available information regarding Reclamation's MR&R needs is inconsistent and difficult to obtain, including the basis for Reclamation's MR&R backlog estimates; and

WHEREAS, a process is needed to evaluate Reclamation MR&R needs pursuant to standard asset management criteria that evaluate risks to: (1) human health and safety; (2) economic growth; and (3) the environment.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council urges Congress and the Administration to work together to develop a standardized process to provide the most up-to-date, consistent, and accurate information regarding Reclamation's MR&R needs, including the estimated costs of those needs and the relative priority or importance of addressing those needs; and

BE IT FURTHER RESOLVED that Reclamation should ensure that appropriate information on its MR&R needs is readily accessible and easy to understand by Congress, state policy makers, and the public.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
regarding the
RECLAMATION SAFETY OF DAMS ACT OF 1978
Arlington, Virginia
April 3, 2014**

WHEREAS, the Bureau of Reclamation's dams and reservoirs are the primary source of water for numerous regions and communities throughout the West; and

WHEREAS, Reclamation's dams and reservoirs provide essential benefits such as drinking water, irrigation, hydropower, flood control, and recreation, while also supporting wildlife and habitat; and

WHEREAS, the safe operation and maintenance of Reclamation's dams is critical to sustaining these benefits and preventing dam failure, which threatens lives as well as private and public property; and

WHEREAS, many of Reclamation's dams are nearing, or have already exceeded, their design lives and are in need of rehabilitation or modernization; and

WHEREAS, maintaining and rehabilitating dams and related infrastructure is one of the most serious problems that Reclamation currently faces; and

WHEREAS, the Reclamation Safety of Dams Act of 1978 provides Reclamation with authority to preserve and maintain the structural safety of dams under its stewardship; and

WHEREAS, current authorizations for the Act will soon be exhausted; and

WHEREAS, failure to authorize such sums as are necessary for Reclamation's dam safety activities under the Act will increase the chances of dam failures by hindering the agency's ability to carry out critical dam safety rehabilitation and modernization efforts.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council urges the Administration and Congress to work together and determine such sums as may be necessary for Reclamation to carry out the purposes of the Reclamation Safety of Dams Act of 1978.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
regarding
THE TRANSFER OF FEDERAL WATER AND POWER PROJECTS
AND RELATED FACILITIES
Arlington, Virginia
April 3, 2014**

WHEREAS, past and present proposals have been made to transfer ownership of various federal agencies' water and power projects and related facilities to non-federal entities; and

WHEREAS, such transfers may offer important benefits, but many are necessarily very complex and involve many different interests, including important public and third-party interests protected under various state and federal laws; and

WHEREAS, many of these projects serve multiple purposes and were built (and their capital costs are being repaid) under longstanding agreements with water, power, and other users; and

WHEREAS, some single-purpose projects might be appropriately transferred under an expedited review process to their non-federal sponsors/operators by mutual agreement; and

WHEREAS, the many potential public benefits and costs related to transfers involve state and local governments and other interests, in addition to the federal government; and

WHEREAS, present and potential benefits may be lost unless there is a careful analysis of the transfer of individual projects; and

WHEREAS, federal project transfers require a careful project-by-project analysis of expected costs and benefits; and

WHEREAS, states have the primary responsibility for the comprehensive development, administration, and protection of their water resources for all purposes.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council supports the careful evaluation of the transfer of federal water and power assets and urges the Administration and Congress to work together to establish a process and develop appropriate criteria and guidelines for a project-by-project review of transfer proposals, with strong state involvement and protections for state water laws and water rights.



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
THE NATIONAL LEVEE SAFETY ACT OF 2007
and the
INTERPRETATION OF LEVEES AND WATER SUPPLY CANALS**

**Arlington, Virginia
April 3, 2014**

WHEREAS, Congress enacted the National Levee Safety Act of 2007 (the Act) in the aftermath of Hurricane Katrina and the failure of the levees and flood water conveyance canals in New Orleans, Louisiana;¹ and

WHEREAS, the Act created the “National Committee on Levee Safety” (NCLS) to develop recommendations for a national levee safety program, including a strategic plan for implementation of the program; and

WHEREAS, in January 2009, the NCLS released a draft report, “Recommendations for a National Levee Safety Program – A Report to Congress from the National Committee on Levee Safety;” and

WHEREAS, the report’s core recommendation calls for the creation of an independent National Levee Safety Commission to: (1) develop national safety standards for levees for common, uniform use by all federal, state, and local agencies; (2) inventory and inspect all levees on a periodic basis; and (3) develop national tolerable risk guidelines for levees; and

WHEREAS, Section 9002(3) of the Act defines the term “levee” as embankments that provide protection from weather events and are subject to water loading for only a few days or weeks a year, but also includes “structures along canals that constrain water flows and are subject to more frequent water loadings that do not constitute a barrier across a watercourse;” and

WHEREAS, the NCLS concluded that water supply canals are “... canals that constrain water flows and are subject to more frequent water loadings [than are levees] ...” and therefore treats the embankment sections of water supply canals as “structures along canals;” and

WHEREAS, the NCLS’s recommendations for a national program of safety standards and tolerable risk guidelines for levees might therefore be inappropriately applied to water supply canals throughout the West, including both non-federal facilities and federal facilities managed by the U.S. Bureau of Reclamation and state and local agencies; and

¹ 121 Stat. 1288, P.L. 110-114.,

WHEREAS, Reclamation already has authority under the Aging Water Infrastructure and Maintenance Act, which Congress enacted as part of the Omnibus Public Lands Management Act of 2009,² to address the canals it owns, and inspections of those embankment sections of canals located in urban areas; and

WHEREAS, the Water Resources Development Act currently in conference would create a National Levee Safety Program to encourage establishment of State and Tribal levee safety programs, recognizing States and Tribes are uniquely positioned to regulate local and regional levee systems; and

WHEREAS, the purpose of the program is to promote sound technical practices in levee design, construction, operation, maintenance, inspection, assessment, and security; and

WHEREAS, the program definitions for “canal structures” should specifically exclude water supply canals, which are fundamentally different from flood risk reduction systems that may include floodways and canals providing protection by moving floodwaters associated with precipitation accompanying hurricanes and other similar extreme weather-related events; and

WHEREAS, all 50 states confront levee issues, but the issues associated with water supply canals are essentially confined to the 17 western states; and

WHEREAS, there are major institutional differences between levees and water supply canals in the West and the “political systems” commonly used to govern levees that warrant treating them separately; and

WHEREAS, water supply canals are essentially standalone features whose integrity is not dependent on the performance of other canals, and therefore do not share the potential for systemic failure; and

WHEREAS, levees are designed to provide protection from flooding and make development behind them possible, while water supply canals serve a separate and distinct purpose; and

WHEREAS, the stakeholder communities and interests involved in addressing the issues related to levees and water supply canals are different, and addressing them jointly through a single national program would not be conducive to effectively addressing either set of issues; and

WHEREAS, potential public safety problems involving water supply canals do not often involve a lack of engineering expertise or design standards, but the ability to finance necessary improvements; and

WHEREAS, Reclamation and the states are in the best position to address the public safety issues presented by water supply canals because such issues are localized and minor in comparison to the risks associated with inadequately designed and maintained levees.

² 123 Stat. 991, P.L. 111-11.

NOW, THEREFORE, BE IT RESOLVED, that the Western States Water Council supports the development of a national program of safety standards for levees and flood water conveyance canals; and

BE IT FURTHER RESOLVED, that any proposed legislation creating a national program of safety standards for levees and flood water conveyance canals should not apply to federal or non-federal water supply canals; and

BE IT FURTHER RESOLVED, that the Western States Water Council encourages the Administration and Congress to work together and determine the level of adequate funding for the Aging Water Infrastructure and Maintenance Act; and

BE IT FURTHER RESOLVED, that the Administration and Congress should work together to encourage implementation of Title II of the Rural Water Supply Act of 2006,³ and provide for the use of federal loan guarantees for addressing extraordinary maintenance needs related to the operation of federal Reclamation projects.

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³ 120 Stat. 3345, P.L. 109-451.

See also Position #329 adopted April 15, 2011 in Santa Fe, New Mexico.



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding the
CLEAN WATER STATE REVOLVING FUND
and the
DRINKING WATER STATE REVOLVING FUND**

**Arlington, Virginia
April 3, 2014**

WHEREAS, the economies of every state and the Nation as a whole depend upon sufficient water supplies of suitable quality, which require adequate water and sewer infrastructure; and

WHEREAS, the Environmental Protection Agency's (EPA) Clean Water State Revolving Fund and Drinking Water State Revolving Fund (SRF programs) provide states with capitalization grants that are leveraged with state contributions to offer financial assistance to cities, towns, communities, and others for the planning, design, construction and rehabilitation of drinking water and wastewater-related infrastructure; and

WHEREAS, each state administers the SRF programs in coordination with EPA, and these programs are one of the principal tools that states use to pursue the goals of the Clean Water Act and Safe Drinking Water Act; and

WHEREAS, the nation's wastewater and drinking water infrastructure is aging and in need of repair and replacement; and

WHEREAS, the Environmental Protection Agency's (EPA) most recent estimates show a total capital investment need of \$298 billion for wastewater and stormwater infrastructure and \$334.8 billion for drinking water infrastructure nationwide over the next 20 years; and

WHEREAS, the EPA has identified a significant funding gap of nearly \$55 billion under current spending and operation practices; and

WHEREAS, the American Society of Civil Engineers has reported that failure to address this funding gap could lead to \$206 billion in increased costs for businesses and households by 2020, as well as a potential loss of up to 700,000 jobs; and

WHEREAS, federal appropriations and budget requests that would reduce SRF funding ignore the multitude of needs as identified by EPA, particularly given that many states and communities are struggling to meet their water and wastewater challenges in the face of growing populations and aging infrastructure; and

WHEREAS, to the extent federal law has established certain nationwide levels of treatment for drinking water and wastewater, the federal government has an obligation to provide states with the necessary financial and technical assistance needed to comply with such requirements, including the appropriation of adequate funding for SRF capitalization grants; and

WHEREAS, EPA's Clean Water and Drinking Water Infrastructure Sustainability Policy mandates that state SRF programs promote sustainable systems; and

WHEREAS, the SRF Programs already have measures in place to ensure system sustainability and account for individual state needs and priorities; and

WHEREAS, the SRF programs are one of the most successful delivery mechanisms for federal assistance; and

WHEREAS, new competing water and wastewater infrastructure funding programs should not come at the expense of the SRFs, which are a proven model for addressing water and wastewater infrastructure needs; and

WHEREAS, Congress has approved a number of additional restrictions on the states' management and use of SRF funds, including but not limited to: (1) mandating the use of between 20% and 30% of appropriated funds for principal forgiveness, negative interest loans, grants, or a combination thereof; (2) setting aside 10% of funds for green infrastructure, water or energy efficiency, or other environmentally innovative activities; and (3) "Buy American" provisions that limit the use of SRF funds to purchase certain types of materials and services; and

WHEREAS, although often well-intended, these types of restrictions are generally aimed at advancing policy objectives that are unrelated or contrary to the SRFs' primary purpose of providing funding for basic water infrastructure; and

WHEREAS, these types of restrictions reduce flexibility, increase administrative burdens and capital costs, and hinder the states' ability to manage the SRFs in the most cost effective manner; and

WHEREAS, additional restrictions on state SRF management represent unfunded federal mandates that impose significant regulatory burdens and make state SRF programs less attractive to local entities; and

WHEREAS, every federal dollar directed away from addressing the primary goal of the SRF programs reduces the capacity of a state to leverage their SRF programs and address infrastructure needs.

NOW, THEREFORE, BE IT RESOLVED, that the Administration and Congress should work together to ensure that stable and continuing federal appropriations are made to the SRF capitalization grants at funding levels that are adequate to help states address their water infrastructure needs; and

BE IT FURTHER RESOLVED, that the SRF programs should provide for greater flexibility and fewer restrictions on state SRF management.

See also Position #330 adopted April 15, 2011 in Santa Fe, New Mexico.