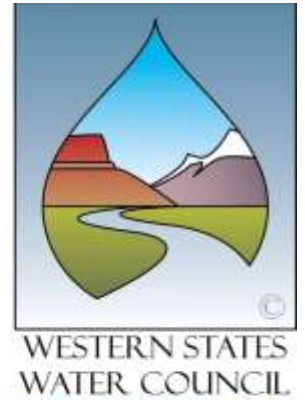


WESTERN STATES WATER COUNCIL



FALL 2020 WSWC MEETINGS

No Host “Virtual “



194 Council Meetings

October 13-15, 2020



WESTERN STATES WATER COUNCIL

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MEMORANDUM

TO: Council Members and Others
FROM: Tony Willardson, Executive Director
DATE: October 7, 2020
RE: Briefing Materials for the 194th WSWC Meetings

This is to advise you that briefing materials have been prepared for our fall meetings being held as a virtual event on October 13-15, and may be downloaded on our [Fall 2020 Meetings webpage](#). The minutes from our Summer meetings held on July 22 are available on our website (under Past Meetings) for your review. Please bring any necessary changes to the attention of staff.

The Executive Committee met on September 28th and reviewed the rewritten sunseting positions. As marked up, these positions are included under Tab C and will be further considered during the Committee meetings. The Legal Committee will consider additional revisions to Positions #415 and #416. All positions will be voted on during the Full Council meeting. The Executive Committee also discussed the budget and distinctions made between grant funds budgeted for the WaDE program and the Council's general line item revenue and expenses (required adjustments are presented under Tab D).

Please note that at the request of the federal Water Subcabinet, we have added a special session on Wednesday, October 14, from noon to 1:30 p.m. (Mountain Time) related to efforts to map Waters of the United States (WOTUS) under the new Navigable Waters Protection Rule (NWPR). We anticipate participation by: David P. Ross, Assistant Administrator for Water, Environmental Protection Agency (EPA); Tim Petty, Assistant Secretary of the Interior for Water and Science; and R.D. James, Assistant Secretary of the Army for Civil Works. Other Water Subcabinet members may also join. This will include a high-level policy discussion, technical explanations of work to date on WOTUS geospatial mapping, and a dialogue with members about moving forward.

EPA, Army Corps of Engineers, and Interior officials will describe the need for enhanced aquatic, stream and wetlands resource geospatial mapping and interagency efforts to date, with brief presentations from the U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service (FWS), and EPA's Office of Research and Development. All meeting agenda are posted on our [Fall 2020 Meetings webpage](#).

As a reminder, in order to participate in these virtual meetings, all must register. Registration links are found on our [Fall 2020 Meetings webpage](#). After registering, you will receive a confirmation email containing directions to join a Zoom webinar. As the links in the confirmation emails are unique to each individual registrant, they should not be shared. **NOTE:** For those who have already registered to attend our WSWC committee meeting webinars, the WOTUS Mapping Session will **require separate registration** which is available on our webpage or through [this link](#).

A virtual social hour will be held in connection with our Fall meetings on October 13 at 4:00 p.m. (Mountain) following the Water Quality Committee meeting. All are invited to join. We would appreciate your advance registration for this event as well through the link posted on our [Fall 2020 Meetings webpage](#).

If you have any questions regarding these matters, please let us know.

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

**WESTERN STATES WATER COUNCIL
194th COUNCIL MEETING
Virtual Fall Meetings
October 13-15, 2020**

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- B. Membership List
- C. WSWC Policy Positions

Sunsetting Positions

- L [Position #412](#) – Supporting Indian water rights settlements
- WR [Position #413](#) – Supporting prompt reauthorization of the Farm Bill in 2018
- WQ [Position #414](#) – Asserting state primacy on protecting groundwater quality
- L [Position #415](#) – Supporting the *Dividing the Waters* program for judges
- L [Position #416](#) – Federal agency actions to expedite general stream adjudications

List of Current WSWC Policy Statements

List of Sunsetting Positions

- D. Budget
- E. WSWC Activities and Events
- F. Future WSWC Meetings
- G. Council Membership Update
- H. Environmental Protection Agency (EPA) Office of Mountains, Deserts and Plains
- I. Water Reuse Summary
- J. Clean Water Act (CWA) Section 401 Certification
- K. Western Regional Partnership/Water Security Deep Dive
- L. Improving Subseasonal to Seasonal (S2S) Forecasts
- M. Airborne Snow Observatory (ASO)
- N. Water Data Exchange (WaDE) 2.0 Update
- O. Walla Walla Partnership
- P. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Q. State Survey: Curtailments, SEO structure, proving beneficial use (etc.)
- R. Update on Grazing Workshops
- S. Legislation and Litigation Update
- T. State Reports
- U. - *intentionally left blank* -
- V. - *intentionally left blank* -
- W. Newsletter Index
- XYZ. Sunsetting Positions for 2021 Spring Meetings (#417-#422)



SCHEDULE OF MEETINGS

WESTERN STATES WATER COUNCIL

Virtual Fall Meetings
(Due to COVID-19)
October 13-15, 2020

<u>Date</u>	<u>Time (MDT)</u>	<u>Meeting</u>	<u>Adjournment</u>
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Monday, September 28

3:30 pm	Executive Committee	4:30 pm
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NOTE: The Executive Committee will meet virtually separately on September 28th to address the sunsetting resolutions and other matters, and will report to the Full Council at the meeting on October 15th.

Tuesday, October 13

1:30 pm	Water Quality Committee	4:00 pm
4:00 pm	Virtual Social Hour	5:00 pm

Wednesday, October 14

9:00 am	Water Resources Committee	11:30 pm
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Break (30 min)

12:00 pm	Special Session on Waters of the United States (WOTUS) Mapping	2:00 pm
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Thursday, October 15

12:30 pm	Legal Committee	3:00 pm
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Break (15 min)

3:15 pm	WSWC Full Council (194 th) Meeting	4:00 pm
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AGENDA
EXECUTIVE COMMITTEE
Zoom Meeting
(Due to COVID-19)
September 28, 2020

Call to Order at: 3:30 p.m. (Mountain Daylight Time)

Conducting: Tim Davis, Chair

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
- D 3. **Report on Budget and Finances and Staffing** – Tony Willardson
 - a. FY2020-2021 Budget and Long-Term Outlook
 - b. Moore Foundation Grants Status Report
 - c. Office Administration
- C 4. **Sunsetting Positions** – Tim Davis
(all adopted on October 20, 2017)
 - L [Position #412](#) – Supporting Indian water rights settlements
 - WR [Position #413](#) – Supporting prompt reauthorization of the Farm Bill in 2018
 - WQ [Position #414](#) – Asserting state primacy on protecting groundwater quality
 - L [Position #415](#) – Supporting the *Dividing the Waters* program for judges
 - L [Position #416](#) – Federal agency actions to expedite general stream adjudications
- E 5. **Executive Director’s Report/WSWC Activities and Events** – Tony Willardson
- F 6. **Future WSWC Meetings** – Tim Davis

2021
Spring – El Paso, Texas – March 23-26, 2021
Summer – Cody, Wyoming – June 23-25, 2021
Fall – South Dakota (last held 10/4/13 in Deadwood)

2022 Meetings Projections
Spring – Washington, D.C.
Summer – Montana (last held 7/18/14 in Helena)
Fall – Oklahoma (last meeting on 4/17/15 in Tulsa)
- G 7. **Council Membership Update** – Tony Willardson
- XYZ 8. **Spring 2021 Meeting Sunsetting Positions** (all adopted on March 14, 2018)
 - WR [Position #417](#) – supporting Forecast Informed Reservoir Operations and Innovations
 - WR [Position #418](#) – supporting Weather Station Networks
 - WR [Position #419](#) – supporting Water Infrastructure Funding
 - WR [Position #420](#) – regarding Integrating Water and Energy Planning and Policy
 - WR [Position #421](#) – supporting Federal Research on Climate Adaptation
 - L [Position #422](#) – State Primacy over Groundwater
9. **Other Matters**

4:30 p.m. Adjourn

AGENDA

WATER QUALITY COMMITTEE MEETING

Virtual Fall Meeting

(Due to COVID-19)

October 13, 2020

Call to Order at: 1:30 p.m. (Mountain Daylight Time)

Zoom Webinar

Conducting: Kent Woodmansey, Erica Gaddis

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
- C 3. **Sunsetting Positions for Fall 2020 Meetings** – Kent Woodmansey/Erica Gaddis
#414 – Asserting state primacy on protecting groundwater quality
- H 4. **EPA Update**
 - a. EPA’s Office of Mountains, Deserts and Plains – Roger Gorke
 - b. EPA’s New Municipal Ombudsman – Roger Gorke, Jamie Piziali
- I 5. **Water Reuse**
 - a. WSWC Water Reuse Report Update – Jessica Reimer
 - b. Recap of State Summit on Water Reuse – Michelle Bushman
- J 6. **CWA Section 401 Certification MOUs**
 - a. Update on MOU development process – Jessica Reimer
 - b. Roundtable discussion on MOU and next steps
7. **Water Quantity/Quality Nexus**
 - a. Roundtable discussion on recent developments and focus going forward
8. **Harmful Algal Blooms**
 - a. Utah HAB updates – Erica Gaddis
 - b. Kansas HAB updates – Tom Stiles
9. **Sunsetting Position for Spring 2021 Meetings** - Kent Woodmansey
(none)
10. **Other Matters**

Adjourn

AGENDA

WATER RESOURCES COMMITTEE

Fall 2020 Virtual Meeting
(Due to COVID-19)
October 14, 2020

Called to Order at: 9:00 a.m. (Mountain Daylight Time)
Conducting: Mary Verner

Zoom Webinar

TABS

1. **Welcome and Introductions**
2. **Approval of Minutes**
- C 3. **Sunsetting Positions –**
[Position #413](#) – Supporting prompt reauthorization of the Farm Bill in 2018
4. **USGS Water Resources Program** – Don Cline, Associate Director, Water Resources Mission Area
- S 5. **Federal Water Infrastructure Legislation** – Tony Willardson
- K 6. **Western Regional Partnership: Water Security Deep Dive** – Amy Duffy
- L 7. **Improving Subseasonal to Seasonal (S2S) Forecasts** – Jeanine Jones
- M 8. **Airborne Snow Observatory (ASO)** – Jeanine Jones
- N 9. **WaDE 2.0 Update & Dashboard Demonstration** – Adel Abdallah and Ryan James
10. **Water Use Metering, Monitoring and Reporting** (Roundtable Discussion)
- O 11. **Walla Walla Partnership** – Mary Verner & Tom Byler
- XYZ 12. **Sunsetting Positions for 2021 Spring Meetings –**
[Position #417](#) – supporting Forecast Informed Reservoir Operations and Innovations
[Position #418](#) – supporting Weather Station Networks
[Position #419](#) – supporting Water Infrastructure Funding
[Position #420](#) – regarding Integrating Water and Energy Planning and Policy
[Position #421](#) – supporting Federal Research on Climate Adaptation
13. **Other Matters**

Adjourn by 11:30 a.m.

LEGAL COMMITTEE MEETING

Virtual Fall Meetings

(Due to COVID-19)

October 15, 2020

Call to Order at: 12:30 pm (Mountain Daylight Time)
Conducting: Chris Brown, Chair

Zoom Webinar

TAB

1. **Welcome and Introductions**
 2. **Approval of Minutes**
 - C 3. **Sunsetting Positions** (all adopted October 20, 2017)
Position #412 – supports Indian water rights settlements
Position #415 – supports the Dividing the Waters program for judges
Position #416 – Outlines actions federal agencies should take to expedite general stream adjudications
 - P 4. **CERCLA and State Water Permits** – Kenneth Titus
 5. **Dividing the Waters** – Steve Snyder
 6. **Colorado River Beds: Update on Hill v. Warsewa** – Scott Steinbrecher
 7. **Walker Lake: Prior Appropriations and Public Trust Doctrine** – Micheline Fairbank
 - Q 8. **State Survey: Curtailments, proving beneficial use, SEO structure**
 - R 9. **Update on Grazing Water Rights** – Michelle Bushman
 - S 10. **Legislation and Litigation Update** – Michelle Bushman
 - a. WOTUS
 - b. CWA §401
 - XYZ 11. **Sunsetting Positions for Spring 2021 Meetings** – Chris Brown
[Position #422](#) – State Primacy over Groundwater
 12. **Other Matters**
- 3:00 p.m. **Adjourn**

AGENDA

194th COUNCIL MEETING

No-Host - Virtual Fall Meeting
(Due to COVID-19)
October 15, 2020

Call to Order at: 3:15 p.m. (Mountain Daylight Time)
Conducting: Tim Davis, Chair

Zoom Webinar

TAB

1. **Welcome and Introductions**
2. **Approval of Minutes**
3. **Committee Reports – Action Items**
 - C a. Water Resources Committee – Mary Verner
 - C b. Water Quality Committee – Kent Woodmansey
 - C c. Legal Committee – Chris Brown
 - C d. Executive Committee – Jen Verleger
4. **WestFAST Report – Pat Lambert, WestFAST Chair**
 - a. WestFAST Webinars Update
- T 5. **State Reports**
- F 6. **Future Council Meetings – Tim Davis**
- XYZ 7. **Sunsetting Positions for Spring 2021 Meetings - #417 - #422**
8. **Other Matters**
- 4:00 p.m. Adjourn



WESTERN STATES WATER COUNCIL

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Web Page: www.westernstateswater.org

MEMORANDUM

TO: Council Members

FROM: Tony Willardson, Executive Director

DATE: September 15, 2020

RE: **30-Day Notice of Fall 2020 (194th) WSWC Meetings – Oct 13-15, 2020**

This memo is to notify you that the 194th meetings of the Western States Water Council will be held **virtually** on October 13-15, with the Full Council Meeting on October 15. In keeping with our rules of organization, any external policy positions to be proposed for Council consideration must be noticed 30-days in advance of the meeting.

No new positions have been proposed for consideration. The following five positions adopted on October 20, 2017 are scheduled to sunset at this meeting, if not renewed:

- Position #412** – Supporting Indian water rights settlements
- Position #413** – Supporting prompt reauthorization of the Farm Bill in 2018
- Position #414** – Asserting state primacy on protecting groundwater quality
- Position #415** – Supporting the *Dividing the Waters* program for judges
- Position #416** – Federal agency actions to expedite general stream adjudications

We anticipate revision and readoption of the sunseting positions with the possible exception of Position #413, which may lapse as the Farm Bill was subsequently reauthorized and does not expire until 2023.

All of the sunseting positions are attached and are also available on our [website](http://www.westernstateswater.org). In keeping with our usual practice, any recommended changes will be brought up for action during the Full Council meeting. We would encourage you to consult with your respective Governor's advisor and Western Governors' Association Staff Advisory Council (SAC) member, regarding the sunseting policy positions in advance.

The Executive Committee will meet virtually and will consider revisions and recommendations regarding readoption or sunseting of the positions on Monday, September 28th, beginning at 3:30 p.m. Mountain Time (2:30 pm Pacific; 4:30 pm Central) and concluding by 4:30 p.m. Committee Chairs are invited to participate as well. Meeting details are being provided separately to Executive Committee members, who may designate an alternate to join and engage in the discussion.

The Council's internal policy specifies that for the purpose of the Council meetings, for participation by persons who are not Governor-appointed WSWC representatives, the appointed member must provide written notification of any designee to act on their behalf. An email to Tony with the name of your designee is sufficient.

Please note that although the Council meetings are being held virtually, you must register in advance to join the Zoom webinar. Registration is available [here](#) and on our [meetings webpage](#). After registering, you will receive a confirmation email which provides the link and instructions about joining the webinar. Do not share this link. If you are aware of anyone else wishing to participate remotely, please advise them to go to the meetings webpage to register for themselves or to contact WSWC staff. Please let us know if you have questions or issues using Zoom.

Attached is a schedule of meetings for your reference. Please note that the WSWC Committee meetings will be held over a three-day period, beginning with the Water Quality Committee on Tuesday, October 13 at 1:30 p.m. through 4:00 p.m. The Water Resources Committee meeting will begin on Wednesday, October 14 at 9:00 a.m. and adjourn at 11:30 a.m. The Legal Committee will commence at 12:30 p.m. until 3:00 p.m. on Thursday, October 15, and the Full Council meeting will follow from 3:15 p.m.- 4:00 p.m. The meeting agenda will be available on the [meetings webpage](#).

A virtual social hour is also scheduled on Tuesday afternoon from 4:00 – 5:00 pm, and all are welcome to register and join via a Zoom meeting. *Please note this is a separate registration and Zoom link from that of the Committee and Full Council meetings.* Please [register here](#) in advance for the social hour.

WSWC briefing materials will also be available electronically for download from our webpage as usual. We recommend that each state submit a brief one-page report on water issues and events in your state in advance, to be included in the briefing materials. Written state reports should be submitted no later than October 2, 2020. In order to receive a hard copy binder of the briefing materials, please contact Julie at jgroat@wswc.utah.gov no later than October 2nd, so that a book may be prepared and shipped to you in advance of the meetings.

As you may recall, it has been suggested that we include pictures of members on our website, particularly since we're meeting virtually. For this purpose, we would appreciate it if you would send a picture to us at your earliest convenience by mail or email. By sending us your picture, you are consenting to allow us to post it on our website.

As previously advised, it is our sincere hope to return to in-person meetings next spring, and a revised schedule of meetings and host states has been prepared and will be included in the meeting briefing materials.

We look forward to productive meetings and encourage you to join us virtually. Please contact me at twillardson@wswc.utah.gov with any questions or if we may be of assistance.

Tab B – Membership List

WESTERN STATES WATER COUNCIL

MEMBERSHIP LIST

October 1, 2020

OFFICERS

Chair - **Tim Davis**
Vice-Chair - **Jennifer Verleger**
Secretary-Treasurer - **Jon Niermann**

STAFF

Executive Director - **Tony Willardson**
Assistant Director/General Counsel - **Michelle Bushman**
Policy Analyst - **Jessica Reimer**
Wade Program Manager - **Adel Abdallah**
Data Analyst/Hydroinformatics Specialist - **Ryan James**
Office Manager - **Cheryl Redding**
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Jesse Bradley - Nebraska
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John Paczkowski - North Dakota
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Steve Wolff - Wyoming

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Jennifer Verleger
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Jon Niermann
(Secretary/Treasurer)
Tony Willardson
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*For purposes of Committee rosters, the designation as an "alternate" only reflect the person's function on the Committee.

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Tab C – WSWC Policy Positions



RESOLUTION
of the
WESTERN STATES WATER COUNCIL
in support of
INDIAN WATER RIGHTS SETTLEMENTS
Albuquerque, New Mexico
October 2015, 2017

WHEREAS, the Western States Water Council, an instrumentality of eighteen western states advising Western Governors on water policy, has consistently supported negotiated settlement of disputed Indian water rights claims; and

WHEREAS, the public interest and sound public policy require the resolution of Indian water rights claims in a manner that is least disruptive to existing uses of water; and

WHEREAS, negotiated quantification of Indian water rights claims is a highly desirable process which can achieve quantifications fairly, efficiently, and with the least cost; and

WHEREAS, the advantages of negotiated settlements include: (i) the ability to be flexible and to tailor solutions to the unique circumstances of each situation; (ii) the ability to promote conservation and sound water management practices; and (iii) the ability to establish the basis for cooperative partnerships between Indian and non-Indian communities; and

WHEREAS, the successful resolution of certain claims may require “physical solutions,” such as development of federal water projects and improved water delivery and application techniques; and

WHEREAS, the United States has developed many major water projects that compete for use of waters claimed by Indians and non-Indians, and has a responsibility to both to assist in resolving such conflicts; and

WHEREAS, the settlement of Native American water claims and land claims is one of the most important aspects of the United States’ trust obligation to Native Americans and is of vital importance to the country as a whole and not just individual tribes or States; and

WHEREAS, the obligation to fund resulting settlements is analogous to, and no less serious than the obligation of the United States to pay judgments rendered against it; and

WHEREAS, Indian water rights settlements involve a waiver of both tribal water right claims and tribal breach of trust claims that otherwise could result in court-ordered judgments against the United States and increase costs for federal taxpayers; and

WHEREAS, current budgetary pressures and legislative policies make it difficult for the Administration, the states and the tribes to negotiate settlements knowing that they may not be funded because either they are considered earmarks or because funding must be offset by a

corresponding reduction in some other expenditure, such as another tribal or essential Interior Department program;

NOW, THEREFORE, BE IT RESOLVED, that the Western States Water Council reiterates its support for the policy of encouraging negotiated settlements of disputed Indian water rights claims as the best solution to a critical problem that affects almost all of the Western States; and

BE IT FURTHER RESOLVED, that the Western States Water Council urges the Administration to support its stated policy in favor of Indian land and water settlements with a strong fiscal commitment for meaningful federal contributions to these settlements that recognizes the trust obligations of the United States government; and

BE IT FURTHER RESOLVED, that Congress should expand opportunities to provide funding for the Bureau of Reclamation to undertake project construction related to settlements from revenues accruing to the Reclamation Fund, recognizing the existence of other legitimate needs that may be financed by these reserves; and

BE IT FURTHER RESOLVED, that Indian water rights settlements are not and should not be defined as Congressional earmarks; and

BE IT FURTHER RESOLVED, that steps be taken to ensure that any water settlement, once authorized by the Congress and approved by the President, will be funded without a corresponding offset, including cuts to some other tribal or essential Interior Department program.

**Originally adopted March 21, 2003
Revised and reaffirmed Mar 29, 2006, October 17, 2008, October 7, 2011 and October 10, 2014
(See also Nos. 250, 275, 310, 336 and 376)*



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
FARM BILL CONSERVATION PROGRAMS
and
WATER RESOURCES**

Fall Virtual Meeting
October 15, 2020

WHEREAS, water is the lifeblood of the West and this is most apparent in the agricultural sector, which accounts for the predominant share of consumptive water use westwide; and

WHEREAS, agriculture sustains many rural economies and provides important employment opportunities both directly and indirectly; and

WHEREAS, increasing demands on often scarce water resources and periodic drought threaten the West and its agricultural base and the communities built on that base; and

WHEREAS, many agricultural producers in the West rely on irrigation surface water delivery systems that are shared among multiple producers and operated by an irrigation district, canal company, or mutual ditch company, while others rely on overdrafted and or overallocated groundwater basins; and

WHEREAS, maintaining a sustainable agricultural economy in the West requires promoting efficient water use and achieving net water savings, while maximizing production and in some cases assisting in the transition from irrigated to dryland farming; and

WHEREAS, U.S. Department of Agriculture conservation programs focus on conservation of ground and surface water resources, as well as reductions in nonpoint source pollution, including nutrients, sediment, pesticides and salinity; and

WHEREAS, many agricultural producers in the West voluntarily participate in USDA programs to implement conservation practices that improve water use efficiency, water quality and wildlife habitat; and

WHEREAS, the Farm Service Agency (FSA), Rural Development (RD), Natural Resources Conservation Service (NRCS), and National Water and Climate Center (NWCC) administer many water-related programs; and

WHEREAS, multiple USDA farm financial assistance programs are particularly important to producers and rural communities, water users and water quality managers, including the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), Conservation Stewardship Program (CSP), Emergency Watershed Protection Program (EWPP), Environmental Quality Improvement Program (EQIP) and its Conservation Innovation Grants (CIG) and Colorado River Salinity Control Program (CRSCP), and Regional Conservation Partnership Program, and others such as watershed protection and planning programs; and

WHEREAS, special EQIP funding also covers a number of initiatives, including the Drought, Ogallala Aquifer, National Water Quality, Resiliency to Climate Change, and Water Smart Initiatives; and

~~**WHEREAS**, existing acreage caps and spending and staffing limits are an obstacle to achieving further progress toward food and water supply security and reliability; and~~

WHEREAS, the Western States Water Council (WSWC) supports farm bill funding levels based on need rather than baseline budget targets; and

WHEREAS, the WSWC supports collaborative, targeted and voluntary conservation actions to address locally identified farm, range, forest and water resource concerns on private and public lands; and

WHEREAS, the WSWC supports actions to address secure water supplies, improved water quality, and drought and wildfire resilience, as well as wildlife habitat conservation and invasive species threats; and

WHEREAS, the WSWC supports the role of Conservation Title Programs in providing solutions to resolve water supply reliability, water quality impairments, groundwater recharge, and other water resource concerns facing agricultural water users and agricultural producers; and

~~**WHEREAS**, the WSWC supports changes to Conservation Title programs that remove existing barriers for western users and producers, and make the Farm Bill's conservation title programs more accessible and relevant and effective in stretching limited water resources; and~~

WHEREAS, the WSWC supports the continued efforts of the Rural Development to provide financial assistance for drinking water, wastewater facilities and other services to rural communities.

NOW, THEREFORE BE IN RESOLVED, that the Western States Water Council ~~supports prompt reauthorization of the next Farm Bill (prior to the current bill's 2018 expiration) to provide certainty and stability for farmers, ranchers and water users making long term decisions that impact not only rural communities, but our Nation's water resources, economy, food security and environment.~~

~~**BE IT FURTHER RESOLVED**, that the WSWC strongly supports Farm Bill Conservation Programs, raising acreage limitations as appropriate,~~ and providing sufficient funding to address water conservation, flood protection and water quality remediation needs.

BE IT FURTHER RESOLVED, that the WSWC supports regional cooperative agricultural programs such as EQIP Initiatives, the Colorado River Salinity Control Project, and the Regional Conservation Partnership Program.

BE IT FURTHER RESOLVED, that, the WSWC supports the work done by Rural Development to bring clean, safe drinking water and sanitation to rural communities.

BE IT FURTHER RESOLVED, that the WSWC supports investment in voluntary, incentive-based conservation programs that are implemented in coordination with state and local governmental partners, while providing the maximum flexibility possible and opportunity for innovation to create efficiencies, coordinate funding and achieve real water savings.



**POSITION
of the
WESTERN STATES WATER COUNCIL
on
PROTECTING GROUND WATER QUALITY**
Albuquerque, New Mexico Fall Virtual Meeting
October 13, 2020~~**October 20, 2017**~~
(revised and reaffirmed)

WHEREAS, ground water is a critically important natural resource, especially in the mostly arid West; and

WHEREAS, ground water management – the protection of its quality and its orderly, rational allocation and withdrawal for beneficial use – requires cooperation among all levels of government; and

WHEREAS, states recognize the importance and role of comprehensive ground water planning in overall water management; and

WHEREAS, the federal government has a longstanding policy of deferring to the states to develop and implement ground water management and protection programs; and

WHEREAS, most western states have legal systems to allocate ground water rights and further have the responsibility for ground water quality protection; and

WHEREAS, the regulatory reach of the Clean Water Act was not intended and should not be applied to the management and protection of ground water resources contravening state water law, policies and programs; and

WHEREAS, nothing stated in this position is intended to apply to the interpretation or application of any interstate compact;

NOW THEREFORE BE IT RESOLVED that any federal ground water quality strategy must recognize and respect state primacy, reflect a true state-federal partnership, and provide adequate funding consistent with current federal statutory authorities.

Originally adopted March 14, 1997

Revised and Reaffirmed:

Mar 14, 2000, Mar 21, 2003, Mar 29, 2006, Oct 17, 2008, Oct 7, 2011, and Oct 10, 2014

(See also Nos. 215, 230, 249, 274, 309, 337, and 377)



RESOLUTION
of the
WESTERN STATES WATER COUNCIL
regarding
The *Dividing the Waters* Program
~~Albuquerque, New Mexico~~
October ~~2015~~, ~~2020~~17

WHEREAS, the *Dividing the Waters* Program of the National Judicial College has served western judges overseeing complex water litigation for more than 20 years, providing information and training resources on water law and water conflicts to state, tribal, and federal judges; and

WHEREAS, five judicial officers with extensive experience in water adjudication lead *Dividing the Waters* for the benefit of their colleagues in the judiciary, making it a program by judges for judges; and

WHEREAS, the Program includes participating judicial officers from 12 western states who adjudicate a wide range of water cases, from statewide water right adjudications to conflicts over endangered species and water quality; and

WHEREAS, *Dividing the Waters* has received funding from public interest foundations for 22 years but foundation funding for education programs has dwindled in recent years ~~and its current funder, the Stephen J. Bechtel Foundation, closes its doors at the end of 2016~~; and

WHEREAS, it is in the interest of the executive branch water agencies of the western states to ensure that the judicial officers who adjudicate water cases in their states have an understanding of the fundamentals of western water law and the latest information on water adjudication; and

WHEREAS, ~~the recent recession has resulted in many states have~~ limited ~~state~~ funding for judicial branch education ~~in many states~~, particularly for water and related natural resource topics; and

WHEREAS, *Dividing the Waters* provides a critical link between the executive branch water agencies and the judicial branch that adjudicates water conflicts in the western states;

NOW, THEREFORE, BE IT RESOLVED, that the Western States Water Council supports *Dividing the Waters* and urges public interest foundations and other interested entities to provide funding for the program.



RESOLUTION
on the
FEDERAL GOVERNMENT'S ROLE IN EXPEDITING
STATE GENERAL STREAM ADJUDICATIONS
Albuquerque, New Mexico
October 2015, 2020

WHEREAS, the western states use general stream adjudications to quantify and document relative water rights within basins, including rights to waters claimed by the United States under either state or federal law; and

WHEREAS, general stream adjudications give certainty to water rights, provide the basis for water right administration, reduce conflict over water allocation and water usage, and incidentally facilitate important market transactions for western water rights; and

WHEREAS, Congress recognized the benefits of state general adjudication systems when it adopted the McCarran Amendment (43 U.S.C. §666), which requires the federal government to submit to state court jurisdiction for the adjudication of its water right claims; and

WHEREAS, adjudications typically involve hundreds or even tens of thousands of claimants, and federal water right claims are typically the largest, most complex, and costly to resolve; and

WHEREAS, the United States Supreme Court held in *United States v. Idaho*, 508 U.S. 1 (1992), that the McCarran Amendment does not require the United States to pay the filing fees and costs that many states use to help fund and reimburse the expenses associated with adjudications; and

WHEREAS, the Court's holding shifted much of the costs and expenses of adjudicating federal claims in many states to private water users and state taxpayers, draining state resources and significantly inhibiting the ability of both state and federal agencies to conduct adjudications in a timely manner, threatening private and public property interests; and

WHEREAS, requiring federal agencies to pay filing and other fees and costs and follow the same procedures as all other water right claimants would help ensure that their claims are legitimate, in conformity with state law, and made in good faith;

NOW THEREFORE BE IT RESOLVED that the Western States Water Council recommends policy changes at the federal level as follows:

1. As a matter of policy, federal agencies should pay a fair share of the fees and costs associated with adjudicating their claims in state adjudications. The federal government has discretion to adopt such a policy as a matter of fairness, even though not presently required to do so by law. Federal payment of filing fees was a common practice prior to the Court's *United States v. Idaho* decision.
2. General stream adjudications pursuant to the McCarran Amendment should be brought in state and not in federal court. Actions brought in federal court divert substantial resources from state adjudications and are contrary to the intent of the McCarran Amendment.
3. There must be high-level federal involvement in negotiations and mediation that often occur with regard to federal claims within the context of ongoing adjudications in order to be effective. Experience has shown that without the involvement of federal participants who have the authority

to make decisions, achieving agreements can be illusory and delay mutually beneficial outcomes. Policy direction must be provided by the relevant federal agencies.

4. Federal agencies should be given policy direction to ensure that federal claims filed in state adjudications have a sound basis in fact and law. States continue to encounter questionable claims that can be very costly to evaluate, thus diverting limited state resources from completing general stream adjudications, and which are ultimately of no benefit to the United States.
5. Federal agencies should place a higher priority on educating their leaders and applicable staff regarding western water rights. Leadership and staff for some federal agencies often have an incomplete understanding of the nature of their claims, the processes needed to resolve them, and state water law, which can result in federal actions and policies that hinder or delay the adjudication process or infringe on state authority and water management. Educating federal leaders and staff regarding western water rights will improve federal participation in the adjudication process, thereby improving the process as a whole.
6. Federal agencies should consult with states before asserting water rights claims. Federal water rights claims, particularly reserved water rights claims, can be contentious, time-consuming, costly, and counterproductive, often resulting in outcomes that do not adequately provide for federal needs or divisive to community needs and interests. States and federal agencies have worked together to craft mutually acceptable and innovative solutions to address federal water needs that are often more capable of accommodating federal interests. At a minimum, federal agencies should consult with states to consider alternatives before filing reserved water rights and other claims in adjudications.
7. Requiring the federal government to provide whatever evidence it may have to substantiate its claims at the time of filing would ensure that federal claims have a sound basis in fact, and also would facilitate timely review of those claims. Given the complexity and the contentiousness involving such claims, states are justified in asking the federal government to take this step. Doing so will expedite the process by: (1) minimizing the filing of questionable or non-compliant claims; and (2) providing a basis for states to ascertain early on the level of resources that states need to commit to the investigation of such claims.

*Originally adopted October 9, 2002
Reaffirmed Oct 21, 2005, Oct 17, 2008, Oct 7, 2011, and Oct 10, 2014
(See also Positions #247, #272(a-b), #308, #335, and #375)*

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.)
453	WR/E	7/22/2020	emphasizes state primacy over water and call for cooperative federalism and substantive consultation by federal agencies regarding water-related rules, regulations, directives, orders and policies
452	WR	7/22/2020	support federal authorization and financial support through the U.S. Geological Survey (USGS) for State Water Resources Research Institutes
451	WR	7/22/2020	requests Congress fully appropriate receipts accruing to the Reclamation Fund for their intended purpose
450	WR	7/22/2020	supporting NOAA data, forecasting, and research programs
449	L	7/22/2020	opposes any federal legislation intended to preempt state water law
448	WR	7/22/2020	supporting national dam safety programs
447	WR	3/6/2020	regarding the rural water and wastewater project/infrastructure needs and U.S. Department of Agriculture programs
446	WQ	3/6/2020	regarding the clean and drinking water state revolving funds and state and tribal assistance grants
445	WR	3/6/2020	regarding the National Levee Safety Act of 2007, levees and canal structures
444	WR	3/6/2020	regarding the transfer of federal water and power projects and related facilities
443	WR	3/6/2020	regarding the Reclamation Safety of Dams Act of 1978
442	WR	3/6/2020	regarding the Bureau of Reclamation's maintenance, repair and rehabilitation needs
441	WR	3/6/2020	urging Congress to support subseasonal to seasonal weather research, forecasting, and innovation
440	L	10/18/2019	supporting legislation requiring the federal government to pay state filing fees in state general stream adjudications
439	WR	10/18/2019	expressing support for implementation of the SECURE Water Act
438	WR	10/18/2019	urges the Administration and NASA to enhance focus on research for water resources applications and promote long term engagement with the WSWC
437	WR	7/18/2019	urging the Administration and Congress to Support Water Research and Development Programs at the Department of Energy National Laboratories
436	WR	7/18/2019	regarding Hydraulic Fracturing
435	WR	7/18/2019	supporting Strengthening the Resiliency of Our Nation to the Impacts of Extreme Weather Events
434	WR	7/18/2019	on the Preservation of Radio Frequencies necessary for Weather forecasting and Water Management
433	WR	3/22/2019	supporting Renewable Hydropower Development
432	WR	3/22/2019	supporting Rural Water Infrastructure Needs & Projects
431	L	10/26/2018	Regarding States' Water Rights and Natural Flows
430	WR	10/26/2018	Regarding Bureau of Reclamation Drought Response Program
429	WR	10/26/2018	Regarding Drought Preparedness, Prediction and Early Warning Programs
428	WR	10/26/2018	Regarding Federal Water and Climate Data Collection and Analysis Programs
427	WQ	10/26/2018	Regarding Clean Water Act Jurisdiction
426	WQ	10/26/2018	Supporting State Clean Water Act Section 401 Certification Authority
425	WR	8/3/2018	Regarding Endangered Species and State Water Rights
424	WQ	8/3/2018	Regarding Water Transfers and National Pollutant Discharge Elimination System (NPDES) Discharge Permits
423	WR	8/3/2018	Regarding the Rural Water Supply Project/Infrastructure Needs
422	L	3/14/2018	State Primacy over Groundwater
421	WR	3/14/2018	Supporting Federal Research on Climate Adaptation
420	WR	3/14/2018	Regarding Integrating Water and Energy Planning and Policy
419	WR	3/14/2018	Supporting Water Infrastructure Funding
418	WR	3/14/2018	Supporting Weather Station Networks
417	WR	3/14/2018	Supporting the use of Forecast Informed Reservoir Operations and Innovations
416	L	10/20/2017	Outlining actions Federal agencies should take to expedite State General Stream Adjudications
415	L	10/20/2017	Supports the Dividing the Waters Program
414	WQ	10/20/2017	Asserting state primacy on Protecting Ground Water Quality
413	WR	10/20/2017	Regarding Farm Bill conservation programs and water resources
412	L	10/20/2017	Supporting Indian Water Rights Settlements

Sunsetted Positions

2020

- #410 Acknowledges state authority over “waters of the State” and called for recognizable limits to federal Clean Water Act jurisdiction. (*superseded by more recent position*)

2019

- #394 Urging Congress to authorize and the Administration to complete a comprehensive study of the Missouri River Mainstem Reservoir System’s authorized purposes and related benefits before addressing an appropriate balance and mix of uses. (*outdated*)
- #389 Urging Congress and the Administration to prioritize federal programs that provide the translation function between basic scientific research on climate and weather extremes to water resources management actions. (*positions more recently adopted*)

2017

- #373 Letter commenting on the proposed rule developed by the EPA and the USACE to clarify the scope of Clean Water Act jurisdiction. (*proposed rule became the 2015 Clean Water Rule*)
- #372 Letter sending comments on the USFS Proposed Directive on Groundwater Resource Management, Forest Service Manual 2560. (*Forest Service has withdrawn their activity*)
- #370 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. (*proposed rule was withdrawn*)

2016

- #359 Opposing requiring pesticide applications for National Pollutant Discharge Elimination System (NPDES) discharge permits. (*outdated*)

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 WSWC 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



WESTERN STATES WATER COUNCIL

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 and Others

FROM: Tony Willardson, Executive Director

DATE: October 5, 2020

RE: WSWC Budget

Please find included herewith a budget document showing our approved FY2021 budget (1st column), as well as revisions that I have made within the total income estimates and approved expenses (3rd column). Those adjustments to certain line-items are presented in the 4th column.

As explained to the Executive Committee, since our last meetings, I have reviewed our present grant agreement for WaDE with the Moore Foundation and Internet of Water (IOW) and separately presented our related budget items (in the 2nd column). Given restrictions on WaDE spending, little of the grant money is available for our indirect or general overhead (7.5%) related to WSWC office operations (\$19,515).

While the total revenue and expenses remain unchanged from the approved budget, we have made some notable changes. While we anticipate at some point in the future returning to in-person meetings, at present we do not anticipate significant expenses related to our regular meetings and certain workshops/symposia. With respect to the latter, I deleted separate expense projections (based on a breakeven scenario) and increased our meetings and arrangements line item to cover related costs. Future travel expenses are also uncertain (and will likely be lower) and can be rebudgeted as needed to also cover meeting expenses. Further, we have significant credits for travel with airlines, given the cancellation of our D.C. meetings.

Please be aware that in presenting the break down between staff costs (salaries, benefits and taxes) for those covered by our WaDE grant and the rest of the staff, I have consolidated all related costs. The total comes to \$763,665 (a substantial increase with our two new staff). This is by far our greatest expense, but WaDE related revenue is covering two of our positions and contributing to others.

As for income, we have received all but \$49,500 of our states' dues assessments, and anticipate payment from those two states outstanding (of seventeen, excluding Alaska).

Moreover, we have requested release of remaining funds (\$326k) under our IOW/Moore agreement for expenditure during the remainder of this fiscal year and through the conclusion of our agreement in September 2021. This will cover our WaDE expenses until then, including staff and contractors, travel and meetings, etc. We also are in discussions with IOW for future support for WaDE.

Please let me know if you have any questions related to the budget.

W S W C FY2020-2021 WaDE & WSWC Budget

	FY2021 Approved Budget		WaDE FY2021 Budget	Revised WSWC FY2021 Budget	Sept. Budget Adjustments
<u>INCOME</u>					
Member States Assessments	\$ 561,000.00	1	\$ -	\$ 561,000.00	
Newsletter	\$ 2,200.00		\$ -	\$ 2,200.00	
EPA EN Contracts	\$ -		\$ -	\$ -	
CDWR Contracts (S2S)	\$ -		\$ -	\$ -	
NASA JPL WWAO (Tech Xfer) Wkshp	\$ 30,000.00		\$ -	\$ 30,000.00	
Council Meeting Sponsors	\$ 3,500.00		\$ -	\$ 3,500.00	
Miscellaneous Income	\$ -		\$ -	\$ -	
Symposium (WSWC / NARF) Net Income	\$ -		\$ -	\$ -	
Symposium (Infrastructure)	\$ -		\$ -	\$ -	
Symposium/Workshop Sponsors	\$ -		\$ -	\$ -	
Interest	\$ 14,550.00		\$ -	\$ 14,550.00	
Moore Foundation - Internet of Water	\$ 308,195.00		\$ 288,680.00	\$ 19,515.00	
Water Foundations Agreement	\$ -				
TOTAL INCOME	\$ 919,445.00		\$ 288,680.00	\$ 630,765.00	
<u>EXPENSE</u>					
Accounting	\$ 9,900.00			\$ 9,900.00	
Annual & Sick Leave Funding (HRA)	\$ -			\$ -	
Audit	\$ 6,750.00			\$ 5,000.00	(\$1,750.00)
Contingencies	\$ 8,000.00			\$ 6,000.00	(\$2,000.00)
Contract Services	\$ 16,500.00		\$ 6,935.00	\$ 16,500.00	
Equipment Replacement Fund	\$ 3,000.00			\$ -	(\$3,000)
Furniture-Equipment	\$ 2,500.00			\$ -	(\$1,750)
Insurance	\$ 1,320.00			\$ 1,150.00	(\$170.00)
Maintenance Contracts	\$ 6,000.00			\$ 6,000.00	
Meetings & Arrangements	\$ 15,000.00			\$ 23,695.00	\$8,695
Office Supplies	\$ 2,500.00			\$ 2,500.00	
Payroll Benefits	\$ 193,275.00				
Insurance (Life & LT Disability)					
Healthcare (Med, Dental)					
Pension					
Payroll Salaries	\$ 503,570.00		\$ 260,195.00	\$ 503,470.00	\$763,665.00
Payroll Taxes	\$ 40,285.00				Total salary, benefits & taxes
Pension Management	\$ 9,000.00			\$ 9,000.00	
Postage & Freight	\$ 1,800.00			\$ 1,400.00	(\$400.00)
Printing & Reproduction	\$ 3,500.00			\$ 3,000.00	(\$500.00)
HOA Fees/Property Tax	\$ 7,000.00			\$ 7,000.00	
Storage Rent	\$ 3,500.00			\$ 3,500.00	
Reports & Publications	\$ 7,000.00			\$ 7,000.00	
Symposium (CDWR-S2S)	\$ 15,000.00			\$ -	(\$15,000.00)
Symposium (WIMS/WaDE)	\$ 15,000.00			\$ -	(\$15,000.00)
Symposium (WSWC / NARF)	\$ -		\$ -	\$ -	
Symposium (Infrastructure)	\$ -		\$ -	\$ -	
Symposium (NASA Tech Transfer)	\$ -		\$ -	\$ -	
Telephone (UBS/Comcast/Cellphone)	\$ 5,300.00			\$ 3,800.00	(\$1,500.00)
Travel	\$ 20,000.00			\$ 20,000.00	
Utilities (Questar & Murray Power)	\$ 2,195.00			\$ 1,850.00	(\$345.00)
WaDE State Assistance	\$ 21,550.00		\$ 21,550.00	\$ -	
TOTAL EXPENSES	\$ 919,445.00		\$ 288,680.00	\$ 630,765.00	

Reserve Funds

1 Full dues from 17 states

Tab E – 2020 Summary of WSWC Activities
June-September

Western States Water Council

Summary of Activities

June 2020 – September 2020

WASHINGTON, DC – CONGRESSIONAL OUTREACH

On June 10, the WSWC wrote to Senate leaders in support of various provisions in various pending infrastructure bills. The letter reiterates the Council's longstanding support for placing a high priority on addressing the water supply and water quality challenges.

On July 7, the WSWC wrote to the leadership of the House Appropriations Committee expressing strong support for the USGS Water Resources Program and related appropriations, including the OpenET initiative.

On September 4, the WSWC wrote to the leadership of the Senate Appropriations Committee expressing strong support for the USGS Water Resources Program and related appropriations, including the OpenET initiative.

On September 22, WSWC staff joined a call at the request of Senate Energy and Natural Resources Committee Staff on pending water resources legislation.

WESTERN GOVERNORS' ASSOCIATION COORDINATION

WGA's Water Policy Advisor Ward Scott and Executive Director have frequent calls, on various water issues.

WGA, WSWC, CWAGs and NWSA continue to monitor the Corps proposed water supply rule (subsequently withdrawn).

Quarterly Western Policy Network (quarterly calls).

WSWC CALLS, MEETINGS, SURVEYS, SYMPOSIA AND WORKSHOPS

July 22, WSWC Summer (193rd) Meetings were held virtually due to COVID.

WaDE DEVELOPMENT AND OUTREACH

June 17 – IOW Webinar “Ask the Data Architect.”

June 19 – IOW Board conference calls are held monthly.

July 8 – Conference call with the Arizona Department of Water Resources.

July 10 – OpenET Webinar.

July 14 – Conference call with the Nevada Division of Water Resources.

July 27 – Conference call with the CUAHSI and IOW Teams: Moore Grant workshops deliverables.

July 29 – Water Use Open Forum: Mapping and Modeling of Interbasin Transfers.

August 4-6 – AWRA Geospatial Water Technology Virtual Conference.

August 10 – WaDE Presentation at the Western Association of Fish and Wildlife Agencies Water Database Webinar (which also included discussion of Crucial Habitat Assessment Tool (CHAT)).

August 11-13 – AWRA Geospatial Water Technology Virtual Conference.

August 14 – Conference call with Nebraska Department of Natural Resources.

August 25 – WestFast Update on the WSWC Water Data Exchange (WaDE) 2.0.

August 28 – Conference call with Nebraska's Natural Resources Districts.

August 31 – Conference call with Utah Division of Water Resources about sharing water budget data into WaDE.

September 2 – Conference call with the OpenET Team.

September 22 – OpenET Demo Webinar.

September 22 – Discussion with IT Contractor, Don't Panic Labs about WaDE portal design.

September 23 – EWED and WaDE discussion.

Development of Water Use Paper for Publication.

WaDE vocabulary/filters discussions (ongoing).

Working with ICWP Water Data Committee.

COORDINATION WITH WESTFAST AGENCIES

August 19 – EPA Webinar-Understanding PFAS in our Water Cycle: Sources/Regulations & Mitigation.

September 2 – CWA §401 implementation call on principles for a draft state-federal template MOU.

September 3 – EPA State Summit on Water Reuse.

Regular NASA Applied Sciences Program, WWAO & Water Resources Team Meetings.

WestFAST WEBINARS

June 24 - NASA Water Applications Office, and USGS National Land Imaging Program Updates

June 30 - Snow Survey and Water Supply Forecasting Program, and the NRCS National Soil Climate Analysis Network (SCAN).

July 8 - The National Water Reuse Action Plan.

July 15 - NRCS's Regional Conservation Partnership Program – A look at a few Water Supply Projects involving Water Agencies in the West.

July 29 - EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program.

August 25 - Update on the Western States Water Council Water Data Exchange (WaDE) 2.0.

September 17 - The Bureau of Reclamation's WaterSMART Program.

September 23 - Energy-Water-Emissions Dashboard.

September 29 - Open ET.

COORDINATION WITH OTHER ORGANIZATIONS

June 1 – 2021 AWRA Summer Land and Water Specialty Conference planning call.

June 10 – National Association of Clean Water Agencies (NACWA) Webinar on Maui decision.

June 12 – Ad Hoc Indian Water Rights Group call with Josh Mahan (Senate Indian Affairs) on tribal water settlements legislation.

June 18-19 – Arizona Water Resources Research Center (WRRC) virtual conference.

June 26 – WRP Deep-Dive call on Water Security (and numerous subsequent calls).

July 30 – CSG West Virtual Annual Meeting Colorado River Forum (Ex. Dir. presentation).

July 31 – NARE/WSWC Reclamation Water Settlements Fund call.

August 13 – Dividing the Waters: The Emerging North American Megadrought and Colorado River.

September 9 – WSWC/Groundwater Protection Council call on state hydraulic fracturing experiences.

September 14 – WSWC call with EPA National Program Leader for Water Reuse to discuss updates to the 2011 WSWC report on water reuse and other ways WSWC might participate in the WRAP.

Ongoing - WSWC/NASA WWA0 co-authoring paper of Research to Operations (R2O).

COMMITTEES, TASK FORCES AND WORK GROUPS

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

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

AWRA 2021 Summer Land and Water Conference Program Planning Committee – Executive Director

CUAHSI Hydroinformatics Conference Planning Committee – WaDE Program Manager

Internet of Water Advisory Board (IoW) monthly calls – WSWC Executive Director

National Integrated Drought Information System (NIDIS) Executive Council – WSWC Executive Director, Co-Chair

National Water Census Ad Hoc Group – WaDE Program Manager

National Drought Resilience Partnership – WSWC Executive Director

USGS Water Use Strategic Planning Team – WaDE Program Manager

Western Association of Fish and Wildlife Agencies (WAFWA) – WSWC Executive Director (liaison)

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

Western Policy Network – WSWC Executive Director

Western Regional Partnership – WSWC Executive Director/Assistant Director

Tab F – Future WSWC Meetings

WESTERN STATES WATER COUNCIL

FUTURE MEETINGS

Upcoming Council Meetings/Host States

***2021 Meetings Projections**

Spring – El Paso, Texas
March 23-26, 2021
Hotel Paso del Norte

Summer – Cody, Wyoming
June 23-25, 2021
Holiday Inn / Buffalo Bill Village

Fall – South Dakota last held 10/4/13 in Deadwood

2022 Meetings Projections

Spring – Washington, D.C.

Summer – Montana last held 7/18/14 in Helena

Fall – Oklahoma last held 4/17/15 in Tulsa

2023 Meetings Projections

Spring – Kansas last held 10/9/15 in Manhattan

Summer – North Dakota last held 7/15/16 in Bismarck

Fall – Nevada last held 7/10/15 in Stateline

2020 Symposia/Workshops

Virtual Groundwater Workshop – TBD

Biennial Indian Water Rights Settlement Symposium – August

*Improving Subseasonal to Seasonal Forecasts – Washington, DC - Fall

** Depending on existing and future state travel and meeting restrictions.*

MEETING SCHEDULE

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Tab G – Council Membership Update

**WESTERN STATES WATER COUNCIL
NON-APPOINTED MEMBERS
October 2020**

ALASKA

†**David Schade**, Director
Division of Agriculture
Alaska Department of Natural Resources

†**Tom Barrett**, Chief
Water Resources Section
Division of Mining Land & Water
Alaska Department of Natural Resources

†**Brent Goodrum**, Deputy Commissioner
Office of the Commissioner

†**Marty Parsons**, Director
Division of Mining, Land & Water
Alaska Department of Natural Resources

CALIFORNIA

†**Karla Nemeth**, Director
California Department of Water Resources

†**Eileen Sobeck**, Executive Director
State Water Resources Control Board

COLORADO

†**Rebecca Mitchell**, Director
Colorado Water Conservation Board

†**Kevin Rein**, State Engineer
Colorado Division of Water Resources

IDAHO

†**Jess Byrne**, Director
Idaho Department of Environmental Quality

MONTANA

†**Shaun McGrath**, Director (Alt.)
Montana Department of Environmental Quality

NEBRASKA

†**Jesse Bradley**, Acting Director
Nebraska Department of Natural Resources

NORTH DAKOTA

†**John Paczkowski**, Interim State Engineer
North Dakota State Water Commission

OKLAHOMA

†**Shellie Chard**, Director
Water Quality Division
Oklahoma Dept. of Environmental Quality

†**Sara Gibson**, General Counsel
Oklahoma Water Resources Board

OREGON

†**Jennifer Wigal**
Water Quality Program Manager
Oregon Department of Environmental Quality

WASHINGTON

†**Laura Watson**, Director
Washington Department of Ecology

WYOMING

†**Greg Lanning**, State Engineer
Wyoming State Engineer's Office

Tab H – Environmental Protection Agency's
(EPA's) Office of Mountains, Deserts
and Plains

News Releases from Headquarters - Office of the Administrator (AO)

Trump EPA Launches Office of Mountains, Deserts and Plains to Effectively Address Abandoned Mine Lands, Accelerate Cleanup Across the West

09/02/2020

Contact Information:

EPA Press Office (press@epa.gov)

Colorado Springs, Colo. (September 2, 2020) — Today, at a press conference at the Western Museum of Mining and Industry, the U.S. Environmental Protection Agency (EPA) announced the creation of the Office of Mountains, Deserts and Plains located in EPA's office in Lakewood, Colo. This western lands-focused office will address cross-cutting issues unique to the region, and more effectively leverage existing EPA staff, expertise and resources in hardrock mining cleanup.

"The West is a special place, with special environmental challenges deserving of its own office within EPA," **said EPA Administrator Andrew Wheeler**. "Under President Trump's leadership, this new office will provide effective solutions, and achieve important milestones in the cleanup of hardrock mining Superfund sites in the American West as well as foster great partnerships with states, tribes and local communities. Done are the days of a one-size-fits-all approach to remediation."

"The Office of Mountains, Deserts and Plains will ensure we are making progress cleaning up mining sites across the West, promote Good Samaritan projects, identify innovative cleanup technologies, and oversee the cleanup of abandoned uranium mines in the Navajo Nation," **said EPA Associate Deputy Administrator Doug Benevento**. "This uniquely western work needs an integrated western presence, and Administrator Wheeler should be commended for recognizing this and creating this new geographic program in Colorado. Addressing these issues requires an office with a singular focus and senior leadership who don't see these issues in the abstract, but are actually located in the West and accessible to the communities impacted by them."

"The importance of mining to our economy and national security cannot be underestimated, and today's American mining industry is a world leader in environmental stewardship," **said Region 8 Administrator Greg Sopkin**. "However, many Western communities are still dealing with historic mining sites that affect the health of our lands and waters. This new office will leverage innovative technologies and strategies to address these legacy mining issues."

Associate Deputy Administrator Benevento and Region 8 Administrator Sopkin were joined by U.S. Congressman Doug Lamborn (CO-05), U.S. Congressman Dan Newhouse (WA-04), Oklahoma Secretary of Energy & Environment Ken Wagner, Arizona Department of Environmental Quality Director Misael Cabrera, and Idaho Department of Environmental Quality Jess Byrne at the press conference to announce the new office.

"I applaud President Trump and EPA Administrator Wheeler for continuing to bring federal resources out of Washington, DC and into the communities they serve. This is an exciting announcement that clearly demonstrates the EPA's commitment to Colorado and the West. The EPA's new Office of Mountains, Deserts, and Plains will help bolster accountability, streamline cleanup efforts of abandoned mine lands, and facilitate better coordination with local, state, and tribal partners. The West has

complex and unique issues related to hardrock mines and the remediation of legacy mine lands. This new office will be critical in supporting conservation organizations' efforts to voluntarily undertake projects to improve conditions at abandoned mine lands in our area. This is yet another way that our federal government, under the current administration, is making strides to cut red tape and be more responsive to our Western communities' needs," **said Congressman Doug Lamborn (CO-05).**

"Today's announcement by the Environmental Protection Agency is yet another step the Trump Administration has taken toward increasing transparency and accountability in federal decision-making," **said U.S. Congressman Dan Newhouse (WA-04).** "By centralizing the decision-makers on resource issues that matter to the communities in the West – including hardrock mining and legacy mining cleanup efforts – we can better ensure the federal government's resources, expertise, and innovative technology is being leveraged in the most efficient and scientific manner. This is a win-win: for the environment, the taxpayers, and the American people."

"Thank you to Administrator Wheeler and Associate Deputy Administrator Benevento. The recognition that putting subject matter experts in the area that is affected by regulations and regulatory actions to work with state local and tribal governments achieves the best outcomes for public health and the environment. We are looking forward to continuing our partnership to restore valuable habitat and protect our natural resources," **said Oklahoma Secretary of Energy and Environment Ken Wagner.**

"I commend EPA for establishing a western lands-focused office that will address the complex problems associated with hardrock mine cleanups. I am encouraged by EPA's intent to concentrate on innovative yet practical solutions that respect local concerns," **said Arizona Department of Environmental Quality Director, Misael Cabrera, P.E.**

The Office of Mountains, Deserts and Plains will assume oversight responsibilities for federal hardrock mining cleanup sites west of the Mississippi River; serve as a central contact for other federal agencies, states and tribes with responsibility for or impacted by these sites; and develop innovative technologies and adaptive management approaches to address legacy pollution. Additionally, the office will support efforts of conservation organizations to voluntarily undertake projects to improve conditions at abandoned mines (Good Samaritan projects).

Born out of lessons learned at sites across the country such as the Bonita Peak Mining District in Colo. and Silver Bow Creek Superfund site in Butte, Mont., EPA developed this new office to focus on the complex and unique issues related to hardrock mining cleanup and the communities in which they are located. The office will improve EPA's ability to respond to the range of special issues and unique needs associated with Western mining sites in EPA Regions 6, 7, 8, 9 and 10. The new office will drive accountability, streamline cleanup efforts, and better facilitate coordination with states, local and tribal partners. It will allow for the primary point of integration, communication and coordination with federal land management agencies, who oversee the federal lands where many of the current abandoned mines exist.

The Director of the Office of Mountains, Deserts and Plains will report directly to Peter Wright, the Assistant Administrator for Land and Emergency Management. The office will employ five to nine full-time employees at the Denver Federal Center in Lakewood, Colo.

By realigning existing resources and teaming up staff with expertise in these distinct ecosystems, the new Office of Mountains, Deserts and Plains will accelerate positive outcomes for Western communities and the environment.

For more information on the Office of Mountains, Deserts and Plains: <https://www.epa.gov/mountainsdesertsplains>

Background

Currently, the diffused deployment of EPA's resources in the remediation of hardrock mining sites creates challenges impeding cleanup progress due to the distinct environmental impacts of historical mining operations and unique ecosystems of the American West, where most of these sites are located. Historical methods for mineral extraction and beneficiation can create environmental problems, including acid mine drainage, erosion and sedimentation, chemical releases, fugitive dust, habitat destruction, surface and groundwater contamination, and subsidence. Additionally, there are many mining sites for which there are no viable current or former owners or operators, which can make it difficult for these sites to compete with Superfund sites across the country for funding from the annual Superfund appropriation.

[Contact Us](#) to ask a question, provide feedback, or report a problem.

EPA Municipal Ombudsman

Jamie Piziali

E-mail: Piziali.Jamie@epa.gov

Phone: 202-564-1709

Additional information available at <https://www.epa.gov/ocir/municipal-ombudsman>

Tab I – Water Reuse Summary

State Summit on Water Reuse WSWC Summary

On September 3, the State Summit on Water Reuse began a series of virtual, interactive discussions to provide a forum for state regulators to share and learn about a range of water reuse issues. A focus of the summit was “to support states developing reuse regulations or programs, foster learning for states experiencing new or changing drivers for reuse and support state and partner priorities on reuse, including related initiatives such as the National Water Reuse Action Plan (WRAP), the National Blue Ribbon Commission on Onsite Non-potable Water Systems, and others.” The Summit also supported WRAP Action 2.2.2, to enhance state collaboration on water reuse, with over 150 participants from 35 states on the first day.

The weekly sessions were held each Thursday in September in conjunction with the WaterReuse Association’s 35th Annual Symposium. The Summit was hosted by the Association of Clean Water Administrators (ACWA), the Association of State Drinking Water Administrators (ASDWA), the Association of State and Territorial Health Officials (ASTHO), the Environmental Council of States (ECOS), and the Ground Water Protection Council (GWPC), in collaboration with the Environmental Protection Agency (EPA) and the WaterReuse Association (WaterReuse).

Week 1

The first day began with a full group meeting on reuse developments and terminology, followed by two breakout topics on unregulated contaminants and effective training for operators. Tom Stiles, Kansas Department of Health and Environment (KDHE) noted that water reuse sits at the nexus between the Safe Drinking Water Act and the Clean Water Act, and it offers us the opportunity to expand our water supplies without degrading our water quality. Our states are “all over the map” when it comes to our demographics and economics, but the discussions during this summit provided an opportunity to develop a closer network between states and to rely on each other’s experiences.

Jake Adler (ACWA) provided some examples of how reuse terminology varies across the states, such as unregulated contaminants, fit-for-purpose, and industrial water. The terms often reflect the unique local socioeconomic drivers and how a state approaches or categorizes water reuse, and most of the terms that are commonly used are programmatic, rather than appearing in statutes or regulations. Although there is an external desire to reconcile the definitions of key terms for uniformity, Adler noted that from a state perspective it is more useful to simply acknowledge those differences and seek to understand them and learn from each other. He also talked about the states’ roles in different opportunities for reuse: domestic, agricultural, commercial, industrial, groundwater recharge, surface augmentation, environmental restoration, and potable reuse. States are wrestling with how to make their different programs (such as drinking water and wastewater) work together more efficiently and effectively so that reuse is a viable alternative.

Breakout A: Federally Unregulated Contaminants in the Reuse Context

The breakout session on federally unregulated contaminants in the reuse context provided a forum for states to discuss challenges and concerns with treating wastewater as a source water and contaminants of emerging concern (CECs). Challenges mentioned included: per- and polyfluoroalkyl substances (PFAS), nitrosodimethylamine (NDMA), endocrine disruptors, other toxins and the need to establish toxicity values, lack of analytical/lab methods or monitoring data or detection limits, limited staff and time and funding, source control in non-pre-treatment facilities, and the public health perspective of unknown CECs. States’ current efforts and best practices include: staying abreast of research, developing health-based guidance, using non-regulatory frameworks to address drinking water contaminants based on state guidance, monitoring, and education programs.

The session featured Laura McLellan, Senior Environmental Scientist at the California State Water Resources Board; Diana Felton, State Toxicologist in the Hawaii Department of Health; and Rose Galbraith, Private Wells Program Manager in the New Mexico Department of Health (NMDOH). Each speaker discussed how their states are addressing CECs.

McLellan described California's history with CECs, beginning with local monitoring and management in the late 1990s. By 2006, stakeholders were requesting a more holistic approach. In 2009, California developed a statewide Recycled Water Policy for water projects, which included requirements for contaminants for indirect potable and non-potable reuse. Direct potable reuse regulations are expected to be developed by 2023.

Felton highlighted that Hawaii has a high priority to use reused water due to a growing population and limited potable water sources. Current efforts include publishing guidelines for water reuse and developing projects to assess CECs in reused water, including looking at personal care products in groundwater. She said their next steps are to develop guidelines for CECs in reused water, build a monitoring program, and create a public outreach program, but much more time, staff and money was needed.

Galbraith discussed how most of New Mexico's activities around CECs have taken place within the private wells program, with a focus on site specific testing and public health testing and communications around these efforts. Though private wells are unregulated in New Mexico, surface and groundwater regulations do apply in some cases. As part of the Produced Water Act, passed in 2019, the NMDOH is participating in the Produced Water Research Consortium and focusing on risk communication and understanding risk factors associated with reusing produced water.

Overall, states were concerned with the lack of national standards for CECs, as well as the analytical methods to detect them and determine their level of risk to public health. One commenter stated that this was a "catch 22" because no standard analytical methods exist for many CECs, which makes it difficult to determine the prevalence within the system. However, without understanding prevalence first, it is difficult to obtain funding to develop those standard methods. There was a suggestion that EPA could help to establish those analytical methods for certain contaminant categories.

Many states said that funding and staff time was limited to address CECs, as it often is integrated into existing positions who may not have the bandwidth to fully understand the issues associated with specific contaminants or have the resources to do the necessary research. In addition, public health concerns, lack of known toxicity information, and the ability to monitor and manage the risk associated with CECs made it difficult to inform decisions going forward.

Breakout B: Effective Training for State Staff and Facility Operators

During the breakout session on effective training for state staff and facility operators, participants shared some of the challenges their states face to keep training up-to-date on recent developments. There are significant workforce challenges to adopting new technology, and it can't just be "air dropped" into a facility without considering the capacity of those who must operate it. Issues unique to rural areas rose to the top of state concerns, including limited manpower in small communities and limited access to necessary resources such as ongoing training and reliable internet connections. In Alaska, they are working on onsite systems for households of four to eight family members. In Oklahoma, most of the rural training emphasizes land application for water reuse for now; they are looking at how to integrate training across different water programs to reduce the training burden. Other concerns included high turnover and an aging workforce that is taking institutional knowledge with them as they retire.

A Congressional Research Service 2019 report on the drinking water provisions of America's Water Infrastructure Act of 2018 (AWIA) (P.L. 115-270) noted: "While estimates vary, the increasing rate of retirement among water sector employees has generated interest in water sector workforce development. A 2010 report from [the American Water Works Association] and the Water Research Foundation estimated that 30%-50% of water sector employees will retire over the following 10 years. Similarly, the Department of Labor's Bureau of Labor Statistics projected that annually 8.2% of water operators will need to be replaced between 2016 and 2026. In 2018, the U.S. Government Accountability Office (GAO) also concluded that EPA could take additional steps to address water sector workforce development and succession planning" (citations omitted).¹

Jim Horne, Sustainable Utilities Program Manager, EPA Office of Wastewater Management, noted that America's water workforce are the "unseen heroes essential to our health and safety and way of life." He noted that Congress authorized Innovative Water Infrastructure Workforce Development program (AWIA §4304, \$1M appropriated) for EPA and USDA to provide training and increase public awareness through educational and non-profit organizations. EPA anticipates putting out the first Request for Applications (RFA) later this Fall. He said the program will be an opportunity to learn what is working and not, to get a better feel for the workforce landscape, and to become more strategic about how we move forward. He also said EPA is wrapping up case studies with eight utilities around the country to highlight their innovative approaches to workforce challenges. Additionally, they are sponsoring an ongoing series of free webinars related to utility programs and other workforce-related topics of interest.

Week 2

The second day of the summit started with a full group session discussing different state approaches to regulating reuse, followed by breakout sessions on effective public health communications and fit-for purpose specifications. Dennis Greene, New Hampshire Department of Environmental Services (NHDES), Noah Valenstein, Florida Department of Environmental Protection (FDEP), and Tressa Nicholas, Idaho Department of Environmental Quality (IDEQ) shared their perspectives. Each state has different experiences and challenges that drive their regulatory approach.

Green noted that NHDES does not have a program yet, but they are exploring options. New Hampshire's approach is more "on demand," with particular areas that have needs at particular times of the year. Most of southern New England is experiencing drought, and their wells are running dry and reservoirs are getting low. Reuse water has been applied in temporary but useful ways, such as toilet flushing at football games and concerts. Additionally, PFAS is a growing concern. New Hampshire's laws do not currently allow or prohibit reuse. They are looking at a fit-for-purpose scheme of regulating rather than a risk-based model, and considering pilot projects, costs, ease of implementation, protection of public health, whether to focus on bacteria or protozoan viruses, whether to combine drinking water and wastewater permits for reuse, and other issues.

Valenstein said that Florida uses the most reuse water by volume, with 820 million gallons per day (mgd) beneficially reused. They are trying to eliminate surface water discharges, but they currently have another 890 mgd that are treated and discharged that could be beneficially used. They have a growing population that has strained the water supply, as well as wetlands and everglades they would like to protect. Florida's current reuse portfolio includes indirect potable reuse (IPR), irrigation, limited greywater, and industrial facilities. They would like to add direct potable reuse (DPR), which is going to require advanced wastewater treatment requirements for domestic wastewater facilities to address nutrients, and expand existing uses to a larger scale. Current indirect potable regulations include secondary treatment, high-level disinfections, primary and secondary drinking standards, and total nitrogen limit in effluent of 10 mg/L. Challenges for

¹ See <https://fas.org/sgp/crs/misc/R45656.pdf>

reuse include public perception, CECs, and the need to update their regulatory framework and water distribution infrastructure to move forward.

Nicholas said that Idaho's first reuse laws were passed in 1988, with the first municipal and industrial permits in 1989. In Idaho, reuse is considered a beneficial use. Some places in Idaho have greater incentives to develop reuse due to water quality discharge restrictions or low available water supply. IDEQ's policy is to promote reuse of municipal and industrial recycled water, and to continue to develop rules and guidance that give permittees various opportunities for new forms of reuse. The rules include classification tables that summarize the treatment requirements and uses of municipal recycled water. Permits are renewed every 5-10 years, and the reuse program includes inspections, annual reports, compliance activities and compliance assistance, as well as enforcement actions. Reuse facilities must comply with both wastewater and recycled water rules

On the question of how states are funding their reuse programs or projects, many states have relied on SRFs, although Reclamation's WaterSmart and EPA's WIFIA were mentioned as potential funding alternatives. WRAP Action 2.6.2 aims to compile existing federal funding sources for reuse. Elizabeth Lemonds noted that Colorado has a fee-based program, based on the capacity of the treatment flow capacity, but that the fees do not correlate with the expenses incurred in running the program. Idaho's program is not fee-based; half comes from the general fund and the other half comes through the CWA funds. Idaho has not increased its staff level even though the number of reuse permits is growing (currently at 143 reuse permits.)

Breakout A: Effective Public Health Communications

In the effective communication breakout session, Wendi Wilkes (ASDWA) and Nick Porter (ASTHO) started the discussion, along with presentations from Nancy Rice, Minnesota Department of Health (MDH) and Angela Zeigenfuse, Washington State Department of Ecology (Ecology). A main takeaway from the session was that the closer reuse water gets to human consumption, the greater the education and stakeholder engagement needed.

Rice said that in 2013, MDH started receiving community requests about how to safely use reuse water, and the agency had to start thinking about how to best approach this in their state. They developed a Water Reuse Interagency Workgroup that met once a month for about two years. They created a report in 2018, Advancing Safe and Sustainable Water Reuse in Minnesota. The workgroup is ongoing, and they've decided that communication is key—within the agency, with other agencies, with stakeholders, and with the general public. They addressed developing user friendly webpages, media releases, having a plan, telling a story that connects with people, and keeping tools and references on water reuse easily accessible online.

Zeigenfuse provided some background for reclaimed water in Washington, noting that they have 29 permitted facilities. Their Reclaimed Water Use Act was passed in 1992, and their Reclaimed Water Rule, which was started in 2006, was finalized in 2018. They have three classes of reclaimed water, all derived from domestic wastewater: A and B are for non-potable reuse, with A for use in areas with unrestricted public access and B for areas with restricted public access. The A+ class is for DPR. Their communications have included stakeholder outreach, their website, focus sheets, a Purple Book that provides guidance on reuse to facilities, and their Reclaimed Water Workgroup and Rules Advisory Committee. Communication is especially important for developing rules and ensuring public safety. Some of the key talking points include 1) explaining how wastewater is treated and tested before becoming reclaimed water; 2) explaining how Class A and B waters can be used in place of fresh drinking water sources; and 3) providing reassurance that the departments of Health and Ecology review every proposal, continue monitoring for compliance, and give the public the opportunity to comment during the permitting process.

Some of the communication challenges states are facing include 1) the difficulty of clearly expressing the nuances of technical details and risks of CECs to people with diverse and varied backgrounds; 2) battling disinformation propagated through social media; 3) stakeholders who fear that agency rules on water quality will make water reuse cost prohibitive; 4) facilities that do not want transparency on risk or quality, and 5) documenting removal of contaminants.

The states identified some of their critical communication needs: 1) having long-term data and strong risk assessments that are particular to the type of uses; 2) consistency among state agencies; 3) having consistent and accurate messaging in plain words across platforms (website, stakeholder meetings, etc.); 4) anticipating concerns from the public and translating technical details into layman's terms; 5) field testing messages about water reuse; and 5) evaluating the effectiveness of water reuse communications. Demonstrations and pilot projects often lead to greater public acceptance. Someone shared the mantra: Be first, be clear, be credible. Social media and agency websites were considered to be the best ways to communicate with the public, followed by community events, radio or television, and community or neighborhood newsletters.

Breakout B: Fit for Purpose Specifications

The fit-for-purpose (FFP) breakout session featured Sharon Nappier, EPA Lead for the Water Reuse Action Plan; Brandi Honeycutt, Environmental Protection Specialist within the Water Quality Control Division at the Colorado Department of Public Health and Environment; and Brian Bernados, Technical Specialist within the Division of Drinking Water at the California State Water Resources Board. FFP specifications refer to treatment standards that are applicable to water for a specific use. For example, water used for irrigation of feed crops will likely have different standards than water destined to be drinking water.

Nappier discussed the FFP action item 2.3.1 within the Water Reuse Action Plan, led by the Environmental Protection Agency. It is focused on compiling existing FFP specifications (for example, chemical and microbial treatment standards) that exist “for different sources of water for potential reuse and end-use applications.” She also mentioned a focus on collating the scientific and technical basis for these specifications, along with developing a baseline for future risk analyses.

Honeycutt discussed Colorado's Regulation 84: Reclaimed Water Control and Regulation 86: Graywater Control Regulation, and the types of reuse that are allowed under each of those. Colorado is intending to develop DPR rules in the near future as well. She talked about the idea of “one water” regulations that help to bridge between different sources and uses, but that there are challenges to integrating rules across agencies. Finally, she discussed the need to improve the process for adding uses to existing regulations using a risk-based approach. The flexibility, or lack thereof, of regulations can make it challenging for adaptation over time.

Bernados discussed the long history that California has regarding water reuse, and how that has evolved over time. California is working to better understand the science of reuse and treatment standards, and are developing policies and technical regulations that reflect this science.

Finally, the group discussed the role of environmental justice in conversations and planning processes for reuse projects. One concern raised was how frontline, lower-income and underrepresented communities may have unique needs not captured within a risk-based assessment that assumes a certain baseline of health.

Week 3

On the third day, the group session kicked off with an overview of and update on the National Water Reuse Action Plan (WRAP). Sharon Nappier (EPA), Jake Adler (ACWA), and Wendi Wilkes (ASDWA)

described the many concurrent efforts taking place in 2020, updated quarterly under each action plan on the WRAP online platform, which can be found at <https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform>. The platform is the repository for all the actions in the WRAP, both developed and undeveloped. It identifies leaders, partners, and interested collaborators, provides background information, and captures milestones and progress. To date, 94 of 259 implementation milestones have been completed, and there have been 500 updates across 35 actions. Looking forward, the next iteration of the WRAP is expected to be out in Spring 2021; it will highlight progress across the 37 actions, demonstrate collective impact, and showcase new actions.

Nappier also noted that EPA is hosting WRAP quarterly updates, and to be included in those updates to contact waterreuse@epa.gov. Nappier emphasized that WRAP is not an EPA plan but that EPA facilitated the plan, and encouraged everyone to get involved. The impetus for the plan was to learn how we can better collaborate and improve the resilience of our nation's resources. She described the desire to understand the drivers of water reuse as at least 40 states expect to experience water shortages in the next fifty years. Of the 350 billion gallons of water per day (bgd) discharged around the U.S., over 280 bgd are available for potential reuse.

Breakout A: Developments in Direct Potable Reuse

This breakout session featured Joel Klumpp from the Texas Council on Environmental Quality and Brandi Honeycutt from the Colorado Department of Public Health and Environment. DPR refers to water that is treated to potable standards without using an environmental buffer. While many states are looking at DPR, few have implemented rules and regulations. Many are addressing DPR projects on a case-by-case basis because it is still early on in both public acceptance of the practice as well as understanding how to best regulate and permit these types of projects.

Klumpp discussed Texas' experience permitting two DPR projects, one of which is still operating. A primary takeaway TCEQ has had from these experiences is that the permitting process requires a lot of money, time and effort on the part of both the applicant and the agency. He also mentioned that because state standards cannot be more stringent than federal standards, the fact that no DPR rules exist nationally can be a barrier to more fully developing state regulations that pertain to DPR. He referenced the "DPR Triangle" of monitoring, treatment and operations as a way to communicate how each project is considered. The shape of the triangle may look different depending on the project needs, but the "safety" in the middle will always remain constant. It allows for flexibility, but requires a lot of work for all involved.

Honeycutt discussed the drivers of developing reuse in Colorado. As previously mentioned, Colorado is in the beginning stages of developing a stakeholder process that will create state DPR rules and regulations. She mentioned the want of the agency to get ahead of DPR development before it starts to be more in-demand. The Colorado State Water Plan predicts that there will be a 500,000 acre-feet gap in water supply by 2050, and they believe that water reuse can help to mitigate this gap. She also mentioned the challenges that can arise from water rights issues, as some water rights allow for reuse while others do not. Those that do have the ability to reuse water may be able to take advantage of the existing water infrastructure system and reduce their own costs of project development.

Overall, the group cited challenges to DPR, including the lack of regulations and standards, lack of quick and accurate pathogen tests to ensure water quality, ensuring that DPR works all the time, funding for research, project development and permitting, and the current public perception and lack of understanding of DPR.

Breakout B: Developments in Produced Water Reuse and other Alternative Water Sources

The breakout session on produced water included presentations from Dan Yates, Groundwater Protection Council (GWPC), Scott Anderson, Environmental Defense Fund, and Jon Brant, University of Wyoming. Produced water reuse has primarily occurred within the oil and gas industry to offset the use of fresh water for oil and gas operations. A 2017 study found that the oil and gas industry generates 24 billion barrels (bbl) per year of produced water in the U.S., which represents a significant source of reuse water. The session participants discussed opportunities and challenges associated with produced water, and how to develop a community to tackle those challenges.

Opportunities for reuse will vary greatly, depending upon the local geology, water quality, community, infrastructure, costs, operational needs, state and federal policy, and regulatory issues. Some of the challenges states experience include: understanding the constituents of produced water and their toxicity for human health and aquatic life, the toxicity limits for contaminants and their treatability, public acceptance of the safety of treated produced water, finding local solutions, and safe economic uses of both the reuse water and waste byproducts.

Oklahoma explicitly includes produced water in its state water plan, and its Department of Environmental Quality has engaged with other stakeholders to develop studies and establish water quality standards for safely using produced water outside of the oil and gas industry. Montana is looking into permitting discharges for livestock watering. Texas desalinates brackish groundwater, and they are looking at resource recovery of concentrated waste products for beneficial use.

New Mexico recently held a Consortium on Produced Water and has worked with EPA and various stakeholders to better understand what framework is needed to adequately regulate and safely use produced water.² Sarah Holcomb noted that New Mexico's legislature passed the Produced Water Act in 2019, which gives the New Mexico Environment Department (NMED) the authority to regulate discharges of produced water to surface and groundwater outside the oil field. NMED is partnering with the Consortium to evaluate science gaps and treatment efficiencies before developing regulations.

Anderson noted the glaring lack of information on the chemicals present in produced water and urged caution as we continue to learn more. Current water quality standards do not address this kind of water chemistry. Out of 1198 chemicals detected in produced water, 86% of them lack sufficient toxicity data to complete a risk assessment.³ After the GWPC was invited to several meetings on produced water, it became clear that a national primer was needed to serve as a baseline document on the current status of produced water. It took two years and 60 experts to collect the research done and identify gaps in information that need to be addressed, now published as GWPC's Produced Water Report⁴.

Week 4

The final day of the summit began with a discussion on the nexus between water reuse and permitting programs. Shellie Chard (ODEQ), Tom Stiles (KDHE), and David Smith (EPA Region 9) shared perspectives, lessons learned, and best practices. One of the key issues raised was the impact of reuse on protected water rights, potentially hindering the development of reuse projects.

Chard said Oklahoma started permitting reuse in the 1930s in the form of land-applied wastewater in lagoons, although they did not call it reuse at the time. By the 1990s they were getting requests from industries wanting to use the treated water in cooling towers or other operational processes, which spurred the agency to take a look at more holistically at their water regulations. Shortly after, they had the worst

² See <https://nmpwrc.nmsu.edu/>

³ See <https://www.sciencedirect.com/science/article/pii/S0160412019319907>

⁴ See <http://www.gwpc.org/producedwater>

drought of record, with some communities less than 30 days from being completely out of water. That was followed by 45 days of rain, which ended the immediate crisis but spurred the communities and the state to look more closely at how to build a more sustainable water structure for the future.

Oklahoma's Water for 2060 goal is to use no more water in 2060 than they did in 2010, but still enjoy economic growth, recreation, and other water uses. They have workgroups focused on produced water, water quality standards, reuse, aquifer storage and recovery (ASR), and other water strategies and various issues. They ended up pursuing rule development for reuse systems, permits, treatment, and reporting requirements for specific uses. For ASR, they developed a permitting process through the Underground Injection Control (UIC) program, with more water quality standards than a typical UIC. They looked at the reverse osmosis treatment technique and what to do with the discharge water. They developed a dual-permitting program so municipalities can dispose of water in a class II-class V well. It has been a new world of NPDES permits and determining the best locations of pipes, keeping an eye on water quality and water rights, and sorting out the impact on drinking water. They found that the locations of drinking water intakes downstream of wastewater treatment plants benefitted from the water supply, but they also had to be careful with the water quality coming out of the wastewater facility. They are also looking at technologies for small systems to enable them to pursue the right kind of reuse.

Stiles said Kansas' reuse story is much more opportunistic. Reuse holds future promise, but it is not the current go-to for water resources in the state. He pointed out that there is enough water on the eastern side of the state to be considered governed by riparian rights, but the western side is purely governed through prior appropriations. Their reuse is mostly the "garden variety" application of irrigation: parks, ball fields, golf courses, cemeteries. They have some irrigation of row crops, some diversion of wastewater for industrial use, and some supplemental flow to a recreation pond. Some of the challenges in Kansas are related to public access, education, and monitoring. Irrigation with reuse should only take place during times of restricted public access, and signs and other notifications must make clear that the water is not for consumption. Fishing is limited to catch and release, and the reuse water cannot be used for crops that are produced for direct human consumption. Monitoring for E. coli is required. Some of the drivers and challenges in Kansas include meeting mass-based nutrient limits, satisfying demands in areas that are closed to new water appropriation, and consumptive use in a basin that cannot be increased. Kansas has reached out to Idaho and Oklahoma to help them develop their reuse program, and they plan to use the networking power of these summits to reach out to and learn from others.

Smith said that EPA has created a complicated national regulatory environment for operating reuse systems, leaving it up to individual states to develop their own regulatory frameworks. Regulatory approaches within each state are largely unique, with some states relying on existing permitting programs, and others creating entirely separate reuse permitting programs. There is a huge array of water rights issues. Permitting can both motivate and limit reuse. The cost of wastewater permit compliance has incentivized reuse as an alternative. Stormwater capture and reuse creates challenges for state permitting agencies to consider how to handle MS4 permits for industrial and municipal stormwater management. Perception and reality both play a role in reuse, and has raised valid concerns about the quality of reused water. The WRAP actions include working with states to tackle these issues and provide answers to commonly asked questions. There are different ways to interpret the regulations, and sometimes states have found creative ways to solve specific problems, so we want to honor that. Water rights law has created a bit of an impediment to how reuse can be applied—particularly when a "sewer-shed" doesn't align with the watershed and there is a penalty for taking treated water out of the watershed. EPA is working to share information across different types of agencies, and looking at where the emphasis of their efforts should be in the future.

Chard added that water rights issues are going to be state specific. In Oklahoma, they had a statutory fix for ASR projects, allowing injected reuse water to be considered reuse instead of groundwater and not subject to appropriations. But surface discharges are more difficult. They are looking at historical flow and discharges, how the reuse impacts downstream users, who spends the money to relocate a discharge point,

and who benefits from that. They've looked at lakes and rivers and considered that you get the right to take out the amount of reuse you put in, but that isn't codified in the statutes or regulations. There are ongoing discussions about the possibility of gaining additional water rights if the discharger of the reuse water already holds down stream water rights.

Stiles said in Kansas the groundwater belongs to the state or the water user. There are different styles of appropriation. All water is dedicated to the use of the people of the state, so there is no ownership. Even junior users downstream with perfected levels of consumptive use cannot be injured by changes in water use, even with their lower standing in the priority chain. Good intentions to benefit the environment can run headlong into water right matters. For example, once a municipal water right becomes perfected, it becomes a limiting factor to reuse because consumptive use becomes fixed. Cities have 40 years to perfect their right and during that time can develop reuse projects. However, once consumptive use is set, it cannot be increased. Reuse opportunities benefit from the extended interim period for the city to demonstrate its maximum potential for use/reuse.

Smith asked whether there was anything EPA could or should do to help with water rights issues. Julia Anastasio (ACWA) suggested that a compendium of examples may be helpful to demonstrate how states have overcome (or are working to overcome) water rights challenges to reuse. Erica Gaddis (Utah) said EPA could be helpful in scoping/funding studies regarding how water reuse in a particular basin intersects with instream flows. This includes evaluation of water rights and economics. Laura McLellan (California) said California has an instream flow policy for its North Coast area.⁵ The Water Rights Division has been talking about developing a statewide instream flow policy, but that is a long way off. Angela Zeigenfuse (Washington) said Washington has very few adjudicated basins, but instream flows have been set. However, a few Supreme Court cases have really affected their ability to allow for mitigation. Their Reclaimed Water Rule will be revisited to address some of these issues.

Breakout A: Developments in Non-potable Reuse at the Watershed Scale

This breakout session featured presentations by Angela Zeigenfuse, Washington Department of Ecology, Tressa Nicholas, Idaho Department of Environmental Quality, and Erica Gaddis, Utah Department of Environmental Quality.

Reuse in the past was limited, but demands have increased and are going to require thinking at the watershed, basin, statewide level. A change in one basin can affect other parts of the system, thus we need to plan at a more regional scale. States planning to embrace reuse can benefit from collaborating with neighboring states and communicating across agencies within the state. Zeigenfuse and Nicholas talked about their shared watersheds across state boundaries, and how they reach out to communicate challenges and concerns. The terminology in their respective state laws varies (such as reclaimed water in Washington and recycled water in Idaho), so they have to ensure they are speaking the same language at times.

Some of the key drivers for non-potable reuse are drought and long-term resilience, less predictable precipitation events, competing needs and demands, water quality concerns with increasingly stringent discharge limits, nutrient criteria and nutrient loading from point source discharges, mitigating aquifer losses and subsidence, preventing saltwater intrusion and eliminating discharge to the ocean, water quality trading, lake level concerns, co-beneficial water management, shifts in industrial demand, and costs of new water resources available to meet all those needs compared to the costs of reuse. At the watershed scale, how do we apply the tools we have to safely meet multiple objectives, meet legal requirements, coordinate with stakeholders, and be wise about the lower hanging fruit? State needs and challenges for advancing non-potable reuse include: improved and ongoing coordination between state agencies that manage water; basin level evaluations on the impacts of reuse on stream flows, water rights, and economic opportunities; research on treating produced water; reliable treatment standards and stable costs of implementing them

⁵ Available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/instream_flows/

over time; lack of state resources in staff, time, and money to get a robust program in place; and public perception.

Gaddis said Utah is a bit behind and they are looking to overhaul their regulations and oversight of water. The largest basin in Utah is a terminal lake (Great Salt Lake), and instream flows and the potential for depletion of tributaries to the lake are major concerns. Utah's water regulations have always been separate, which has been fine so far, but that will need to change. Nutrient regulations could push reuse projects forward, but there is an (as yet) unsupported narrative that reuse will deplete the terminal lake. Ken (Utah) said the agencies are sorting out where reuse falls in the regulations, and reaching out to other states. Reuse was minor, but it is becoming more significant. They are considering the potential of embracing a "one water" approach and sorting out how to implement that at a state level so all the agencies are on the same page. They are already seeing communities that do not like the projections of costs for community wastewater, so reuse is becoming a financially appealing alternative. They are also looking at the shift from non-potable to potable reuse.

Breakout B: Stormwater and Aquifer Recharge Approaches to Maximize Co-Benefits

The breakout session on stormwater management and aquifer storage and recovery (ASR) discussed key drivers of reuse. Although drought topped the list, another was large precipitation or runoff events and the need to capture large amounts of water when it is available. ASR and managed aquifer recharge (MAR) are familiar terms to many states, but the WRAP uses the term "enhanced aquifer recharge." Some of the challenges and concerns included: ensuring a system is already in place to capture water when it is there; making sure that infiltration or injection projects are designed to protect groundwater quality and the environment; the need for interagency coordination when water responsibilities are divided up; need for buy-in from the public and local government on new technologies; having cost-effective, reliable treatments with supporting science; and the need for more information on effective, science-based groundwater standards. One suggestion was that the interstate associations might be a good repository for sharing more academic research, because it can be hard for states to know what else is going on around the country. One of the WRAP actions is to create a national research strategy on reuse, getting input that spans the spectrum of sources and uses, and having the ability to share it with everyone.

Tab J – Clean Water Act (CWA) Section 401

Section 401 Certification MOU Scoping Meeting

September 2, 2020

ATTENDEES:

Paul Comba, Nevada Dept of Environmental Protection
Jennifer Carr, Nevada Dept of Environmental Protection
Birgit Widegren, Nevada Dept of Environmental Protection
Shelly Lemon, New Mexico Environment Dept
Erica Gaddis, Utah Division of Water Quality
Chris Carlson, USFS
Joan Carlson, USFS
Michael Eberle, USFS

Roger Gorke, EPA
David Olson, USACE
Robert Boyd, BLM
Deb Lawler, WestFAST/BOR
Michelle Bushman, WSWC
Adel Abdallah, WSWC
Jessica Reimer, WSWC

PURPOSE: With the new directives within the Section 401 Certification Rule, there is an opportunity for federal agencies to work better with the states on this issue. MOUs provide a mechanism to do that. USFS & BLM have used MOUs, and there are good success stories for improved relationships and collaboration. For Section 401 Certifications there is inherent interplay among the certifying authority and the federal agencies issuing the permit. We want to see if we can capture/incorporate/address that in our existing MOUs or build a new MOU to help clarify how we are going to work together as federal and state agencies under 401.

SUMMARY:

Concerns raised:

- Timeline of certification review; the 60-day default of the Corps is too short for state public comment requirements and decisionmaking process
- How new Corps nationwide permit rulemaking will impact 401 certifications
- Communication between federal agencies issuing the permit and states, especially if there is not a working relationship established
- Enforcement of permit conditions that states require for certification
- What project characteristics/permits will trigger a 401 review

The [Draft MOU](#) will serve as a starting point for people to redline. WSWC will convene a separate subgroup to hammer out the details of an MOU template – please let Jessica Reimer (jreimer@wswc.utah.gov), Michelle Bushman (mbushman@wswc.utah.gov), or Deb Lawler (dlawler@usbr.gov) know of your interest in participating.

Please send overarching ideas, issues or concerns you would like represented or addressed within the MOU to Jessica, Michelle or Deb as well. We will start with ensuring these are considered prior to developing the detailed language of the MOU.

Thank you for participating!

DETAILED MINUTES

GADDIS: We are primarily concerned with the timeline requirements in the new 401 certification rule, and are hoping that the MOU can resolve this. There is also another Corps rulemaking in process on nationwide permits, which will likely address or affect issues with the new 401 certification rule. We should make sure this MOU development process captures anything that results from that rulemaking.

LEMON: We (Nevada) are also disappointed in the new 401 certification rule.

GORKE: We have an example from BLM-Idaho MOU. Does the 401 certification rule contemplate MOUs like this between states and individual agencies?

GADDIS: The rule does not provide any recommendations or guidance regarding collaborating or keeping in good communication with the certifying entities. It also doesn't define "reasonable amount of time." The Corps default timeframe is 60-days, which is not enough time for us to complete our certification process.

GORKE: These are the type of things that we need to understand so we can take back to our agency leadership. We have the western states interested in entering in MOUs with Federal agencies that collaborate, etc., that would allow for better implementation. We need to figure out what the full "ask" will be.

CARLSON: Another important aspect will be clarifying what permits, or characteristics of permits, will now trigger the 401 certification process, given the new rule language. My personal interpretation is that the rule has clarified that the process is triggered if there "may" be a potential to discharge, and the discharge is coming from a point source. Because it still says "may," we need to understand what the characteristics are when a discharge falls into the "may" box. There are broad/differing expectations out there.

GADDIS: 404 permits are considered point source discharges and would trigger a 401 certification, but could include additional activities. The default of the Corps 60-day timeline is really important to us because we can't complete our review and public notification requirements under state law and issue the certification within this timeframe. We'd like to work with our Corps office to have the default number be longer and have the MOU frame how the process will work. Has anyone talked with Colorado, here they have a real MOU draft with the Corps on this stuff.

OLSON: The Corps is talking to certifying authorities to edit MOUs, created in the 1970s, to be more in line with current practices. We have been directed to start thinking about how things will change in the future. It's doubtful we'd have a National MOU for 401 certification. Generally, the Corps relies on districts to create these MOUs, best addressed at local level.

GADDIS: So the idea is to draft an MOU, then each state will take it and adjust it for local needs?

GORKE: Yes – so how is this done most efficiently? Is it better to do one MOU with multiple agencies, or do they need to be federal agency specific? Does it need to be different between states? The last thing we want is duplicative efforts.

GADDIS: The template is helpful, but will likely need to be modified by states and their Corps offices. We may want to wait till the new nationwide permit rulemaking is finalized to make further changes. For

example, as of 2016, Utah no longer blanket-authorizes dam projects because of water quality issues we have experienced. If the Corps is no longer required to notify the state of work they intend to permit, how is the Corps going to know that?

CARLSON: If I'm understanding, you have a separate permitting process for NRCS requirements?

GADDIS: Typically states will blanket certify nationwide permits, but as of 2016 this is not the case. We have a good working relationship with the Corps so it hasn't been a problem, but if other agencies are in charge of issuing permits and we don't have those relationships, then the states wouldn't know that anything is happening.

CARLSON: So we need to figure out how to identify when that is the case, especially if the Corps is not involved in permitting.

CARR: Nevada also does not blanket-certify agencies either. This is a problem for us as well.

CARLSON: This is possible to navigate in an MOU, but it will mean MOUs with individual agencies. NRCS not at the table significantly because they are not a permitting agency. So maybe it would need to be an MOU with the USFS.

GADDIS: We will need to see how the Corps rulemaking is finalized to ensure we know what all of the issues are and to be able to use an MOU to make it a more streamlined process. But there are plenty of issues to work out now, including how states will be notified, how enforcement will happen, and how to determine a timeframe.

CARLSON: How do we organize ourselves and set up next steps? Can the WSWC serve in a coordinating and convener role? (Yes). Appreciate the initial stab at the template – we can use this as a starting point, then convene a smaller subset of this group to hammer out a second draft.

GADDIS: The hardest part will be getting the structure in place and the authorities sorted out. We should reach out to Colorado to see how they are working with the Corps in response to the new rule. Utah's 401 certification lead, Leanna Littler, knows who in Colorado is working on this. David (Olson), can you reach out to the Corps district to see their interest?

OLSON: A nationwide MOU will not work for the Corps because everything gets delegated down to the districts. I can take this idea back to management, but the districts really like to be autonomous.

BOYD: Is it possible there could be regional MOUs rather than state-by-state? Interior is standing up regional offices similar to USFS. Just an idea. I think that having bullets summarizing the key items states are concerned with would be helpful to get further discussions going.

CARR: Also we are curious how this might work from a regional standpoint with the Corps. We have three different Corps districts in Nevada, and not one particular Corps office has blanket jurisdiction.

OLSON: Generally there is a district lead for the state; you should work with them on this issue.

CARLSON: Ideas heard:

- Redlining the template
- Identifying key concepts that need to be addressed in an MOU

- Then coming back around on the bullets

This would help to get alignment around concepts before going back into the draft and trying to fit those in retroactively.

GORKE: It's also helpful for other agencies nationwide outside of the west to be able to provide a template draft with the specific points. Broader application and importance outside the WSWC states.

CARLSON: Is there a subset of folks that can convene around what received and develop a follow-on document, then to convene another call?

Sub-group:

- USFS: Chris Carlson or Joan Carlson
- Utah: Leanna Littler, Erica Gaddis
- USACE: Reach out to western districts

Bullet points due September 16th – Wednesday.

WSWC: Will send out a reminder in a week

- Plan to reconvene towards the end of the month (September). Not in a hurry, because waiting for 401 rule-making and Corps rulemaking to be complete.
- Let Michelle, Jessica or Deb know if you are interested in participating in subgroup

Section 401 MOU Desired Outcomes
9/23/20

From U.S. Forest Service:

- Clarification of the triggers for 401 certification – which activities/types of permits under what circumstances call for 401 certification – particularly given the changed definition of jurisdictional waters
- Approach to projects/activities that trigger 401 certification with multiple federal permits – do certifying authorities want to do multiple 401s for the activity, or if not how to avoid it
- Approach to communication and sharing of information between state certifying authority and federal permitting agency during the entire process, from the pre-filing meeting request to potential enforcement of certification conditions
- Identification of potential reasonable periods of time to meet needs of both state and federal agency and provide the opportunity for “go backs” before the year limit is reached, if necessary
- Approach to assessment and enforcement of certification conditions

From Utah:

- Timelines: The new Rule proposes that the USACE (or other lead federal agency) give a timeline for each 401 Certification within 15-days. If the USACE (or other lead agency) does not give a time, the timeline will default to the timeline in their guidance. The timeline in the USACE guidance is 60 days. This is not enough time for Utah to review, draft, public notice, and issue/deny certifications. We request an agreement to default to 100 days with the ability to request up to the 1 year on large projects (should not be very frequent). This takes the burden off the USACE (or other lead agency) to identify a specific timeline each time a project comes in. It also takes the burden off of Utah to request additional time, each certification that is received. Typically, it has been taking about ~80 days to go through the entire 401 certification process, but the buffer will help to include some of the projects that go over a few days or projects where additional information is requested.
- Pre-Application Meetings: Our USACE has a set pre-application meeting the 3rd Tuesday of every month, where we go over proposed projects that are applying for Letters of Permission. The new 401 Certification Rule requires an applicant to request a pre-application meeting 30-days prior to a request for 401 certification. After discussion with our USACE office, we think it'd be a good idea to do combined pre-application meetings for USACE LOPs and 401 Certification requests. This keeps all agencies on the same page. USACE would lead LOP meetings and Utah would lead 401 certification meetings. We could have them on the same pre-set date. Other agencies are typically in attendance to these meetings, so it'd allow for more interagency collaboration.
- Rejection of 401 Certification Conditions or Decision: The new 401 Certification Rule outlines that the USACE (or other lead agency) can reject a certification condition of decision. I am not sure of how I'd like to handle this just yet, but I hope to have an agreed upon process that allows for discussion and an opportunity for Utah to address concerns that the USACE (or other lead agency) has about a condition or certification decision.

Tab K – Western Regional Partnership: Water Security Deep Dive



The Western Regional Partnership was established in 2007 when the Department of Defense partnered together with representatives of Federal agencies and State and Tribal leadership in the States of Arizona, California, Nevada, New Mexico and Utah. The WRP was expanded in 2015 to include the State of Colorado.

The mission of WRP is to provide a proactive and collaborative framework for senior-policy level Federal, State and Tribal leadership to identify common goals and emerging issues in the states of Arizona, California, Colorado, Nevada, New Mexico, and Utah and to develop solutions that support WRP Partners and protect natural and cultural resources, while promoting sustainability, homeland security and military readiness.

The WRP region contains significant military assets, federal and Tribal lands, infrastructure systems such as energy and transportation, and wildlife ecosystems; making WRP valuable in leveraging resources and linking efforts to help partners share best practices. The goals of WRP are to:

- Serve as a catalyst for improved regional coordination among State, Federal and Tribal agencies
- Address common goals, identify and solve potential conflicts and develop solutions that protect our natural and cultural resources, while promoting sustainability and mission effectiveness
- Provide a forum for information exchange, issue identification, problem solving and recommendations across the WRP region
- Adopt strategic priorities at the annual Principals' meeting
- Leverage existing resources and linking of efforts to better support key projects
- Identify geospatial requirements and leverage existing tools and resources to support WRP priorities.

The WRP is Co-Chaired by the Governor of Utah; the Assistant Secretary, Land and Minerals Management, U.S. Department of Interior (DOI); and the Assistant Secretary of Defense for Sustainment, U.S. Department of Defense. WRP Principals are executive level leaders from Federal and State agencies and Tribal governments in the region and are responsible for providing leadership and direction to the efforts undertaken by the WRP.

The membership of the Steering Committee is composed of senior staff members representing WRP Principals and coordinates with WRP Committee Co-Chairs. The Partnership also has committees that provide a forum for information exchange, issue identification, problem solving and recommendations. The three committees are: (1) Energy; (2) Military Readiness, Homeland Security, Disaster Preparedness and Aviation; and (3) Natural Resources.

The WRP Region has significant amounts of Federally managed land, Indian Trust lands, and state trust landholdings. Federal land ranges from 34.1% to 84.9% of total state land in WRP states. Additionally, the region has extensive training ranges, premier testing facilities, unmatched military air space. The WRP region contains the following.

- 88% of Federal Public Land in the 12 most Western States.
- 85% of the Marine Corps' live fire ranges and in the region.
- 78% of Nevada is public lands.
- 75% of DoD Special Use Airspace is in the region.
- 55% of the Army's landholdings are in the region.
- 33% of the Navy's landholdings.
- 27% of Arizona is comprised of Indian Trust Land, the largest percentage in the region.
- 172 Federally recognized native Tribes
- 4 of the largest Air Force range complexes are located within the region.

The six states in the WRP region are home to 18% of the U.S. population and constitute 19% of the total land mass.

WRP Principal Organizations include:

Office of the Secretary of Defense (OSD)

- U.S. Air Force
- U.S. Army
- U.S. Army Corps of Engineers
- U.S. Marine Corps
- U.S. Navy

Other Federal Agencies

- U.S. Natural Resources Conservation Service (NRCS)
- U.S. Forest Service (USFS)
- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Department of Energy (DOE)
- U.S. Customs and Border Protection
- Federal Emergency Management Agency (FEMA)
- U.S. Department of the Interior (DOI)
- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- Bureau of Reclamation (USBR)
- National Park Service (NPS)
- U.S. Fish and Wildlife Service (FWS)
- U.S. Geological Survey (USGS)
- Federal Aviation Administration (FAA)
- Federal Highway Administration (FHWA)
- U.S. Environmental Protection Agency (EPA)

Western States

- Arizona
- California
- Colorado
- New Mexico
- Nevada
- Utah
- Western Governors' Association

Tribes

- The Navajo Nation
- Inter-Tribal Council of California

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<http://wade.westernstateswater.org/>

See
documentaries: [Beyond the Brink](#), on water
security & [California's Watershed](#).

www.water.ca.gov/waterplan/

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Tab L – Improving Subseasonal to Seasonal (S2S) Forecasts

Improving Sub-Seasonal to Seasonal Precipitation Forecasting for Water Management



WESTERN
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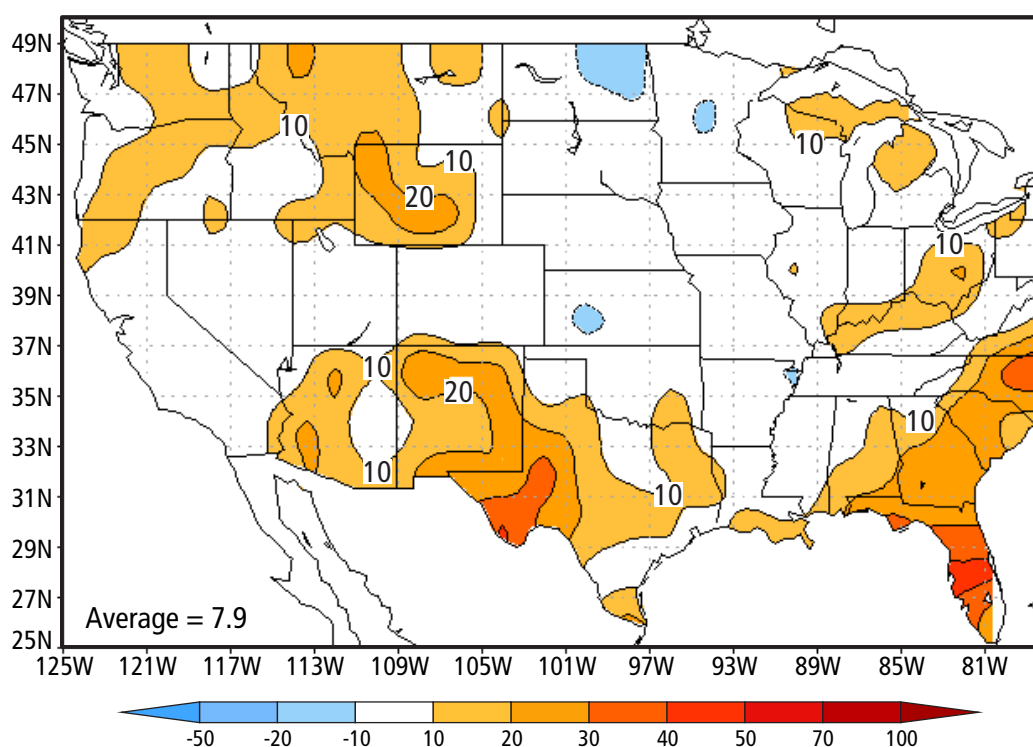
The Western States Water Council asks that the federal government provide resources for pilot projects to improve subseasonal to seasonal (S2S) precipitation forecasting to support water management in the western states, pursuant to the Weather Research and Forecasting Innovation Act. Pilot projects are needed for forecasts of winter precipitation (which provides the snowpack sustaining water supplies in mountain areas) throughout the West, and spring/summer precipitation for agricultural water supply in the Plains states.

Western States experience great subseasonal, seasonal, and annual variability in precipitation, with serious impacts and consequences for water supply planning and management, drought and flood preparedness and response, water rights administration, and operation of water projects. Sound decision-making to protect life and property by reducing flood risks and to inform decisions involving billions of dollars of economic activity for urban centers, agriculture, hydropower generation, and fisheries depends on our ability to observe, understand, model, predict, and adapt to precipitation variability

Public Law 115-25, Weather Research and Forecasting Innovation Act of 2017

This statute, enacted in 2017 and reauthorized in 2019 as part of National Integrated Drought Information System reauthorization, directs NOAA to “collect and utilize information in order to make usable, reliable, and timely foundational forecasts of subseasonal and seasonal temperature and precipitation.” The statute further requires submission of a report to Congress that describes “specific plans and goals for the continued development of the subseasonal and seasonal forecasts” and “an identification of research, monitoring, observing, and forecasting requirements” needed to meet the statutory goals.

Seasonal (Lead 0.5 months) Precipitation Heidke Skill Score DJF Manual Forecasts from 1995 to 2019



Historical skill of NOAA’s three-month precipitation outlook for the December, January, and February period. White areas on the map denote no more skill than simply predicting the historical average climate conditions. Figure credit: NOAA



The international Colorado River Basin has experienced prolonged drought conditions, resulting in declining reservoir elevations in Lake Mead and Lake Powell. Water agencies in the seven Colorado River Basin states have been taking unprecedented steps to manage the risk of shortage, including executing historic drought contingency plans with the Department of the Interior in 2019. Drought risk management programs in the contingency plans cost money and/or water. Skillful seasonal precipitation forecasts would help support decisions to balance costs against risks of shortage. Photo credit: U.S. Bureau of Reclamation



on operational time scales ranging from a few weeks to a season or more.

Current skill in S2S forecasting is not adequate to support water management decision-making, and **the federal government should place a priority on improving S2S precipitation forecasting capability to support water management.** Water is the life-blood of the West, which experiences far greater variability in annual precipitation than does the eastern half of the country. Managing water in the West is about managing for the extremes of droughts and floods, and the need to store water when available to manage it during drier times for cities, farms, energy, and the environment. Better longer-term precipitation forecasts are a necessary tool for more efficient water resource management.

Will this winter (or summer) be wet or dry?

This is a critical question asked every year by state, local, federal, and tribal water managers, as well as by cities, farmers, and hydroelectric powerplant operators. Although the skill of conventional short-term weather forecasts (which go out as far as two weeks in advance) has

improved over the past several decades, the same cannot be said for the critical longer-term forecasts important for water management. These longer forecasts – called subseasonal to seasonal (S2S) forecasts by atmospheric scientists – span time periods of several weeks out to one or two years. The skill of available forecasts, such as those produced by the National Weather Service's (NWS') Climate Prediction Center (CPC), is minimal.

As documented by NOAA's National Centers for Environmental Information, disasters at both wet and dry extremes of the hydrologic cycle are responsible for billions of dollars in losses. Water managers could employ improved S2S forecasts to prepare for and respond to drought and flooding, reducing loss of lives and property, as well as economic and environmental losses. Similarly, decision makers in other sectors affected by water management (agriculture, fisheries, hydroelectric power generation, emergency management) share a common interest in more skillful and useful forecasts.

Lead time is critical in making water management decisions. Improving seasonal precipitation forecasts would

National Weather Service California Drought – 2014 Service Assessment

In 2015 NOAA released its first-ever service assessment for drought, for the California drought which had then completed its third year. NOAA conducts service assessments to evaluate its performance after significant hydrometeorological, oceanographic, or geologic events. The assessments are triggered by factors such as major economic impacts to a large area or population, or extensive national public interest. Assessments are used to evaluate the effectiveness of products and services made available to stakeholders, to help NOAA continuously improve the services it provides. The drought assessment's top finding was the input received from numerous stakeholders regarding the need for seasonal prediction capability focused on cool-season mountain precipitation, both in California and in the Colorado River Basin.

"A majority of the stakeholders interviewed for this assessment noted one of the best services NOAA could provide is improved seasonal predictions with increased confidence and better interpretation. These seasonal precipitation products, produced by NOAA's Climate Prediction Center (CPC), are national in scale and are not designed to provide regional forecast information – information which is most relevant to decision makers interviewed by this team. For instance, state and federal officials managing California's water supply have a major unmet need for skillful predictions targeted at cool-season snowpack for the Sierra Nevada Mountains."

Improving the skill of S2S precipitation forecasting to make it usable for water management is scientifically challenging. In 2016 the National Academy of Sciences released a report on a national research agenda for improving S2S forecasting. The report identified key strategies for the next decade and made 16 specific recommendations for a research agenda. It noted that: "More skillful and useful S2S forecasts – developed through sustained engagement with users and advances in basic knowledge and technological capabilities – could radically improve the basis for decision making on S2S timescales. There are also emerging science and technical capabilities that make rapid advances in S2S forecasts more likely than envisioned even 5 years ago."

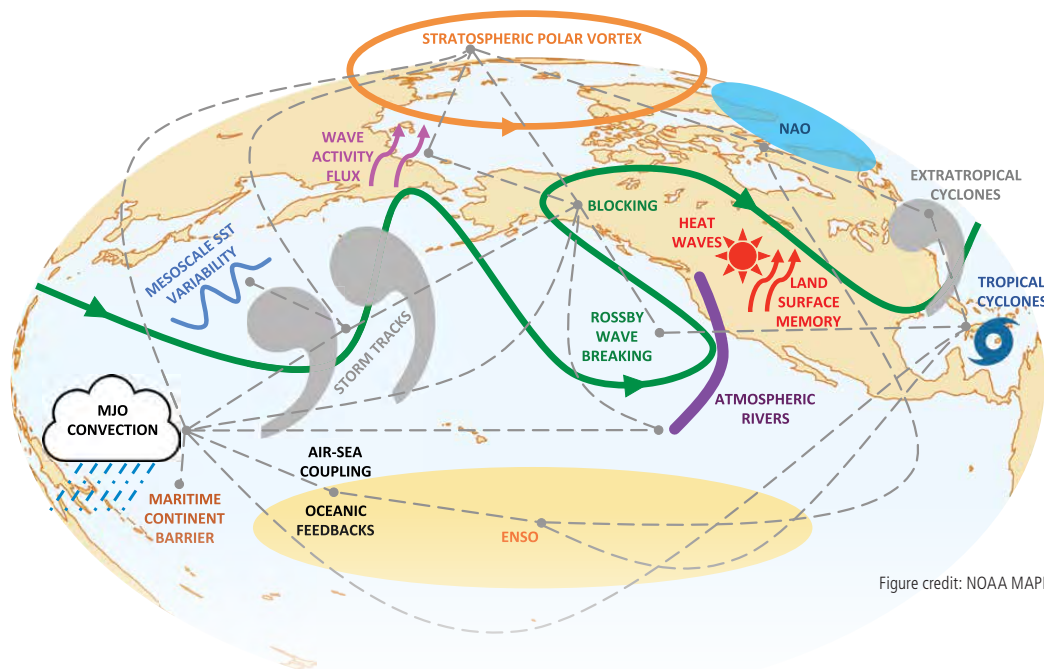


Figure credit: NOAA MAPP

Examples of Subseasonal and Seasonal Water Management Decisions

Subseasonal Decisions

Will the rest of this winter be wet or dry?

- » How much water will we be able to provide to our wholesale customers this spring? When can we plan to make an announcement?
- » Will we hit hydrologic shortage triggers that require extraordinary conservation measures, or a need to negotiate contracts or adopt special regulations?
- » Could we have an unusually wet late spring that would result in elevated flood risks or reduced agricultural irrigation needs?
- » If it looks like the rest of the winter will be dry, can we use some of the flood control storage space to save more water for our customers?
- » The winter has been very dry through December; are dry conditions likely to persist the rest of the winter?
- » When will we have to begin curtailing surface water rights and diversions on intensively used rivers?

Seasonal Decisions

Will this winter be wet or dry?

- » Do we need to seek drought response funding, reprogram other funds, or raise water rates?
- » Do we need to budget for enhanced water conservation outreach activities?
- » Should we make plans and adopt regulations for operating a drought water bank?
- » Should we purchase supplemental water supplies from groundwater or other sources to be able to meet our needs?
- » Should we begin negotiating contracts for one-time sale of surplus wet-weather water?
- » Can we set up a temporary groundwater recharge and banking program to take advantage of expected wet conditions?
- » Should we intensify flood fighting training and emergency preparedness outreach in vulnerable areas?

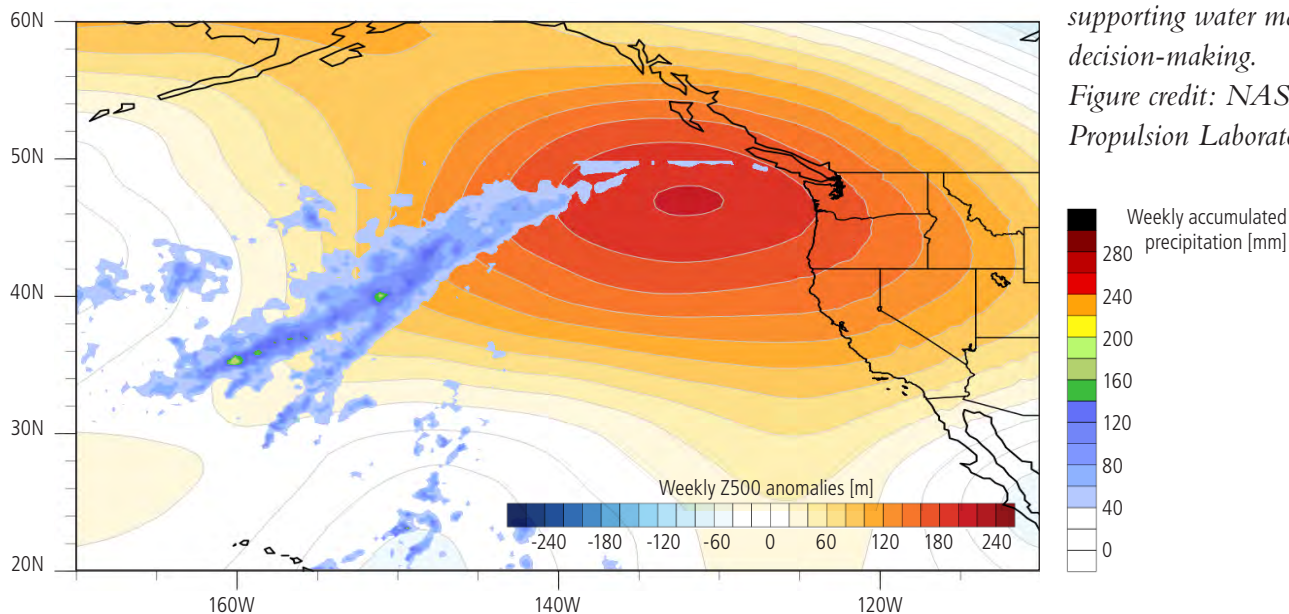
provide longer lead times for decision-making. Longer lead times are especially useful in planning and managing for the extremes of droughts and floods. Skillful subseasonal forecasts would allow for more efficient operation of water infrastructure, such as balancing reservoir operations between the competing objectives of flood control and water storage. Absent good predictive capability weeks ahead, reservoir operators must manage as conservatively as possible to ensure that space will be available to hold winter-spring runoff and manage floods. Better forecasts would allow

Atmospheric ridging blocks precipitation from reaching the West Coast during a drought year. The atmospheric feature nicknamed the “Ridiculously Resilient Ridge” was a key feature of the driest years of California’s 2012-16 drought. California Department of Water Resources (CDWR) has contracted with the National Aeronautics and Space Administration (NASA) for research on development of experimental subseasonal forecasts of winter ridging, to explore

the skill of this approach for supporting water management decision-making.

Figure credit: NASA Jet Propulsion Laboratory

24-30 December 2013



operators to retain more water in storage while still providing flood protection – the equivalent of developing new water supplies at minimal cost.

Opportunities for improving forecasting

S2S forecasting has historically occupied a research gap between conventional numerical weather modeling and century-scale climate modeling. Significant scientific progress has been achieved at the weather and century-scale ends of this spectrum, thanks to ongoing federal investment. According to the American Meteorological Society, the skill of five- to six-day NWS temperature forecasts in 2012 is equivalent to that of three- to four-day forecasts in 1992. Substantial federal support from 1990 onwards for the U.S. Global Change Research Program resulted in major progress in developing increasingly complex climate models. However, similar progress and investment have not occurred at the S2S time scale so important for western water management.

Improving S2S precipitation forecasting is a scientifically challenging subject that will require a commitment of dedicated, sustained funding. There is precedent within NOAA, given its Hurricane Forecasting Improvement Program (HFIP), for a similar



Late winter/early spring in South Dakota farm country in 2019. The Great Plains have been hit by devastating floods and droughts in the last decade. The flash drought of 2017 caused an estimated \$2.5 billion in damages to agriculture in the Dakotas and Montana; neither the drought's swift onset nor its severity was forecast. The flash drought was sandwiched between massive flooding in 2011 and 2019 that also caused billions of dollars in damages to communities and farms. Photo credit: South Dakota State Climatologist

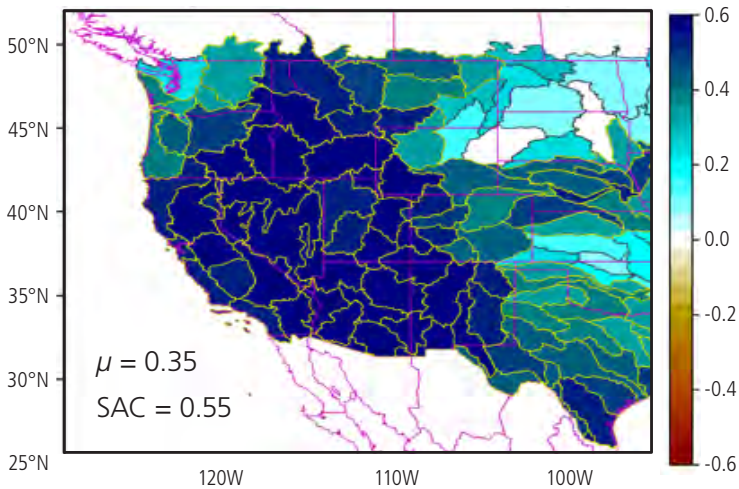


The U.S. Bureau of Reclamation's (USBR's) dry Folsom Lake in 2014. NOAA outlooks rely heavily on the El Niño-Southern Oscillation (ENSO) as a source of predictability. NOAA's early winter forecast in 2014 called for a weak to moderate El Niño with above-normal precipitation for California; ENSO conditions were neutral and California had one of its driest years on record. In 2015, NOAA correctly predicted the onset of strong El Niño conditions, but the expectation of a wet Southern California and dry Pacific Northwest was met with continued drought in Southern California and flooding in the Pacific Northwest, illustrating how much work remains to be done to improve seasonal forecasting. Photo credit: CDWR

Drought in the Western and Plains states in 2013 caused an estimated \$11.7 billion in losses. Numerous states, including Texas where this photo was taken, were affected. U.S. Department of Agriculture (USDA) disaster assistance payments are typically the federal government's greatest costs associated with droughts. Photo credit: USDA

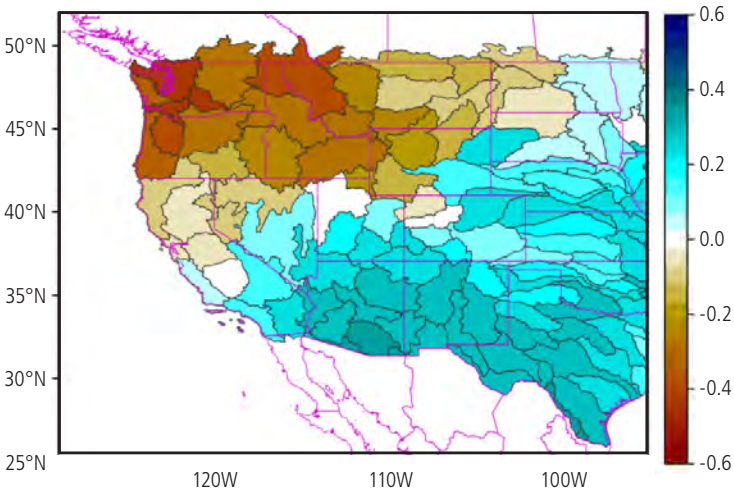
Preliminary experimental work being performed by NOAA's Earth Systems Research Laboratory (ESRL) under a contract with CDWR is compared to observed precipitation. ESRL developed a preliminary statistical model for S2S precipitation using sea surface temperatures and sea level pressure. This work demonstrates a potential opportunity for improving S2S forecasting precipitation through NOAA investment in statistical modeling. Figure credit: NOAA

Precipitation Anomaly Correlation with Merged SST/SLP model (1981-2018)



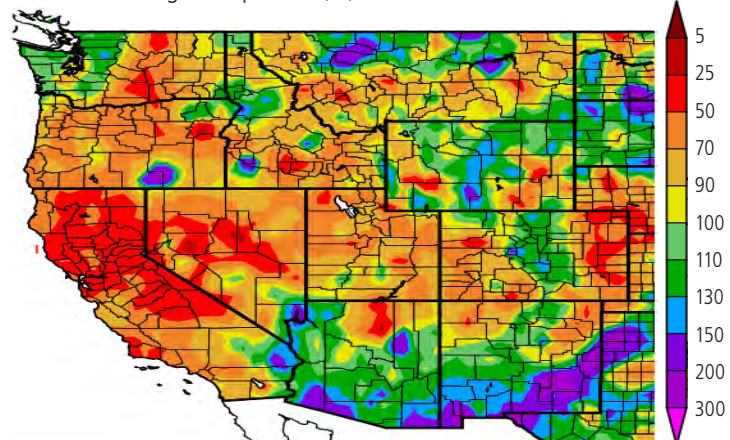
Skill of ESRL model tested against historical conditions (dark blue areas have greatest skill).

Precipitation Anomaly Correlation with Merged SST/SLP model forecast 2019/2020



Experimental forecast made in early October 2019 for the 2019-2020 winter; brown areas represent dry, blue areas wet.

Percent of Average Precipitation (%) 10/1/2019 – 3/8/2020



Observed water year precipitation.

Generated 3/9/2020 at WRCC using provisional data. NOAA Climate Centers

focused commitment of resources for improving forecasting skill. As with HFIP, there is no silver bullet for improving S2S forecasting. Necessary ingredients for making progress include investment in all aspects of the subject (human resources, high-performance computing, observing systems, and transition of research innovations to operations), well-defined metrics and timelines for evaluating success, and strong project management focused on operational outcomes. Regional pilot projects in areas where NOAA's current predictive skill is minimal are key to accelerating advancement of forecasting skill. Pilots provide opportunities to test tools such as statistical models or hybrid statistical-dynamical tools that can enhance information provided by NOAA's dynamical models.

The vision in a 2016 National Academy of Sciences report that S2S forecasts could be as widely used a decade from now as conventional weather forecasts are today needs to be realized. The Weather Research and Forecasting Innovation Act provides a path forward. The Western States Water Council asks that the federal government provide resources to implement the act.

Member states:



WESTERN STATES
WATER COUNCIL

Tab M – Airborne Snow Observatory (ASOs)



Airborne Snow Observatory

NASA's Jet Propulsion Laboratory (JPL), in partnership with the California Department of Water Resources, has developed the [Airborne Snow Observatory](#) (ASO), an imaging spectrometer and scanning lidar system, to quantify snow-water equivalent and snow albedo.

View snow water equivalent and snow albedo images for basins in California (Kings Basin, Merced Basin, San Joaquin Basin, Tuolumne Basin) and Colorado (Uncompahgre Basin).

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mrs. FEINSTEIN (for herself and Ms. Harris):

Senate - August 13, 2020

[\[\[Page S5410\]\]](#)

[S. 4530](#). A bill to establish a Snow Water Supply Forecasting Program within the Department of the Interior, and for other purposes; to the Committee on Energy and Natural Resources.

Mrs. FEINSTEIN. Mr. President, I rise to speak in support of the Snow Water Supply Forecasting Program Authorization Act, which I introduced today with Senator Harris. Representatives Josh Harder, John Garamendi, Jerry McNerney, Grace Napolitano, T.J. Cox, and Ami Bera--all Democrats from California--and Diana DeGette and Joe Neguse--both Democrats from Colorado--have introduced identical companion legislation in the House.

Airborne snow observatory, ASO, technology is a snow monitoring tool that provides precise measurement of depth and water content for every square meter of snow in a watershed. The technology measures snow depth and water content using an airplane-mounted light detection, LiDAR, instrument coupled with an imaging spectrometer.

When combined with conventional snow surveys, ASO provides a near-perfect picture of snow water content.

By near perfect, I mean that ASO estimates snowpack and runoff forecast with 96 to 99 percent accuracy. This is much better than current practices, which only measure snowpack and runoff with 50 to 90 percent accuracy.

These forecast accuracies are achieved by comparing LiDAR measurements of bare ground topography in the summer with multiple measurements of snow depth during the winter. The greatest accuracies are based on once-a-month flights in watersheds earlier in the winter, and twice monthly flights during the spring runoff period.

The much more precise measurements of snowpack that ASO provides will be critical in better managing competing missions of western water storage reservoirs for flood control and water supply amidst a changing climate and growing population.

For example, in a single year, 2018, Turlock Irrigation District used this technology in the Tuolumne River watershed to save 150,000 acre-feet of water supply.

Because they knew precisely how much snow was in the upper watershed of the Tuolumne, Turlock was able to avoid a release of 150,000 acre-feet of water from Don Pedro Reservoir that otherwise would have been required for flood control.

Without ASO technology, Turlock would have had to assume for safety purposes that the melting snow in the upper Tuolumne watershed was at the high end of a wide range of guesstimates using conventional snowpack technology. With the possibility of a big snowmelt, Turlock would have had to release the extra 150,000 acre feet of water.

With water in California often costing \$1000 per acre foot or more, errors in water-storage management can cost hundreds of millions of dollars in unnecessary releases from reservoirs and extra groundwater pumping.

Additional ASO flights to better measure snowpack often have a high return on investment, by one estimate as much as 40:1 for water supply benefits, and 80:1 for all benefits, including hydro, recharge, flood control, and ecosystem benefits.

After several years developing and refining the deployment of snowpack measurement technology, in December 2019, NASA concluded management of the-ASO program and transferred it to the private sector. While consistent with NASA's traditional approach to developing new technologies, this transfer reduces the certainty for Federal support of a program with significant public benefits, including improved water conservation, supply and delivery forecasts across the West.

The bill establishes a snow pack forecasting program at the Bureau of Reclamation within the Department of the Interior.

The Bureau shall implement the program in two phases:

No. 1, the first step is to coordinate with other Federal agencies on how they will work together to improve analyses of snowpack depth. This interagency process will result in a report due to Congress by October 21, 2021.

No. 2, following the completion of the report, the Bureau will cost-share with States, water districts, other Federal agencies and other partners on increased LiDAR flights and other activities in particular watersheds.

This program is expected to benefit many Western States, including but not limited to Sierra Nevada and Cascade Mountains; the Front Range of the Rocky Mountains of Colorado, Wyoming, and New Mexico; and the Colorado River tributaries in Utah and Arizona, and the Pacific Northwest.

Fifteen million dollars would be authorized for the program from fiscal years 2022 to 2026.

I hope my colleagues will join me in support of this bill.

<https://www.congress.gov/congressional-record/2020/8/13/senate-section/article/s5409-1?q=%7B%22search%22%3A%5B%22ASO%22%5D%7D&s=1&r=1>

116TH CONGRESS
2D SESSION

S. 4530

To establish a Snow Water Supply Forecasting Program within the
Department of the Interior, and for other purposes.

IN THE SENATE OF THE UNITED STATES

AUGUST 13, 2020

Mrs. FEINSTEIN (for herself and Ms. HARRIS) introduced the following bill;
which was read twice and referred to the Committee on Energy and Nat-
ural Resources

A BILL

To establish a Snow Water Supply Forecasting Program
within the Department of the Interior, and for other
purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Snow Water Supply
5 Forecasting Program Authorization Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

1 (1) PROGRAM.—The term “program” means
2 the Snow Water Supply Forecasting Program estab-
3 lished by section 3.

4 (2) RECLAMATION STATE.—The term “Rec-
5 lamation State” means a State or territory described
6 in the first section of the Act of June 17, 1902 (32
7 Stat. 388, chapter 1093; 43 U.S.C. 391).

8 (3) SECRETARY.—The term “Secretary” means
9 the Secretary of the Interior.

10 **SEC. 3. SNOW WATER SUPPLY FORECASTING PROGRAM.**

11 (a) PROGRAM ESTABLISHMENT.—The Snow Water
12 Supply Forecasting Program is hereby established within
13 the Department of the Interior.

14 (b) PROGRAM IMPLEMENTATION.—To implement the
15 program, the Secretary shall—

16 (1) develop the program framework in coordina-
17 tion with other Federal agencies pursuant to section
18 4, culminating in the report required under section
19 4(c); and

20 (2) after submitting the report required by sec-
21 tion 4(c), implement activities to improve snowpack
22 measurement in particular watersheds pursuant to
23 section 5.

1 **SEC. 4. DEVELOPMENT OF PROGRAM FRAMEWORK IN CO-**
2 **ORDINATION WITH OTHER FEDERAL AGEN-**
3 **CIES.**

4 (a) SNOWPACK MEASUREMENT DATA.—When deter-
5 mining water supply forecasts or allocations to Federal
6 water contractors, the Secretary, acting through the Com-
7 missioner of the Bureau of Reclamation, shall incorporate,
8 to the greatest extent practicable, information from
9 emerging technologies for snowpack measurement, such
10 as—

- 11 (1) synthetic aperture radar;
12 (2) laser altimetry; and
13 (3) other emerging technologies that the Sec-
14 retary determines are likely to provide more accurate
15 or timely snowpack measurement data.

16 (b) COORDINATION.—In carrying out subsection (a),
17 the Secretary shall coordinate data use and collection ef-
18 forts with other Federal agencies that use or may benefit
19 from the use of emerging technologies for snowpack meas-
20 urement.

21 (c) EMERGING TECHNOLOGIES REPORT.—Not later
22 than October 1, 2021, the Secretary shall submit to Con-
23 gress a report that—

- 24 (1) summarizes the use of emerging tech-
25 nologies pursuant to this section;

1 (2) describes benefits derived from the use of
2 technologies summarized under paragraph (1) re-
3 lated to the environment and increased water supply
4 reliability; and

5 (3) describes how Federal agencies will coordi-
6 nate to implement emerging technologies.

7 **SEC. 5. PROGRAM IMPLEMENTATION.**

8 (a) **ACTIVITIES IMPLEMENTING FRAMEWORK.**—After
9 submitting the report required under section 4(c), the Sec-
10 retary shall participate with program partners in imple-
11 menting activities to improve snowpack measurement in
12 particular watersheds.

13 (b) **FOCUS.**—The program shall focus on activities
14 that will maintain, establish, expand, or advance snowpack
15 measurement consistent with the report required by sec-
16 tion 4(c), with an emphasis on—

17 (1) enhancing activities in river basins to
18 achieve improved snow and water supply forecasting
19 results;

20 (2) activities in river basins where snow water
21 supply forecasting related activities described in this
22 section are not occurring on the date of the enact-
23 ment of this Act; and

1 (3) demonstrating or testing new, or improving
2 existing, snow and water supply forecasting tech-
3 nology.

4 (c) INFORMATION SHARING.—The Secretary may
5 provide information collected and analyzed under this Act
6 to program partners through appropriate mechanisms, in-
7 cluding interagency agreements with Federal agencies,
8 States, State agencies, or a combination thereof, leases,
9 contracts, cooperative agreements, grants, loans, and
10 memoranda of understanding.

11 (d) PROGRAM PARTNERS.—Program partners with
12 whom the Secretary enters into cooperative agreements
13 pursuant to subsection (e) may include water districts, ir-
14 rigation districts, water associations, universities, State
15 agencies, other Federal agencies, private sector entities,
16 non-governmental organizations, and other entities, as de-
17 termined by the Secretary.

18 (e) COOPERATIVE AGREEMENTS.—The Secretary
19 may—

20 (1) enter into cooperative agreements with pro-
21 gram partners to allow the program to be adminis-
22 tered efficiently and cost effectively through cost-
23 sharing or by providing additional in-kind resources
24 necessary for program implementation; and

1 (2) provide nonreimbursable matching funding
2 for programmatic and operational activities under
3 this section in consultation with program partners.

4 (f) ENVIRONMENTAL LAWS.—Nothing in this Act
5 shall modify any obligation of the Secretary to comply with
6 applicable Federal and State environmental laws in car-
7 rying out this Act.

8 **SEC. 6. PROGRAM IMPLEMENTATION REPORT.**

9 Not later than 4 years after the date of the enact-
10 ment of this Act, the Secretary shall submit a report to
11 the Committee on Natural Resources and the Committee
12 on Appropriations of the House of Representatives and the
13 Committee on Energy and Natural Resources and the
14 Committee on Appropriations of the Senate, that in-
15 cludes—

16 (1) a list of basins and sub-basins for which
17 snowpack measurement technologies are being used
18 under the program, including a description of each
19 technology used; and

20 (2) a list of Federal agencies and program part-
21 ners participating in each basin or sub-basin listed
22 in paragraph (1).

1 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

2 There is authorized to be appropriated to the Sec-
3 retary to carry out this Act \$15,000,000, in the aggregate,
4 for fiscal years 2022 through 2026.

○

Tab N – Water Data Exchange (WaDE) Update

WATER DATA EXCHANGE (WaDE) Program Update

Adel Abdallah, WaDE Program Manager, PhD

Ryan James: Data Analyst / Hydroinformatics Specialist, MSc

This report provides an update of the WaDE Program's progress over the third quarter of 2020 in the following three areas: (1) connecting states' data to the WaDE 2.0 system and the development of several proof-of-concept applications to visualize states' data within the WaDE system; (2) planned minor WaDE 2.0 system design changes; and (3) key outreach activities related to open data and modeling initiatives and discussions with several of our member state agencies.

1. Connecting State's Data to WaDE 2.0

We (the WaDE 2.0 development team) are continuously working to connect our member states' water rights, water use, and regulatory data into the updated system. Our main goal is to provide consistent access to water data for all western states to enable regional analysis and inform policy and decision making. Below we describe our progress in importing each of the states' data types into the WaDE database, which include the following data types: i) water rights; ii) aggregate water use; iii) site-specific use; and iv) regulatory overlays data.

i) Water Rights Data

Since the last Summer 2020's update report, we have completed importing water rights data into the WaDE database for two more states: Nevada and Nebraska. This brings the total to 10 states in the WaDE database. We are also working with five other member states with plans to connect their data as soon as the data is made ready (Figure 1). We have also made significant improvements to the proof-of concept Water

Rights Web App (using the RShiny environment) to view, filter, and query water rights information. This web app provides basic functionalities and supports queries to the WaDE Application Program Interface (API) to retrieve all metadata related to a water right and its point of diversion (Figure 2). The Water Rights Web App supports the following key filters: beneficial use, water source type, allocation owner, site type, priority date and flow or volume amounts.

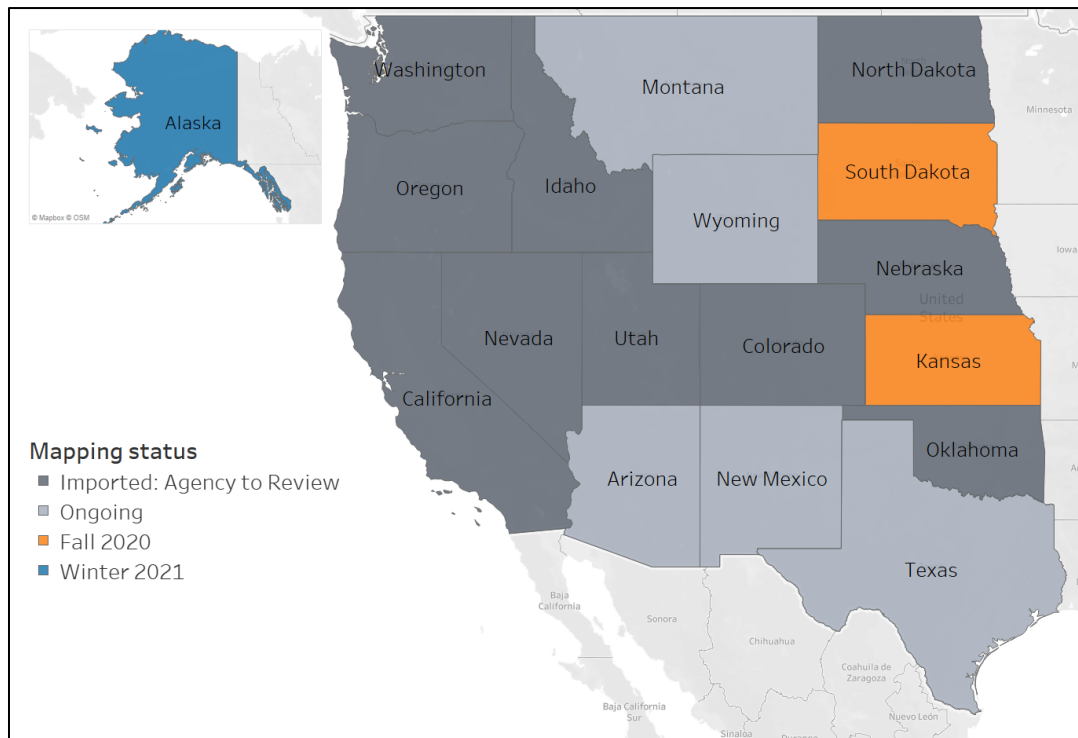


Figure 1: Progress of Connecting Agencies Water Rights Data into WaDE 2.0

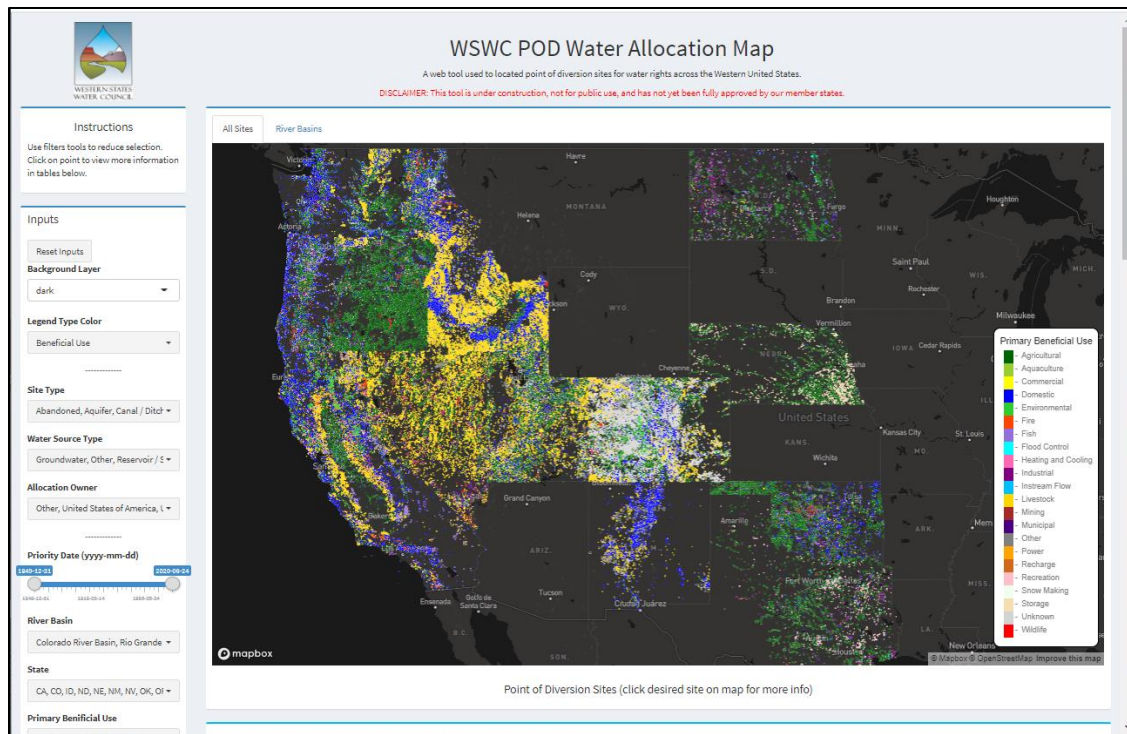


Figure 2: Screenshot of the WaDE 2.0 Water Rights Web App using RShiny

ii) Aggregate Water Use Data

We continued to work with our member states to share their aggregate water use data. We have not added any states since our last update (Figures 3 and 4). Current plans for acquiring more aggregate data are as follows. We are working to import Arizona's aggregate water budget data for their Active Management Areas. We are also having discussions with Colorado to import their aggregate water supply data. We have also discussed importing Nevada's aggregate water use data, which we hope to get into the database later this fall.

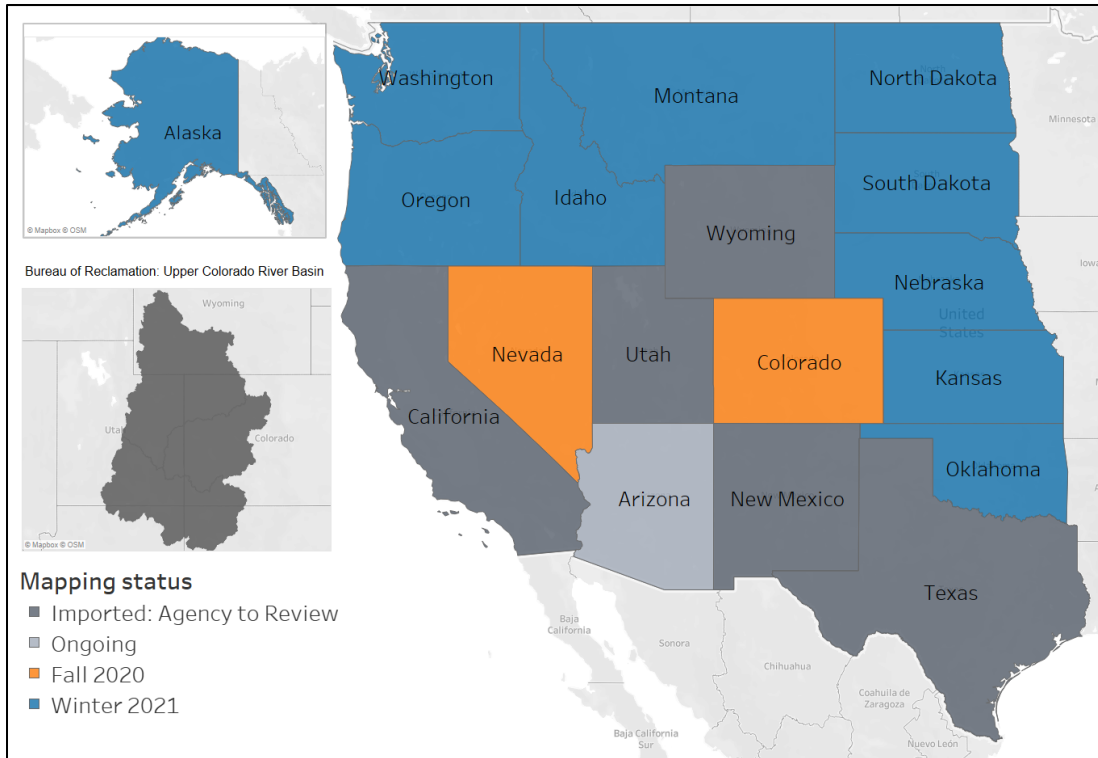


Figure 3: Progress of Connecting Agencies Aggregate Data into WaDE 2.0

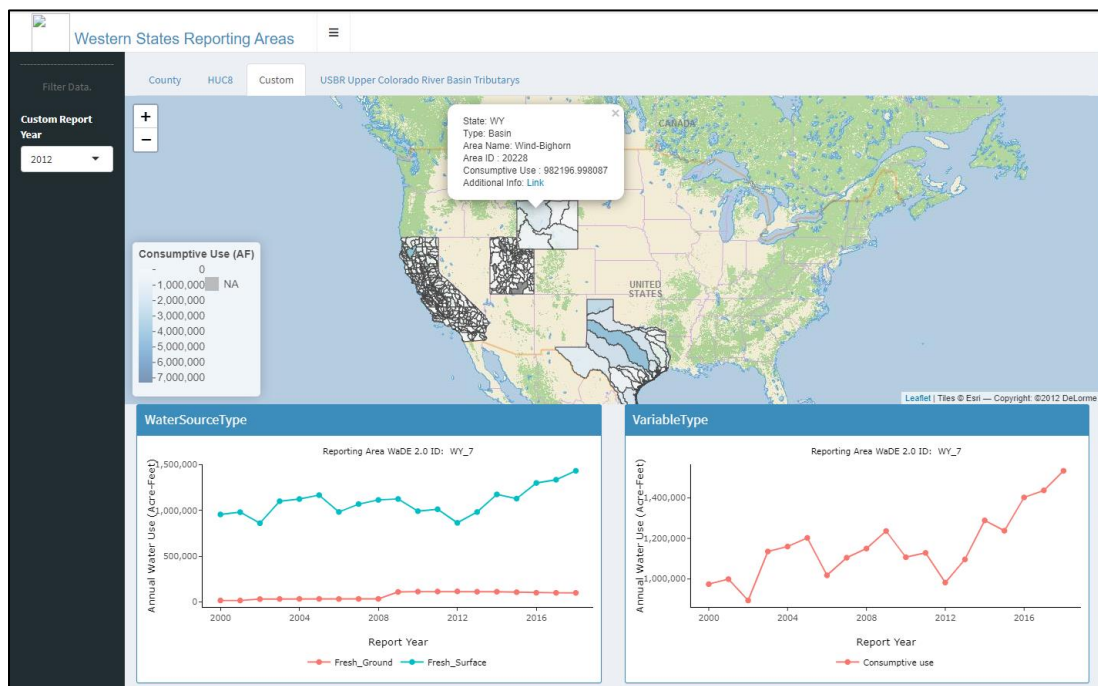


Figure 4: Screenshot of the WaDE 2.0 R Shiny App for Aggregate Water Data for Custom Reporting Units.

iii) Site-Specific Water Use Data

The WaDE team has imported Utah's Municipal and Industrial (M&I) time series water use data into the WaDE database. We have developed a new R Shiny App for this data type (Figure 5). We will continue to work with our other member states to import their time series data from local reservoirs, canals, gage stations, and diversions into the WaDE database once it has been made available.

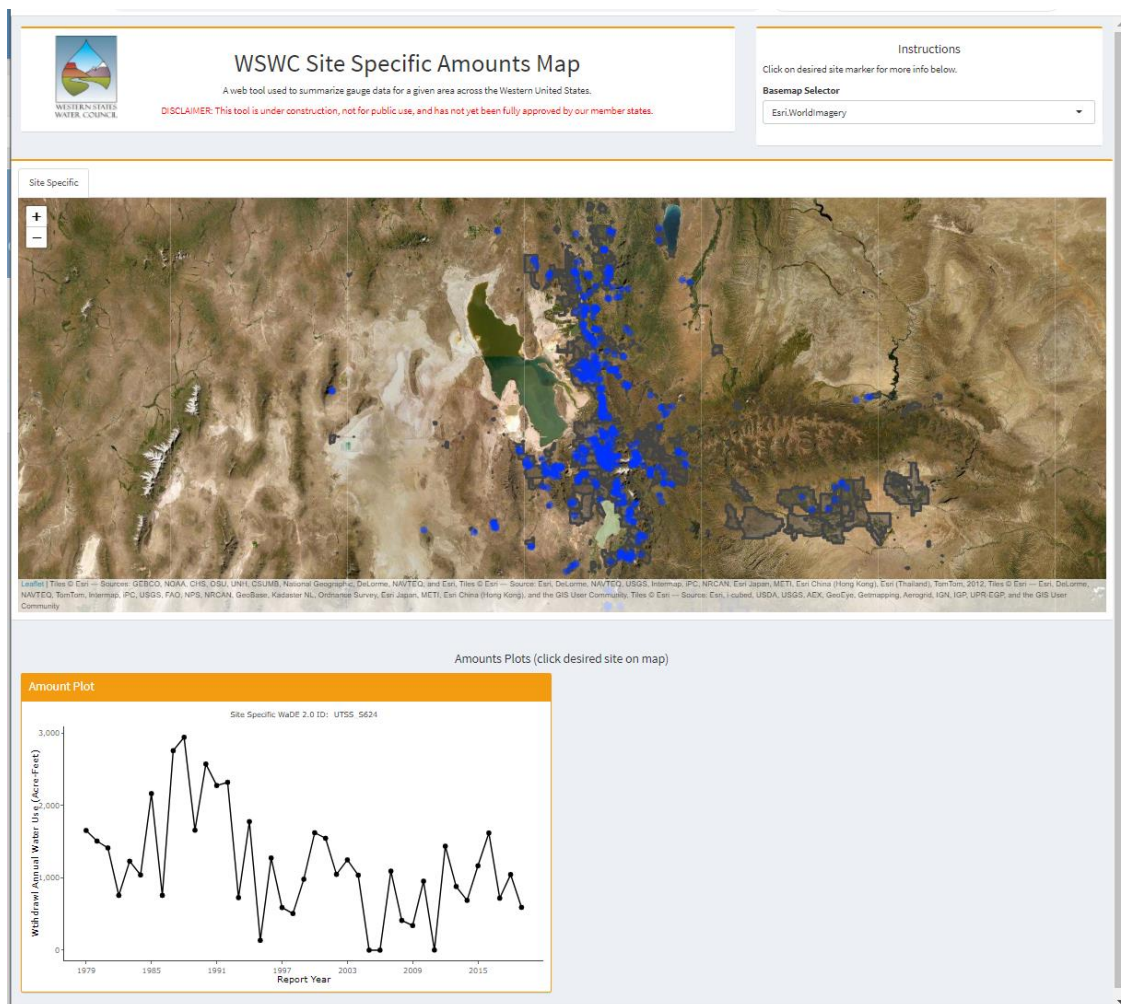


Figure 5: Screenshot of the WaDE 2.0 R Shiny App for Site-Specific Utah's Municipal and Industrial Water Data.

iv) Regulatory Data

We have imported regulatory overlays for New Mexico compacts and Nebraska Natural Resources Districts into the WaDE database. As will be described in the next section, we are working with our IT contractor to make a few minor database changes to add metadata items we identified while working with this data type.

2. Planned Minor WaDE System Design Changes

After working with and importing more data from our member states into the WaDE database, the WaDE team has identified several changes needed to its database and the API. Changes such as these are expected to occur per the nature of using the iterative data management design approach.

Below are three high level changes to the database and data loader that the WaDE team has identified plus another point on the development of the WaDE portal. The WaDE team has been collaborating with the IT contractor, “Don’t Panic Labs” (DPL), on these issues. The DPL team is scheduled to implement these three changes this Fall. The changes are as follows.

- The WaDE database supports a Point-of-Diversion (POD) geospatial representation of water rights data. PODs are the common way that states represent their water rights in maps. We identified minimal changes needed in the WaDE database to also support storing data for the Place-of-Use (POU) for the states that share this data. Including the water right POU will be helpful to understand not only where water is being diverted but also where it is being used, especially when the POD and POU are each in a different watershed.
- The WaDE database currently considers water rights data such as priority date and amount to be fundamental and required. However, states such as Arizona and Nebraska do not require their water rights (particularly groundwater rights) to contain either a priority date or an amount of volume/ flow. In response, the WaDE team will make minimal changes to exempt some groundwater rights from those required fields. This allows an exception to the general rule, but most groundwater rights in

the West do have a priority date and volumetric limits. The changes will mainly affect our database and its data loader rules that validate the data.

- The WaDE database for regulatory overlays data requires more descriptive metadata elements to allow for better filtering of regulatory data, as our member states' data is more comprehensive than first anticipated. We have identified the need to support the following three new metadata elements: (1) water source that the regulation applies to such as groundwater or surface water; (2) regulation type such as compact, state statute, or tribal; and (3) we also want to support relating regulatory overlays with overlapping reporting units that summarize aggregate water use and budget data.
- Because of the limitations in the R Shiny web app development environments, we have discussed plans with our IT consultant, DPL, to develop a custom front-end application that supports all WaDE data types in one coherent and professional application. The application will be a user-friendly portal to allow users (e.g., farmers, decision makers, managers, and researchers) to access, filter, and analyze water rights and water use data. We have drafted a front-end technical description document that describes this goal and have had four planning session meetings with DPL to communicate our needs. These planning sessions concluded that the potential design project should be divided into three main phases. The first phase would encompass researching mapping software and environments to build a web-based prototype(s). The second phase would be to create mock-up and clickable prototype(s) applications. These first two phases would narrow down the available final development options and further define the needed requirements to meet our goals. The third and final phase would be to build the actual Minimum Viable Product (MVP) WaDE software application. We have allocated funds to begin work on the first phase of this plan so that we may have a better understanding of the total potential cost and needed requirements of developing such an application. More to come as we continue to explore this option.

3. Key Outreach Activities

- **July 8, 2020 – Conference Call with the Arizona Department of Water Resources.**

The WaDE team discussed data sharing options with Lisa Williams, Manager of the Office of Data Management at Arizona Department of Water Resources. We discussed Arizona's water rights data especially outside the Active Management Areas (AMAs). We also discussed aggregated water budget data for the AMAs and how they will be imported into the WaDE database.

- **July 14, 2020 – Conference Call with the Nevada Division of Water Resources.**

The WaDE team and the WSWC Executive Director met with Nevada's team of Adam Sullivan and Micheline Fairbank, both Deputy Administrators and their staff and discussed Nevada's water use and water rights data. We discussed sharing Nevada's water rights and water use data through WaDE and how WaDE could help their teams. Nevada's team was interested in the WaDE data dictionary for metered data. We have imported Nevada's water rights data into the WaDE database, and we will continue to work with the Nevada team to review the data before it is publicly shared in WaDE.

- **August 10, 2020 – WaDE Presentation at the Western Association of Fish & Wildlife Agencies (WAFWA) Water Database Webinar.**

The WaDE Program Manager and the WSWC Executive Director presented the WaDE program to the WAFWA audience and shared how the 2.0 version supports filtering water rights across the western US based on beneficial uses such as environmental, fish, and instream-flow. The Crucial Habitat Assessment Tool (CHAT) was developed and then launched by the Western Governors in 2013, as part of an effort in parallel with the development of WaDE. CHAT provides consistent access to mapping of crucial habitat areas across the western states boundaries to inform infrastructure and planning efforts. WaDE's

water rights data can help inform the CHAT group efforts, as there is an interest in instream flow data and related rights among western states. The WaDE team will be reaching out to states to evaluate the potential of sharing their instream data through the WaDE system.

- **August 14, 2020 – Conference call with Nebraska Department of Natural Resources.**

The WaDE team and the WSWC Executive Director met with Nebraska's team of Jesse Bradley (Assistant Director/Interim Director), Kim Menke (IT Manager), and Jennifer Schellpeper (Water Planning Division Head) and their staff. The teams discussed sharing Nebraska's water rights data. They also discussed a potential collaboration on a USGS Water-Use Data and Research Program (WUDR) grant. We have imported Nebraska's water rights data into WaDE and we will continue to work with their team on a WUDR grant.

- **August 25, 2020 – WestFast Update on the Western States Water Council Water Data Exchange (WaDE).**

In this webinar, the WaDE staff including the WSWC Executive Director presented an update on WaDE 2.0 progress, demonstrated some proof-of-concept apps, and talked about future steps. We solicited feedback from WestFast members on a new water rights search filter that was added to the apps based on an earlier suggestion. The filter shows western water rights where the states recognize the owner as the federal government or agencies such as the U.S. Bureau of Reclamation and U.S. Forest Service. It was agreed that the updated WaDE 2.0 has the potential to inform water rights discussions among western states and the federal agencies.

- **August 28, 2020 – Conference call with Nebraska's Natural Resources Districts (NRDs).**

The WaDE team and the WSWC Executive Director met with Dustin Wilcox of the Nebraska Association of Resources Districts. In Nebraska, each NRD has the authority to tax and regulate natural resources such as groundwater. The NRDs have a diverse set of monthly or annual rules that govern groundwater use in the State. We have completed an initial import of Nebraska's NRDs regulatory data into WaDE and we will continue to work with the Association to review the data and improve it over time to better explain how groundwater is being used and regulated in Nebraska.

- **September 22, 2020 – OpenET Demo Webinar.**

WaDE organized this OpenET webinar to brief our western state agencies on the recent OpenET press-release regarding their “soft launch” of the OpenET platform to its collaborators and partners. The project aims to “fill the biggest gap in water management” by estimating consumptive water use for irrigated areas across the western U.S. using six common evapotranspiration (ET) models. The OpenET team first presented an overview of the project goals and technical approach, highlighting early use cases and applications. They provided a demonstration of the user interface and hosted a discussion for general feedback and questions. One exciting outcome of the project is an intercomparison study across the six ET models that will inform western states on similarities and differences between the ET models to better inform their consumptive use estimates. Finally, the OpenET team answered questions on the use of the platform by our state agencies. The Platform is planned to be officially released in the Spring of 2021. The OpenET press-release is available online:

<https://openetdata.org/pressrelease2020.pdf>

EDF, NASA, DRI and Google Announce Web Application to Transform Water Management in the Western United States

(SACRAMENTO, CA — Sept. 15, 2020) Environmental Defense Fund (EDF), NASA, the Desert Research Institute (DRI) and Google announced plans today to develop a new web application called [OpenET](#) to enable western U.S. farmers and water managers to accurately track water consumption by crops and other vegetation using data from satellites and weather stations.

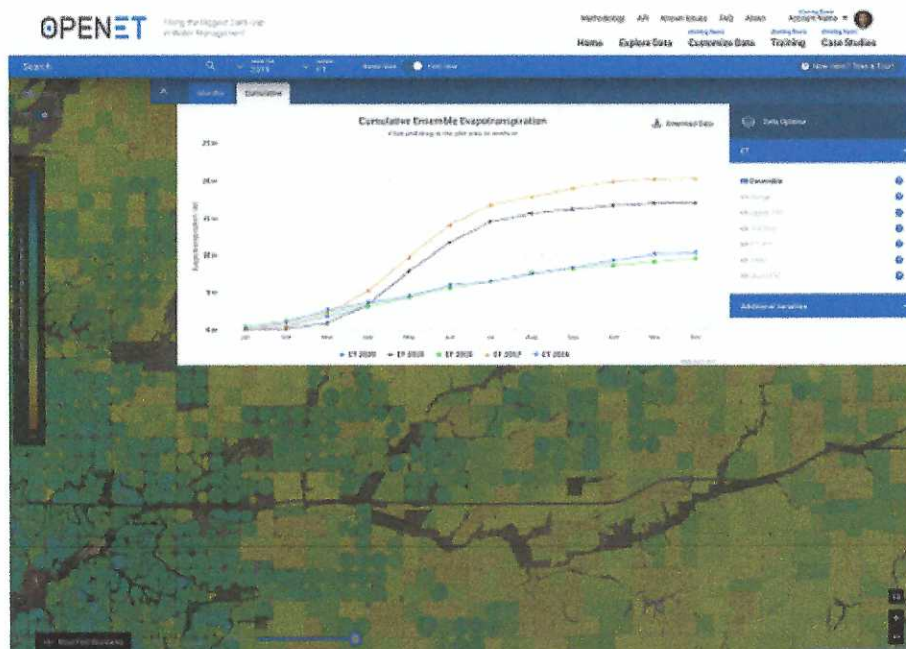
A virtual media briefing and demo of OpenET will be held at 11 a.m. Pacific time today. To join, visit <https://edf.zoom.us/j/94778845937> or call 669-900-9128 or 346-248-7799 and enter the meeting code: 94778845937#.

OpenET will fill a critical information gap in water management in the West. Today, access to accurate, timely satellite-based data on the amount of water used to grow food is fragmented and often expensive, keeping it out of the hands of many farmers and decision-makers. Water supplies in the western U.S. are critical to the health of our communities, food supply and wildlife, but they are facing increasing pressures in the face of population growth and a changing climate.

Applications of OpenET data include:

- Informing irrigation management and scheduling practices to maximize "crop per drop" and reduce costs for water and fertilizer.
- Enabling water and land managers to develop more accurate water budgets and innovative management programs that promote adequate water supplies for agriculture, people and ecosystems.
- Supporting groundwater management, water trading and conservation programs that increase the economic viability of agriculture across the West.

What is evapotranspiration?



The "ET" in OpenET stands for evapotranspiration — the process by which water evaporates from the land surface and transpires from plants. Evapotranspiration, a key measure of water consumed by crops and

vegetation, can be tracked by satellites because the process cools plants and soil down, so irrigated fields appear cooler in satellite images.

Using publicly available data, OpenET will make several methods for estimating evapotranspiration more widely accessible, ultimately helping to build broader trust and agreement around this information. OpenET will also make it possible to track the amount of evapotranspiration reduced when farmers change cropping patterns, invest in new technologies or adopt water-saving practices.

OpenET is expected to be available to the public in 2021.

OpenET will initially provide field-scale ET data in 17 states, with plans to expand to the entire United States and beyond. The 17 states are Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming.

"OpenET will help fill one of the biggest data gaps in water management in the western United States. Our primary goal is to make sure we are providing evapotranspiration data that is accurate, consistent, scientifically based and useful for water management, whether for an individual agricultural field or an entire river basin," said Forrest Melton, program scientist for the NASA Western Water Applications Office. "OpenET is being created through an innovative collaboration among a national team of scientists, technology experts, farmers, government policy-makers and environmental nonprofits."

"OpenET is a powerful application of cloud computing that will lead to measurable results on the ground in the agriculture sector. Google is proud to support such an important new tool," said Google Earth Engine developer advocate Tyler Erickson. "After 10 years of working with farmers and water agencies to develop ET estimates, it couldn't be more rewarding to be creating an application like OpenET that uses best available science and makes ET data much more affordable and accessible to all," said Justin Huntington, a research professor at Desert Research Institute. "We also see OpenET having the potential to scale up to other regions of the world, including South America and Africa."

"OpenET will empower farmers and water managers across the West to build more accurate water budgets and identify stress, resulting in a more resilient system for agriculture, people and ecosystems," said Robyn Grimm, senior manager, water information systems, at EDF. "We envision OpenET leveling the playing field by providing all farmers with data that until now have not been widely accessible to everyone."

Unprecedented collaboration

OpenET is being developed with input from more than 100 stakeholders across the West. NASA, EDF, DRI and HabitatSeven are the project leads for OpenET. Additional collaborators include Google Earth Engine, USGS, USDA Agricultural Research Service, California State University Monterey Bay, University of Idaho, University of Maryland, University of Nebraska-Lincoln and University of Wisconsin-Madison.

The OpenET project has received funding from the NASA Applied Sciences Program Western Water Applications Office, S. D. Bechtel, Jr. Foundation, Gordon and Betty Moore Foundation, Walton Family Foundation, Water Funder Initiative, Lyda Hill Philanthropies, Delta Water Agencies, and the Windward Fund. In-kind support has been provided by Google Earth Engine and partners in the agricultural and water management communities. Providing farmers and local water managers free ET data is a core objective of the OpenET project. For-profit entities and other organizations looking for large-scale access to OpenET data will be able to purchase it through an application programming interface (API). Revenue generated will fund continuing research and development of OpenET data services.

Support for OpenET

"The Harney Basin is running a groundwater deficit of 120,000 acre-feet to 130,000 acre-feet per year. We have used ET data to gain a better understanding of our water consumption and design more efficient irrigation systems that use about 15% less water. This could translate to a savings of 18% to 20% on electricity costs for pumping, too. With the demands on water from a growing population and feeding more people, we have to figure out how to get the best value from every drop of water. ET data is crucial to providing this information."

—Oregon State Rep. Mark Owens. Owens owns or manages 3,200 acres of farmland.

"Reliable water data is almost as critical to farmers and water managers as the water supply itself. With added pressure from population growth and the uncertainty that climate change impacts have on existing and future water supply, OpenET allows planning for agricultural water needs in a way that just wasn't possible before."

—**E. Joaquín Esquivel, Chair of the California State Water Resources Control Board**

"Every five years, the Bureau of Reclamation is tasked with creating a report that summarizes water use and loss for the Upper Colorado River Basin states. Currently, there are several satellite-based methodologies to measure water, many of which will be incorporated into OpenET. Consequently, OpenET will serve as a valuable tool for us to test and compare ET measurement methodologies to determine the best approach for future studies."

—**James Prairie, Hydrologic Engineer, U.S. Department of Interior, Bureau of Reclamation**

"OpenET will be a valuable tool to estimate historical and current water consumed by crops across Nevada. OpenET data also will be especially useful for monitoring consumptive use to support local groundwater management plans that are needed in response to long-term groundwater level declines."

—**Adam Sullivan, P.E., Nevada Deputy State Engineer**

"To comply with the new groundwater law in California, it's imperative to have accurate, transparent water use data to serve to build a groundwater budget. But currently ET data can be very expensive to acquire from consultants or universities, and the methodologies are often inconsistent and unclear. Consequently, Rosedale turned to OpenET for accurate parcel-level ET water data at a lower cost to build an online accounting platform for our landowners to more easily manage their own groundwater budgets. Because the OpenET project has brought together a team of leading experts on several approaches for measuring ET, I'm confident it will become the de facto source of water data among landowners and water managers alike."

—**Eric Averett, General Manager, Rosedale-Rio Bravo Water Storage District (California)**

"OpenET represents a game-changing leap forward for water management in the West. OpenET will give water users in the Delta a much less expensive alternative method for complying with the state requirement to monitor and report on their water diversions. Instead of physically measuring every diversion in the Delta, farmers will be able to look up OpenET's estimate of their crop water use. If the estimate is acceptable to the farmer, the farmer knows that it will be acceptable to us. Concurring on OpenET's ensemble measurement will save time, money and confusion."

—**Michael George, Delta Watermaster (California)**

"OpenET is a great step forward for managing water needs in a time when demand far surpasses supply. Helping our farmers and ranchers more effectively manage their water use not only helps their crop and bottom line, but creates opportunities for more water to remain in our river systems to benefit both people and nature."

—**Aaron Derwingson, Water Projects Director, Colorado River Program, The Nature Conservancy**

Additional Resources:

FAQ: <https://OpenETdata.org/faq.pdf>

Images: <https://bit.ly/3bEQWee>

Website: <https://OpenETdata.org>

Twitter: [@OpenETdata](https://twitter.com/OpenETdata)

#

Environmental Defense Fund (edf.org), a leading international nonprofit organization, creates transformational solutions to the most serious environmental problems. EDF links science, economics, law and innovative private-sector partnerships. Connect with us on [Twitter](https://twitter.com/EDF), [Facebook](https://www.facebook.com/EDF) and our [Growing Returns blog](https://www.edf.org/blog).

The National Aeronautics and Space Administration ([nasa.gov](https://www.nasa.gov)) is a U.S. government agency that leads an innovative program of exploration with commercial and international partners to enable human expansion across the solar system and bring new knowledge and opportunities back to Earth. With its fleet of Earth-observing satellites and instruments, NASA uses the vantage point of space to understand and explore our home planet, improve lives and safeguard our future.

The Desert Research Institute ([dri.edu](https://www.dri.edu)) is a recognized world leader in basic and applied interdisciplinary research. Committed to scientific excellence and integrity, DRI faculty, students, and staff have developed scientific knowledge and innovative technologies in research projects around the globe. Since 1959, DRI's research has advanced scientific knowledge, supported Nevada's diversifying economy, provided science-based educational opportunities, and informed policymakers, business leaders, and community members. With campuses in Reno and Las Vegas, DRI is one of eight institutions in the Nevada System of Higher Education.

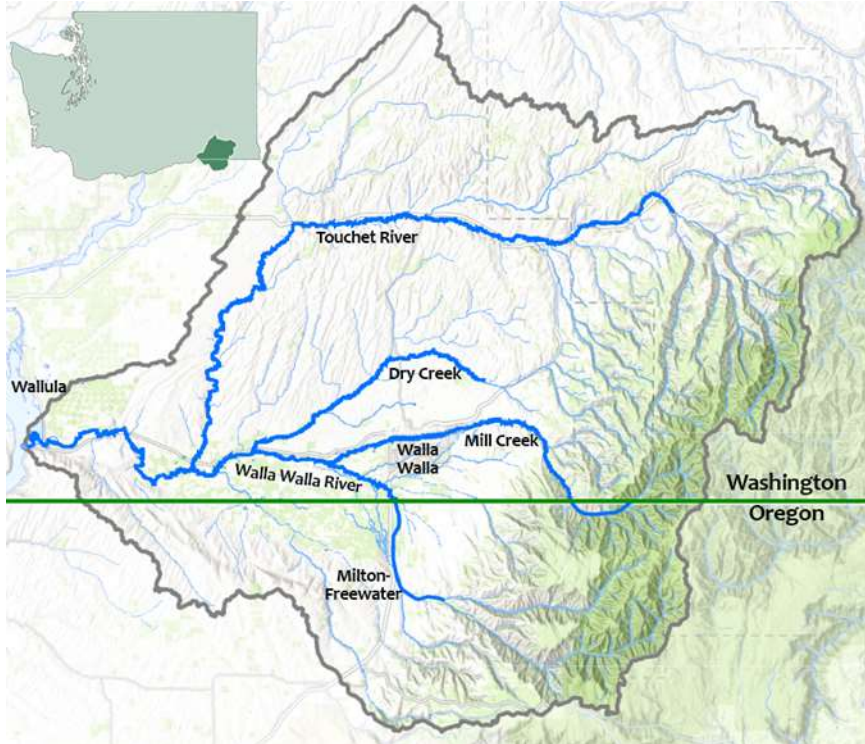
Google Earth Engine (earthengine.google.com) is a geospatial processing platform that combines a multi-petabyte catalog of satellite imagery and other geospatial datasets with planetary-scale analysis capabilities. The platform is enabling scientists, developers and decision-makers to make substantive progress on global environmental and sustainability challenges.

Tab O – Walla Walla Partnership

Bi-state partnership boosts understanding of Walla Walla River basin

Groundwater study will inform future policy

September 9, 2020



Nature doesn't much care about lines on a map.

Take the Walla Walla River Basin, a 1,700 square-mile watershed that straddles the invisible boundary between Southeast Washington and Northeast Oregon.

Both sides of the border have seen a steady decline in available water, especially during peak summertime demand. And while both states have taken steps to solve the issue over the past several years, water levels continue to deteriorate.

"Oregon has done a lot of work on the Oregon side, Washington has done quite a bit of work on the Washington side, but now it's time for us to really come together and manage the basin in a way that's whole," said Brook Beeler, Washington Department of Ecology's Eastern Regional Director.

In 2017, the Oregon Water Resources Department (OWRD) stopped issuing new groundwater permits in the basin, which was designated a [Serious Water Management Problem Area](#).



Watershed technician Luke Adams with the Walla Walla Watershed Basin Council takes measurements near the Walla Walla River.

“We were experiencing some pretty significant declines, especially in the basalt aquifer, so we put a stop on future appropriations to understand what was happening to the system and what’s driving those declines,” explained Chris Kowitz, OWRD North Central Regional Manager.

Ecology has since helped start the [Walla Walla Water 2050 initiative](#), to renew and extend involvement from a bi-state collection of agriculture and environmental interest groups, as well as local, state, tribal, and federal governments.

And now, both states are working with the [United States Geological Survey](#) to better their understanding of how groundwater and surface water interact in the basin, giving policy makers a solid scientific foundation to stand on for future decision making.

While groups such as the [Walla Walla Basin Watershed Council](#) have been studying the system in a segmented way, this is the first comprehensive study of its kind in the basin.

“It makes a lot of sense to do this at a basin scale instead of at a state boundary line,” said Kowitz. “That surface water, groundwater interaction piece is important, because that can tell us how different drivers like agricultural use and municipal uses may be impacting the groundwater levels over time.”

In order to find sustainable solutions to meet current and future water demand in the basin, interests on both sides of the state line will need to take a cue from nature and put boundaries aside.

“Whether it’s a homeowner or a landowner or an irrigator from shallow aquifers on the Oregon side, or a deep basalt groundwater well on the Washington side, we need to have everyone at the table sharing what it is they want to see in the future for their watershed so that we can make a plan that hits all the targets and meets all the goals for fish, farms, and for people,” Beeler said.



Paul Word, a water resources technician with the Confederated Tribes of the Umatilla Indian Reservation, measures the flow of Birch Creek, near the Washington/Oregon border.

<https://ecology.wa.gov/Blog/Posts/September-2020/Bi-state-partnership-boosts-understanding-of-Walla>

Welcome to the Walla Walla Basin Watershed Council!

Our mission is to enhance, restore and protect the Walla Walla Basin's native aquatic populations, watersheds, fish and wildlife habitat and water quality, while sustaining a healthy economy. This will be done through community education and by working in collaboration with local, state, federal and tribal natural resource managers, private landowners, and the public.

The WWBWC was established and recognized by Umatilla County on May 18, 1994. Initially we worked only in the Oregon side of the watershed, but our focus has broadened to encompass both the Oregon and Washington portions of the basin.

Watershed Councils are local, non-profit groups established to improve the condition of watersheds in their area. In 1995, Oregon legislation authorized the creation of non-regulatory watershed councils to offer local residents the opportunity to evaluate watershed conditions and identify cost-effective and acceptable opportunities for improvement. Watershed Councils help residents, local, state and federal agency staff and other groups implement scientifically informed restoration and education activities.

<https://www.wwbwc.org/>

Walla Walla Water 2050 Water Management Plan

The Walla Walla Water 2050 initiative has been authorized by the Washington Legislature as an effort to improve streamflows and water supplies in the Walla Walla River Basin over the next 30 years.

Overlapping the states of Washington and Oregon, the Walla Walla basin is a complex watershed struggling to meet water needs for rural and urban growth and to maintain sufficient instream flows for fish. The plan will encompass solutions from the basin's varied stakeholders, including interests in both states, regional tribes, local residents and farmers, environmental and conservation groups, and state and federal governments.



Measuring streamflows in Mill Creek, a tributary of the Walla Walla River

Beginning in the fall of 2019, our team is facilitating efforts to produce a plan to be submitted to the Legislature by June of 2021.

The Walla Walla River flows from its headwaters in the mountains of Oregon, through Washington where it converges with the Columbia River near Wallula, Wash. Water availability for people, farms, and fish is a problem in the basin, particularly in the summer when demand is the highest.

Over the past decade, the Walla Walla Management Partnership developed local water plans and water banking agreements to protect more than 20,500 acre-feet of water rights from “use it or lose it” relinquishment. The group also worked with stakeholders across the border, including Oregon’s Walla Walla Basin Watershed Council, to examine big-picture water resource issues and preserve streamflows at crucial times of the year.

Still, the projects have not adequately achieved streamflow goals and aquifers continue to decline, according to a [2018 report to the Legislature](#).

In 2019, the Washington Legislature tasked the Walla Walla Management Partnership and the Department of Ecology to collaboratively develop a 30-year Strategic Plan for water management in the Walla Walla Basin. Together with the Confederated Tribes of the Umatilla Indian Reservation and stakeholders on both sides of the state border, the partners began this process, dubbed [Walla Walla Water 2050](#), later that year. This strategic planning effort is due to conclude with a report to the Legislature in November 2020 and a final 30-year plan by June 2021.

<https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-supply-projects-EW/Walla-Walla-2050>

Walla Walla Basin Groundwater Study Scoping

The Walla Walla Basin Groundwater Study is a cooperative effort between the Washington and Oregon United States Geological Survey Water Science Centers, as well as OWRD and Washington State Department of Ecology. The United States Geological Survey works with cooperating agencies to provide impartial science on water resources conditions, issues, and problems.

The scientific investigation will provide water managers and the public with a reliable, shared foundation for future decision-making, compiling existing data from past studies as well as collecting new data. This information will improve our collective understanding of the extent and connectivity of groundwater in the basin, the impacts of pumping on groundwater levels and streamflow, and the locations of gaining and losing stream reaches and the volume of water being exchanged in those reaches. The study team will also develop a groundwater budget that estimates how much water replenishes the groundwater system and how much is used.

Improving our understanding of the Walla Walla Basin groundwater system has been identified as a need in both Oregon and Washington. Some areas of the basin are experiencing challenges associated with declining groundwater levels in regional aquifers and insufficient flows required for threatened and culturally important fish populations. To begin to address these challenges, in 2017, OWRD stopped issuing new permits for the alluvial and basalt aquifers in the Walla Walla basin in Oregon and limited future groundwater development to permit-exempt uses only. OWRD also designated the Oregon portion of the Walla Walla Basin as a Serious Water Management Problem Area, which requires water right holders pumping from the basalt aquifers to install a meter and report their water use on an annual basis.

https://www.oregon.gov/owrd/newsroom/WRDNewsRoom/20-07_Walla_Walla_Basin_Groundwater_Study_Scoping_Public_Meeting_Scheduled_for_October_14.pdf

<https://www.oregon.gov/OWRD/programs/GWWL/GW/WallaWallaSubbasin/Pages/default.aspx>



Walla Walla Valley

oregonwinepress.com

Tab P – The Comprehensive Environmental
Response, Compensation, and
Liability Act (CERCLA)

State Water Laws and Federal Water Uses: The History of Conflict, the Prospects for Accommodation (WSWC 1991), excerpt on CERCLA and state water permits

"The Superfund Amendments Reauthorization Act of 1986 states in section 121(e) that '[n]o Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such remedial action is selected and carried out in compliance with this section.' Several Superfund sites are located in Arizona. Recently, concerning one of the sites, the Environmental Protection Agency took the position that section 121(e) made it unnecessary for the responsible parties to apply for state ground water permits.

"The Arizona Department of Water Resources issues permits for activities such as well construction, poor quality ground water withdrawal, hydrologic testing, and other activities involved in a Superfund cleanup. These state permits give the applicant the right to drill wells or withdraw ground water. Through permit conditioning and enforcement of permit requirements, these permits allow the state to monitor permit related activities to assure that they comply with state law. They also give the state the opportunity to bring an enforcement action against the applicant when permit conditions are violated.

"In response to EPA's position that no state permit was required, the state argued that EPA seems disposed to allow parties engaged in Superfund site cleanups to 'do anything [they] want[] to at Superfund sites, including the extreme case of complete and total pumpage of all ground water within an aquifer.' The state did not disagree with EPA's position with regard to action taken in an emergency. However, it objected when circumstances were such that obtaining a state permit would not in any way jeopardize actions taken under the Superfund program. The state believed that most ground water withdrawal permits would fall within this latter category. Nevertheless, EPA continued to take the position that no state permits were required under any circumstances. Because of this situation, the only remedy available to the state appeared to be an action in federal district court against any violator of a substantive state law requirement.

"The party conducting Superfund cleanup temporarily resolved the conflict by choosing to cooperate with the state government and applying for necessary state permits, despite EPA's advice to the contrary. Further, although EPA still insists that 'no permits are required,' it recently agreed to allow language in a consent decree requiring parties to obtain applicable licenses (a broad definition encompassing Arizona's permits) and to strongly urge responsible parties to comply fully with state requirements."

Primary citation: Letter from C. Laurence Linser, Acting Director of the Arizona Dep't of Water Resources, to Norman Johnson (Sept. 27, 1988)

Tab Q – State Survey: Curtailments, SEO
structure, proving beneficial use
(etc.)

Regulating Prior Appropriations and Beneficial Use

Note: For each response, please provide the citation to any relevant statute, regulation, guidance, or judicial decision.

Water Rights Administration

1. How does your state define the following terms:
 - a. Reasonable and/or Beneficial Use
 - b. Calls and/or Curtailment
 - c. Forfeiture and/or Abandonment
 - d. Waste/Unreasonable Use
 - e. Consumptive Use
 - f. Other terms
2. How do you define and categorize preliminary or temporary water use permits?
3. What types of water rights have property-like qualities that can be bought, sold and bequeathed?
 - a. Vested rights, perfected rights, adjudicated rights, decreed rights, grandfathered rights, domestic well rights, etc.
4. What type of proof of beneficial use does your state require before issuing a water right?
 - a. What are the criteria to prove beneficial use?
 - b. How long does the water right applicant have to complete the work and put the water to reasonable beneficial use?
 - c. Are extensions available, and under what circumstances?
5. What water right changes require state approval and what parameters are reviewed?
 - a. Point of diversion
 - b. Place of use
 - c. Purpose of use
 - d. Other
6. What process and/or criteria does the state use for determining that a use is wasteful or not a reasonable beneficial use for forfeiture/abandonment of a water right?
7. What or who initiates the forfeiture or abandonment process?
8. What administrative/judicial procedures are in place for administering water rights and regulating water use in times of shortages due to physical (drought) or regulatory (environmental) limitations.
 - a. Do administrative/judicial procedures vary for surface water and groundwater?
 - b. Who enforces compliance with water use limitations during a time of water shortage?
 - c. What penalties are provided for non-compliance?
 - d. What criteria, evidence, or data are considered in making a decision to regulate water use in times of water shortage?

DRAFT
WSWC Survey

- e. Similarly, what criteria, evidence, or data are considered in making a determination to end the water shortage regulation?
- 9. Does your state allow voluntary shortage sharing agreements or have other mechanisms for proportionally sharing water shortages, notwithstanding prior appropriations laws?
- 10. How often has your state administered calls or curtailments or otherwise regulated water shortages? Rarely? Regularly?
- 11. Does your state every regulate water use/water rights on a prospective basis (e.g., given snowpack and streamflow projections)?

State Engineer/Water Resource Administrator Qualifications and Structural Organization

- 1. What are the qualifications for the State Engineer, or equivalent water resource administrator. Is a professional engineer degree/license required?
- 2. What are the duties/responsibilities of the State Engineer/Administrator?
- 3. Where is the office of the State Engineer/Administrator within the structural organization of your state's government (e.g., a separate office or housed within another division/department)?

Water Well Construction Rules and Regulations

- 1. How does your state regulate the construction and abandonment of wells to protect water resources (water rights, water quality, aquifer levels)?
 - a. What are the application approval procedures to construct a new well?
 - b. Are there rules for monitoring and reporting on well construction, or other ways to ensure compliance with state authority?
 - c. Are there well construction rules to:
 - i. help prevent aquifer pollution
 - ii. wasteful pumping
 - iii. other
 - d. Are some wells exempt from some construction requirements, and are there criteria for waivers from certain requirements?
 - e. Are there procedures or reporting requirements when deepening, repairing, renovating, cleaning, or disinfecting wells?
 - f. What procedures does your state follow for abandoned wells?
- 2. Does your state track/keep records for wells constructed prior to current well construction rules for potential impacts on water resources (water rights, water quality, aquifer levels)?

Tab R – Update on Grazing Workshops

**LIMITED AGENCY AGREEMENT FOR THE PURPOSES OF ESTABLISHING AND
MAINTAINING STOCKWATER RIGHTS ON NATIONAL FOREST GRAZING
ALLOTMENTS IN ACCORDANCE WITH THE LAWS OF THE STATE OF IDAHO**

The U.S Forest Service, Department of Agriculture, ("Forest Service") and _____ ("Permittee," and together with the Forest Service the "Parties"), in consideration of the mutual acknowledgments and agreements below, and for the benefit of the Parties and the National Forest System ("NFS"), enter into this Limited Agency Agreement for the purposes of establishing and maintaining stockwater rights to use water diverted from sources that are within grazing allotments located on NFS lands in accordance with the Laws of the State of Idaho ("Agreement").

ACKNOWLEDGEMENTS

The Parties acknowledge the following:

1. The significant role of the livestock industry in the settlement, history, and culture of the State of Idaho;
2. The importance of stockwater rights to the livestock industry in the State of Idaho, to the Forest Service grazing program, to the Permittee's livestock operation, and to the association of water with NFS lands;
3. On March 24, 2020, Idaho Governor Brad Little signed into law Idaho House Bill 592 ("HB 592") with an effective date of July 1, 2020;
4. HB 592 amended state law to remove limitations on the Forest Service and permittees entering into agency agreements to exercise Forest Service stockwater rights on National Forest grazing allotments; and
5. Current or future grazing authorization is not impacted or restricted in any way by this Agreement.

AGREEMENTS

The Forest Service and the Permittee agree as follows:

1. The Parties wish to continue utilizing state-based stockwater rights obtained by the United States located on the grazing allotments listed in Exhibit A so that the use of water authorized under those rights for livestock watering, and of any subsequent stockwater rights obtained in accordance with State law, can be used by livestock owned by the Permittee for the term of the current federal grazing permit and any subsequent renewal or reissuance thereof by the Forest Service; and
2. The Parties agree that the availability of water on the listed grazing allotments is critical for the grazing management of the allotments, and when domestic livestock owned by the Permittee and located on the listed grazing allotments make use of water by drinking from places, or sources located on NFS lands, that such use will be deemed beneficial under Idaho state law, and is made by the Permittee acting as a limited agent of the United States for the purposes of establishing and maintaining stockwater rights for the United States within grazing allotments located on NFS lands, and for no other purposes.

GENERAL TERMS

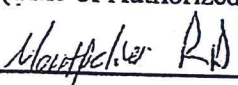
1. This Agreement does not convey any right, title, or interest in any lands or resources owned by the United States. Nothing in this Agreement shall prevent the Forest Service from administering the use and occupancy of NFS land for livestock grazing, construction and maintenance of range improvements in accordance with applicable laws and regulations, nor does it extend the statutory and regulatory authority of the Forest Service beyond regulations of the use and occupancy of NFS land.
2. The Parties expressly agree that the mutual acknowledgements and agreements contained in this Agreement are supported by good and adequate consideration including, but not limited to, past and continuing use of water in accordance with the stockwater rights, held by the Forest Service, together with the construction and maintenance of associated range improvements.
3. This Agreement shall remain in effect throughout the term of the existing grazing authorization, new authorizations, and any renewals of grazing authorizations. This Agreement terminates only upon: (a) the expiration, termination, or revocation of the current grazing permit(s) held by the Permittee that is not renewed; or (b) upon 90-day written notice by either Party to the other of a desire to terminate the Agreement.
4. The terms of this Agreement may not be modified without the written consent of the Parties. If any paragraph or portion of this Agreement is deemed unenforceable, the remainder of this Agreement shall remain in full force and effect.
5. Subject to the termination clause above, the Parties agree to act in good faith and with fair dealings to fulfill, and not impede, the intent of this Agreement.
6. This Agreement shall become effective on the date of the last signature of the Parties thereafter.
7. The signators to this Agreement acknowledge that they (a) have read this entire document; (b) fully understand and agree with all the terms of this Agreement; (c) have knowingly, voluntarily, and in good faith entered into this Agreement; and (d) have the explicit authorization to execute and bind their respective entities or selves by this Agreement.

For the Permittee and/or Lessee (Agent):

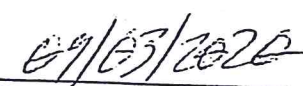
Date

For the Forest Service:



(Title of Authorized Officer)


(Office)



Date

Stock Water Rights for Grazing Livestock on Federal Lands

Executive Summary

The [Western States Water Council](#) (WSWC) and [Western Federal Agency Support Team](#) (WestFAST) have held various workshops over the past several years as part of a Non-Tribal Federal Water Rights Workgroup. Our workgroup's primary purpose is to facilitate state-federal communication, sharing perspectives, constraints, and opportunities to work together to better resolve concerns over federal water rights in western states. We may not always be able to avoid litigation, which can serve a useful purpose to clarify laws and to bring the right people to the table, but to the extent that we can find alternative ways to resolve conflicts, we should work together to pursue those opportunities as appropriate.

In October 2018 (Coeur d'Alene, Idaho) and October 2019 (Breckenridge, Colorado), the workgroup held two workshops on water rights. The first workshop focused on state and federal laws, policies, perspectives, and approaches to stockwater rights for grazing on federal lands. These vary from one state to another, from one federal agency to another, and sometimes from one district to another within the same agency. Speakers included representatives from the Idaho Department of Water Resources, the Utah and Wyoming Attorneys General Offices, the New Mexico State Engineer Office, and the U.S. Forest Service and Bureau of Land Management. The second workshop included representative organizations for stock owners who use water rights and grazing permits on federal lands. The workshop was a facilitated discussion to improve understanding of the different perspectives (state agencies, federal agencies, stockowner associations and organizations) and identify areas where we can work together to reduce conflicts where possible. Pat O'Toole from the Ladder Ranch and president of the Family Farm Alliance offered introductory remarks at both meetings, providing a valuable perspective as a Western stockowner.

The workshops identified some key issues and perspectives on grazing water rights, and presented some opportunities to consider more collaborative ways of approaching the underlying issues that lead to conflicts. When it comes to grazing and water, relationships are almost more important than the law, although the law does constrain our ability to find workable solutions. We need to find ways to promote education to improve understanding about those constraints, and provide opportunities to improve communication and build trust.

Important recommendations included developing state-federal MOUs, having a co-applicant process that involves both the stockowner and the federal landowner, hosting educational workshops and webinars, reaching out to federal dispute resolution programs such as CADR.

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Key Issues

Ownership of the Water Right

Beneficial Use – who puts the water to beneficial use

Prior Appropriation – maintaining the continuity of early priority rights so they are not lost due to non-use, and so grazing lands remain valuable

Grazing and water are inextricable linked

Who controls the right to use the water and access to the water

Whether the water is appurtenant to the land (varies by state)

Changes to water right ownership or points of use

Changes to grazing allotment permits and how that impacts the water right

Relationships

Good relationships enable good things to get done

Turnover in agencies means developing new relationships

Putting a personal face to bureaucracy

Interpretations of the law can be dependent on understanding perspectives

Accomplishing a simple change to ensure stock have water

Long-lasting damage of bad relationships, reactive demands for change in the law

Constraints of State and Federal Laws

Statutes

Case law

Policies that change with elections

State Engineer application of law

Regional application of law by federal agencies

Historical development of the law

Protecting the property rights of water rights that are already in place

Consequences of haphazard approach (one that changes over time)

Perspectives

States

Utah

Utah's history includes three eras of stock water rights.¹ The first era included "dipping rights." Under old case law, stock that came upon water had the right to drink it. The water wasn't diverted, so there was no associated water right or priority date. This left grazing rights unprotected until about the 1940s. In the second era, Utah started its adjudication process in the 1940s and 1950s. The adjudication process is still not complete, but when it first started there were no stock water rights. The State Engineer began to recognize two ways of obtaining a stock water right: (1) file a diligence claim showing use that use was continuous leading back before 1903, when the water code passed giving the State Engineer authority to approve appropriations by water rights applications; and (2) file a water user claim in the general adjudication process. There were private owners who filed claims, but the federal government stepped up and filed for the majority of grazing uses on all streams. For the most part, no one at the time objected to these claims, and the federal government still holds those rights.

In the third era, beginning around the year 2000, the stock owners were frustrated by the decreases in federal grazing allotments, and started to understand the consequences of those historical water rights claims. There have been no recent court cases in Utah to address the situation, but the legislature has passed some bills. In 2008, the legislature required the State Engineer to issue grazing water rights certificates, which recognizes that the stock owner has a right to graze stock on an allotment. The State Engineer is prohibited from approving a water right change application without the stock owner's consent. The federal government was also prohibited from acquiring a new grazing water right if the federal government itself was not raising stock, unless the application was jointly filed with the stock owner. In 2009, the legislature allowed stock owners to file a non-use application to protect water rights from forfeiture from non-use. In 2013-2014 a couple of other bills were passed. One purportedly provided grazers the right to access and improve and allotment to maintain water rights. Another statute prevents the federal government from seeking to acquire individually-held water rights as a condition of renewing a federal grazing permit.

Utah's system of grazing water rights is out of balance, and efforts to fix the system have raised more questions than answers so far. The primary issues seem to be between the stock owners and the federal agencies over the grazing allotments, but water rights get mixed in and become a point of great controversy. The federal government followed state law and filed for grazing water rights, but there is a valid argument that it's the stock that are putting the water to

¹ Summarized from a presentation given at the Coeur d'Alene workshop by Norman Johnson, Division Director, Utah Attorney General's Office.

beneficial use and therefore the stockowner should hold the water right. Utah also has private landowners that will lease their property to ranchers for cattle to graze and use the water, and the private landowners hold the water rights, similar to the federal government. But when the federal government chooses not to lease its property, it becomes a special case for stock owners who want a different water rights system to apply.

Utah also has man-made guzzlers built for large wildlife in the driest parts of the state. Both cattle and big game drink the water, and the ranching community and sportsman industry have different perspectives on the basis of the beneficial use for those guzzlers.

New Mexico

New Mexico has many stock water rights that predate the establishment of our national forests, creating over a century of disputes over uses of water on those lands.² New Mexico's water code was enacted in 1907, and many pre-1907 surface water rights have been established through evidence of historic diversion and beneficial use. The national forests were created in the early 1900s, after many years of uses by the Native American groups, Hispanic settlers, and later by Anglo settlers who came to New Mexico, and ranchers. One area of national forests in northern New Mexico is comprised of lands that were formerly land grants to Hispanic settlers under the king, either the Spanish or Mexican sovereigns. This has raised questions about the right of access to those forest lands for the successors-in-interest to those land grants.

New Mexico's Gila National Forest is the site of the seminal *U.S. v. New Mexico* decision on the federal reserved water rights. That case established the important principle that the federal reserved water rights are restricted to the primary purposes of the federal reservation, which for the national forest lands is limited to two purposes: "to preserve the timber or to secure favorable water flows for private and public uses under state law." The New Mexico State Engineer, Steve Reynolds at the time, interpreted the case to mean that all other purposes require a water right obtained from the state under the state processes. The Forest Service applied for and was granted many grazing water rights. This raised the question, as other states have faced, of whether the federal government is actually putting the water to beneficial use. The Forest Service makes a good argument in favor of continuity of water rights, that there is value in allowing the Forest Service to hold the rights so that stockowner successors-in-interest can benefit from the same water right with an older priority date.

New Mexico also has a long history of recognizing individual stock water rights on federal public lands. The Gila National Forest mostly has stock ponds with established licenses rather than water rights. A recent application by a private party with a federal grazing permit was able to show continuous title and beneficial use to establish a private stock watering right (under limited conditions) in the Lincoln National Forest.

Ownership of stock water rights is a complex issue, and New Mexico tries to address it in a practical way, but polarized public opinion can make it difficult for state and federal agencies to

² Summarized from a presentation given at the Coeur d'Alene workshop by Greg Ridgley, General Counsel, New Mexico Office of State Engineer.

find workable solutions. Our adjudications—which are complex due to the large number of pre-1907 surface rights—have recognized stock water rights in either the name of the federal agencies or private parties. The legislature has made recent efforts to address some of these issues, but none of the proposed bills have been enacted.

Idaho

In the Snake River Basin Adjudication (1990s), nearly 18,000 federal water rights for stock were decreed to the Bureau of Land Management (BLM), the Forest Service (USFS), and other federal agencies.³ In 2007, after most of the federal stock water rights were already decreed, the Idaho Supreme Court⁴ held that the federal government could not perfect a water right (for instream flow) for watering stock unless it owned livestock and put the water to beneficial use. Land ownership was not enough. Under Idaho law, a landowner does not own a water right obtained by an appropriator using the land with the landowner's permission unless the appropriator was acting as agent of the landowner in obtaining that water right. The stock owners lawfully grazing livestock on federal land, however, could perfect a water right through beneficial use.

With that decision came the question of what to do with those rights already decreed to the federal government. Could the federal government continue to hold them, or were they forfeited because of non-use? Could those same stock water rights be assigned to the stock owners by the federal agencies? For a while some stockowners were euphoric while others were frustrated by the decision, but for years the state didn't take any specific action. Then in the 2017 legislative session, Idaho Code §42-1414 was amended to limit the filing fees and costs of deferred stockwater claims filed in the adjudication, and non-federal applicants were prohibited from becoming agents of the federal government. The legislation was supposed to invite stockowner water claims that would compete with the federal government, and the Idaho Department of Water Resources (IDWR) did receive a few claims over the next 18 months. The problem was that the applicants had to establish a link between the base property and the place of water use. The base property may have changed hands, the place of water use may have changed location, and the grazing permit may or may not have been connected to the same base property or watering location over the whole period of time, raising the question of the correct priority date, when the stockowners first started watering stock.

In the 2018 legislative session, the stockowners came back. The initial proposed legislation, which did not pass, would have flipped Idaho's standard for forfeiture on its head. Instead, the enacted bill directed IDWR to compile a list of all stockwater rights held by any federal agency and submit the list to each appropriate federal agency. Following a 90-day period, IDWR was directed to issue an order to show cause to each federal agency, requiring them to show why the stockwater rights should not be lost or forfeited pursuant to Idaho Code §42-222(2). IDWR created the lists and sent the notices to the federal government, but the question remains: what is the factual legal basis for forfeiture? The governor and federal agency heads have discussed this issue directly, but despite interest in finding a way to resolve the issue, the federal government is also concerned about the kind of precedent this might set. Idaho does not know what the end result will be.

³ Summarized from a presentation given at the Coeur d'Alene workshop by Gary Spackman, Director, Idaho Department of Water Resources.

⁴ *Joyce Livestock Company v. United States of America*, 156 P.3d 502 (Idaho 2007).

Wyoming

Wyoming hasn't experienced the same stock water ownership problems on federal lands as some of the other states.⁵ Generally, anyone may apply for and receive a permit for stockwater use.⁶ You do not need to be the landowner or the stock owner. You do not have to be the person who is actually going to put the water to beneficial use to apply for a permit to appropriate water. The water permit does not grant the right to use or cross the property of another, so the applicant must obtain access to the land separately. The water permit holder can transfer or assign the permit to another, which should then be recorded with the State Engineer's Office (SEO) using an assignment form. There is no statutory process in Wyoming to recognize federal reserved rights claims for stock rights, or any other federal reserved water right, except the general stream adjudication statute.

All federal and state water rights in Wyoming's Big Horn River Basin were adjudicated in the Big Horn General Adjudication. All non-tribal federal rights were quantified as part of the Phase II settlement (1983, final in 2005). The settlement recognizes numerous stock watering rights on federal land: (1) stock driveway⁷ rights including stock reservoirs; (2) numerous stock rights on BLM lands, specifically described; (3) discrete and general stock watering rights on Forest Service land; (4) a 1960 right to water stock in any stream, lake, or other source in the Shoshone National Forest/Big Horn National Forest; (5) lengthy tabulations of stock water rights with descriptions and adjudicated quantities; and (6) water uses that can be changed by action of the Board of Control.

The Wyoming SEO, the U.S. Department of the Interior, and BLM have a Memorandum of Understanding (MOU)⁸ on stock water rights as well. Wyoming had a similar MOU with BLM in 1973, and correspondence with U.S. Forest Service in late 1970s. In the current MOU, the Wyoming SEO agrees to provide notice of permit applications or petitions filed regarding water uses on or derived from federal land, and allows 30 days for comment. The SEO also provide notice if permit holder intends to abandon their permit. We generally identify when a stock water permit will be issued to the federal agency, the stock owner, or both as co-applicants (which is most common). The federal agencies agree to seek the consent of the grazing lease holder before seeking a change or abandonment of a water right on a grazing allotment. Wyoming has a decision matrix for processing applications where BLM lands are involved.⁹

⁵ Summarized from a presentation given at the Coeur d'Alene workshop by Christopher Brown, Senior Assistant Attorney General, Wyoming.

⁶ See Appendix A for a more complete description of the permit process in Wyoming.

⁷ There are specifically defined stock driveways over federal BLM lands, historical routes for driving cattle from one place to another. The general adjudication identified a certain amount of flow that could be kept in that stream to satisfy the associated stock watering right. There are restrictions on proving stock are there.

⁸ See Appendix B

⁹ See Appendix C

Other State Comments

We have to remember our history and the legal context under which things arose. We have to educate people. One of the biggest problems is that a lot of people think that we are starting with a blank slate. They do not remember the history of how we got where we are and what rights already exist. There are some fairly nuanced principles that go into the history that we have to kind of keep in mind. We need to think outside the box a little bit to find solutions. We need to promote communication and education. We have to build relationships and trust.

State agencies aren't always in the best position to resolve the conflicts. The grazing community has considerable political capital and has an effect on what laws are passed. The stockgrowers should support stable funding at the state level, too, as changes in state budgets impact the resources available to process water rights and resolve conflicts.

The animosity of the stockgrowers toward the agencies can be very personal, and state agencies don't always understand the history of those conflicts. It would be helpful to include stock water rights holders and those with large grazing interest to talk about the issues that affect them. We may need a process to help navigate and work through the concerns, and look to examples where things are working well.

There was a lot of animosity engendered in Idaho with the federal protests filed against the stockowners' competing water rights claims. One consideration may be how to head off future conflicts before getting to that point, enabling a smoother path to conflict resolution. The *Joyce* decision said there could be an agency relationship that results in the federal government actually holding the water right because the permit holder was an agent of the federal government. The later legislation actually prohibited the creation of that agency relationship. State lands actually have built that agency relationship into their leases.

Grazing presents some unique challenges for water rights. In some states, the water right is appurtenant to the land. In other states, the water right may be severed from the land, which enables things like interbasin transfers. In grazing, the owner of the stock who puts the water to beneficial use is not necessarily the owner of the land (private or federal), and the water may or may not be located on the same land as the grazing allotment. In some states (e.g., Washington, Oregon), the landowner is required to sign off on any changes to water uses appurtenant to their land. In the prior appropriations system, water rights with earlier priority dates are more valuable, because they are protected in times of water shorted against junior water users, and there is an incentive for both the stockowners and the federal agencies to maintain the continuity of water rights with specific priority dates. This creates fertile ground for conflict.

Interesting questions arise if the relationship between the grazing permittee and the federal landowner changes. What if the permittee with a water right no longer runs on that grazing allotment? Do they assign their water rights to the new permittee? What if the federal government does not renew or revokes the grazing permit and the former permittee with the water right can no longer put it to beneficial use? If the federal agency holds the water right but has no permittees putting the water to beneficial use, does the agency forfeit the water right due to non-use?

Stock Owners

Pat O'Toole¹⁰: I have been president of the Family Farm Alliance (FFA) for 15 years. We represent irrigators in certain western states. We work on federal legislation and have testified before Congress. FFA has been involved in the Colorado River and the Drought Contingency Plans. The FFA is writing a paper on their perspective on the water rights. My family owns the Ladder Ranch, and we are stock owners and permittees. Our family lives on a river that crosses state lines 31 times, requiring us to get permits from both the U.S. Forest Service (USFS) and the Bureau of Land Management (BLM) in both Colorado and Wyoming. We have pretty much doubled every regulatory agency.

One thing I've learned through a lifetime of being permittees in multiple offices, where the people we deal with change so often, is that consistently positive relationships matter a great deal. Our relationships with individuals are almost more important than the law. How the office is run and how law is interpreted (or misinterpreted) at the local level is very often dependent on the personality of the person in the office. We have had a lot of range cons that were not very good over the 45 years I have been in this system.

The federal system is not designed for quick action. It often holds up good ideas. We had a major irrigation project that started on a national forest, and the project needed a relatively simple upgrade. The upgrades enhanced the river, the irrigation, and the value to wildlife. It took years to get the partnerships all put together with conservation groups, USFS, Natural Resources Conservation Service (NRCS), and with the U.S. Fish and Wildlife (USFWS). Then the USFS office would not do the National Environmental Policy Act (NEPA) review. The project was delayed for years due to one office, until we were finally able to put a National Coalition together. It can take 15 years to get even simple things done, and our operations don't have that kind of time. We need to find a way to accelerate the processes.

In addition to the pressures of population growth on water resources, we know our climate is getting drier. The FFA wrote papers on the changing climate in 2007, acknowledging that we are in a position of needing to improvise now to meet future water needs. Runoff is earlier, and springs are drying up. Drought is brutal for stock and wildlife. Every cow, sheep, and horse needs to drink water every day. Storage at the watershed level is the future for irrigators and stockowners. Transferring federal ownership of land when states or irrigation districts build reservoirs should be an automatic part of a storage project to resolve many of the current problems. Infrastructure is aging, in some places more than a century old, and it needs to be updated.

We (farmers and ranchers, and the state and federal government) need a more collaborative effort and an education process. State and federal governments understand their own policies and the importance of them. From a stockowner perspective, we need to learn to tell our stories better. We need enough water to do what we do, and we worry about what happens when the stream dries up. Individual water right permittees can easily feel manipulated or intimidated by federal agencies about how their water rights work. It seems like there is a persistent effort to federalize everything. Some states are also making changes to water rights requirements. In Wyoming and Colorado it is

¹⁰ Summarized from introductory remarks given at the Coeur d'Alene and Breckenridge workshops by Pat O'Toole.

becoming clear that we are going to have to deal the measuring devices, which is something new we never had to worry about before. Our family did conservation easements on some of our riparian areas. It was interesting that the state engineers really did not want to touch the implications of the water rights on the boundaries of the two states. We need to educate our grazing community about what their rights are, and how to navigate this complex system. Reinforcing how the system works through some meetings would be very useful. We want to help the next generation keep doing what we do, and we want to make the water part of it much easier. We don't want to dismantle the great success of this nation, the productive agricultural land and livestock.

Other Stockowner Comments

Fundamentally, we all deal with the permittees distrust of the federal agencies over water rights. States and state associations that work on water resource issues need to communicate more with stockowners and grazing associations and wool growers. The effects of state and federal laws and policies trickle down to the grazing community, and it would be helpful to understand those impacts and be able to communicate them back to the state and federal governments.

We really need to streamline the bureaucratic processes to get things done in a more timely and efficient manner. The Historic Preservation Act was mentioned, and the impacts of having the ability to implement changes. Federal laws and policies should be reviewed to see if there are changes that could be made to them to facilitate things working.

It might be helpful to have some case studies. There are good ideas that can be adopted at local levels.

Federal Agencies

The USFS¹¹ is very interested in ensuring water available for livestock grazing. There may be multiple ways that can be accomplished, and we are open to working with the states to figure out how to best accomplish mutual goals. Grazing is one of the statutory multiple uses of the national forests and grasslands. The goal of the USFS is to maintain a long-term sustainable livestock grazing on national forests and lands. Sustainable grazing requires access to legally available water. In partnership with ranchers, the USFS manages approximately 8,000 grazing allotments on 97 Forest Service units used by about 6,000 different permittees. About 98% of that is in the 17 Western states. There are only a few scattered allotments in the East. The USFS works hard to manage those allotments and the associated permits in accordance with applicable laws and land management plans. With an allotment management plan, grazing permit terms and conditions and annual operating instructions often develop in partnership with the permittees.

The Forest Service is committed to working with the States under state law to address water rights for livestock on grazing allotments. Recent changes in State law in Nevada, Utah and Idaho particularly restrict the ability of the USFS to file for stock water rights for grazing. The USFS is working to figure out how best to respond to these newer requirements, which will take some time.

¹¹ Summarized from comments given at the Coeur d'Alene workshop by Chris Carlson, U.S. Forest Service.

We believe that open engagement between the federal agencies, states, permittees, and the other interests is vital to resolve all the parties' interests fairly and responsibly.

BLM faces similar challenges as we issue permits for grazing on federal lands.¹² Water rights are needed for multiple uses on federal lands, including grazing water rights. We are working on cooperative range improvements, and have concerns about preparing for the future in a changing climate. We want to cooperate with the states and other entities on water rights. Being able to sit down and communicate clearly seems like the easiest way to get through these important issues. BLM would like to be at the table to discuss water rights with the states and find a way to make things work more smoothly.

Other Federal Comments

The federal agencies are mandated by federal law to file and maintain water rights for all their multiple uses, one of which is grazing. The federal agencies file claims (or applications) for the stock water rights to help ensure the continuity of that grazing use on the federal landscape. They are also required to follow the states' laws to obtain and protect those water rights. One of the challenges of the state adjudication processes is that federal agencies must file claims or protest the conflicting claims of others to protect federal interests. If they do not, they have no options for future discussions about the water rights necessary to fulfill their statutory requirements. This approach creates conflict with stockowners, but the agencies don't presently have any alternatives to address their water needs in most states. Filing their claims and objecting to the conflicting claims of others is the only way to get a seat at the table.

Another challenge for federal agencies is that the water laws are different in every state. For example, in Oregon, no private citizen is allowed to file for water rights on BLM lands, so every single private citizen claim has to be protested by the federal government because those claims are illegal in that state. In Wyoming the permittee and federal agency filing jointly for the grazing water right, and in Nevada, the permittee is supposed to file. In Montana, the agencies have a compact with the state that outlines the state process for agencies to use, and it is not a collaborative process. As sub-basins are adjudicated and claims are filed with inaccurate points of diversion, the only way for the federal agencies to make sure those claims are accurate before they are decreed is for them to file protests on the claims. New concerns arise when states change their laws in a way that affects federal water rights already obtained through the state process. Whatever the laws of the state, the agencies will follow those laws. They are willing to sit down and work through issues with the permittees as needed, to help them file the water rights claims for grazing if that is the process for that state.

Are there practical alternatives for federal agencies to meet federal mandates and follow state processes and avoid conflicts with the grazing community? Is there any context where the federal agencies don't need to file those protests to conflicting or inaccurate claims? Is there a mechanism that can be put in place (such as an MOU) that outlines how the federal agencies can engage in dialogue with the states and the grazing community ahead of the legal deadlines to protect federal interests? Can we change the rules of engagement and still meet our needs?

¹² Summarized from comments given at the Coeur d'Alene workshop by Doug Curtis, Bureau of Land Management.

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Grazing in general is a challenging issue for the agencies that issue grazing permits. We want to be able to work together as we utilize these public lands. We want to address the correct concerns - are they water-related or more land management concerns? Understanding the different perspectives can help us deal with conflicts at the right place and time, and ensure that we are not at cross purposes over water. Often we have shared interests, but not necessarily shared positions.

Cooperative Efforts to Resolve Conflicts

Forum for Education and Ongoing Communication

The workshop participants found the personal engagement between states, federal agencies, and representatives from the grazing community to be very beneficial, and were interested in finding ways to continue the engagement. The participants raised common issues and the potential for some workable solutions.

Colorado and Wyoming have hosted state-specific workshops and roundtables to help educate participants on their water laws. This kind of state-specific education and shared learning experience would be useful on a continuing basis. We need to include more stakeholders from the grazing community. We need more opportunities to find common ground, and to better understand not only our different positions, but also what our interests and objectives are. We may have more interests in alignment that we are perhaps willing to acknowledge in public forums.

We need to break down barriers and the perception that the agencies operate in a black box without opportunities for stakeholder input. For example the USFS planning processes happen on multiple scales with very different timeframes. Some are supposed to happen approximately every 12 to 15 years. Every year, Congress passes a stay to that requirement because they recognize the agency does not have the capability of managing on that time frame. Where grazing is identified as a multiple use, an allotment management plan would be developed for that allotment, which would set out the operating framework under which permits would be granted and the annual operating instruction would be developed. The public is involved in that process. The intention is to have regular communications with the folks impacted by those plans.

The grazing community needs to understand the laws and how they impact their everyday work, and instigate changes to statutes as appropriate and necessary. In many cases, the grazing community has been around long before the lands were transferred to the USFS or BLM, and they may understand complex things at the local level that are easily overlooked in bureaucratic processes.

It may be useful to have a single federal point of contact, such as an ombudsman, who can help direct people with grazing concerns to the right place so they can resolve conflicts, and elevate the matter to the correct people if the local efforts aren't working.

We need to pursue those ideas further if we want to resolve the many conflicts that exist now and will continue to arise in the future. WSWC and WestFAST could offer some training/education webinars or workshops to work toward more positive changes, and could work on addressing the question of state and federal interests more fully. They could also see if there is a way to ensure more accurate data on water rights and points of diversion, reducing the need for federal agencies to protest claims due to inaccurate data. The agencies would need to have confidence in the accuracy of the data. Federal agencies have lost water rights in the past due to lack of good data.

Dispute Resolution

During the Coeur d'Alene workshop, some of the federal agency attendees raised awareness of DOI's Collaborative Action Dispute Resolution (CADR) program, and other programs available on request to help resolve disputes such as grazing issues. The states expressed interest in the dispute resolution mechanisms available through the federal agencies. Sometimes the water management issues get conflated with underlying land management and grazing allottee issues, or there is a lack of understanding of the requirements that must be met under state or federal law. It would be helpful to have a resource available to address the nuances of conflicts, which are complex due to the needs and constraints of all the different parties. Sometimes litigation is important to solve problems, but it would be helpful to have a mechanism that enables us to better define the underlying causes of conflict and focus on what needs to be (or what can be) fixed.

The federal agencies prefer to address the conflict as close to the affected parties as possible, to try to resolve problems at the local level first. If that isn't working, however, the presence of a conflict may need to be elevated to higher levels of government where cooler heads may be able to prevail. Sometimes we need to figure out how to take the emotions out of the conversation. Sometimes local relationships get frayed, and those need to be repaired before working to improve understanding of legal requirements or policy decisions. The states also expressed interest in who to contact to move the awareness of the conflict to the right levels of the federal government, and this varies by federal agency and by region. The Department of Justice welcomes alternative dispute resolution and opportunities for settling conflicts without prolonged litigation.

The federal Environmental Collaboration and Conflict Resolution (ECCR) Centers¹³ can assist when parties are at an impasse related to environmental, public lands, or natural resources issues, and they cannot make progress without some conflict resolution. The ECCR Centers were created by Congress as a neutral and impartial federal agency. They focus on improving government processes and decision-making, and support work between federal, state and local agencies, tribes, stakeholders, and the public through direct engagement. The staff is comprised of 13 people, with a program that includes training neutral mediators and facilitators to assist with negotiations or dialogue. ECCR has a range of assisted collaboration, negotiation, and facilitated dialogue processes. The mission is straightforward: 1) assess the challenge, 2) create a collaborative environment, and 3) facilitate a solution.

ECCR encompasses collaborative policy making, conflict prevention and management, and conflict resolution. Facilitators may be appropriate where parties are re-visiting the same

¹³ Summarized from presentations given at the WSWC Legal Committee Meeting in Arizona in 2019 by Brian Manwaring, U.S. Institute for Environmental Conflict Resolution, Cathy Humphry, Bureau of Land Management Collaborative Action and Dispute Resolution (CADR) Collaboration Specialist, and Sarah Palmer, Department of the Interior CADR; and at the Breckenridge workshop by Eva Bauer, mediator and facilitator, DOI Office of Collaborative Action and Dispute Resolution.

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topics again and again; where communication has slowed or ceased; where tensions are escalating; and where those in leadership roles find themselves torn between conveying substantive or policy information and managing communications among the parties. An impartial facilitator can help by managing process communications, serving as a confidential sounding board for parties, and designing a process that is acceptable to all.

The facilitator works for all parties in a process to ensure all stakeholders are heard and considered. The focus and emphasis is on the process – the facilitator has no stake in the substantive aspects of the outcome. The facilitator is a process expert – his or her role is to help develop an appropriate decisionmaking process, guide the process, and help participants reach outcomes. When reaching a consensus is the goal, the facilitator ensures the outcomes are supported by those engaged in the process.

They have a Native American and Alaska Native Program that provides collaboration and conflict resolution services across a range of environmental, natural resources, public lands and trust land issues involving Native American and Alaska Native communities and agencies or interests.

The Department of the Interior's CADR Program was implemented in 1996 and its resources are available to any group where a DOI entity is involved. The employees work collaboratively to prevent, manage and resolve conflict at the earliest opportunity to achieve organizational health, gain trust, maximize productivity, and improve efficiency in accomplishing their mission. Their key goal is to promote collaborative approaches to manage conflict and resolve disputes within DOI and with external stakeholders including federal, state, local and tribal governments, non-governmental organizations, industry, and the public.

The DOI Dispute Resolution Council has Dispute Resolution Specialists to coordinate and implement policies in all bureaus and offices. They have a network of internal mediators and facilitators throughout the department. DOI bureaus and offices work collaboratively to prevent, manage and resolve conflict, promoting trust and sustainable decisions. CADR leads the department's conflict management and dispute resolution programs with integrity and expertise to support all DOI bureaus and offices. They work collaboratively with DOI employees and external stakeholders to: establish and implement department-wide conflict management and collaboration policies and procedures; provide education, coaching and training; ensure timely access to expert impartial assistance through mediators and facilitators; and track and evaluate results for continuous improvements. They promote collaborative approaches to manage conflict and resolve disputes within DOI and with external stakeholders including federal, state, local and tribal governments, non-governmental organizations, industry, and the public.

DOI CADR provides services three different ways: (1) direct assistance; (2) network of in-house trained neutrals; and (3) ECCR contracts available to all DOI bureaus that provides an expedited and economical way to use private sector third party neutrals.

To access the Bureau of Land Management's CADR Program, the matter must involve the BLM and must involve the BLM's mission to manage public lands. WO-funded projects

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must be consistent with this administration's priorities. More complex, broader-scope issues are typically contracted out.

Memoranda of Understanding

MOUs are generally designed to strengthen cooperative working relationship. Wyoming's MOU seems to work well from both the state perspective as well as the federal perspective. It was not painless to get those MOU's developed, but the conversations that led into those MOUs really improved collective understanding of what the opportunities and challenges are on both sides of the conversation. The USFS also had some MOUs with Oregon, Washington, and Colorado, but at the time of the workshop the current status of those MOUs was uncertain.

There was interest from both state and federal agencies in looking more closely at these MOUs, to see if they could provide more workable solutions in other states. The MOUs can be tailored to meet each states' needs, and could help avoid the walls that divide the state and federal agencies and the grazing community.

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Appendix A: Wyoming Stock Water Permit Process

Water is administered in accordance with the prior appropriation doctrine: “Priority of appropriation for beneficial uses shall give the better right.” Water in Wyoming is the property of the state. A water right is a “usufructuary” right and also a real property right. Beneficial use is the basis, the measure and the limit of the right. The State Engineer is charged with general supervision of waters of the state, which includes the responsibility for permitting water use and administering interstate and intrastate streams and rivers. The Board of Control, made up of the State Engineer and four Division Superintendents, primarily acts on adjudications,¹⁴ changes in point of diversion, changes in use or place of use, and transfers of adjudicated rights.

A permit must be obtained from the State Engineer prior to building a facility, drilling a well, or putting water to use. There are no exceptions. Once water is put to beneficial use, proof (via field inspection) is verified by the State Engineer’s Office (SEO) staff. Use must be made in accordance with the permit. Then the proof goes to the Board of Control for adjudication and then a certificate of adjudication issued to the landowner where the use is made.

For surface water, stock water is defined as the normal watering of livestock. It excludes feedlots which are classified as a miscellaneous use. Generally, the expected acre-feet of water use for beef cattle is 0.0168 acre-feet per head per year (15 gallons per day). Stock reservoirs have special rules: the capacity cannot exceed 20 acre-feet and the height of dam cannot exceed 20 feet. The regular rules are somewhat relaxed for a stock reservoir. There is no requirement for licensed land surveyor or engineer. The construction and putting the water to beneficial use must be completed in five years, although the State Engineer may extend that time for good cause. A water right is not required for domesticated stock animals that drink out of a natural stream or natural lake, but the stock owner cannot make a call to satisfy a water use without the priority water right. In the administration of water rights on any stream and in the consideration of any applications for permits, the State Engineer may require that water be provided to meet reasonable demands for instream stock use.

For groundwater, stock and domestic uses are a preferred right over all other uses, regardless of priority. The preference is limited to .056 cfs or 25 gpm. The preference does not include municipal use or if the water is held for sale. All springs where use is for stock watering and the yield is under 25 gpm are permitted and considered as groundwater. Any springs with a yield over 25 gpm are considered surface water. Other wells interfering with stock wells can be ordered to be shut off unless the interference is mitigated. The maximum time period allowed by statute for the completion of construction and the completion of application of water to beneficial use from a groundwater well is three years.

When a water right is adjudicated, it is adjudicated in the name of the landowner where the use is made. If the use is made on multiple lands (stock pipelines and tanks), the adjudication is made in the names of the multiple landowners. The water right is attached to the land or place of

¹⁴ In Wyoming, the “adjudication” of a water right is a determination by the Board of Control that water has been and is being beneficially applied to the land to the extent and by the means set in the permit. It finalizes the priority date, point of diversion location, the area(s) or point(s) of use, use(s) and rate (cfs or gpm). This should not be confused with a general stream adjudication.

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use. For surface water, stock reservoirs are not typically adjudicated unless requested by the landowner. They will be inspected to ensure that they are constructed within the terms of the permit and then incorporated into a tabulation of water rights. If the reservoir provides for more than just stock use, it must be adjudicated. Other direct flow diversions like ditches are adjudicated, but they are typically associated with additional uses. Groundwater stock rights are not required to be adjudicated, although the appropriator or the State Engineer can initiate adjudication, with relaxed adjudication requirements, such as not requiring a map prepared by licensed surveyor or engineer. Both surface and groundwater rights subject to abandonment after five years of non-use.

The State Engineer can grant changes to stock water permits in limited situations upon petition by the permit holder (limited to area of original permit). If change involves use of the property of another, consent of the property owner is required. Otherwise, it is an adjudicator at the Board of Control who can grant changes to adjudicated water rights regarding the place of use, type of use, point of diversion or means of conveyance upon petition by the water right owner. Petitions require proof of land ownership.

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Appendix B: Wyoming MOU with BLM

MEMORANDUM OF UNDERSTANDING

Between The

STATE OF WYOMING STATE ENGINEER'S OFFICE

And The

USDI, BUREAU OF LAND MANAGEMENT, WYOMING STATE OFFICE

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the Wyoming State Engineer's Office, hereinafter referred to as "SEO," and the United States Department of the Interior, Bureau of Land Management, Wyoming State Office, hereinafter referred to as the "BLM."

Title: Wyoming State Engineer's Office/Bureau of Land Management MOU

- I. **PURPOSE:** The purpose of this MOU is to document and strengthen the existing cooperative working relationship between the SEO and the BLM with respect to permits under state law for water rights and uses on or derived from Bureau of Land Management Administered Public Land in Wyoming. Further, it will provide additional clarification regarding the agencies' relative roles and responsibilities and water rights permitting procedures.
- II. **STATEMENT OF MUTUAL BENEFIT AND INTERESTS:** Approval of this MOU will strengthen the partnership and recognize the cooperative working relationship and benefits between the State of Wyoming and the BLM as it relates to water rights and uses on BLM Administered Public Lands in Wyoming.

In consideration of the above premises, the parties agree as follows:

III. THE SEO SHALL:

- A. Recognize and respect the authority of the BLM, under the constitution and laws of the United States, to manage BLM Administered Public Lands throughout the State of Wyoming in accordance with applicable federal and state laws, regulations, and policies.
- B. Use reasonable efforts to inform applicants proposing to divert, convey, use, or store water on BLM Administered Public Lands of the potential need to obtain a land use authorization from the BLM concurrent with securing a water right from the SEO.

- C. When appropriate as referenced in III (D) or III (E), use reasonable efforts to notify the BLM State Office contact and allow 30 days, upon receipt of notification, for BLM to comment on water rights applications and petitions for new uses and changes to existing uses by others that propose to abandon, divert, convey, use, or store water on BLM Administered Public Lands. The SEO will consider and respond to BLM comments. Said efforts shall include use of email or written letter notification.
- D. When proper under state law, approve applications and issue permits according to state law, for water rights and facilities proposed to be located on BLM Administered Public Lands as follows:
 - a. When the BLM is the sole applicant for a water right to use water on BLM Administered Public Lands, a permit will be issued solely to the BLM.
 - b. When an application for new development proposes to divert water from BLM Administered Public Lands and the proposed use is for oil, gas or mineral development, the SEO will issue the permit solely in the applicant's name. Examples include coal bed natural gas (CBNG) wells, reservoirs that will contain CBNG produced water, and water supply wells or surface water diversions for oil and gas well drilling and production operations. Once a permit is issued the SEO will notify the BLM by providing a copy of the approved permit. This does not preclude the BLM filing a new application in the future for a new use.
 - c. When an application for new non-oil, gas or mineral development proposes to divert water on BLM Administered Public Lands and the use is proposed on BLM Administered Public Lands, the SEO will notify the BLM as described in III (C). Permits issued under this scenario will generally be issued in the name of the applicant and the SEO will add the BLM as a co-applicant.
 - d. When an application proposes to use water on a combination of BLM land and non-BLM land, the SEO will notify the BLM as described in III (C). Permits issued under this scenario will be determined on a case by case basis and may list the BLM as a co-applicant.
 - e. When an application for a time limited use is made, such as temporary water use for road construction and pipelines, , a permit will be issued solely to the applicant and a notice will be provided to the BLM of the water right issued to ensure that appropriate Federal land use authorizations are in place.
 - f. The SEO agrees to use a concerted effort to conform to the requirement of this Section III. Failure to conform to this section does not invalidate any permit, adjudication, or other action taken by the SEO or Wyoming Board of Control.

- E. Upon receipt of notice from the owner of a valid Wyoming water right permit located on BLM land of intent to abandon the water right permit, the SEO shall notify the BLM as described in III (C).
- F. Provide a primary contact in the SEO to address water rights policy and procedural issues that are relevant to both the BLM and the SEO.

IV. THE BLM SHALL:

- A. Recognize and respect the authority of the SEO under the constitution and laws of the State of Wyoming.
- B. Manage land, water, and other natural resources located on BLM Administered Public Lands within the State of Wyoming in accordance with applicable federal and state laws, regulations, and policies
- C. Apply for permits and acquire water rights under state law as sole applicant for water used directly by the BLM for administrative purposes on BLM Administered Public Lands.
- D. Inform and require applicants seeking to acquire water rights to carry out activities related to multiple use objectives where points of diversion and use are on BLM Administered Public Lands of the requirement to obtain water rights under state law. The BLM may elect to file said applications as co-applicant.
- E. Inform applicants seeking to divert, convey and/or store water on BLM Administered Public Lands of the need to obtain valid water rights from the SEO while concurrently pursuing authorization to occupy BLM Administered Public Lands.
- F. Seek the consent of an affected grazing lease holder when the BLM petitions the SEO or Wyoming Board of Control to change or abandon an un-adjudicated or adjudicated water right on a grazing allotment. An affected grazing lease holder is an individual or entity holding a grazing permit for a BLM managed allotment on which a point of use for the subject water right is located.
- G. Provide the SEO three copies of BLM 1:100,000 scale Surface Management Status Maps for all BLM managed lands in Wyoming and the most recent land status maps as available to assist SEO staff in ascertaining legal descriptions of water rights applications that may involve the use of BLM Administered Public Lands.
- H. Provide a primary contact in the State Office to collaboratively address water rights policy and procedural issues that are relevant to both the BLM and SEO.
- I. Provide a Hydrologist contact list for each BLM office within Wyoming to address any questions related to an individual water right on a specific parcel of land.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

- A. PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this instrument.

Principal Cooperator Contacts

SEO Program Contacts	SEO Administrative Contact
Name: John Barnes SEO Surface Water Division Surface Water Administrator Address: 122 West 25 th Herschler Building , 4 th East City, State, Zip: Cheyenne, WY 82002 Telephone: (307) 777-6475 FAX: (307) 777-5451 Email: john.barnes@wyo.gov	Name: Harry LaBonde Deputy State Engineer Address: 122 West 25 th Herschler Building, 4 th east City, State, Zip: Cheyenne, WY 82002 Telephone: (307) 777-6150 FAX: (307) 777-5898 Email: harry.labonde@wyo.gov
Name: Lisa Lindemann SEO Ground Water Division Ground Water Administrator Address: 122 West 25 th Herschler Building, 4 th East City, State, Zip: Cheyenne, WY 82002 Telephone: (307)777-5063 FAX: (307) 777-5451	

Email: lisa.lindemann@wyo.gov	
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BLM Contacts

BLM Program Contact	BLM Administrative Contact
Name: Jim Honn State Engineer, BLM Wyoming Address: 5353 Yellowstone Rd, PO Box 1828 City, State, Zip: Cheyenne, WY 82003 Telephone: 307-775-6233 FAX: Email: jhonn@blm.gov	Name: Buddy W. Green Deputy State Director, Resources Address: 5353 Yellowstone Rd, PO Box 1828 City, State, Zip: Cheyenne, WY 82003 Telephone: 307-775-6123 FAX: Email: bwgreen@blm.gov
Name: Joe Cantrell ADMSS High Desert District Address: 230 Highway 191 North City, State, Zip: Rock Springs, WY 82901-3447 Telephone: 307-352-0389 FAX: Email: jcantrel@blm.gov	
Name: J. Bunderson District Engineer High Plains District Address: 2987 Prospector Drive	

City, State, Zip: Casper, WY 82604-2968 Telephone: 307-261-7589 FAX: Email: jbunders@blm.gov Name: Monica Goepferd District Engineer Wind River/Big Horn Basin Address: 101 South 23 rd Street City, State, Zip: Worland, WY 82401 Telephone: 307-347-5239 FAX: Email: mgoepfer@blm.gov	
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B. NON-LIABILITY. The BLM does not assume liability for any third party claims for damages arising out of this instrument.

C. NOTICES. Any communications affecting the operations covered by this agreement given by the BLM or SEO is sufficient only if in writing and delivered in person, mailed, or transmitted electronically by e-mail or fax, as follows:

To the BLM Administrative Contact, at the address specified in the MOU.

To the SEO Administrative Contact, at the address specified in the MOU.

Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

D. PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the BLM or SEO from participating in similar activities with other public or private agencies, organizations, and individuals.

E. ENDORSEMENT. Any of SEO's contributions made under this MOU do not by direct reference or implication convey BLM endorsement of work products or activities.

- F. NONBINDING AGREEMENT. This MOU creates no right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity for either of the parties or for any third party. The parties shall manage their respective resources and activities in a separate, coordinated and mutually beneficial manner to meet the purpose(s) of this MOU. This MOU neither obligates funds nor requires either party to obligate funds at any time in the future. Further, nothing in this MOU authorizes any of the parties to obligate or transfer anything of value.

Specific, prospective projects or activities that involve the transfer of funds, services, property, and/or anything of value to a party requires the execution of separate instruments and are contingent upon numerous factors, including, as applicable, but not limited to: agency availability of appropriated funds and other resources; cooperator availability of funds and other resources; agency and cooperator administrative and legal requirements (including agency authorization by statute); etc. This MOU neither provides, nor meets these criteria. If the parties elect to enter into an obligation instrument that involves the transfer of funds, services, property, and/or anything of value to a party, then the applicable criteria must be met. Additionally, under a prospective instrument, each party operates under its own laws, regulations, and/or policies, and any BLM obligation is subject to the availability of appropriated funds and other resources. The negotiation, execution, and administration of these prospective instruments must comply with all applicable law

Nothing in this MOU is intended to alter, limit, or expand the agencies' statutory and regulatory authority.

- G. MEMBERS OF U.S. CONGRESS. Pursuant to 41 U.S.C. § 22, no U.S. member of, or U.S. delegate to, Congress shall be admitted to any share or part of this instrument, or benefits that may arise there from, either directly or indirectly.
- H. FREEDOM OF INFORMATION ACT (FOIA). Public access to MOU or agreement records must not be limited, except when such records must be kept confidential and would have been exempted from disclosure pursuant to Freedom of Information regulations (5 U.S.C. § 552).
- I. PUBLIC NOTICES. It is the BLM's policy to inform the public as fully as possible of its programs and activities. SEO is encouraged to give public notice of the receipt of this instrument and, from time to time, to announce progress and accomplishments.
- J. TERMINATION. Any of the parties, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration.

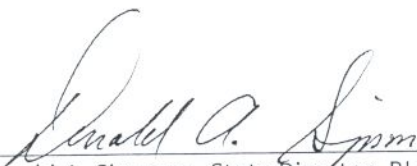
- K. DISBARRMENT AND SUSPENSION. SEO shall immediately inform the BLM if they or any of their principals are presently excluded, debarred, or suspended from entering into covered transactions with the federal government according to the terms of 2 CFR Part 180. Additionally, should SEO or any of their principals receive a transmittal letter or other official Federal notice of debarment or suspension, then they shall notify the BLM without undue delay. This applies whether the exclusion, debarment, or suspension is voluntary or involuntary.
- L. MODIFICATIONS. Modifications within the scope of this MOU must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change.
- M. SOVEREIGN IMMUNITY. The State of Wyoming and SEO do not waive sovereign immunity by entering into this agreement and specifically retains immunity and all defenses available to it as a sovereign pursuant to WYO. STAT. ANN. § 1-39-104(a) and all other state law. Designations of venue, choice of law, enforcement actions, and similar provisions should not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this agreement shall not be strictly construed, either against or for either party, except that any ambiguity as to sovereign immunity shall be construed in favor of sovereign immunity.
- N. PRIOR APPROVAL. This MOU shall be reduced to writing and approved as to form by the Office of the Wyoming Attorney General.
- O. ENTIRETY OF AGREEMENT. This MOU, consisting of nine (9) pages, represents the entire and integrated MOU between the parties and supersedes all prior negotiating, representations, and agreements, whether written or oral.
- P. COMMENCEMENT/EXPIRATION DATE. This MOU is executed as of the date of the last signature and is effective through 2017 at which time it will expire, unless extended by an executed modification, signed and dated by all properly authorized, signatory officials.

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Q. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU. In witness whereof, the parties here to have executed this MOU as of the last date written below.


Patrick Tyrrell, Wyoming State Engineer, Officer

1/9/12
Date


Donald A. Simpson, State Director, BLM Wyoming

1/12/12
Date

Wyoming Attorney General's Office Approved As To Form


S. Jane Caton, Senior Assistant Attorney General

1-9-12
Date

DRAFT

Appendix C: Wyoming Decision Matrix for Stock Water Right Permits on BLM Lands

MOU Decision Matrix

Application Processing When Bureau of Land Management (BLM) Lands are Involved						
Applicant	Action					
	Permit Application	Request	Issue without 30-Day Notice to Comment	Provide 30-Day Notice to Comment	BLM Co-Applicant	Other Action
BLM	Any		Yes	No	N/A	
Non-BLM	Oil & Gas/Mineral Development		Yes	No	No	Mail BLM Copy of Permit
Non-BLM	Non- Oil & Gas/Mineral Development		No	Yes	Yes	
Non-BLM	POU on BLM and Non-BLM		No	Yes	Case-by-Case Determination	
Non-BLM	Temporary/Time Limited		Yes	No	No	Mail BLM Copy of Permit
Non-BLM		Cancel/Abandon	No	Yes	N/A	
BLM		Cancel / Abandon / Change	N/A	N/A	N/A	BLM must provide evidence that they sought consent of the grazing lease holder.

Tab S – Legislation and Litigation Update

**Legislation Update
194th WSWC Meeting
Held Virtually**

Complied By:
Michelle Bushman
WSWC Assistant Director and General Counsel
mbushman@wswc.utah.gov

This summary describes developments regarding notable legislation that pertains to WGA/WSWC policies or are otherwise of interest. It focuses primarily on developments that have taken place since the beginning of the 116th Congress, and 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 H.R. 8217 Bill Title No title Passed (S/H) Bill Sponsor Rep. Garamendi, John [D-CA-3]	Date Introduced 9/11/2020 Assigned Committee(s) Transportation and Infrastructure; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords WIFIA Congress.gov Link https://www.congress.gov/bills/116th-congress/house-bill/8217	Summary of Bill Would extend WIFIA loan repayment terms from 35 up to 55 years for water projects with longer useful lifecycles like reservoirs, lowering the capital costs for such projects. It would clarify that federally-owned but locally maintained infrastructure projects are eligible.
Bill Number H.R. 8166 Bill Title Western Water Storage Infrastructure Act Passed (S/H) Bill Sponsor Rep. Cox, TJ [D-CA-21]	Date Introduced 9/4/2020 Assigned Committee(s) House Committee on Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Congress.gov Link	Summary of Bill Provides 50% federal cost share for undertaking new construction of federally-owned storage projects or repairs of existing projects, for surface or groundwater storage, or conveyance structures; and 25% cost-share for non-federal projects where there is a federal benefit. Authorizes \$800M for FY21-25, plus eligibility under WIIN 4007(h). Authorizes DOI to enter into partnership agreements on CALFED and extends PL 108-361 to FY2024. (See H.R. 6617; this bill adds a new section 3 on Delta Operations.)
Bill Number S. 4530 Bill Title A bill to establish a Snow Water Supply Forecasting Program within the Department of the Interior, and for other purposes Passed (S/H) Bill Sponsor Sen. Feinstein, Dianne [D-CA]	Date Introduced 8/13/2020 Assigned Committee(s) Committee on Energy and Natural Resources Hearing(s) Co-sponsors Sen. Harris, Kamala D. [D-CA]	WSWC Keywords water supply, forecasting, water resources Congress.gov Link	Summary of Bill As of 09/04/2020 text has not been received for S.4530

Bill Number H.R. 8041 Bill Title Snow Water Supply Forecasting Program Authorization Act Passed (S/H) Bill Sponsor Rep. Harder, Josh [D-CA-10]	Date Introduced 8/14/20 Assigned Committee(s) House Committee on Natural Resources Hearing(s) Co-sponsors Rep. Garamendi, John [D-CA-3], Rep. McNerney, Jerry [D-CA-9], Rep. Cox, TJ [D-CA-21], Rep. DeGette, Diana [D-CO-1], Rep. Napolitano, Grace F. [D-CA-32], Rep. Bera, Ami [D-CA-7], Rep. Neguse, Joe [D-CO-2], Rep. Costa, Jim [D-CA-16]	WSWC Keywords water supply, forecasting, water resources Congress.gov Link	Summary of Bill Creates a Snow Water Supply Forecasting Program within the Department of Interior, in conjunction with the Bureau of Reclamation. It requires DOI to work with other federal agencies to first assess emerging and existing technologies that can improve snow and water supply forecasting, and then implement the program with goals to increase snow and water supply forecasting activities in river basins. The bill authorizes \$15M for the program from 2022-26, with reporting requirements.
Bill Number S. 4530 Bill Title Snow Water Supply Forecasting Program Authorization Act Passed (S/H) Bill Sponsor Sen. Feinstein, Dianne [D-CA]	Date Introduced 08/13/20 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water supply, forecasting, v Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4530	Summary of Bill Creates a Snow Water Supply Forecasting Program within the Department of Interior, in conjunction with the Bureau of Reclamation. It requires DOI to work with other federal agencies to first assess emerging and existing technologies that can improve snow and water supply forecasting, and then implement the program with goals to increase snow and water supply forecasting activities in river basins. The bill authorizes \$15M for the program from 2022-26, with reporting requirements.
Bill Number H.R. 8071 Bill Title To direct the Administrator of the Federal Emergency Management Agency to establish an emergency flood activity pilot program to assist flood response efforts in response to a levee failure or potential levee failure, and for other purposes. Passed (S/H) Bill Sponsor Rep. McNerney, Jerry [D-CA-9]	Date Introduced 08/18/20 Assigned Committee(s) Subcommittee on Economic Development, Public Buildings, and Emergency Management Hearing(s) Co-sponsors	WSWC Keywords Congress.gov Link	Summary of Bill As of 09/04/2020 text has not been received for H.R.8071

Bill Number H.R. 8069 Bill Title To prohibit the Secretaries of Commerce and of the Interior from issuing grants for the conservation of a species that is listed as endangered under a State law that is not consistent with certain Federal standards, and for other purposes. Passed (S/H) Bill Sponsor Rep. Cook, Paul [R-CA-8]	Date Introduced 08/18/20 Assigned Committee(s) House Committee on Natural Resources Hearing(s) Co-sponsors Rep. Gosar, Paul A. [R-AZ-4]	WSWC Keywords Congress.gov Link	Summary of Bill As of 09/04/2020 text has not been received for H.R.8069
Bill Number H.R. 7991 Bill Title Border Water Quality Restoration and Protection Act of 2020 Passed (S/H) Bill Sponsor Rep. Vargas, Juan [D-CA-51]	Date Introduced 08/07/20 Assigned Committee(s) Transportation and Infrastructure; Energy and Commerce; Natural Resources; Foreign Affairs; Budget Hearing(s) Co-sponsors 4 California co-sponsors	WSWC Keywords water quality, stormwater Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7991	Summary of Bill Creates two new programs to address water quality pollution in the Tijuana River and New River Watersheds. It also creates a US-Mexico Border Water Infrastructure Program to fund projects within 100 km of the border for drinking water treatment or distribution, wastewater management, or stormwater management, including natural and green infrastructure and infrastructure for water reuse and water recycling
Bill Number H.R. 7985 Bill Title Emergency Assistance for Rural Water Systems Act Passed (S/H) Bill Sponsor Rep. Rouzer, David [R-NC-7]	Date Introduced 08/07/20 Assigned Committee(s) Agriculture Hearing(s) Co-sponsors	WSWC Keywords rural water systems Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7985	Summary of Bill Authorizes USDA to "provide a grant, a zero interest loan, or a 1 percent loan, forgive principal or interest or modify any term or condition of an outstanding loan" or reduce fees for eligible loans made to a water, wastewater, or waste disposal facility under sections 306(a), 306A, 306C, or 306D of the Consolidated Farm and Rural Development Act. The purpose of the Act is to address hardships of entities due to the COVID-19 public health emergency. The bill authorizes \$1B for the assistance.
Bill Number H.R. 7955 Bill Title 21st Century Buy American Act Passed (S/H) Bill Sponsor Rep. Cicilline, David N. [D-RI-1]	Date Introduced 08/07/20 Assigned Committee(s) Oversight and Reform; Transportation and Infrastructure; Financial Services Hearing(s) Co-sponsors	WSWC Keywords Buy America Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7955	Summary of Bill Amends the Buy American Act to provide additional criteria on waivers. For the public interest exception under grants for the construction of treatment works (33 USC 1295), EPA must consider the effects on US employment and determine that preserving or increasing US employment is consistent with the public interest.

Bill Number S. 4462 Bill Title Flood Level Observation, Operations, and Decision Support (FLOODS) Act Passed (S/H) Bill Sponsor Sen. Wicker, Roger F. [R-MS]	Date Introduced 08/06/20 Assigned Committee(s) Commerce, Science, and Transportation Hearing(s) 9/24/20: Committee reported with amendment; S Rpt. 116-269; placed on Senate calendar Co-sponsors	WSWC Keywords forecasting Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4462	Summary of Bill Directs NOAA to establish a National Integrated Flood Information System to better inform and provide for more timely decision making to reduce flood-related effects and costs. The system would collect and integrate information on the key indicators of floods and flood impacts, including streamflow, reservoir release and diversion, precipitation, soil moisture, snow water equivalent, land cover, and evaporative demand; make usable, reliable, and timely forecasts of floods; assess the severity of flood conditions; issue flood watches and warnings; and communicate information to decisionmakers at federal, state, local, and tribal levels of government, as well as the public and others. NOAA is directed to consult with states and tribes in developing and maintaining the system, in cooperation with other federal agencies.
Bill Number S. 4444 Bill Title Missouri River Basin Drought and Snowpack Monitoring Act Passed (S/H) Bill Sponsor Sen. Thune, John [R-SD]	Date Introduced 08/05/20 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords forecasting Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4444	Summary of Bill Directs the Corps, NOAA, NRCS, USGS, and Reclamation to continue installation of a network of soil moisture and plains snowpack monitoring stations and modifications of existing stations in the Upper Missouri River Basin (consistent with WRRDA 2014, the Weather Research and Forecasting Innovation Act of 2017, and the NIDIS Reauthorization Act of 2018). It continues authorization for cooperative agreements, directs the Corps to transfer ownership and responsibility for the new stations to the state mesonet programs, and establishes a pilot program for the acquisition and use of data generated by the network.
Bill Number S. 4418 Bill Title 21st Century Buy American Act Passed (S/H) Bill Sponsor Sen. Murphy, Christopher [D-CT]	Date Introduced 08/04/20 Assigned Committee(s) Homeland Security and Governmental Affairs Hearing(s) Co-sponsors	WSWC Keywords Buy America Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4418	Summary of Bill Amends the Buy American Act to provide additional criteria on waivers. For the public interest exception under grants for the construction of treatment works (33 USC 1295), EPA must consider the effects on US employment and determine that preserving or increasing US employment is consistent with the public interest.
Bill Number S. 4402 Bill Title No title Passed (S/H) Bill Sponsor Sen. Cornyn, John [R-TX]	Date Introduced 08/03/20 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords endangered species, CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4402	Summary of Bill Amends CWA 404(e) to clarify activities authorized by the Corps under Nationwide Permits, with a written determination that the activity will have no effect on threatened or endangered species or critical habitat. The bill includes a sunset provision of March 2026.

Bill Number H.R. 7843 Bill Title Repairing Existing Public Lands by Adding Necessary Trees (REPLANT) Act Passed (S/H) Bill Sponsor Rep. Panetta, Jimmy [D-CA-20]	Date Introduced 07/29/20 Assigned Committee(s) Agriculture; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7843	Summary of Bill Amends the Forest and Rangeland Renewable Resources Planning Act of 1974 to make provisions for reforestation following wildfires and other unplanned events. Priority is given in part to projects that provide water quality benefits, and the USDA is authorized to enter "good neighbor" agreements with respect to forest, rangeland, and watershed restoration services.
Bill Number S. 4352 Bill Title Border Water Quality Restoration and Protection Act of 2020 Passed (S/H) Bill Sponsor Sen. Feinstein, Dianne [D-CA]	Date Introduced 07/29/20 Assigned Committee(s) Committee on Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords water quality, stormwater Congress.gov Link	Summary of Bill Creates two new programs to address water quality pollution in the Tijuana River and New River Watersheds. It also creates a US-Mexico Border Water Infrastructure Program to fund projects within 100 km of the border for drinking water treatment or distribution, wastewater management, or stormwater management, including natural and green infrastructure and infrastructure for water reuse and water recycling
Bill Number S. 4312 Bill Title NEPA State Assignment Expansion Act of 2020 Passed (S/H) Bill Sponsor Sen. Lee, Mike [R-UT]	Date Introduced 07/23/20 Assigned Committee(s) Committee on Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Congress.gov Link	Summary of Bill Provides a mechanism for states to request they take over all or part of the responsibilities of a federal agency as it pertains to NEPA for environmental review, consultation, or other action required under any Federal environmental law pertaining to the review or approval of a specific project. Requires all relevant federal agencies to create programs that would enable this action.
Bill Number H.R. 7575 Bill Title Water Resources Development Act of 2020 Passed (S/H) 7/29/20: Passed House by voice vote 7/30/20: Received in the Senate Bill Sponsor Rep. DeFazio, Peter A. [D-OR-4]	Date Introduced 07/13/20 Assigned Committee(s) Transportation and Infrastructure; Budget Hearing(s) Co-sponsors Rep. Graves, Sam [R-MO-6]* Rep. Napolitano, Grace F. [D-CA-32]* Rep. Westerman, Bruce [R-AR-4]*	WSWC Keywords Congress.gov Link	Summary of Bill Authorizes US Army Corps of Engineers projects. Title I contains general provisions. Title II covers studies and reports on project feasibility, comprehensive plans, mitigation efforts, water contaminants, conservation and environmental considerations. Title III includes deauthorizations of inactive projects, project modifications, and directs the Corps to study the potential for reauthorizations of projects previously deauthorized. Title IV authorizes 34 new water resources projects with primary purposes of navigation, hurricane and storm damage risk reduction, flood risk management, water supply, or ecosystem restoration.

Bill Number H.R. 7657 Bill Title No title Passed (S/H) Bill Sponsor Rep. Schrier, Kim [D-WA-8]	Date Introduced 07/16/20 Assigned Committee(s) Transportation and Infrastructure; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords WRDA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7657	Summary of Bill Amends WRDA 1996 (33 USC 2330) on aquatic ecosystem restoration projects to include projects that include measures to improve habitat or passage for anadromous fish, with an equal priority.
Bill Number H.R. 7576 Bill Title Technical Correction to the Shoshone-Paiute Tribes of the Duck Valley Reservation Water Rights Settlement Act of 2020 Passed (S/H) Bill Sponsor Rep. Amodei, Mark E. [R-NV-2]	Date Introduced 07/13/20 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7576	Summary of Bill Makes a technical correction to the interest payments on balances held in the Development Fund and the Maintenance Fund as though they had been invested according to law.
Bill Number S. 4189 Bill Title Water for Conservation and Farming Act Passed (S/H) Bill Sponsor Sen. Wyden, Ron [D-OR]	Date Introduced 6/14/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Reclamation Fund, dam sa Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3292	Summary of Bill Title I creates a Bureau of Reclamation Infrastructure Fund, using \$300M of revenues that would otherwise be deposited to the Reclamation Fund for FY2031-2061. The funds would be available without further appropriation to be divided in three equal amounts of \$100M for (1) water reclamation and reuse projects authorized under the Reclamation Wastewater and Groundwater Study and Facilities Act or the Water Desalination Act; (2) WaterSMART grants; and (3) dam safety projects. It extends and expands the WaterSMART program. WaterSMART grants could be used "to assist States and water users in complying with interstate compacts or reducing basin water supply-demand imbalances, including through temporary, voluntary, and compensated transactions that decrease consumptive water use at a regional or watershed scale." The bill would change the current limitation on use of grant funds to prevent any associate water savings "to inceased the total irrigated acreage of the eligible applicant...or to otherwise increase the consumptive use of water in the operation of the eligible applicant, as determined pursuant to the law of the State" to instead prohibit the use of grant funds "to increase the consumptive use of water for agricultural operations above the pre-project levels, as determined pursuant to the law of the State..." Title II reauthorizes and expands the Watershed Management Program, with \$40M for FY2021-24. It establishes a competitive grant program for multi-benefit projects to improve watershed health. It directs FWS to develop a drought plan for the survival of critically important fisheries, in consultation with NMFS, Reclamation, state fish and wildlife agencies, and others.
Bill Number S. 4180 Bill Title Water for Tomorrow Act Passed (S/H) Bill Sponsor Sen. Harris, Kamala D. [D-CA]	Date Introduced 07/02/20 Assigned Committee(s) Energy and Natural Resources Hearing(s) 7/22/20: Subcommittee hearings held Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/4188	Summary of Bill Requires DOI to provide assistance to water supply projects that contribute to a safe, adequate water supply for domestic, agricultural, environmental, municipal, or industrial use. It reauthorizes the rural water supply program through FY26 and the cooperative watershed management program through FY25. It permanently reauthorizes certain water management improvement grants, and modifies provisions related to funding for water recycling and reuse projects. It directs DOI to provide grants to entities with water or power delivery authority for habitat restoration projects that improve watershed health. It authorizes DOI to enter agreements to fund aquatic system restoration if they improve fish passage. It directs FWS to develop a plan to sustain the survival of critically important fisheries in the western states during future periods of extended drought. It directs DOI to incorporate information from emerging technologies for snowpack measurement when determining water supply allocations to study the projected impacts of climate change on the safety of Reclamation dams.

Bill Number H.R. 7450 Bill Title Prevent Harmful Algal Blooms Act Passed (S/H) Bill Sponsor Rep. Crist, Charlie [D-FL-13]	Date Introduced 07/01/20 Assigned Committee(s) Science, Space, and Technology; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords HABs Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7450	Summary of Bill Directs NOAA to designate organizations as National Centers of Excellence in HAB Research, Prevention, Response, and Mitigation, to further understanding of HABs and their impacts on public health, to further the ability to research, forecast, and monitor HABs, to formalize and enhance existing partnerships and collaborations, to transition from observational to operational use, and to address existing and emerging HAB issues as NOAA considers appropriate. The bill authorizes \$12.5M for each FY21-25.
Bill Number H.R. 7243 Bill Title Identifying PFAS at Water Infrastructure Sites Act Passed (S/H) Bill Sponsor Rep. Delgado, Antonio [D-NY-19]	Date Introduced 06/18/20 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7243	Summary of Bill Directs the Corps to develop an inventory of facilities where there is a release or threatened release of PFAS, with measures taken to control or remediate such substances and reduce the risk of human exposure. It directs the Corps to work with other federal agencies to develop technologies and methodologies for detection and treatment, and support the work of the 2020 EPA PFAS Action Plan.
Bill Number H.R. 2 Bill Title INVEST in America Act Passed (S/H) 7/1/20: Passed House 233-188 Bill Sponsor Rep. DeFazio, Peter A. [D-OR-4]	Date Introduced 6/11/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) 6/26/20: Reported (amended) by Committee; H. Rpt. 116-437 Co-sponsors	WSWC Keywords Stormwater Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2	Summary of Bill Authorizes funds for Federal-aid highways, highway safety programs, and transit programs. Section 1605 authorizes a study to improve best management practices and TMDL compliance strategies for stormwater runoff from highways and pedestrian facilities.
Bill Number H.R. 7116 Bill Title No title Passed (S/H) Bill Sponsor Rep. Walden, Greg [R-OR-2]	Date Introduced 6/4/2020 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7116	Summary of Bill The bill amends the Klamath Basin Water Supply Enhancement Act of 2000 to make certain technical corrections

Bill Number H.R. 7069 Bill Title No title Passed (S/H) Bill Sponsor Rep. Crow, Jason [D-CO-6]	Date Introduced 6/1/2020 Assigned Committee(s) Armed Services Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/7069	Summary of Bill The bill directs the Secretary of Defense to assess and report on the water scarcity evaluation practices of the Department of Defense
Bill Number H.R. 6985 Bill Title No title Passed (S/H) Bill Sponsor Rep. Maloney, Sean Patrick [D-NY-	Date Introduced 5/22/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Dam safety Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6985	Summary of Bill Amends the National Dam Safety Program Act to expand eligibility for the rehabilitation of high hazard potential dam program.
Bill Number H.R. 6964 Bill Title No title Passed (S/H) Bill Sponsor Rep. Cleaver, Emanuel [D-MO-5]	Date Introduced 5/22/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6964	Summary of Bill The bill directs the Corps to establish a lower Missouri River program to study, design, and construct water resources development projects, and modifications to completed water resources development projects, to provide flood protection to affected communities. Qualifying projects are authorized up to \$75M, and \$500M is authorized for the program.

Bill Number S. 3758 Bill Title No title Passed (S/H) 6/30/20: Senate passed amended bill by Bill Sponsor Sen. Merkley, Jeff [D-OR]	Date Introduced 5/19/2020 Assigned Committee(s) Energy and Natural Resources Hearing(s) 6/30/20: Committee discharged by unanimous consent Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3758	Summary of Bill The bill amends the Klamath Basin Water Supply Enhancement Act of 2000 to make certain technical corrections
Bill Number S. 3754 Bill Title Technical Correction to the Shoshone-Paiute Tribes of the Duck Valley Reservation Water Rights Settlement Act Passed (S/H) Bill Sponsor Sen. Cortez Masto, Catherine [D-NV]	Date Introduced 5/18/2020 Assigned Committee(s) Indian Affairs Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3754	Summary of Bill The bill amends the Omnibus Public Land Management Act of 2009 (PL 111-11) to adjust the calculation of interest payments into the tribe's Development Fund and Maintenance Fund in accordance with other laws.
Bill Number H.R. 6898 Bill Title IMAGINE Act Passed (S/H) Bill Sponsor Rep. Cicilline, David N. [D-RI-1]	Date Introduced 5/15/2020 Assigned Committee(s) Transportation and Infrastructure; Science, Space, and Technology; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6898	Summary of Bill The bill is intended to "encourage the research and use of innovative materials and associated techniques in the construction and preservation of the domestic transportation and water infrastructure system." Section 8 directs EPA to establish a "Water Infrastructure Innovation Program", to provide grants for the design and installation of water infrastructure projects, including wastewater transport and treatment systems and drinking water treatment and distribution systems, that use innovative materials to reduce total costs, including operation and preservation expenses, and extend the service life of installed structures.

Bill Number H.R. 6745 Bill Title Clean Water for All Act Passed (S/H) Bill Sponsor Rep. DeFazio, Peter A. [D-OR-4]	Date Introduced 5/8/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6745	Summary of Bill Prohibits implementation of "the Trump administration's Dirty Water Rule [Navigable Waters Protection Rule], which eliminates Clean Water Act protections for countless rivers, streams, lakes, and wetlands that have been protected by the Clean Water Act for decades". The bill finds that: "There is overwhelming scientific evidence, which has been reviewed and confirmed by the Environmental Protection Agency's Science Advisory Board, that there are no streams or rivers safe to pollute or degrade, and that wetlands, both individually and cumulatively, have a direct and consequential impact on the quality of downstream waters and on the health and safety of downstream communities." It lists several recent examples of pollution harming the health and economy of communities, including HABs. It lays out requirements for EPA and the Corps to promulgate a regulation defining "waters of the United States" including "categories of water bodies that affect the physical, chemical, or biological integrity of traditionally navigable and interstate waters, based on the best available scientific evidence."
Bill Number S. 3621 Bill Title Made in America Water Infrastructure Act Passed (S/H) Bill Sponsor Sen. Baldwin, Tammy [D-WI]	Date Introduced 5/6/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3621	Summary of Bill The bill permanently extends a requirement that projects financed through SRFs for public water systems only use iron and steel products that are produced in the United States, unless the EPA grants a waiver from the requirement.
Bill Number S. 3591 Bill Title America's Water Infrastructure Act Passed (S/H) Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 5/4/2020 Assigned Committee(s) Environment and Public Works Hearing(s) 5/11/20: EPW reported with amendment; without written report; placed on Senate calendar Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3591	Summary of Bill Title I, Water Resources Development, includes various provisions for U.S. Army Corps of Engineers (Corps) water projects and programs. Title II includes provisions for clean water and wastewater infrastructure.

Bill Number S. 3590 Bill Title Drinking Water Infrastructure Act Passed (S/H) Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 5/4/2020 Assigned Committee(s) Environment and Public Works Hearing(s) 5/11/20: EPW reported with amendment; without written report; placed on Senate calendar Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3590	Summary of Bill The bill includes \$2.5B in federal authorizations, including \$1.3B for the Drinking Water SRF for FY2020 (\$1.9B for FY2021), as well as assistance for addressing lead in public water systems, increased assistance for small and disadvantaged communities, and a new grant program that can be used in conjunction with existing SRF and Water Infrastructure Financing and Innovation Act (WIFIA) loans to address drinking water infrastructure.
Bill Number H.R. 6622 Bill Title Assuring Quality Water Infrastructure Act Passed (S/H) Bill Sponsor Rep. McKinley, David B. [R-WV-1]	Date Introduced 4/24/2020 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6622	Summary of Bill Establishes a grant program under the SDWA for improving operational sustainability by small public water systems.
Bill Number H.R. 6617 Bill Title Western Water Storage Infrastructure Act Passed (S/H) Bill Sponsor Rep. Cox, TJ [D-CA-21]	Date Introduced 4/24/2020 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6617	Summary of Bill Provides 50% federal cost share for undertaking new construction of federally-owned storage projects or repairs of existing projects, for surface or groundwater storage, or conveyance structures; and 25% cost-share for non-federal projects where there is a federal benefit. Authorizes \$800M for FY21-25, plus eligibility under WIIN 4007(h). Authorizes DOI to enter into partnership agreements on CALFED and extends PL 108-361 to FY2024.
Bill Number H.R. 6552 Bill Title Emergency Water is a Human Right Act Passed (S/H) Bill Sponsor Rep. Tlaib, Rashida [D-MI-13]	Date Introduced 4/17/2020 Assigned Committee(s) Energy and Commerce; Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6552	Summary of Bill This bill creates a grant program, administered by the Department of Health and Human Services, to provide funds to states and Indian tribes to assist low-income households that pay a high proportion of household income for drinking water and wastewater services. Further, any entity receiving financial assistance under this grant program must ensure that no home energy service or public water system service is or remains disconnected or interrupted during COVID-19.

Bill Number S. 3480 Bill Title PFAS Testing and Treatment Act Passed (S/H) Bill Sponsor Sen. Shaheen, Jeanne [D-NH]	Date Introduced 3/12/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3480	Summary of Bill Authorizes financial assistance to states under the CWA and SDWA (\$1B per fiscal year through FY2029, each Act) to address PFAS in groundwater and drinking water.
Bill Number H.R. 6185 Bill Title Save Our Springs Act Passed (S/H) Bill Sponsor Rep. Wasserman Schultz, Debbie [D-	Date Introduced 3/10/2020 Assigned Committee(s) Ways and Means; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6185	Summary of Bill This bill imposes an excise tax on each gallon of water extracted from a spring or an underground water source for use as bottled water. It establishes the Drinking Water State Revolving Loan Trust Fund to make payments of tax revenue for state revolving loans under the Safe Drinking Water Act.
Bill Number H.R. 6182 Bill Title Farmer Driven Conservation Outcomes Act Passed (S/H) Bill Sponsor Rep. Fudge, Marcia L. [D-OH-11]	Date Introduced 3/10/2020 Assigned Committee(s) Agriculture Hearing(s) Co-sponsors	WSWC Keywords Farm Bill; conservation Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6182	Summary of Bill Would amend the Soil and Water Resources Conservation Act of 1977 to direct the USDA to assess and quantify the environmental benefits of conservation activities in order to demonstrate their impact and further improve program performance to benefit farmers, improve taxpayer accountability, improve stewardship, mitigate climate change, and improve water quality.
Bill Number S. 3429 Bill Title Farmer Driven Conservation Outcomes Act Passed (S/H) Bill Sponsor Sen. Casey, Robert P., Jr. [D-PA]	Date Introduced 3/10/2020 Assigned Committee(s) Agriculture, Nutrition, and Forestry Hearing(s) Co-sponsors	WSWC Keywords Farm Bill; conservation Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3429	Summary of Bill Would amend the Soil and Water Resources Conservation Act of 1977 to direct the USDA to assess and quantify the environmental benefits of conservation activities in order to demonstrate their impact and further improve program performance to benefit farmers, improve taxpayer accountability, improve stewardship, mitigate climate change, and improve water quality.

Bill Number S. Res. 537 Bill Title No title Passed (S/H) Bill Sponsor Sen. Carper, Thomas R. [D-DE]	Date Introduced 3/10/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords NEPA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-resolution/537	Summary of Bill This resolution supports the continued enforcement of environmental review requirements under the National Environmental Policy Act.
Bill Number S. 3422 Bill Title Great American Outdoors Act Passed (S/H) 8/4/20: See H.R. 1957, became PL 116-1 Bill Sponsor Sen. Gardner, Cory [R-CO]	Date Introduced 3/9/2020 Assigned Committee(s) None Hearing(s) 3/9/20: Placed directly on the Senate Calendar, no committee or hearings Co-sponsors	WSWC Keywords Reclamation Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3422	Summary of Bill This bill establishes the National Parks and Public Land Legacy Restoration Fund to support deferred maintenance projects on federal lands (NPS, USFS, BLM, FWS, BIA), with an amount for FY21-25 equal to 50% of all federal revenues from the development of oil, gas, coal, or alternative or renewable energy on federal lands and waters. Deposited amounts must not exceed \$1.9 billion for any fiscal year. The bill directs GAO to report on the effect of the fund on deferred maintenance backlogs. It also makes the LWFC permanent.
Bill Number S. 3418 Bill Title STORM Act Passed (S/H) Bill Sponsor Sen. Peters, Gary C. [D-MI]	Date Introduced 3/9/2020 Assigned Committee(s) Homeland Security and Governmental Affairs Hearing(s) 8/10/20: Committee reported with amendments; S. Rpt. 116-249 Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3418	Summary of Bill The bill would amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5131) to allow FEMA to provide capitalization grants to States to establish revolving funds to provide hazard mitigation assistance to reduce risks from disasters and natural hazards, and other related environmental harm. Applications for grants must demonstrate a systematic and regional approach to achieve resilience in a vulnerable area, including impacts to river basins, river corridors, watersheds, estuaries, bays, coastal regions, micro-basins, micro-watersheds, ecosystems, and areas at risk of earthquakes, tsunamis, droughts, and wildfires. (See also, H.R. 2 and H.R. 3779.)
Bill Number H.R. 6113 Bill Title ARPA-H2O Act Passed (S/H) Bill Sponsor Rep. Katko, John [R-NY-24]	Date Introduced 3/5/2020 Assigned Committee(s) Science, Space, and Technology Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6113	Summary of Bill The bill directs EPA to create the Advanced Research Projects Agency–Water (ARPA–H2O) program, to provide funding for public drinking water and wastewater systems, enhancing them through advanced technologies.

Bill Number H.R. 6112 Bill Title Oil and Water Don't Mix Act Passed (S/H) Bill Sponsor Rep. Huffman, Jared [D-CA-2]	Date Introduced 3/5/2020 Assigned Committee(s) Natural Resources; Energy and Commerce; Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6112	Summary of Bill The bill would amend the SDWA (42 U.S.C. 300h(d)(1)) and reinstate the 2015 BLM Fracking Rule, and requires protection of surface and groundwater quality from fracking operations as a condition of permits.
Bill Number S. 3403 Bill Title No title Passed (S/H) Bill Sponsor Sen. Blunt, Roy [R-MO]	Date Introduced 3/5/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3403	Summary of Bill The bill would establish a program for preventing flooding along the Lower Missouri River, studying water resources/flood control projects, such as local and federal levees, to determine whether modifications or new construction projects are needed. Recommendations are to be made in consultation with other federal agencies, states, and tribes, as well as stakeholders. Each new construction project recommended requires a feasibility report. The bill would authorize up to \$75M for a project construction (more with Congressional approval) and requires cost sharing with the affected community. Total authorization for \$500M.
Bill Number H.R. 6084 Bill Title Water Power Research and Development Act Passed (S/H) Bill Sponsor Rep. Bonamici, Suzanne [D-OR-1]	Date Introduced 3/4/2020 Assigned Committee(s) Science, Space, and Technology Hearing(s) Co-sponsors	WSWC Keywords Hydropower Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6084	Summary of Bill Provides for a research, development, and demonstration program for hydropower, pumped storage, and marine energy, amending the 2007 Energy Independence and Security Act (42 U.S.C. 17211).
Bill Number H.R. 6057 Bill Title Stop the Spread of Invasive Mussels Act Passed (S/H) Bill Sponsor Rep. McAdams, Ben [D-UT-4]	Date Introduced 3/2/2020 Assigned Committee(s) Transportation and Infrastructure; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords invasive species Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6057	Summary of Bill Directs Reclamation to provide financial assistance to states with projects to prevent the spread of invasive aquatic species in Reclamation reservoirs (such as inspection and decontamination stations), aligned with the priorities of the 2010 Quagga-Zebra Muscle Action Plan for Western U.S. Waters. Expands the membership of the Aquatic Nuisance Species Task Force to include the National Park Service, Bureau of Reclamation, and Bureau of Land Management, with authority to inspect, decontaminate, and enforce.

Bill Number H.R. 6053 Bill Title Test Your Well Water Act Passed (S/H) Bill Sponsor Rep. Kildee, Daniel T. [D-MI-5]	Date Introduced 3/2/2020 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords SDWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6053	Summary of Bill Requires EPA to establish a website with domestic well testing information, including a list of certified laboratories and available grant assistance.
Bill Number H.R. 6001 Bill Title No title Passed (S/H) Bill Sponsor Rep. Johnson, Mike [R-LA-4]	Date Introduced 2/27/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6001	Summary of Bill Extends the pilot program in the 2014 WRRDA Section 1043(a), which allows non-federal implementation of feasibility studies to find more cost effective ways to complete Corps flood risk management, hurricane and storm damage reduction, coastal harbor and channel inland navigation, and aquatic ecosystem restoration projects.
Bill Number H.R. 6000 Bill Title No title Passed (S/H) Bill Sponsor Rep. Johnson, Mike [R-LA-4]	Date Introduced 2/27/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/6000	Summary of Bill Extends the pilot program in the 2014 WRRDA Section 1043(a), which allows non-federal implementation of feasibility studies to find more cost effective ways to complete Corps flood risk management, hurricane and storm damage reduction, coastal harbor and channel inland navigation, and aquatic ecosystem restoration projects.
Bill Number S. 3295 Bill Title No title Passed (S/H) Bill Sponsor Sen. Fischer, Deb [R-NE]	Date Introduced 2/13/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3295	Summary of Bill Amends the 1941 Flood Control Act to authorize the Corps to reimburse non-Federal sponsors for the federal cost share of emergency response repair and restoration work.

Bill Number H.R. 5861 Bill Title Agriculture Resilience Act Passed (S/H) Bill Sponsor Rep. Pingree, Chellie [D-ME-1]	Date Introduced 2/12/2020 Assigned Committee(s) Agriculture; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords Farm Bill, climate change Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5861	Summary of Bill This bill set a national goal of a 50% reduction in greenhouse gases from 2010 levels by 2030, and net zero emissions by 2040. The bill proposes amendments to various Farm Bill programs (EQIP, CSP, ACEP, etc.) to add language about climate change adaptation and mitigation, and greenhouse gas emissions reduction and carbon sequestration.
Bill Number H.R. 5857 Bill Title Fracking Ban Act Passed (S/H) Bill Sponsor Rep. Ocasio-Cortez, Alexandria [D-	Date Introduced 2/12/2020 Assigned Committee(s) Natural Resources; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords Fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5857	Summary of Bill This bill phases out hydraulic fracturing for oil and natural gas, prohibiting agencies from issuing permits for the expansion of fracking. It requires EPA to survey and identify wells used for fracking and surrounding structures. Beginning in 2021, the bill would revoke permits for fracking wells within 2,500' of inhabited structures, and would ban all fracking by 2025.
Bill Number H.R. 5856 Bill Title Decentralized Wastewater Grant Act Passed (S/H) Bill Sponsor Rep. Sewell, Terri [D-AL-7]	Date Introduced 2/11/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5856	Summary of Bill To amend the CWA to establish a decentralized wastewater grant program.
Bill Number S. 3274 Bill Title Decentralized Wastewater Grant Act Passed (S/H) Bill Sponsor Sen. Booker, Cory A. [D-NJ]	Date Introduced 2/11/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3274	Summary of Bill To amend the CWA to establish a decentralized wastewater grant program.

Bill Number H.R. 5799 Bill Title Bridging Responsible Agricultural Conservation Efforts Act Passed (S/H) Bill Sponsor Rep. Thompson, Glenn [R-PA-15]	Date Introduced 2/7/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Agency coordination, cropland, wetlands Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5799	Summary of Bill Directs the Corps and EPA to apply Department of Agriculture decisions relating to CWA implementation for upland soil and water conservation practices, prior converted cropland, and wetlands.
Bill Number H.R. 5752 Bill Title Conveyance Capacity Correction Act Passed (S/H) Bill Sponsor Rep. Costa, Jim [D-CA-16]	Date Introduced 2/4/2020 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5752	Summary of Bill To provide for restoration of the original carrying capacity of water conveyance facilities, at transferred works or operated by states under Reclamation's jurisdiction, which have been damaged by land subsidence and have lost 10% or more of their designed carrying capacity. The federal cost share is up to 50%. Authorizes up to \$400M to carry out the act.
Bill Number H.R. 5737 Bill Title Voluntary Grazing Permit Retirement Act Passed (S/H) Bill Sponsor Rep. Smith, Adam [D-WA-9]	Date Introduced 1/30/2020 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Grazing permits Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5737	Summary of Bill To expand the authorization of voluntary Federal grazing permit retirement, provide increased flexibility for Federal grazing permittees, promote the equitable resolution or avoidance of conflicts on Federal lands managed by the Department of Agriculture or the Department of the Interior. Provides that nothing in the bill affects the water rights of states, tribes, the U.S., or private owners.
Bill Number S. 3247 Bill Title Fracking Ban Act Passed (S/H) Bill Sponsor Sen. Sanders, Bernard [I-VT]	Date Introduced 1/28/2020 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3247	Summary of Bill Prohibits federal agencies from issuing new permits for hydraulic fracturing operations or related infrastructure. Requires EPA to complete a national survey of all oil and gas wells where hydraulic fracturing has been or is being used. Revokes all federal operating permits for hydraulic fracturing for wells within 2,500 feet of homes, schools, or inhabited structures and shuts down production from those wells. Prohibits all fracking onshore and offshore by 2025.

Bill Number H.R. 5673 Bill Title Gros Ventre and Assiniboine Tribes of the Fort Belknap Indian Community Water Rights Settlement Act Passed (S/H) Bill Sponsor Rep. Gallego, Ruben [D-AZ-7]	Date Introduced 1/24/2020 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5673	Summary of Bill Authorizes the settlement of the water rights claims of the Fort Belknap Indian Community in Montana. It would make available the priority funding designated in the 2009 Omnibus Public Land Management Act, with \$30M each year from FY2021-2030 transferred from the Reclamation Water Settlement Fund. Additional funds are authorized for appropriation to various specific funds. It establishes a Fort Belknap Indian Community Settlement Trust Fund and requires the tribes to enact a tribal water code to administer tribal water rights. It allocates 20,000 acre-feet per year of storage in Lake Elwell for the tribes. It authorizes modifications to the operating procedures to the Milk River Project and outlines contributions from Montana for mitigation of the Milk River Project.
Bill Number S. 3211 Bill Title Clean Water Allotment Modernization Act Passed (S/H) Bill Sponsor Sen. Rubio, Marco [R-FL]	Date Introduced 1/16/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3211	Summary of Bill Modifies the table allocating funds to states and territories for shares of grant funds for waste treatment construction and management plans, based on the most recent clean watersheds needs survey, population, and water quality impairment component ratio.
Bill Number H.R. 5628 Bill Title Clean Water Allotment Modernization Act Passed (S/H) Bill Sponsor Rep. Waltz, Michael [R-FL-6]	Date Introduced 1/16/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5628	Summary of Bill Modifies the table allocating funds to states and territories for shares of grant funds for waste treatment construction and management plans, based on the most recent clean watersheds needs survey, population, and water quality impairment component ratio.
Bill Number H.R. 5601 Bill Title Property Rights Protection Act Passed (S/H) Bill Sponsor Rep. Norman, Ralph [R-SC-5]	Date Introduced 1/14/2020 Assigned Committee(s) Natural Resources; Agriculture Hearing(s) Co-sponsors	WSWC Keywords Conditioning federal permit Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5601	Summary of Bill Prohibits DOI from conditioning permits, licenses, easements, etc. on the transfer of water rights to the U.S., or to require a water user to apply for a water right in the name of the U.S. under state law as a condition of issuing permits, licenses, easements, etc. Also prohibits future non-federal lands from being designated as critical habitat without the express written consent of the property owners absent a risk of a extinction without the designation. Requires FWS to obtain permission for access to private lands.

Bill Number H. Res. 797 Bill Title No title Passed (S/H) Bill Sponsor Rep. Dingell, Debbie [D-MI-12]	Date Introduced 1/14/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors 89 Democratic co-sponsors, including CA, CO, AZ, OR, NM, WA	WSWC Keywords WOTUS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-resolution/797	Summary of Bill Resolution encouraging EPA to maintain and strengthen requirements under the CWA and reverse ongoing administrative actions to weaken the statute and protections for WOTUS.
Bill Number S. 3160 Bill Title Affordable Safe Drinking Water Act Passed (S/H) Bill Sponsor Sen. Warren, Elizabeth [D-MA]	Date Introduced 1/8/2020 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords SRFs Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3160	Summary of Bill Would strike the 30-year SRF loan term limit and allow states to make loans up to the useful life of the project, allowing communities to amortize beyond 30 years. Would also allow SRFs to provide funding to remediate lead- or PFAS-contaminated water at public schools, parks, fire stations, police stations, senior centers, community centers, and any other municipal buildings.
Bill Number H.R. 5540 Bill Title PFAS Transparency Act Passed (S/H) Bill Sponsor Rep. Delgado, Antonio [D-NY-19]	Date Introduced 1/3/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5540	Summary of Bill Requires an industrial entity that introduces PFAS into wastewater treatment systems to provide specified advance notices to such systems, including the identity and quantity of such PFAS.
Bill Number H.R. 5539 Bill Title Clean Water Standards for PFAS Act Passed (S/H) Bill Sponsor Rep. Pappas, Chris [D-NH-1]	Date Introduced 1/3/2020 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5539	Summary of Bill Directs EPA to review and develop effluent standards, pretreatment standards, and water quality criteria for PFAS under the CWA, and to provide Federal grants to publicly owned treatment works to implement standards

Bill Number H.R. 5513 Bill Title Affordable Safe Drinking Water Act Passed (S/H) Bill Sponsor Rep. Kennedy, Joseph P., III [D-MA-4]	Date Introduced 12/19/2019 Assigned Committee(s) Energy and Commerce; Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords SRFs Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5513	Summary of Bill Would strike the 30-year SRF loan term limit and allow states to make loans up to the useful life of the project, allowing communities to amortize beyond 30 years. Would also allow SRFs to provide funding to remediate lead- or PFAS-contaminated water at public schools, parks, fire stations, police stations, senior centers, community centers, and any other municipal buildings.
Bill Number H.R. 5504 Bill Title No title Passed (S/H) Bill Sponsor Rep. Brownley, Julia [D-CA-26]	Date Introduced 12/19/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Dam safety Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5504	Summary of Bill Would amend the National Dam Safety Program Act with respect to the definition of eligible high hazard potential dam. The current definition excludes licensed hydroelectric dams from eligibility, which would be amended to only exclude licensed hydroelectric dams with an authorized installed capacity of greater than 1500 kilowatts.
Bill Number S. 3113 Bill Title Gros Ventre and Assiniboine Tribes of the Fort Belknap Indian Community Water Rights Settlement Act Passed (S/H) Bill Sponsor Sen. Tester, Jon [D-MT]	Date Introduced 12/19/2019 Assigned Committee(s) Indian Affairs Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3113	Summary of Bill Authorizes the settlement of the water rights claims of the Fort Belknap Indian Community in Montana. It would make available the priority funding designated in the 2009 Omnibus Public Land Management Act, with \$30M each year from FY2021-2030 transferred from the Reclamation Water Settlement Fund. Additional funds are authorized for appropriation to various specific funds. It establishes a Fort Belknap Indian Community Settlement Trust Fund and requires the tribes to enact a tribal water code to administer tribal water rights. It allocates 20,000 acre-feet per year of storage in Lake Elwell for the tribes. It authorizes modifications to the operating procedures to the Milk River Project and outlines contributions from Montana for mitigation of the Milk River Project.
Bill Number H.R. 5445 Bill Title Critical Infrastructure Act Passed (S/H) Bill Sponsor Rep. Stewart, Chris [R-UT-2]	Date Introduced 12/17/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords ESA, NEPA, hydropower Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5445	Summary of Bill Would create categorical exclusions under NEPA for the installation or maintenance of transmission poles and powerlines, and for certain construction projects that include buffer areas. It prohibits the designation of critical habitat in water storage reservoirs, water diversion structures, canals, or other water storage, diversion or delivery facilities. Also requires the western power administrations to include the indirect costs of compliance with environmental laws impacting the conservation of fish and wildlife in the monthly billing information to power customers.

Bill Number S. 3062 Bill Title Fracturing Responsibility and Awareness of Chemicals Act Passed (S/H) Bill Sponsor Sen. Casey, Robert P., Jr. [D-PA]	Date Introduced 12/17/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3062	Summary of Bill Would amend the SDWA (42 U.S.C. 300h(d)) to repeal an exemption for hydraulic fracturing, allowing states to assume primary enforcement responsibility and requiring fracking operations to list chemical constituents and proppants intended for use in any underground injection. The data must be made public. Proprietary, trade-secret chemical formulas necessary for medical treatment or emergency response must be immediately disclosed to the state or medical practitioner, although it may not be publicly disclosed.
Bill Number S. 3046 Bill Title Wastewater Efficiency and Treatment Act Passed (S/H) Bill Sponsor Sen. Merkley, Jeff [D-OR]	Date Introduced 12/12/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors 5 Republican and 1 Democratic co-sponsor from AZ, CA, CO, NV, WA	WSWC Keywords Water-Energy Nexus Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3046	Summary of Bill Requires DOE to establish a grant program for small (population under 10,000) public wastewater treatment facilities to conduct energy efficiency audits and update equipment based on the audits. DOE would provide loan guarantees to eligible municipalities and tribes for projects that convert treatment waste into renewable fuels, biosolids, or other byproducts. DOE would also provide assistance to communities through a small-scale extension service offering grants, outreach, training, and technical assistance on energy efficient technologies.
Bill Number S. 3019 Bill Title Montana Water Rights Protection Act Passed (S/H) Bill Sponsor Sen. Daines, Steve [R-MT]	Date Introduced 12/11/2019 Assigned Committee(s) Indian Affairs Hearing(s) 6/24/20: hearings held 7/29/20: SIA ordered reported; with amendment Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/3019	Summary of Bill The bill would authorize the CSKT-Montana water rights compact. The bill authorizes an allocation of 90,000 acre-feet per year of storage in the Hungry Horse Reservoir for the tribes. The bill establishes a \$1.9B trust fund to implement the compact and manage tribal water rights within the reservation, including various water projects.
Bill Number H.R. 5361 Bill Title Safe Drinking Water Assistance Act Passed (S/H) Bill Sponsor Rep. Blunt Rochester, Lisa [D-DE-At Large]	Date Introduced 12/9/2019 Assigned Committee(s) Energy and Commerce; Science, Space, and Technology Hearing(s) Co-sponsors	WSWC Keywords emerging contaminants Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5361	Summary of Bill To improve and coordinate interagency Federal actions under the SDWA and provide assistance to States for responding to public health challenges posed by emerging contaminants. Directs EPA and Health and Human Services to jointly establish a Working Group, including USGS and other agencies, to establish a research initiative on emerging contaminants and develop policies and programs to implement a federal research strategy. Research proposals from states, public and private institutions may be submitted to the working group.

Bill Number H.R. 5341 Bill Title Discouraging Frivolous Lawsuits Act Passed (S/H) Bill Sponsor Rep. Rice, Tom [R-SC-7]	Date Introduced 12/6/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA 404 Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5341	Summary of Bill Amends CWA 404(c) to eliminate duplicative oversight for disposal sites. Prohibits excess mitigation requirements under CWA 404. Awards the costs of litigation to the prevailing party in citizen suits (CWA 505(d)) and restricts certain settlements involving compensatory mitigation with respect to a 404 permit.
Bill Number H.R. 5316 Bill Title Move Water Now Act Passed (S/H) Bill Sponsor Rep. Cox, TJ [D-CA-21]	Date Introduced 12/5/2019 Assigned Committee(s) Natural Resources Hearing(s) 02/12/2020: Ordered Reported, 21 - 15 Co-sponsors 4 Democratic co-sponsors in AZ, CA	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5316	Summary of Bill Provides for the restoration of the original carrying capacity of canals impacted by land subsidence, with a federal cost share of up to 50%. Requires compliance with NEPA, ESA, and state laws. Authorizes up to \$200M to implement the Restoration Goal of the San Joaquin River Restoration Settlement in PL 111-11, Sec. 10004.
Bill Number H.R. 5302 Bill Title Western Water Recycling and Drought Relief Act Passed (S/H) Bill Sponsor Rep. McNerney, Jerry [D-CA-9]	Date Introduced 12/4/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords reuse, drought Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5302	Summary of Bill Amends the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize certain named recycled water projects and funds to carry out each project.
Bill Number S. 2980 Bill Title Clean Water Standards for PFAS Act Passed (S/H) Bill Sponsor Sen. Gillibrand, Kirsten E. [D-NY]	Date Introduced 12/4/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link #REF!	Summary of Bill Directs EPA to set CWA standards, effluent limitations, and water quality criteria within 2 years.

Bill Number S. 2978 Bill Title Energy and Water Research Integration Act Passed (S/H) Bill Sponsor Sen. Cortez Masto, Catherine [D-NV]	Date Introduced 12/4/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Water-Energy Nexus Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2978	Summary of Bill Directs DOE to integrate water considerations into its energy research, development, and demonstration programs and projects. Specific objectives include minimizing freshwater withdrawal and consumption, increase water use efficiency, utilize non-traditional water sources, consider the effects of climate variability on water supplies and quality for energy needs, understand energy needs for reliable water supplies, and establish an Energy-Water Committee to promote and enable data collection, reporting, and technological innovation. The strategic plan developed must be updated every five years.
Bill Number H.R. 5217 Bill Title Water Optimization for the West Act Passed (S/H) Bill Sponsor Rep. McClintock, Tom [R-CA-4]	Date Introduced 11/21/2019 Assigned Committee(s) Natural Resources; Transportation and Infrastructure; Agriculture; Science, Space, and Technology Hearing(s) Co-sponsors 11 Republican co-sponsors from AZ, CA, CO, ID, UT, WA	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5217	Summary of Bill Title I would extend provisions of the WIIN Act that help deliver water to the Central Valley. Title II would repeal the San Joaquin River Settlement, with a plan to provide restoration flows to the river without harming CVP contractors. Title III would repurpose unused funds from California's High-Speed Rail towards water storage infrastructure projects. Title V establishes the Bureau of Reclamation or the Bureau of Indian Affairs as the lead for coordinating all reviews, permits, licenses, or other approvals or decisions required under federal law to construct certain new water projects. It establishes procedures for establishing any appropriate categorical exclusions from NEPA reviews. Title VI establishes the Bureau of Reclamation as the lead agency for qualifying surface water storage projects. Title VII would amend the ESA to transfer administering responsibility for migratory (ocean-freshwater) fish species from NOAA's National Marine Fisheries Service (NMFS) to the FWS. Title VIII would authorize an aquifer recharge flexibility pilot program on eligible lands near Reclamation projects. Title IX would convey title of the Big Sand Wash Project to the Central Utah Water Conservancy District. Title X would allow the Kennewick Irrigation District to locally manage water for users. Title XI provides protections for ski areas, farmers, ranchers, and others by prohibiting BLM and the Forest Service from requiring the transfer of privately-held water rights to the federal government as a permit condition for use of land owned by the agencies. Title XIII addresses invasive nutria that threaten California's ecosystems and infrastructure.
Bill Number S. 2930 Bill Title Public Water Supply Invasive Species Compliance Act Passed (S/H) Bill Sponsor Sen. Cruz, Ted [R-TX]	Date Introduced 11/21/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords invasive species Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2930	Summary of Bill Exempts certain water transfers between public water supplies in Texas, Arkansas, and Louisiana from prohibitions on illegal trade of plants and wildlife. Specifically, the prohibitions do not apply to covered water transfers containing a prohibited species if (1) the species are present in both public water supplies before the transfer and the water is transferred directly between them; or (2) the water is transferred in a closed conveyance system, such as a pipe system, and sent directly to treatment facilities where the species will be destroyed.
Bill Number H.R. 5193 Bill Title Buy America for Drinking Water Extension Act Passed (S/H) Bill Sponsor Rep. Bustos, Cheri [D-IL-17]	Date Introduced 11/20/2019 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords Buy America Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5193	Summary of Bill Expands the SDWA SRF provision requiring water treatment construction, maintenance, and repair projects to use iron and steel products produced in the U.S.

Bill Number H.R. 5100 Bill Title Drought Relief through Innovative Projects (DRIP) Act Passed (S/H) Bill Sponsor Rep. O'Halleran, Tom [D-AZ-1]	Date Introduced 11/14/2019 Assigned Committee(s) Agriculture Hearing(s) Co-sponsors	WSWC Keywords Invasive species Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/5100	Summary of Bill Directs the Department of Agriculture to establish a competitive grant program to (1) remove nonnative plant species in riparian areas that contribute to drought conditions, (2) replace those nonnative plant species with native plant species, and (3) maintain and monitor riparian areas in which nonnative plant species have been removed and replaced.
Bill Number S. 2799 Bill Title Nexus of Energy and Water for Sustainability Act Passed (S/H) Bill Sponsor Sen. Murkowski, Lisa [R-AK]	Date Introduced 11/6/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 12/17/2019: SENR reported with an amendment, S. Rept 116-198 Co-sponsors	WSWC Keywords Water-Energy Nexus Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2799	Summary of Bill Directs DOE and the Department of the Interior to establish a joint Nexus of Energy and Water for Sustainability (NEWS) Office and Interagency Coordination Committee on NEWS to plan for and coordinate energy-water nexus research, development, and demonstration activities. Establishes requirements for links between (1) water needed to produce fuels, electricity, and other forms of energy; and (2) the energy needed to transport, reclaim, and treat water and wastewater. Establishes a pilot program for smart energy and water efficiency, with grants to water authorities for demonstrating technology-based solutions and improvements at the water-energy nexus.
Bill Number S. 2767 Bill Title No Title Passed (S/H) Bill Sponsor Sen. Jones, Doug [D-AL]	Date Introduced 10/31/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Data Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2767	Summary of Bill Establishes a competitive grant pilot program under the CWA for improving the sharing of water quality data. Eligible states may use the grants to create systems that share information on water quality, sources of water pollution, and water infrastructure needs among counties and local communities. This may include a website or data hub, and inter-county communications initiatives. Eligible states include those with coastal watersheds with significant pollution levels and those with counties or communities with significant individual wastewater infrastructure deficits. Authorizes "such sums as are necessary" for FY2020-2025.
Bill Number H.R. 4891 Bill Title Western Water Security Act Passed (S/H) Bill Sponsor Rep. Torres Small, Xochitl [D-NM-	Date Introduced 10/28/2019 Assigned Committee(s) Natural Resources; Science, Space, and Technology Hearing(s) 03/11/2020: Ordered Reported (Amended) 14 - 11 Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4891	Summary of Bill Title I includes reauthorization of the WaterSMART program, creates a new program for desalination projects, authorizes emergency drought funding for water management entities in the West, and reauthorizes funding for Rio Grande Pueblo irrigation infrastructure grants. Title II reauthorizes the US-Mexico Transboundary Aquifer Assessment Program, expands WaterSMART to include groundwater storage projects, and directs USGS to study water impacts from energy development. Title III provides expanded flexibility for the Bureau of Reclamation to implement a pilot water rights leasing program in the Middle Rio Grande Conservancy District, and extends Reclamation's Cooperative Watershed Management Program for ten years.

Bill Number S. 2718 Bill Title Western Water Security Act Passed (S/H) Bill Sponsor Sen. Udall, Tom [D-NM]	Date Introduced 10/28/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 7/22/20: Subcommittee hearings Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2718	Summary of Bill Title I includes reauthorization of the WaterSMART program, creates a new program for desalination projects, authorizes emergency drought funding for water management entities in the West, and reauthorizes funding for Rio Grande Pueblo irrigation infrastructure grants. Title II reauthorizes the US-Mexico Transboundary Aquifer Assessment Program, expands WaterSMART to include groundwater storage projects, and directs USGS to study water impacts from energy development. Title III provides expanded flexibility for the Bureau of Reclamation to implement a pilot water rights leasing program in the Middle Rio Grande Conservancy District, and extends Reclamation's Cooperative Watershed Management Program for ten years.
Bill Number H.R. 4832 Bill Title Low-Income Water Customer Assistance Programs Act Passed (S/H) Bill Sponsor Rep. Fudge, Marcia L. [D-OH-11]	Date Introduced 10/23/2019 Assigned Committee(s) Transportation and Infrastructure; Energy and Commerce; Ways and Means Hearing(s) Co-sponsors	WSWC Keywords Water assistance Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4832	Summary of Bill Establishes a new pilot programs that award grants to help low-income households pay their drinking water, wastewater, or stormwater bills. Also directs EPA to study the prevalence of low-income households without access to affordable wastewater, stormwater, and drinking water services.
Bill Number S. 2687 Bill Title Low-Income Water Customer Assistance Programs Act Passed (S/H) Bill Sponsor Sen. Cardin, Benjamin L. [D-MD]	Date Introduced 10/23/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Water assistance Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2687	Summary of Bill Establishes a new pilot programs that award grants to help low-income households pay their drinking water, wastewater, or stormwater bills. Also directs EPA to study the prevalence of low-income households without access to affordable wastewater, stormwater, and drinking water services.
Bill Number S. 2674 Bill Title Assuring Quality Water Infrastructure Act Passed (S/H) Bill Sponsor Sen. Capito, Shelley Moore [R-WV]	Date Introduced 10/23/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2674	Summary of Bill Establishes a grant program under the SDWA for improving infrastructure asset management by small public water systems, preventing water losses due to leaks, breaks, and other metering or infrastructure failures. The cost share grants may cover up to 75% of the project costs, and the bill authorizes up to \$5M each for FY2021-25.

Bill Number S. 2636 Bill Title Clean Water Infrastructure Resilience and Sustainability Act Passed (S/H) Bill Sponsor Sen. Cardin, Benjamin L. [D-MD]	Date Introduced 10/15/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2636	Summary of Bill Directs EPA to establish a program to make grants to eligible entities to increase the resilience of publicly owned treatment works to natural disasters, through water conservation, water use efficiency, watershed protection, green infrastructure, reclamation and reuse, aquifer recharge, modification or relocation of POTWs, and improved energy efficiency or use of renewable energy. The cost share grants may cover up to 75% of the project costs, and the bill authorizes up to \$5M each for FY2020-24.
Bill Number S. 2596 Bill Title Voluntary Water Partnership for Distressed Communities Act Passed (S/H) Bill Sponsor Sen. Duckworth, Tammy [D-IL]	Date Introduced 10/15/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2596	Summary of Bill Authorizes non-compliant community water systems to enter into voluntary partnerships with compliant systems to improve their water system through technical, operational, and financial support, and limiting the enforcement action against the non-compliant community system for a period of six months, except to address an imminent and substantial health risk. Once an approved plan submitted by the partnership is in place, compliance may occur as soon as practicable but no more than three years after the partnership is formed or the date to complete necessary construction projects to bring the partnership into compliance. The state's non-enforcement under these circumstances would not affect the state's allotment of SRF funds.
Bill Number H.R. 4659 Bill Title Water Supply Infrastructure Rehabilitation and Utilization Act Passed (S/H) Bill Sponsor Rep. Newhouse, Dan [R-WA-4]	Date Introduced 10/11/2019 Assigned Committee(s) Natural Resources; Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4659	Summary of Bill Would amend the Omnibus Public Land Management Act of 2009 to establish an Aging Infrastructure Account (\$550M), amend the Reclamation Safety of Dams Act of 1978 to provide additional funds, and establish a review of flood control rule curves pilot project within the Bureau of Reclamation. It is intended to give local operators of federally-owned facilities the tools they need to maintain and improve aging water infrastructure in a timely manner. The bill simplifies the process for maintaining facilities by streamlining local operators' access to BOR funds to initiate extraordinary maintenance projects with extended repayment through a clearly defined application and review process. It also creates a revolving fund where Congress can direct appropriations and where repayment would come back to BOR for use on future extraordinary maintenance projects without further appropriations.
Bill Number S. 2466 Bill Title Water Justice Act Passed (S/H) Bill Sponsor Sen. Harris, Kamala D. [D-CA]	Date Introduced 9/11/2019 Assigned Committee(s) Finance Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2466	Summary of Bill To provide supplemental appropriations for safe and secure water. See companion bill H.R. 4033.

Bill Number S. 2456 Bill Title Clean Water Through Green Infrastructure Act Passed (S/H) Bill Sponsor Sen. Udall, Tom [D-NM]	Date Introduced 9/10/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Stormwater Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2456	Summary of Bill The bill directs EPA to establish 3-5 regional centers at educational institutions for innovative research on stormwater control infrastructure. See companion bill H.R. 4266.
Bill Number H.R. 4266 Bill Title Clean Water Through Green Infrastructure Act Passed (S/H) Bill Sponsor Rep. Heck, Denny [D-WA-10]	Date Introduced 9/10/2019 Assigned Committee(s) Transportation and Infrastructure; Science, Space, and Technology Hearing(s) Co-sponsors 5 Democratic and 1 Republican co-sponsors	WSWC Keywords Stormwater Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4266	Summary of Bill The bill directs EPA to establish 3-5 regional centers at educational institutions for innovative research on stormwater control infrastructure for reducing runoff, protect drinking water sources, and improve water quality. The program includes developing manuals with best practices standards, providing job training, developing course curricula for primary, secondary, vocational schools and institutions of higher education, and providing technical assistance to states, tribes and organizations for innovative infrastructure projects.
Bill Number H.R. 4014 Bill Title Fracturing Responsibility and Awareness of Chemicals Act Passed (S/H) Bill Sponsor Rep. DeGette, Diana [D-CO-1]	Date Introduced 7/25/2019 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors 23 Democratic co-sponsors	WSWC Keywords Fracking Congress.gov Link	Summary of Bill To repeal the exemption for hydraulic fracturing in the Safe Drinking Water Act
Bill Number H.R. 4006 Bill Title Closing Loopholes and Ending Arbitrary and Needless Evasion of Regulations Act Passed (S/H) Bill Sponsor Rep. Cartwright, Matt [D-PA-8]	Date Introduced 7/25/2019 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors 52 Democratic co-sponsors	WSWC Keywords Fracking Congress.gov Link	Summary of Bill To require regulation of wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy under the Solid Waste Disposal Act

Bill Number S. 2410 Bill Title Flood Reduction, Wildlife Habitat, and Water Quality Improvement Act Passed (S/H) Bill Sponsor Sen. Hyde-Smith, Cindy [R-MS]	Date Introduced 7/31/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA 404 Congress.gov Link	Summary of Bill A bill to amend the CWA to modify the requirements for permits for dredged or fill material
Bill Number S. 2356 Bill Title Define WOTUS Act Passed (S/H) Bill Sponsor Sen. Braun, Mike [R-IN]	Date Introduced 7/31/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords WOTUS Congress.gov Link	Summary of Bill A bill to provide a definition of navigable waters
Bill Number H.R. 4039 Bill Title Border Water Infrastructure Improvement Act Passed (S/H) Bill Sponsor Rep. Levin, Mike [D-CA-49]	Date Introduced 7/25/2019 Assigned Committee(s) Transportation and Infrastructure; Energy and Commerce; Foreign Affairs Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4039	Summary of Bill Authorizes EPA to provide assistance to eligible entities for activities related to eligible projects, including feasibility studies, planning studies, environmental assessments, financial analyses, community participation efforts, and architectural, engineering, planning, design, and construction activities, with a priority for projects relating to environment, public health, and unmet water supply needs, resulting in benefits on both sides of the US-Mexico border, with a 50% federal cost share. Authorizes \$150M for FY20-24
Bill Number H.R. 4033 Bill Title Water Justice Act Passed (S/H) Bill Sponsor Rep. Kildee, Daniel T. [D-MI-5]	Date Introduced 7/25/2019 Assigned Committee(s) Energy and Commerce; Budget; Ways and Means; Natural Resources; Agriculture; Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/4033	Summary of Bill The findings note the "D" grade to drinking water infrastructure and AWWA's estimated \$1T needed to maintain and expand service over the next 25 years, with EPA's 6th national assessment of \$472B needed for capital improvements of public water systems. "Appropriating \$50T in FY2020 for the EPA , and allowing the funds to remain available for 5 years, will enable the States to begin to immediately expand investments in addressing drinking water needs in schools and high risk communities" and could create 1.2M jobs. It authorizes an emergency supplemental appropriation of up to \$50T out of any funds in the Treasury not otherwise appropriated for EPA to spend toward lead reduction investments and other related contaminant programs.

Bill Number H.R. 3944 Bill Title No Title Passed (S/H) Bill Sponsor Rep. Hern, Kevin [R-OK-1]	Date Introduced 7/24/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Corps Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3944	Summary of Bill Would modify WRRDA 2014 to clarify that the communication of emergency risks also includes NWS forecasts of precipitation or runoff that exceed the calculations of lowest flood risk in the operating plan.
Bill Number H.R. 3898 Bill Title Levee Rehabilitation Improvements Act Passed (S/H) Bill Sponsor Rep. Bost, Mike [R-IL-12]	Date Introduced 7/23/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors Rep. Finkenauer, Abby [D-IA-1]	WSWC Keywords Levees Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3898	Summary of Bill To require the Corps of Engineers to consider benefits to navigation and protection of residential, commercial, and agricultural establishments to be gained by emergency projects
Bill Number S. 2164 Bill Title Water Resources Research Amendment Act Passed (S/H) Bill Sponsor Sen. Cardin, Benjamin L. [D-MD]	Date Introduced 7/18/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors Sen. Boozman, John [R-AR]	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2164	Summary of Bill The bill would amend the Water Resources Research Act of 1984 to reauthorize grants for and require applied water supply research regarding the water resources research and technology institutes. It would modify the provision to explore new ideas from "water-related phenomena" to "water resources." It would authorize \$8.2M for each of FY2020 - FY2023, and an additional \$1.75M per fiscal year for research on water problems of an interstate nature.
Bill Number H.R. 3723 Bill Title Desalination Development Act Passed (S/H) Bill Sponsor Rep. Levin, Mike [D-CA-49]	Date Introduced 7/11/2019 Assigned Committee(s) Natural Resources; Science, Space, and Technology Hearing(s) 7/25/2019: Subcommittee Hearings Held 03/11/2020: Ordered Reported (Amended) 13 - 10 Co-sponsors	WSWC Keywords Desalination Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3723	Summary of Bill The bill would promote eligible ocean or brackish water desalination facilities in Reclamation states, constructed, operated, and maintained by a State, Indian Tribe, irrigation district, water district, or other organization with water or power delivery authority, or funded by states or their subdivisions, offering a 25% federal cost share. The bill authorizes \$260M through FY2024.

Bill Number S. 2044 Bill Title Water Supply Infrastructure Rehabilitation and Utilization Act Passed (S/H) Bill Sponsor Sen. McSally, Martha [R-AZ]	Date Introduced 6/27/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 7/18/18: Subcommittee hearing 9/25/19: Committee passed with amendment, ordered reported S.Rpt. 116-156 10/29/19: Placed on Senate Calendar Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/2044	Summary of Bill Would amend the Omnibus Public Land Management Act of 2009 to establish an Aging Infrastructure Account (\$550M), amend the Reclamation Safety of Dams Act of 1978 to provide additional funds, and establish a review of flood control rule curves pilot project within the Bureau of Reclamation. It is intended to give local operators of federally-owned facilities the tools they need to maintain and improve aging water infrastructure in a timely manner. The bill simplifies the process for maintaining facilities by streamlining local operators' access to BOR funds to initiate extraordinary maintenance projects with extended repayment through a clearly defined application and review process. It also creates a revolving fund where Congress can direct appropriations and where repayment would come back to BOR for use on future extraordinary maintenance projects without further appropriations. It also ensures funding for key dam safety projects, raising the Safety of Dams program authorization by \$550M to better match the workload estimate. The Safety of Dams program helps fund major modifications to dams structural integrity. Further, the bill creates a Flood Control Rule Curves and Reservoir Operations Pilot Program which gives operators of eligible BOR projects and reservoirs more flexibility to temporarily store water in dedicated flood control space during certain low-risk times of the year.
Bill Number H.R. 3531 Bill Title Resilient Communities Act Passed (S/H) Bill Sponsor Rep. Graves, Sam [R-MO-6]	Date Introduced 6/27/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords HABs, drought, water conservation Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3531	Summary of Bill The bill would amend 42 U.S.C. 5131 to allow FEMA to provide capitalization grants to States to establish revolving funds for assistance to reduce harmful impacts from multiple hazards, including the protection of freshwater resources (chemical spills into reservoirs, algal blooms, hazardous pipelines through lakes or aquifers, etc.), stormwater management, water conservation plans for severe drought and other non-water hazards.
Bill Number H.R. 3521 Bill Title Wastewater Infrastructure Workforce Investment Act Passed (S/H) Bill Sponsor Rep. Stanton, Greg [D-AZ-9]	Date Introduced 6/26/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords Training Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3521	Summary of Bill Amends the CWA 104(g) to allow states to reserve up to 1% of sums allotted to the state each fiscal year to carry out workforce development, training, and retraining activities

Bill Number H.R. 3510 Bill Title Water Resources Research Amendment Act Passed (S/H) Bill Sponsor Rep. Harder, Josh [D-CA-10]	Date Introduced 6/26/2019 Assigned Committee(s) Natural Resources Hearing(s) 7/25/19: Subcommittee Hearings Held Co-sponsors 11 Democratic and 7 Republican Representatives, including AZ, CA, OK, TX, WA	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3510	Summary of Bill The bill would amend the Water Resources Research Act of 1984 to reauthorize grants for and require applied water supply research regarding the water resources research and technology institutes. It would modify the provision to explore new ideas from "water-related phenomena" to "water resources." It would authorize \$8.2M for each of FY2020 - FY2023, and an additional \$1.75M per fiscal year for research on water problems of an interstate nature.
Bill Number S. 1977 Bill Title Kickapoo Tribe in Kansas Water Rights Settlement Act Passed (S/H) Bill Sponsor Sen. Moran, Jerry [R-KS]	Date Introduced 6/26/2019 Assigned Committee(s) Indian Affairs Hearing(s) Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1977	Summary of Bill The bill would approve the Kickapoo Tribe Water Rights Settlement Agreement. It confirms a consumptive Tribal water right of up to 4,705 acre-feet of water per year to be used for any purpose, with an 1832 priority date. The bill also includes provisions for off-reservation uses, leases, allottees, the development and approval of a tribal water code. It directs the Secretary of Agriculture and NRCS to complete the watershed study authorized by the Senate EPW Committee in 1997 (Upper Delaware and Tributaries Watershed Plan)
Bill Number H.R. 3491 Bill Title Kickapoo Tribe in Kansas Water Rights Settlement Act Passed (S/H) Bill Sponsor Rep. Watkins, Steve [R-KS-2]	Date Introduced 6/25/2019 Assigned Committee(s) Natural Resources; Agriculture Hearing(s) Co-sponsors Rep. Davids, Sharice [D-KS-3]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3491	Summary of Bill The bill would approve the Kickapoo Tribe Water Rights Settlement Agreement. It confirms a consumptive Tribal water right of up to 4,705 acre-feet of water per year to be used for any purpose, with an 1832 priority date. The bill also includes provisions for off-reservation uses, leases, allottees, the development and approval of a tribal water code. It directs the Secretary of Agriculture and NRCS to complete the watershed study authorized by the Senate EPW Committee in 1997 (Upper Delaware and Tributaries Watershed Plan)
Bill Number S. 1932 Bill Title Drought Resiliency and Water Supply Infrastructure Act Passed (S/H) Bill Sponsor Sen. Gardner, Cory [R-CO]	Date Introduced 6/20/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 7/18/19: Subcommittee hearing Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1932	Summary of Bill The bill supports water infrastructure in Reclamation States, building on the provisions of the Water Infrastructure Improvements for the Nation Act. It addresses federal and non-federal storage projects, and authorizes appropriations of \$670M from FY2020 - 2024. Additionally, projects are eligible for WIIN funds. It amends the Reclamation Wastewater and Groundwater Study and Facilities Act and Water Desalination Act to provide greater flexibility for prioritizing water reuse and desalination projects. It establishes a Reclamation Infrastructure Finance and Innovation pilot program. The bill also deauthorizes certain Title XVI water recycling projects that were authorized but no funding application was received as well as other criteria.

Bill Number H.R. 3363 Bill Title Sewage Treatment Overflow Prevention through Community Sanitation Outreach Act Passed (S/H) Bill Sponsor Rep. Moulton, Seth [D-MA-6]	Date Introduced 6/19/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords water quality Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3363	Summary of Bill The bill would amend the CWA to ensure that publicly owned treatment works monitor for and report sewer overflows
Bill Number S. 1875 Bill Title Aamodt Litigation Settlement Completion Act Passed (S/H) Bill Sponsor Sen. Udall, Tom [D-NM]	Date Introduced 6/18/2019 Assigned Committee(s) Indian Affairs Hearing(s) Co-sponsors Sen. Heinrich, Martin [D-NM]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1875	Summary of Bill The bill would amend the Aamodt Indian water rights settlement (PL 111-291), increasing the amount of funding available for construction costs of the Pueblo Water Facilities from \$106.4M to \$256.4M, and increasing funding for the regional water system from \$50M to \$200M
Bill Number H.R. 3292 Bill Title Aamodt Litigation Settlement Completion Act Passed (S/H) Bill Sponsor Rep. Lujan, Ben Ray [D-NM-3]	Date Introduced 6/14/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/26/19: Subcommittee hearing held Co-sponsors Rep. Haaland, Debra A. [D-NM-1]; Rep. Torres Small, Xochitl [D-NM-2]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3292	Summary of Bill The bill would amend the Aamodt Indian water rights settlement (PL 111-291), increasing the amount of funding available for construction costs of the Pueblo Water Facilities from \$106.4M to \$256.4M, and increasing funding for the regional water system from \$50M to \$200M
Bill Number H.R. 3254 Bill Title PIPE Act Passed (S/H) Bill Sponsor Rep. Delgado, Antonio [D-NY-19]	Date Introduced 6/13/2019 Assigned Committee(s) Transportation and Infrastructure; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3254	Summary of Bill Directs EPA to establish a discretionary grant program for state, tribal, and local drinking water and wastewater infrastructure projects, to help bring public water systems and POTWs into compliance with SDWA and CWA. Projects may be bundled, must comply with Davis-Bacon and Buy America requirements, and would be funded at \$500M/year from FY2020-29.

Bill Number S. 1837 Bill Title PIPE Act Passed (S/H) Bill Sponsor Sen. Gillibrand, Kirsten E. [D-NY]	Date Introduced 6/13/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1837	Summary of Bill Directs EPA to establish a discretionary grant program for state, tribal, and local drinking water and wastewater infrastructure projects, to help bring public water systems and POTWs into compliance with SDWA and CWA. Projects may be bundled, must comply with Davis-Bacon and Buy America requirements, and would be funded at \$500M/year from FY2020-29.
Bill Number S. 1811 Bill Title No title Passed (S/H) 7/10/19: Passed Senate by voice vote Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 6/12/2019 Assigned Committee(s) Environment and Public Works; Transportation and Infrastructure; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords WRDA Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1811	Summary of Bill The bill would make technical corrections to AWIA (2018)
Bill Number H.R. 3237 Bill Title Platte River Recovery Implementation Program Extension Act Passed (S/H) Bill Sponsor Rep. Neguse, Joe [D-CO-2]	Date Introduced 6/12/2019 Assigned Committee(s) Natural Resources Hearing(s) 7/25/2019: Subcommittee Hearings Held Co-sponsors 7 Republican and 3 Democratic co-sponsors from CO, NE, and WY	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3237	Summary of Bill Authorizes DOI to participate in the continued implementation of the Platte River Recovery Implementation Program First Increment Extension for threatened and endangered species in the Central and Lower Platte River Basin, together with states, other federal agencies, and other non-federal entities. The bill authorizes \$78M to carry out the project. The States' required half the program costs include contributions of \$28M, water and land, and in-kind goods or services. The bill itself does not create any federal water rights or grant water rights to federal entities. Any unused funds from one fiscal year would carry over to future fiscal years to implement projects and activities under the Program.

Bill Number H.R. 3204 Bill Title Nogales Wastewater Fairness Act Passed (S/H) Bill Sponsor Rep. Grijalva, Raul M. [D-AZ-3]	Date Introduced 6/11/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords water quality, international waters Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/3204	Summary of Bill The bill establishes responsibility for the International Outfall Interceptor and the Nogales International Wastewater Treatment Plant under the 2006 agreement between the US section of the International Boundary and Water Commission and the City of Nogales, AZ, ensuring that an equitable portion of the costs of operation and maintenance of the Nogales sanitation project contributed by the City should be based on the average daily volume of wastewater originating from the City. It also excludes the City from any obligation to contribute to the capital costs of repairing or upgrading the sanitation project under the 1953 Act (22 U.S. C. 277d–10 et seq.)
Bill Number S. 1783 Bill Title Nogales Wastewater Fairness Act Passed (S/H) Bill Sponsor Sen. McSally, Martha [R-AZ]	Date Introduced 6/11/2019 Assigned Committee(s) Foreign Relations Hearing(s) Co-sponsors	WSWC Keywords water quality, international waters Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1783	Summary of Bill The bill establishes responsibility for the International Outfall Interceptor and the Nogales International Wastewater Treatment Plant under the 2006 agreement between the US section of the International Boundary and Water Commission and the City of Nogales, AZ, ensuring that an equitable portion of the costs of operation and maintenance of the Nogales sanitation project contributed by the City should be based on the average daily volume of wastewater originating from the City. It also excludes the City from any obligation to contribute to the capital costs of repairing or upgrading the sanitation project under the 1953 Act (22 U.S. C. 277d–10 et seq.)
Bill Number S. 1689 Bill Title Water Infrastructure Funding Transfer Act Passed (S/H) 9/9/19: Passed Senate 9/27/19: Passed House 10/4/19: President Signed PL 116-63 Bill Sponsor Sen. Booker, Cory A. [D-NJ]	Date Introduced 5/23/2019 Assigned Committee(s) Environment and Public Works Hearing(s) 6/19/19: EPW reported favorably without amendment, Report No. 116-63; placed on calendar Co-sponsors	WSWC Keywords water quality, lead, SRFs Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1689	Summary of Bill The bill authorizes states, in consultation with the Environmental Protection Agency, to transfer up to 5% of available funds in the Clean Water State Revolving Fund (SRF) to the Drinking Water SRF if “necessary to address a threat to public health as a result of heightened exposure to lead in drinking water....” The funds would allow the states to provide an additional subsidy to eligible recipients in the form of principal forgiveness, negative interest loans, or grants. The legislation is intended to provide greater assistance to communities facing aging water infrastructure and drinking water supply problems.

Bill Number S. 1604 Bill Title Local Water Protection Act Passed (S/H) Bill Sponsor Sen. Klobuchar, Amy [D-MN]	Date Introduced 5/22/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords CWA 319 Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1604	Summary of Bill The bill would reauthorize the CWA 319 non-point source program, with \$200M for FY2020-24
Bill Number S. 1626 Bill Title Government Spectrum Valuation Act Passed (S/H) Bill Sponsor Sen. Lee, Mike [R-UT]	Date Introduced 5/22/2019 Assigned Committee(s) Commerce, Science, and Transportation Hearing(s) Co-sponsors	WSWC Keywords Data Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1626	Summary of Bill The bill would require the National Telecommunications and Information Administration (NITA) to estimate the value of the electromagnetic spectrum assigned or otherwise allocated to federal entities, between 3 kHz and 95 GHz. This would include a valuation of not only the 23.6-24 GHz bandwidth of potential concern now, but also the 1675-1710 MHz bandwidth of concern in 2010. The bill breaks the electromagnetic spectrum into three parts to be evaluated over the next three years, and every three years thereafter. The value of frequencies between 3 kHz and 33 GHz would be estimated within the first year. Subsection (d) directs NITA to base its estimate "...on the value that the electromagnetic spectrum would have if the spectrum were reallocated for the use with the highest potential value of licensed or unlicensed commercial wireless services that do not have access to that spectrum as of the date of the estimate." The bill indicates that NITA may consider both the spectrum needs of commercial interests and government capabilities, "preserving the spectrum access necessary to satisfy mission requirements and operations of Federal entities."
Bill Number S. 1565 Bill Title Corps of Engineers Flood Control Civilian Advisory Council Act Passed (S/H) Bill Sponsor Sen. Hawley, Josh [R-MO]	Date Introduced 5/21/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords Corps, Missouri River, flood control Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1565	Summary of Bill This bill establishes a Corps of Engineers Flood Control Civilian Advisory Council that includes 2 members from each state of MT, ND, SD, NE, IA, KS, and MO, as well as representatives from the agriculture industry, river commerce industry, and other related industries as determined by the President. The Council must make recommendations on how to prioritize flood control and navigation in the Missouri River Mainstem Reservoir System Master Water Control Manual.

Bill Number S. 1570 Bill Title Aquifer Recharge Flexibility Act Passed (S/H) Bill Sponsor Sen. Risch, James E. [R-ID]	Date Introduced 5/21/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 9/25/19: Committee ordered reported with amendment S.Rpt. 116-155 10/29/19: Placed on Senate Calendar Co-sponsors	WSWC Keywords Reclamation, aquifer recharge Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1570	Summary of Bill The bill would authorize the use of Reclamation conveyance facilities for the carriage of non-Reclamation water for aquifer recharge projects as long as it is not detrimental to any water or power service contracts or existing obligations to fish, wildlife, or water quality protection. It also allows holders of Reclamation water service contracts to directly use water available under the contract for aquifer recharge on eligible land, or to enter into an agreement to transfer available water for aquifer recharge, as long as it is not detrimental to any Reclamation water or power service and it results in a net water storage benefit for the Reclamation project, contributes to the recharge of a depleted aquifer on eligible land, and complies with all applicable state and federal laws and policies. The bill would not apply to California.
Bill Number H.R. 2871 Bill Title Aquifer Recharge Flexibility Act Passed (S/H) Bill Sponsor Rep. Fulcher, Russ [R-ID-1]	Date Introduced 5/21/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/25/20: Subcommittee hearings held Co-sponsors	WSWC Keywords Reclamation, aquifer recharge Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2871	Summary of Bill The bill would authorize the use of Reclamation conveyance facilities for the carriage of non-Reclamation water for aquifer recharge projects as long as it is not detrimental to any water or power service contracts or existing obligations to fish, wildlife, or water quality protection. It also allows holders of Reclamation water service contracts to directly use water available under the contract for aquifer recharge on eligible land, or to enter into an agreement to transfer available water for aquifer recharge, as long as it is not detrimental to any Reclamation water or power service and it results in a net water storage benefit for the Reclamation project, contributes to the recharge of a depleted aquifer on eligible land, and complies with all applicable state and federal laws and policies. The bill would not apply to California.
Bill Number H.R. 2800 Bill Title PFAS Monitoring Act Passed (S/H) Bill Sponsor Rep. Slotkin, Elissa [D-MI-8]	Date Introduced 5/16/2019 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2800	Summary of Bill The bill authorizes \$10M a year for FY2021-31 and directs EPA to continue and expand monitoring of perfluoroalkyl and polyfluoroalkyl substances in drinking water

Bill Number H.R. 2705 Bill Title Water Infrastructure Trust Fund Act Passed (S/H) Bill Sponsor Rep. Blumenauer, Earl [D-OR-3]	Date Introduced 5/15/2019 Assigned Committee(s) Transportation and Infrastructure; Ways and Means; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords SRFs Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2705	Summary of Bill The bill would establish a Water Infrastructure Trust Fund in the Treasury, with half the amount made available to EPA for CWA SRFs and the other half for SDWA SRFS, when the appropriations for capitalization grants drop below a running 5-fiscal-year average. The bill also mandates an EPA study on the affordability gap faced by low-income populations located in urban and rural areas in obtaining services from clean water and drinking water systems.
Bill Number H.R. 2776 Bill Title Stop Sewage Overflow Act Passed (S/H) Bill Sponsor Rep. Trahan, Lori [D-MA-3]	Date Introduced 5/15/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords water quality Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2776	Summary of Bill Amends municipal eligibility for CWA 221 grants, adjusting the federal cost share on the basis of the percentage of household income spent on sewer service and including in the priorities municipalities with high levels of sewage in their rivers. Also increases the authorized funding from \$225M to \$500M/year, and extends authorization through FY2030.
Bill Number H.R. 2741 Bill Title Leading Infrastructure for Tomorrow's America Act Passed (S/H) Bill Sponsor Rep. Pallone, Frank, Jr. [D-NJ-6]	Date Introduced 5/15/2019 Assigned Committee(s) Energy and Commerce; Natural Resources; Science, Space, and Technology; Ways and Means; Transportation and Infrastructure; Education and Labor Hearing(s) Co-sponsors	WSWC Keywords PFAS, SRFs, SDWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2741	Summary of Bill To rebuild and modernize the Nation's infrastructure (broadband, energy, health care) -- includes drinking water infrastructure grants to address PFAS contaminants and treatment technologies. It also continues funding and authorization for SDWA SRFs (\$4.1B FY22; \$4.8B FY23; \$5.5B FY24); for the Indian Reservation Drinking Water Program through FY24 (AWIA 1464(d)(8)); technical assistance and grants under SDWA 1433(g)(6); and grants for SDWA 1452(a)(4)(A).
Bill Number S. 1473 Bill Title Protect Drinking Water from PFAS Act Passed (S/H) Bill Sponsor Sen. Gillibrand, Kirsten E. [D-NY]	Date Introduced 5/15/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1473	Summary of Bill Directs EPA to set maximum contaminant level and promulgate a national primary drinking water regulation for perfluoroalkyl and polyfluoroalkyl substances.

Bill Number H.R. 2718 Bill Title Preventing Pollution through Partnerships (P3) Act Passed (S/H) Bill Sponsor Rep. Kilmer, Derek [D-WA-6]	Date Introduced 5/14/2019 Assigned Committee(s) Ways and Means Hearing(s) Co-sponsors	WSWC Keywords nonpoint source, infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2718	Summary of Bill This bill allows state and local governments to issue green infrastructure bonds as tax-exempt private activity bonds. The bonds are not subject to the state volume caps that apply to certain tax-exempt private activity bonds, and 95% or more of the net proceeds must be used to develop, carry out, or certify approve projects that preserve, enhance, or mimic natural infiltration, evapotranspiration, or capture of storm water and effectively address nonpoint source pollution
Bill Number H.R. 2665 Bill Title Smart Energy and Water Efficiency Act Passed (S/H) Bill Sponsor Rep. McNerney, Jerry [D-CA-9]	Date Introduced 5/10/2019 Assigned Committee(s) Energy and Commerce; Natural Resources; Transportation and Infrastructure Hearing(s) 7/17/19: Committee ordered reported with amendment Co-sponsors	WSWC Keywords Water-energy nexus Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2665	Summary of Bill The bill directs DOE to establish a smart energy and water efficiency program, to award grants to eligible entities to carry out projects that implement advanced and innovative technology-based solutions that will improve the energy or water efficiency of water, wastewater, or water reuse systems to (A) help eligible entities make significant progress in conserving water, conserving energy, or reducing the operating costs of such systems; (B) support the implementation of innovative processes or the installation of advanced automated systems that provide real-time data on energy and water; or (C) improve predictive maintenance of water, wastewater, or water reuse systems through the use of Internet-connected technologies, such as sensors, intelligent gateways, or security embedded in hardware.
Bill Number H.R. 2626 Bill Title PFAS Accountability Act Passed (S/H) Bill Sponsor Rep. Upton, Fred [R-MI-6]	Date Introduced 5/9/2019 Assigned Committee(s) Energy and Commerce; Transportation and Infrastructure; Natural Resources Hearing(s) 6/26/19: T&I ordered reported 9/26/19: Subcommittee markup, forwarded to Energy and Commerce Committee Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2626	Summary of Bill To encourage Federal agencies to expeditiously enter into or amend cooperative agreements with States for removal and remedial actions to address PFAS contamination in drinking, surface, and ground water and land surface and subsurface strata

Bill Number H.R. 2579 Bill Title Hardrock Leasing and Reclamation Act Passed (S/H) Bill Sponsor Rep. Grijalva, Raul M. [D-AZ-3]	Date Introduced 5/8/2019 Assigned Committee(s) Natural Resources Hearing(s) 5/9/19: Subcommittee hearing held 10/23/19: Committee passed 21-13, ordered reported; H. Rept 116-467 8/4/20: Placed on House calendar Co-sponsors	WSWC Keywords abandoned mines, water quality Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2579	Summary of Bill The bill would repeal the claim-staking and patenting system, requiring permits and payment of royalties for miner access to public lands. It would create a fund to reclaim and restore abandoned mines and areas impacted by mining activities. The fund would be used in part to prevent, abate, treat, and control water pollution created by abandoned mine drainage, including activities conducted in watersheds.
Bill Number H.R. 2570 Bill Title PFAS User Fee Act Passed (S/H) Bill Sponsor Rep. Rouda, Harley [D-CA-48]	Date Introduced 5/8/2019 Assigned Committee(s) Energy and Commerce; Transportation and Infrastructure Hearing(s) 5/13/19: Subcommittee hearing 9/26/19: Subcommittee markup, forward to Committee Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2570	Summary of Bill To ensure that polluters pay ongoing water treatment costs associated with contamination from perfluoroalkyl and polyfluoroalkyl substances
Bill Number S.1372 Bill Title PFAS Accountability Act Passed (S/H) Bill Sponsor Sen. Stabenow, Debbie [D-MI]	Date Introduced 5/8/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1372	Summary of Bill To encourage Federal agencies to expeditiously enter into or amend cooperative agreements with States for removal and remedial actions to address PFAS contamination in drinking, surface, and ground water and land surface and subsurface strata

Bill Number H.R. 2533 Bill Title Providing Financial Assistance for Safe Drinking Water Act Passed (S/H) Bill Sponsor Rep. Pallone, Frank, Jr. [D-NJ-6]	Date Introduced 5/7/2019 Assigned Committee(s) Energy and Commerce Hearing(s) 5/15/19: Subcommittee hearing 9/26/19: Subcommittee markup and forward to Committee Co-sponsors Rep. Kim, Andy [D-NJ-3]	WSWC Keywords water quality, PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2533	Summary of Bill EPA shall establish a program to award grants to community water systems affected by PFAS contamination to pay for capital costs associated with the implementation of eligible treatment technologies
Bill Number S. 1386 Bill Title Hardrock Mining and Reclamation Act Passed (S/H) Bill Sponsor Sen. Udall, Tom [D-NM]	Date Introduced 5/5/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords abandoned mines, water quality Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1386	Summary of Bill The bill would repeal the claim-staking and patenting system, requiring permits and payment of royalties for miner access to public lands. It would establish strong reclamation standards and bonding requirements and create a fund to reclaim and restore abandoned mines and areas impacted by mining activities. The fund would be used in part to prevent, abate, treat, and control water pollution created by abandoned mine drainage, including activities conducted in watersheds. States with approved programs would be eligible for a portion of the fund for reclamation and restoration activities, and grants would be authorized to public entities and nonprofit organizations to carry out collaborative restoration projects to improve water quality and fish and wildlife habitat affected by past hardrock minerals and mining activities.
Bill Number H.R. 2470 Bill Title Clean Water Infrastructure Resilience and Sustainability Act Passed (S/H) Bill Sponsor Rep. Carbajal, Salud O. [D-CA-24]	Date Introduced 5/2/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords POTWs, infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2470	Summary of Bill Directs EPA to establish a program to make grants to eligible entities to increase the resilience of publicly owned treatment works to natural disasters, through water conservation, water use efficiency, watershed protection, green infrastructure, reclamation and reuse, aquifer recharge, modification or relocation of POTWs, and improved energy efficiency or use of renewable energy.
Bill Number S.1277 Bill Title Hualapai Tribe Water Rights Settlement Act Passed (S/H) Bill Sponsor Sen. McCally, Martha [R-AZ]	Date Introduced 5/1/2019 Assigned Committee(s) Indian Affairs Hearing(s) Co-sponsors Sen. Sinema, Kyrsten [D-AZ]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1277	Summary of Bill The bill will ratify the water rights settlement agreement negotiated between the tribe, the State of Arizona, the United States, and others. The settlement quantifies the tribe's right to water in the Colorado, Bill Williams, and Verde River basins. The Hualapai Water Project would be designed and constructed by the Bureau of Reclamation to convey no less than 3,414 acre-feet per year from the Colorado River, and title to the project would be transferred to the tribe. The bills authorize technical assistance of \$2M, with \$134M for construction of the water project, and \$32M for operation and maintenance.

Bill Number H.R. 2459 Bill Title Hualapai Tribe Water Rights Settlement Act Passed (S/H) Bill Sponsor Rep. O'Halleran, Tom [D-AZ-1]	Date Introduced 5/1/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/26/19: Subcommittee hearings held Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2459	Summary of Bill The bill will ratify the water rights settlement agreement negotiated between the tribe, the State of Arizona, the United States, and others. The settlement quantifies the tribe's right to water in the Colorado, Bill Williams, and Verde River basins. The Hualapai Water Project would be designed and constructed by the Bureau of Reclamation to convey no less than 3,414 acre-feet per year from the Colorado River, and title to the project would be transferred to the tribe. The bills authorize technical assistance of \$2M, with \$134M for construction of the water project, and \$32M for operation and maintenance.
Bill Number S. 1251 Bill Title Safe Drinking Water Assistance Act Passed (S/H) Bill Sponsor Sen. Shaheen, Jeanne [D-NH]	Date Introduced 4/30/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords emerging contaminants Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1251	Summary of Bill To improve and coordinate interagency Federal (EPA, USGS, HHS et al.) actions and provide assistance to States for responding to public health challenges posed by emerging contaminants. Would establish a workgroup and a research plan, with grants for research proposals from eligible entities, including states and local agencies. The bill would also provide technical assistance and support for states for emerging contaminants in drinking water samples.
Bill Number H.R.2377 Bill Title Protect Drinking Water from PFAS Act Passed (S/H) Bill Sponsor Rep. Boyle, Brendan F. [D-PA]	Date Introduced 4/29/2019 Assigned Committee(s) Energy and Commerce Hearing(s) 5/15/19: Subcommittee hearing 9/26/19: Subcommittee markup, forwarded to Committee Co-sponsors 25 Democrat and 1 Republican co-sponsors	WSWC Keywords water quality, PFAS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2377	Summary of Bill Requires EPA to address the level of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in drinking water. Specifically, the EPA must publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for total PFAS. PFAS are man-made chemicals that may lead to adverse human health effects.

Bill Number S. 1207 Bill Title Navajo Utah Water Rights Settlement Act Passed (S/H) Bill Sponsor Sen. Romney, Mitt [R-UT]	Date Introduced 4/11/2019 Assigned Committee(s) Indian Affairs Hearing(s) 5/15/19: Indian Affairs ordered reported without amendment favorably; S. Rept 116-79 9/9/19: Placed on Senate calendar Co-sponsors Sen. Sinema, Kyrsten [D-AZ], Sen. McCrory, Robert [R-NC]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1207	Summary of Bill To approve the settlement of the water rights claims of the Navajo Nation in Utah
Bill Number H.R. 2205 Bill Title Water Quality Certification Improvement Act Passed (S/H) Bill Sponsor Rep. McKinley, David B. [R-WV-1]	Date Introduced 4/11/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors 6 Republican co-sponsors, including CA, MT, OK, and WY	WSWC Keywords CWA 401 Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2205	Summary of Bill Would amend CWA 401 to limit the scope of state certifications of federally-permitted projects to the provisions of CWA 301, 302, 303, 306, 307, and for discharges to navigable waters. It would also limit the time for a state to request additional materials or information to 90 days.
Bill Number S. 1087 Bill Title Water Quality Certification Improvement Act Passed (S/H) Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 4/9/2019 Assigned Committee(s) Environment and Public Works Hearing(s) 11/19/19: Committee hearing Co-sponsors 5 Republican co-sponsors, including MT, ND, OK, and WY	WSWC Keywords CWA 401 Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1087	Summary of Bill Would amend CWA 401 to limit the scope of state certifications of federally-permitted projects to the provisions of CWA 301, 302, 303, 306, 307, and for discharges to navigable waters. It would also limit the time for a state to request additional materials or information to 90 days.

Bill Number H.R. 2174 Bill Title No title Passed (S/H) Bill Sponsor Rep. Graves, Sam [R-MO-6]	Date Introduced 4/9/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors 5 Republican co-sponsors from MO and IA	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2174	Summary of Bill To remove fish and wildlife as an authorized purpose of the Missouri River Mainstem Reservoir System and to make flood control the highest priority of the authorized purposes at all times.
Bill Number S. 1050 Bill Title No title Passed (S/H) Bill Sponsor Sen. Cornyn, John [R-TX]	Date Introduced 4/4/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors 4 Republican co-sponsors from AK, NE, and TX	WSWC Keywords CWA 404 Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/1050	Summary of Bill The bill would open up state assumption of permitting authority for dredge and fill materials under CWA 404 (g) to allow state departments of transportation to assume that responsibility with respect to highway projects.
Bill Number H.R. 2019 Bill Title Smart Energy and Water Efficiency Act Passed (S/H) Bill Sponsor Rep. McNerney, Jerry [D-CA-9]	Date Introduced 4/2/2019 Assigned Committee(s) Science, Space, and Technology Hearing(s) Co-sponsors	WSWC Keywords Water-energy nexus Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/2019	Summary of Bill The bill would establish a pilot program for 3-5 projects (\$15M) that increase and improve the energy efficiency of water, wastewater, and water reuse systems to help communities across the United States make significant progress in conserving water, saving energy, and reducing costs through the use of internet-connected technologies, including sensors, intelligent gateways, and security embedded in hardware.

Bill Number S.990 Bill Title Platte River Recovery Implementation Program Extension Act Passed (S/H) Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 4/2/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 9/25/19: Committee ordered reported without amendment. S.Rpt. 116-146 10/24/19: Placed on Senate Calendar Co-sponsors 3 Republican and 1 Democrat co-sponsor, from CO, NE, and WY	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/990	Summary of Bill Authorizes DOI to participate in the continued implementation of the Platte River Recovery Implementation Program First Increment Extension for threatened and endangered species in the Central and Lower Platte River Basin, together with states, other federal agencies, and other non-federal entities. The bill authorizes \$78M to carry out the project. The States' required half the program costs include contributions of \$28M, water and land, and in-kind goods or services. The bill itself does not create any federal water rights or grant water rights to federal entities. Any unused funds from one fiscal year would carry over to future fiscal years to implement projects and activities under the Program.
Bill Number H.R. 1976 Bill Title PFAS Detection Act Passed (S/H) Bill Sponsor Rep. Kildee, Daniel T. [D-MI-5]	Date Introduced 3/28/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/13/19: Subcommittee hearing Co-sponsors	WSWC Keywords water quality, PFAS, USGS Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1976	Summary of Bill This bill requires the Department of the Interior to carry out the Colorado River Drought Contingency Plan which was submitted to Congress on March 19, 2019, by Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. Interior must execute the plan without delay and operate applicable Colorado River System reservoirs accordingly.
Bill Number S. 950 Bill Title PFAS Detection Act Passed (S/H) Bill Sponsor Sen. Stabenow, Debbie [D-MI]	Date Introduced 3/28/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords water quality, PFAS, USGS Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/950	Summary of Bill The bill directs USGS to perform a nationwide survey of perfluorinated compounds, establish a performance standard for the detection of the compounds for accurate sampling and testing, and collaborate with state and federal regulators, institutions of higher education, research institutions, and other expert stakeholders. The bill authorizes \$5M for FY2020, and \$10M each year from FY2021-24.

Bill Number S. 886 Bill Title Indian Water Rights Settlement Extension Act Passed (S/H) 6/4/20: Passed Senate (guttled and amended with alt. tribal water rights bills' language - Navajo, Aamodt, Kickapoo) Bill Sponsor Sen. Udall, Tom [D-NM]	Date Introduced 3/27/2019 Assigned Committee(s) Indian Affairs Hearing(s) 7/17/19: Hearing held; ordered reported with an amendment S.Rpt. 116-189 10/4/19: CBO report issued 12/19/19: Placed on Senate Calendar 6/15/20: Received in the House Co-sponsors Sen. Heinrich, Martin [D-NM], Sen. Cortez Masto, Catherine [D-NV]	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/886	Summary of Bill The bill would extend the Reclamation Water Settlements Fund by ten years transferring \$120M each fiscal year from the Reclamation Fund. It would increase the maximum authorized amount available to implement the Aamodt Water Settlement by \$137 million plus expected inflation (for a total of \$157M). Section 2 limits the amount that the Secretary of the Interior may spend on any one settlement to \$90M in a single fiscal year (from FY30-44), unless the expenditure of more funds would not adversely affect the implementation of other congressionally-approved settlement agreements. The authorizing language is modified to shift away from the requirements that (1) the settlement resolve litigation, or (2) involve Bureau of Reclamation water infrastructure projects, allowing more flexibility for settlements initiated without litigation and involving non-Reclamation water infrastructure projects. It specifies that the settlement must involve claims concerning Indian water resources. Section 2 also makes adjustments to the settlement priorities for Arizona in 43 U.S. C. 407(c)(3)(B)(iv). It provides that if the Navajo Nation's water rights claims in the Lower Colorado River Basin in Arizona are not resolved and a settlement approved by Congress by the end of 2021, the amounts reserved for that settlement will be deposited instead into the Lower Colorado River Basin Development Fund, with 65% of the funds deposited into the Future Indian Water Settlement Subaccount. Section 4 directs the Secretaries of Agriculture and the Interior (SIWRO) to commence a study of the multipurpose dam described in the Upper Delaware and Tributaries Watershed Plan to determine how to effectuate the relevant portion of the 2016 Kickapoo Tribe Water Rights Settlement Agreement.
Bill Number H.R. 1904 Bill Title Indian Water Rights Settlement Extension Act Passed (S/H) 7/30/20: Passed Senate with amendment by unanimous consent Bill Sponsor Rep. Grijalva, Raul M. [D-AZ-3]	Date Introduced 3/27/2019 Assigned Committee(s) Natural Resources Hearing(s) 4/4/19: Hearing held 2/12/20: Committee passed 22-14, ordered reported with an amendment; H.Rept. 116-440 7/9/20: Placed on the House calendar Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1904	Summary of Bill The bill would amend the Omnibus Public Land Management Act of 2009 to make the Reclamation Water Settlements Fund permanent.

Bill Number S. 914 Bill Title Coordinated Ocean Observations and Research Act Passed (S/H) 7/30/20: Passed Senate with amendment by unanimous consent Bill Sponsor Sen. Wicker, Roger F. [R-MS]	Date Introduced 3/27/2019 Assigned Committee(s) Commerce, Science, and Transportation Hearing(s) 4/3/19: Committee ordered reported without amendment S.Rpt. 116-68 12/5/19: Placed on Senate Calendar 8/7/20: Received in the House Co-sponsors	WSWC Keywords NOAA, water forecasts Congress.gov Link	Summary of Bill To reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, to clarify the authority of the Administrator of the National Oceanic and Atmospheric Administration with respect to post-storm assessments, and to require the establishment of a National Water Center. The bill would establish and sustain a national integrated System of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components coordinated at the national level by the Council and at the regional level by a network of regional coastal observing systems, and that includes in situ, remote, and other coastal and ocean observation and modeling capabilities, technologies, data management systems, communication systems, and product development systems, and is designed to address regional and national needs for ocean and coastal information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data. The bill would also establish a National Water Center under NOAA, to (1) improve understanding of water resources, stakeholder needs regarding water resources, and identifying science and service gaps relating to water resources; (2) develop and implement advance water resources modeling capabilities; (3) facilitate the transition of hydrologic research into operations; (4) deliver analyses, forecasts, and inundation information and guidance for all hydrologic events in the U.S., including flash flooding, riverine flooding, and water resource outlooks; and (5) coordinate with meteorologists to provide decision-support services for emergency management and water resources decisions. The National Water Center will work in cooperation with the National Weather Service offices (National Centers for Environmental Prediction, River Forecast Centers, and Weather Forecast Offices). NOAA is also directed to initiate and lead research and development activities (Total Water Prediction) to develop operational water resource prediction and related decision support products, providing information to relevant federal agencies, state water resource agencies, and state and local emergency management agencies.
Bill Number H.R. 1764 Bill Title No title Passed (S/H) Bill Sponsor Rep. Garamendi, John [D-CA-3]	Date Introduced 3/14/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords NPDES Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1764	Summary of Bill The bill would amend the terms of NPDES permits to 10 years for permits issued to states or municipalities, and 5 years for permits issued to others.
Bill Number H.R. 1621 Bill Title Water Supply Permitting Coordination Act Passed (S/H) Bill Sponsor Rep. McClintock, Tom [R-CA-4]	Date Introduced 3/7/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1621	Summary of Bill To authorize 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. States may choose to participate as a cooperating agency and make all state agencies and their reviews subject to this coordinated permitting process.

Bill Number H.R. 1497 Bill Title Water Quality Protection and Job Creation Act Passed (S/H) Bill Sponsor Rep. DeFazio, Peter A. [D-OR-4]	Date Introduced 3/5/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) 10/29/19: Committee ordered reported with an amendment 9/4/20: Placed on the House calendar Co-sponsors 53 Democratic and 4 Republican co-sponsors	WSWC Keywords CWA, SRFs Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1497	Summary of Bill The bill reauthorizes several CWA programs and funding through FY2024: State management assistance under CWA 106 (\$300M/yr); watershed pilot projects under CWA 122 (\$120M/yr); pilot program for alternative water source projects under CWA 220 (\$75M/yr); and CWA SRFs (\$4B/yr)
Bill Number S. 611 Bill Title Water Affordability, Transparency, Equity, and Reliability Act Passed (S/H) Bill Sponsor Sen. Sanders, Bernard [I-VT]	Date Introduced 2/28/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors 3 Democratic co-sponsors in OR and CT	WSWC Keywords SRFs, infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/611	Summary of Bill The bill would authorize funds for water and sewer infrastructure: grant programs would be funded at \$174M for CWA 104(b)(8); \$522M for CWA 106; \$871M for CWA 222; \$871M for CWA 319; and \$15.7B for capitalization grants under CWA 601, with \$18B to be transferred from Treasury on Oct 1 each year. For technical assistance, \$174M for SDWA 1442(e); for capitalization grants, \$15.1B for SDWA 1452; and \$1B for grants under SDWA 1465, with \$16B to be transferred each Oct 1. For household well systems, \$348M for grants under the Consolidated Farm and Rural Development Act 306E. For technical assistance to rural, small municipalities, and tribal governments, \$175M for CWA 104(u)(7). For State Revolving Funds, the bill would prohibit the use of funds for new communities other than advanced decentralized wastewater systems. The bill also requires the use of American materials in drinking water infrastructure, and addresses labor agreements that use SRFs.
Bill Number H.R. 1429 Bill Title Drinking Water Infrastructure for Job Creation Act Passed (S/H) Bill Sponsor Rep. Waters, Maxine [D-CA-43]	Date Introduced 2/28/2019 Assigned Committee(s) Appropriations Hearing(s) Co-sponsors	WSWC Keywords SDWA, STAG Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1429	Summary of Bill The bill would provide a supplemental FY2019 appropriation of \$7.5B for State and Tribal Assistance Grants under SDWA 1452, to remain available until Sept 2024.
Bill Number H.R. 1334 Bill Title Outdoor Recreation Legacy Partnership Grant Program Act Passed (S/H) Bill Sponsor Rep. Barragan, Nanette Diaz [D-CA-44]	Date Introduced 2/25/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords Federal water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1334	Summary of Bill To provide grants for projects to acquire land and water for parks and other outdoor recreation purposes and to develop new or renovate existing outdoor recreation facilities.

Bill Number H.R. 1331 Bill Title Local Water Protection Act Passed (S/H) 4/8/19: Passed House 239-56 Bill Sponsor Rep. Craig, Angie [D-MN-2]	Date Introduced 2/25/2019 Assigned Committee(s) Transportation and Infrastructure; Environment and Public Works Hearing(s) H.Rpt 116-36 Co-sponsors	WSWC Keywords CWA, nonpoint source Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1331	Summary of Bill Would amend the CWA to reauthorize certain programs relating to nonpoint source management
Bill Number H.R. 1268 Bill Title Bureau of Reclamation Transparency Act Passed (S/H) Bill Sponsor Rep. Gosar, Paul A. [R-AZ-4]	Date Introduced 2/14/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors 16 Republican and 6 Democratic co-sponsors, including AZ, CA, CO, WA, MT, OK, TX	WSWC Keywords infrastructure, Reclamation Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1268	Summary of Bill Directs DOI to submit to Congress a report on the efforts of the Bureau of Reclamation to manage its infrastructure assets.
Bill Number H.R. 1159 Bill Title IMAGINE Act Passed (S/H) Bill Sponsor Rep. Cicilline, David N. [D-RI-1]	Date Introduced 2/13/2019 Assigned Committee(s) Transportation and Infrastructure; Science, Space, and Technology; Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1159	Summary of Bill Section 4 establishes an Interagency Innovative Materials Standards Task Force composed of the heads of federal agencies responsible for significant civil infrastructure projects (including EPA and the Corps), with the purpose of establishing standards for innovative materials. Section 8 directs EPA to establish a Water Infrastructure Innovation Program (\$65M) to provide grants for projects (wastewater transport and treatment systems and drinking water treatment and distribution systems) that use innovative materials to reduce costs of operation and preservation, extending the life of installed structures.

Bill Number H.R. 1162 Bill Title Water Recycling Investment and Improvement Act Passed (S/H) Bill Sponsor Rep. Napolitano, Grace F. [D-CA-32]	Date Introduced 2/13/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/13/19: Subcommittee hearings held 3/11/20: Ordered reported, amended; 19-12 Co-sponsors	WSWC Keywords reuse Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1162	Summary of Bill To establish a competitive grant program for the funding of water recycling and reuse projects. Amends 43 USC 390h, the Reclamation Wastewater and Groundwater Study and Facilities Act, to establish criteria that prioritizes projects that are regional, have multiple stakeholders, provide multiple benefits, provide more reliable water supply for States and local governments, and increase water management flexibility and reduce impacts on environmental resources from State/Federal projects. It would also increase authorized funds from \$50M to \$500M.
Bill Number H.R. 1137 Bill Title No title Passed (S/H) Bill Sponsor Rep. Garamendi, John [D-CA-3]	Date Introduced 2/11/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords WRDA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1137	Summary of Bill To repeal the authority relating to reprogramming during national emergencies under WRDA (1986) Section 923
Bill Number H.R. 1132 Bill Title San Francisco Bay Restoration Act Passed (S/H) 2/5/20: House passed by voice vote Bill Sponsor Rep. Speier, Jackie [D-CA-14]	Date Introduced 2/8/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) 9/19/19: Committee ordered reported with amendment 116-304 Co-sponsors	WSWC Keywords CWA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1132	Summary of Bill Would amend the CWA to establish a grant program (up to 75% federal cost-share) to support the restoration of San Francisco Bay. The bill authorizes \$25M for the program from 2020-2024.
Bill Number S. 403 Bill Title IMAGINE Act Passed (S/H) Bill Sponsor Sen. Whitehouse, Sheldon [D-RI]	Date Introduced 2/7/2019 Assigned Committee(s) Environment and Public Works Hearing(s) Co-sponsors	WSWC Keywords infrastructure Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/403	Summary of Bill Section 4 establishes an Interagency Innovative Materials Standards Task Force composed of the heads of federal agencies responsible for significant civil infrastructure projects (including EPA and the Corps), with the purpose of establishing standards for innovative materials. Section 8 directs EPA to establish a Water Infrastructure Innovation Program (\$65M) to provide grants for projects (wastewater transport and treatment systems and drinking water treatment and distribution systems) that use innovative materials to reduce costs of operation and preservation, extending the life of installed structures.

Bill Number H.R. 1048 Bill Title Yakima River Basin Water Enhancement Project Phase III Act Passed (S/H) Bill Sponsor Rep. Newhouse, Dan [R-WA-4]	Date Introduced 2/7/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/1048	Summary of Bill To authorize phase III of the Yakima River Basin Water Enhancement Project
Bill Number H.R. 892 Bill Title No title Passed (S/H) Bill Sponsor Rep. Hunter, Duncan D. [R-CA-50]	Date Introduced 2/7/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA, litigation Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/892	Summary of Bill Would amend the CWA citizen suit provision (33 USC 1365) to limit the award of litigation costs, would define "diligent prosecution" of administrative penalties (33 USC 1319(g)(6)), and would add a new section of affirmative defenses for unlawful discharges of pollutants (33 USC 1319).
Bill Number S. 334 Bill Title Clean Water for Rural Communities Act Passed (S/H) Bill Sponsor Sen. Daines, Steve [R-MT]	Date Introduced 2/5/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) 9/25/19: Committee ordered reported without amendment H.Rpt. 116-133 10/22/19: Placed on Union Calendar Co-sponsors	WSWC Keywords Rural water projects Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/334	Summary of Bill To authorize the construction of the Musselshell-Judith Rural Water System and study of the Dry-Redwater Regional Water Authority System in the States of Montana and North Dakota
Bill Number H.R. 967 Bill Title Clean Water for Rural Communities Act Passed (S/H) Bill Sponsor Rep. Gianforte, Greg [R-MT-At Large]	Date Introduced 2/5/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/13/19: Subcommittee on Water, Oceans, and Wildlife held hearing Co-sponsors	WSWC Keywords Rural water projects Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/967	Summary of Bill To authorize the construction of the Musselshell-Judith Rural Water System and study of the Dry-Redwater Regional Water Authority System in the States of Montana and North Dakota

Bill Number H.R. 852 Bill Title Get the Lead Out of Schools Act Passed (S/H) Bill Sponsor Rep. Lawrence, Brenda L. [D-MI-14]	Date Introduced 1/29/2019 Assigned Committee(s) Energy and Commerce Hearing(s) Co-sponsors	WSWC Keywords SDWA, lead Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/852	Summary of Bill The bill would amend the Safe Drinking Water Act to address lead contamination in school drinking water. It would require EPA to establish a lead action level for schools and establish sampling and notification requirements. It establishes a grant program available to eligible entities to test for, and remediate, lead contamination in school drinking water.
Bill Number H.R. 843 Bill Title Reform EPA Act Passed (S/H) Bill Sponsor Rep. Gibbs, Bob [R-OH-7]	Date Introduced 1/29/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors	WSWC Keywords CWA 404, EPA veto Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/843	Summary of Bill The bill would amend the CWA 404(c) to clarify when the EPA Administrator has the authority prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, or deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site for dredge and fill permit applications filed with the Corps under Section 404(a). The bill would limit the timeframe to 30 days between when the Corps provides notice to EPA that the application has been processed and when the Corps issues the permit.
Bill Number H.R. 667 Bill Title Regulatory Certainty for Navigable Waters Act Passed (S/H) Bill Sponsor Rep. Herrera Beutler, Jaime [R-WA-3]	Date Introduced 1/17/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors Rep. Gibbs, Bob [R-OH-7]	WSWC Keywords WOTUS, CWA, jurisdictional determinations Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/667	Summary of Bill Would repeal the 2015 WOTUS Rule and amend the CWA to define "navigable waters" as (i) the territorial seas; (ii) interstate waters which used to transport interstate or foreign commerce; (iii) relatively permanent, standing, or continuously flowing streams, rivers, or lakes, that flow directly into waters described in clause (ii); or (iv) wetlands that have a continuous surface water connection to waters described in clause (ii) or (iii). Among the waters excluded from the term "navigable waters" are (i) intermittent or ephemeral waters; (ii) ground water or underground streams; (iii) any water that by itself does not meet the definition of navigable water; (iv) an intrastate water, unless meeting the definition of navigable water; (v) a man-made channel or ditch, including irrigation, distribution, and drainage systems; (vi) prior converted cropland; or (vii) waste and stormwater management systems. The bill also requires the Corps to make jurisdictional determinations for wetlands within 60 days upon the request of a permit, or the water will not be considered navigable for as long as the landowner retains the property. Determinations of jurisdiction would be binding only for five years, and would be subject to judicial review.
Bill Number H.R. 644 Bill Title Navajo Utah Water Rights Settlement Act Passed (S/H) Bill Sponsor Rep. Bishop, Rob [R-UT-1]	Date Introduced 1/17/2019 Assigned Committee(s) Natural Resources Hearing(s) 6/26/19: Subcommittee hearing held 2/12/20: Committee approved with amendment, ordered reported Co-sponsors	WSWC Keywords Indian water rights Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/644	Summary of Bill To approve the settlement of the water rights claims of the Navajo Nation in Utah

Bill Number H.R. 579 Bill Title Water Rights Protection Act Passed (S/H) Bill Sponsor Rep. Tipton, Scott R. [R-CO-3]	Date Introduced 1/15/2019 Assigned Committee(s) Natural Resources; Agriculture Hearing(s) Co-sponsors	WSWC Keywords Conditioning federal permits Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/579	Summary of Bill To prohibit the conditioning of any permit, lease, or other use agreement on the transfer of any water right to the United States by the Secretaries of the Interior and Agriculture
Bill Number H.R. 548 Bill Title FISH Act Passed (S/H) Bill Sponsor Rep. Calvert, Ken [R-CA-42]	Date Introduced 01/15/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords ESA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/548	Summary of Bill The bill would amend the Endangered Species Act with regard to fish that migrate between freshwater and ocean water. It would transfer responsibility over anadromous species and catadromous species from the Secretary of Commerce or the National Marine Fisheries Service to the Secretary of the Interior.
Bill Number H.R. 537 Bill Title Bureau of Reclamation Pumped Storage Hydropower Development Act Passed (S/H) Bill Sponsor Rep. Lamborn, Doug [R-CO-5]	Date Introduced 01/14/2019 Assigned Committee(s) Natural Resources Hearing(s) 12/5/19: Committee passed with amendment, ordered reported Co-sponsors	WSWC Keywords Hydropower Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/537	Summary of Bill The bill would amend the Reclamation Project Act 43 U.S.C. 485h(c)(1), which authorizes DOI to furnish water for irrigation and municipal supply while contracting incidental power generation to benefit the project's water users. The bill would add authorization for pumped storage hydropower development utilizing multiple Bureau of Reclamation reservoirs.
Bill Number H.R. 484 Bill Title No title Passed (S/H) Bill Sponsor Rep. Soto, Darren [D-FL-9]	Date Introduced 01/10/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors	WSWC Keywords fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/484	Summary of Bill Would amend the Mineral Leasing Act to authorize the DOI and BLM to regulate hydraulic fracturing operations on Federal lands. It would also amend the SDWA to exclude the underground injection of natural gas for purposes of storage from the definition of underground injection.

Bill Number H.R. 474 Bill Title Bolts Ditch Access and Use Act Passed (S/H) Bill Sponsor Rep. Neguse, Joe [D-CO-2]	Date Introduced 01/10/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/474	Summary of Bill To ensure adequate use and access to the existing Bolts Ditch headgate and ditch segment within the Holy Cross Wilderness in Eagle County, Colorado, for the purposes of the diversion of water and use, maintenance, and repair of such ditch and headgate by the Town of Minturn
Bill Number H.R. 462 Bill Title Everglades for the Next Generation Act Passed (S/H) Bill Sponsor Rep. Hastings, Alcee L. [D-FL-20]	Date Introduced 01/10/2019 Assigned Committee(s) Transportation and Infrastructure Hearing(s) Co-sponsors -	WSWC Keywords WRDA Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/462	Summary of Bill To amend the Water Resources Development Act of 2000 to provide for expedited project implementation relating to the comprehensive Everglades restoration plan.
Bill Number H.R. 436 Bill Title Fracking Disclosure and Safety Act Passed (S/H) Bill Sponsor Rep. Soto, Darren [D-FL-9]	Date Introduced 01/10/2019 Assigned Committee(s) Energy and Commerce; Transportation and Infrastructure; Natural Resources Hearing(s) Co-sponsors	WSWC Keywords fracking Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/436	Summary of Bill The bill directs DOI and BLM to issue regulations governing the use of hydraulic fracturing under oil and gas leases for Federal lands. The bill would reinstate the implementation of the 2015 Rule, "Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands," until a new rule can be promulgated. The bill also amends hydraulic fracturing-related provisions of the CWA, SDWA, Clean Air Act, and Solid Waste Disposal Act.
Bill Number H.R. 315 Bill Title Community Reclamation Partnerships Act Passed (S/H) 5/1//19: Committee ordered reported H.Rpt 116-104 2/25/20: Placed on Union Calendar Bill Sponsor Rep. LaHood, Darin [R-IL-18]	Date Introduced 1/8/2019 Assigned Committee(s) Natural Resources Hearing(s) #REF! Co-sponsors -	WSWC Keywords Mining reclamation Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/315	Summary of Bill To amend the Surface Mining Control and Reclamation Act of 1977 to authorize partnerships between States and nongovernmental entities for the purpose of reclaiming and restoring land and water resources adversely affected by coal mining activities before August 3, 1977

Bill Number S. 37 Bill Title Bolts Ditch Access and Use Act Passed (S/H) Bill Sponsor Sen. Gardner, Cory [R-CO]	Date Introduced 1/8/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors -	WSWC Keywords water resources Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/37	Summary of Bill To ensure adequate use and access to the existing Bolts Ditch headgate and ditch segment within the Holy Cross Wilderness in Eagle County, Colorado, for the purposes of the diversion of water and use, maintenance, and repair of such ditch and headgate by the Town of Minturn
Bill Number S. 40 Bill Title Bureau of Reclamation Transparency Act Passed (S/H) Bill Sponsor Sen. Barrasso, John [R-WY]	Date Introduced 1/8/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors -	WSWC Keywords infrastructure, Reclamation Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/40	Summary of Bill Directs DOI to submit to Congress a report on the efforts of the Bureau of Reclamation to manage its infrastructure assets.
Bill Number H.R. 346 Bill Title Red River Gradient Boundary Survey Act Passed (S/H) Bill Sponsor Rep. Thornberry, Mac [R-TX-13]	Date Introduced 1/8/2019 Assigned Committee(s) Natural Resources Hearing(s) Co-sponsors	WSWC Keywords water boundaries Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/346	Summary of Bill To survey the gradient boundary along the Red River in the States of Oklahoma and Texas
Bill Number S. 41 Bill Title Red River Gradient Boundary Survey Act Passed (S/H) Bill Sponsor Sen. Cornyn, John [R-TX]	Date Introduced 1/8/2019 Assigned Committee(s) Energy and Natural Resources Hearing(s) Co-sponsors -	WSWC Keywords water boundaries Congress.gov Link https://www.congress.gov/bill/116th-congress/senate-bill/41	Summary of Bill To survey the gradient boundary along the Red River in the States of Oklahoma and Texas

Bill Number H.R. 29 Bill Title Public Water Supply Invasive Species Compliance Act Passed (S/H) Bill Sponsor Rep. Gohmert, Louie [R-TX-1]	Date Introduced 01/03/2019 Assigned Committee(s) Natural Resources; Judiciary Hearing(s) Co-sponsors -	WSWC Keywords water transfers, water supply, invasive species Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/29	Summary of Bill Exempts certain water transfers between public water supplies in Texas, Arkansas, and Louisiana from prohibitions on illegal trade of plants and wildlife. Specifically, the prohibitions do not apply to covered water transfers containing a prohibited species if (1) the species are present in both public water supplies before the transfer and the water is transferred directly between them; or (2) the water is transferred in a closed conveyance system, such as a pipe system, and sent directly to treatment facilities where the species will be destroyed
Bill Number H.R. 34 Bill Title Energy and Water Research Integration Act Passed (S/H) Bill Sponsor Rep. Johnson, Eddie Bernice [D-TX-30]	Date Introduced 01/03/2019 Assigned Committee(s) Science, Space, and Technology; Energy and Natural Resources Hearing(s) 3/27/19: Subcommittee mark-up; 5/1/19: Committee mark-up and ordered to be reported by voice vote Co-sponsors -	WSWC Keywords Water-energy nexus, climate variability, water supply, reuse Congress.gov Link https://www.congress.gov/bill/116th-congress/house-bill/34	Summary of Bill Directs DOE to integrate water considerations into energy research, development, and demonstration programs, including minimizing freshwater withdrawal and consumption, increasing water use efficiency, utilizing nontraditional sources of water, considering the effects of climate variability on water supply and water quality for energy generation and fuel production, and improving understanding of the water-energy nexus.

**Litigation Update
194th WSWC Meeting
Virtual**

**Compiled By:
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This summary describes developments regarding notable litigation that pertains to WGA/WSWC policies or cases that are otherwise of interest. It focuses primarily on developments that have taken place since the beginning of 2019.

Case Name McGirt v. Oklahoma Case Number 18-9526 Court U.S. Supreme Court Relevant Dates 7/9/20: Ruling issued Related Cases Notes	Issues Tribal land, state jurisdiction The Supreme Court ruled 5-4 that nearly three million acres in eastern Oklahoma, which includes most of Tulsa, is tribal reservation land of the Muscogee (Creek) tribe, and not under the jurisdiction of the State of Oklahoma. The ruling concerned the case of Jimcy McGirt, a Native American who had been issued a life prison sentence in state courts for the sexual assault of a child on the contested lands. His appeal to the Supreme Court claimed that the State of Oklahoma did not have jurisdiction to prosecute him on the lands the crimes took place, and that he should instead be tried in a federal court. While not in direct relation to water resources issues, this ruling could affect water resources in Oklahoma and elsewhere in the West. Justice Gorsuch wrote the majority opinion, joined by the four liberal justices.
Case Name California et al. v. EPA Case Number 20-v-04869 Court U.S. District Court for Northern California Relevant Dates 7/21/20: Lawsuit filed Related Cases American Rivers et al. v EPA (#20-v-04636); Delaware Riverkeeper et al. v. EPA (#20-v-03412) Notes	Issues 401 Certification Twenty states, including California, Colorado, Nevada, New Mexico, Oregon and Washington, filed a complaint for declaratory and injunctive relief, challenging the CWA §401 Certification Rule. The complaint alleged APA deficiencies and argued that the new rule “upends fifty years of cooperative federalism by arbitrarily re-writing EPA’s existing water quality certification regulations to unlawfully curtail state authority under the [CWA].”
Case Name Arizona v International Boundary and Water Commission et al. Case Number 2012-008715 Court Maricopa County Superior Court Relevant Dates 6/30/20: Settlement agreement signed Related Cases Notes	Issues Water quality, wastewater In 2012, Arizona DEQ filed suit against USIBWC over Clean Water Act (CWA) violations. ADEQ alleged that USIBWC failed “to implement a program to keep industrial waste from entering domestic sewage, which resulted in illegal levels of cadmium, cyanide, and ammonia nitrogen entering Arizona.” (ADEQ Press Release, 5/25/2012). The recent settlement addresses the CWA compliance issues and provides a comprehensive plan to mitigate future discharges of untreated wastewater into the Nogales Wash and Santa Cruz River, including upgrades to the aging wastewater conveyance pipeline, known as the International Outfall Interceptor (IOI), between the U.S.-Mexico border and the Nogales International Wastewater Treatment Plant (NIWTP). It also contains provisions for improving protections for the IOI from stormwater and debris damage. The settlement includes funding of \$38.8M from federal, state and local sources, including USIBWC, the State of Arizona and ADEQ, EPA, and the Freeport McMoRan Foundation.

Case Name Wild Virginia et al. v. CEQ et al. Case Number 20-cv-00045 Court US District Court for the Western District of Virginia Relevant Dates Related Cases Notes	Issues NEPA Rule Requested that the court vacate the new NEPA regulation issued by the Council on Environmental Quality on July 15, 2020 for various violations of the Administrative Procedures Act and reinstate the 1978 NEPA regulations
Case Name Colorado v. EPA et al. Case Number 20-cv-01461 Court U.S. District Court for Colorado Relevant Dates 3/22/20: Lawsuit filed 6/1/20: Motion for Preliminary Injunction 6/19/20: Preliminary Injunction granted (CO only) 6/23/20: EPA/Corps appeal to 10th Cir. re: preliminary injunction 7/15/20: Motions to intervene granted (Sacketts, Business defendants) (they also subsequently appealed the preliminary injunction order) 7/20/20: Amended complaint against all defendants 8/3/20: Answers to amended complaint filed 9/2/20: Administrative record filed Related Cases Notes	Issues WOTUS Colorado challenged the 2020 Navigable Waters Protection Rule under APA and NEPA. Although Colorado defines its "waters of the state" more broadly than WOTUS and prohibits discharge of pollutants into state waters, Colorado does not have a state equivalent of a 404 discharge permit program. Establishing its own permitting program for fill activities to address the sudden decrease in federal jurisdiction under the 2020 Rule would require that the State of Colorado amend the Colorado Water Quality Control Act, promulgate new regulations, and appropriate millions of dollars for new permitting and mitigation programs – the outcomes of which are far from certain and would likely take years to complete. Until Colorado does this, fill activities cannot occur in waters that are not subject to federal jurisdiction. The narrowed definition of waterbodies subject to federal Clean Water Act jurisdiction creates a '404 permitting gap' where certain development and infrastructure activities will not be able to take place." This could have enormous negative consequences on Colorado's infrastructure, economy, businesses, and local governments. The court reluctantly granted a preliminary injunction, staying the effective date of the 2020 Rule in Colorado. The court noted that "Rapanos arguably forecloses every formulation" of WOTUS proposed so far.

Case Name California et al. v. Wheeler et al. Case Number 20-cv-3005 Court U.S. District Court for the Northern District of California Relevant Dates 5/1/20: Lawsuit filed by 17 states 6/1/20: 23 states and 15 industry trade organizations move to intervene as defendants 6/19/20: Request for preliminary injunction denied 8/10/20: EPA/Corps Answer filed 8/14/20: Sackett appeal to 9th Circuit re: motion to intervene 8/31/20: Administrative record (amended) filed Related Cases Conservation Law Foundation et al. v. EPA (#20-cv-10820), U.S. Dist. Mass.; South Carolina Coastal Conservation League et al. v. Wheeler et al. (#20-cv-01687), U.S. Dist. S. Carolina; Murray v. Wheeler (U.S. District Court, Northern New York, #19-cv-1498); Chesapeake Bay Foundation v. Wheeler (#20-cv-1064) U.S. Dist. Maryland; Puget Soundkeeper Alliance et al. v EPA et al., U.S. District Court for the District of Arizona at Tucson; Pasqua Yaqui Tribe et al. v EPA et al., U.S. District Court for the Western District of Washington Notes	Issues WOTUS CA, NM, OR and WA, with 13 other states, challenged the 2020 Navigable Waters Protection Rule on APA grounds. "The 2020 Rule discards the 'significant nexus' standard for [WOTUS] set forth in Justice Kennedy's concurring opinion in Rapanos v. United States, 547 U.S. 715 (2006) and endorsed by a majority of the Justices on the Court.... [The Rule] improperly relies on and implements the plurality opinion in Rapanos which did not command a majority of the Court's Justices and is not consistent with the [CWA's] text, structure and purpose. Contrary to the Act's objective 'to restore and maintain the chemical, physical and biological integrity of the Nation's waters,' 33 U.S.C. § 1251(a), the [Rule] excludes many waters, including ephemeral streams and many wetlands, from the scope of [WOTUS] and thereby deprives these waters of CWA protections." The states allege: "By eliminating CWA protections for all ephemeral streams, many wetlands, and other waters...the [Rule] also contradicts...the scientific evidence and the Agencies' prior factual findings.... The [Rule] harms the States and Cities by limiting the waters subject to the Act's protections, thereby exposing the States' and Cities' waters to pollution entering from jurisdictions that are less protective of their waters; putting the States and Cities at a competitive disadvantage by incentivizing industry to relocate to upstream states with less stringent water quality protections; disrupting the States' and Cities' regulatory programs; and threatening injury to the States' and Cities' sovereign and proprietary interests." AK, ID, KS, MT, NE, ND, OK, SD, TX, UT, WY and 12 other states moved to intervene, assrtng that sovereign lands and waters within state borders are potentially subject to federal jurisdiction and that the ability to "regulate and protect intrastate waters is an important element of state sovereignty." They add that "the scope of the term 'waters of the United States' does not just set federal jurisdiction over waters within the State; it sets the scope of the States' responsibilities under the [Clean Water Act (CWA)]." In addition, the intervening States "...believe the 2020 Rule strikes a reasonable balance between the roles of the federal regulators and the States in protecting land and water resources...and view [it] as a substantial improvement over the prior rule." The court rejected the plaintiffs' motion for a preliminary injunction, noting that the 2020 Rule presents an entirely new question not addressed by Rapanos, whether the new rule has gone far enough. Given the ambiguity of "navigable waters" and Chevron deference, the court was unwilling to substitute its judgment for the policy choices of the agencies at this stage of the litigation.
Case Name Center for Biological Diversity et al. v. Interior et al. Case Number 4:20-cv-106 Court U.S. District Court for the District of Arizona Relevant Dates 3/13/20: Lasuit filed 6/8/20: DOI/Army Answer 9/15/20: Administrative Record filed Related Cases Notes	Issues ESA The lawsuit challenges the assumptions of a 2014 FWS biological opinion, over groundwater pumping for use by Fort Huachuca and its contractors near the San Pedro River. Plaintiffs challenge the reliance on speculative water savings from agricultural water easements that hadn't been used for years, ignoring the effects of pumping on river base flows over an extended period of time, failure to analyze the effects of climate change, and alleges various other (ESA) violations. The lawsuit seeks to vacate the 2014 biological opinion and order the defendants to reinstitute consultation on the effects of continued groundwater pumping associated with the Fort on listed species.
Case Name Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water Dist. Case Number 5:20-cv-00174 Court U.S. District Court for the Central District of California	Issues Indian Reserved Water Rights At issue is whether the water district's assessment of fees (replenishment assessment charges, RAC) on the tribe's production of its federally reserved groundwater is preempted as a matter of federal law. The water district uses Colorado River water to recharge the aquifer. The RACs are imposed on water production in designated areas of benefit—including much of the Agua Caliente Reservation—to cover the costs of artificial recharge programs. The tribe argues that the RACs unlawfully interfere with its inherent and exclusive sovereign authority to regulate its water resource.

Relevant Dates 1/24/2020: case filed 3/13/2020: Answers filed by Desert Water Agency and Coachella Valley Water District 6/22/2020: Defendants motion to bifurcate case 6/29/2020: Plaintiff's opposition to bifurcation 7/20/20: Motion denied; case management order modified to extend deadlines Related Cases Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District, et al., 13-883 Notes		
Case Name Texas v. New Mexico Case Number 22O65 Court U.S. Supreme Court Relevant Dates 4/13/2020: oral arguments before the S. Ct. rescheduled for the fall term 7/29/20: 2020 report filed by Special Master 8/27/20: TX conditional motion for review of 2020 report 10/5/20: [hearing scheduled] Related Cases Notes	Issues Pecos River Compact Texas objects to the River Master's accounting of evaporative losses at the Brantley Reservoir in New Mexico. Following Tropical Storm Odile in 2014, Texas and New Mexico were inundated. Water was held back to prevent further disaster. Although Texas was prepared to receive its compact delivery by March 2015, New Mexico's infrastructure was still damaged, and water releases would have caused further catastrophe. The water remained in the reservoir through the hot summer, where significant evaporative losses occurred. At issue is whether the River Master clearly erred in calculating New Mexico's delivery credit for evaporation losses under the Pecos River Compact, and whether the River Master appropriately entertained New Mexico's request for delivery credit for evaporation losses under the Compact.	
Case Name Montana and Wyoming v. Washington Case Number 22O152 Court U.S. Supreme Court Relevant Dates 1/21/2020: case filed 6/8/2020: Washington opposition filed 6/22/2020: WY and MT Reply 9/29/2020: [Conference scheduled] Related Cases Lighthouse Resources v. Inslee, 3:18-cv-05005, U.S. District Court for the Western District of Washington Notes	Issues CWA 401; Commerce Clause Montana and Wyoming filed on Commerce Clause grounds, for Washington's denial of Clean Water Act §401 certification of the Millennium Bulk Terminal project. They allege that Washington has intentionally discriminated against the landlocked Montana and Wyoming by blocking port access for one of their most important commodities, low-sulfur coal. The complaint alleges: "Washington's denial of a Section 401 Water Quality certification was based on protecting the state's own agricultural interests, the political concerns and aspirations of its Governor, and because of extraterritorial and unfounded concerns that coal exports from Wyoming and Montana would increase greenhouse gas emissions in Asia." The complaint alleges violations of the Dormant and Foreign Commerce clauses of the U.S. Constitution which prohibit states from (1) engaging in discriminatory or protectionist actions against other states; (2) regulating conduct outside its borders or placing an undue burden on interstate commerce; and (3) regulating foreign commerce, especially when it is at odds with the foreign policy of the U.S. Government. Montana and Wyoming seek injunctions against Washington preventing it from (i) denying the CWA §401 certification on grounds unrelated to water quality; and (ii) engaging in protectionist and discriminatory actions in its permitting decisions for the Millennium Bulk Terminal and from basing its permitting decisions on extraterritorial factors. They also seek a declaration that Washington's discrimination against their coal exports violates the Dormant Commerce Clause. In its motion in opposition, Washington argued that (1) the §401 certification was denied for reasons other than greenhouse gas emissions; (2) the company seeking to build the project was unable to obtain the necessary lease and county permits, meaning the project could not be built even if the §401 certification was approved; (3) the issues raised by Montana and Wyoming are already being litigated by the private company in state and federal courts; and (4) millions of tons of Montana and Wyoming coal already pass through Washington for export at west coast ports, and this one §401 certification denial is not protectionist or discriminatory. In reply, Montana and Wyoming argued that the §401 certification was denied with prejudice, while the other permit and lease issues could still be addressed in other ways; and that the private lawsuits could not address the significant loss to the States in severance taxes and revenue, an issue addressed in other original Supreme Court jurisdiction cases.	
Case Name	Issues WOTUS	

South Carolina Coastal Conservation League (CCL) et al. v. EPA et al. Case Number 2019-cv-03006 Court U.S. District Court for the District of South Carolina Relevant Dates 10/23/19: case filed 12/18/20: Motion to intervene by various farm, ranch, mining, and other organizations 2/18/20: Case stayed 75 days 5/29/20: Case stayed additional 90 days Related Cases Notes	CCL sued to vacate the agencies' recent rule (84 Fed. Reg. 56626) repealing the 2015 WOTUS Rule. The CCL plaintiffs allege: "Like the Suspension Rule earlier invalidated by this Court...the present rulemaking violates fundamental provisions of administrative law in furtherance of an ongoing campaign to diminish and impair the protections of the Clean Water Act – a bedrock federal statute that protects America's waters from pollution." The CCL plaintiffs allege that the repeal has been carried out by executive fiat, disregarding the federal rulemaking requirements and the views of the American public, as well as failing to consider the relative merits of the 2015 Rule or the pre-2015 regime. "The Final Repeal Rule also reinstates an illegal regime – the regulations that pre-dated the Clean Water Rule as limited by guidance – that runs contrary to Supreme Court precedent, unlawfully leaving certain waters of the United States unprotected due to the guidance's unduly narrow interpretation of Justice Kennedy's significant-nexus test." The CCL plaintiffs claim nine violations of the APA: (1) a predetermination to repeal the 2015 WOTUS Rule; (2) failure to consider and address the effects of the repeal; (3) failure to provide a reasoned explanation for the repeal; (4) failure to discuss alternatives; (5) failure to provide a meaningful opportunity to comment; (6) failure to publish the text of the proposed and final rules; (7) failure to demonstrate that the repeal is consistent with the CWA; (8) arbitrary reinstatement of unlawful pre-2015 regulations; and (9) failure to provide a meaningful opportunity to comment on the economic analysis.
Case Name New Mexico Cattle Growers' Association (CGA) v. EPA et al. Case Number 2019-cv-00988 Court U.S. District Court for the District of New Mexico Relevant Dates 10/22/19: Case filed 4/27/20: Amended Complaint 7/16/20: Notice of briefing complete on Motion for Summary Judgment Related Cases Washington Cattlemen's Association v. EPA (U.S. District Court Western Washington, #19-cv-569) (Motion to consolidate with Puget Soundkeeper Alliance filed on 8/27/20); Oregon Cattlemen's Association v. EPA (U.S. District Court Oregon, #19-cv-564) (Motion for prelim injunction denied on 8/7/20) Notes	Issues WOTUS The lawsuit initially challenged the October 2019 readoption of the 1986 regulations, when the agencies repealed the 2015 Clean Water Rule defining "waters of the United States" (WOTUS) and "recodified" the guidance in place prior to the 2015 rule. The amended complaint expands that challenge to the 2020 Navigable Waters Protection Rule. NMCGA argues that the agencies' interpretation of the term "navigable waters" exceeds "...the agencies' statutory authority under the Clean Water Act and the Congressional Review Act, or Congress' authority under the Commerce Clause, the Due Process Clause, the Non-Delegation Doctrine, and the Tenth Amendment. Plaintiff asks this Court to declare that several provisions of the Clean Water Act, the 1986 Regulations, and related guidance, and/or the Navigable Waters Protection Rule, are statutorily and constitutionally invalid, and to enjoin their enforcement." The complaint alleges that, even under the Navigable Waters Protection Rule, many of the waters included within the four categories – e.g., territorial seas and waters used for commerce, tributaries, lakes and ponds, and adjacent wetlands – "do not stand or flow year-round, and many of these non-perennial waters are only present for days or weeks before they dry up. EPA and the Army regulate discharges to the locations of these waters even though the 'waters' only occupy those locations for a few days or weeks in any given year."
Case Name WildEarth Guardians v. Army Corps of Engineers and Middle Rio Grande Conservancy District Case Number 18-2153 Court 10th Circuit Court of Appeals Relevant Dates 1/17/2020: 10th Circuit decision Related Cases	Issues Rio Grande Compact; ESA At issue was the protection of two endangered species on the Rio Grande, the southwestern willow flycatcher and the Rio Grande silvery minnow, and whether the Corps unlawfully failed to consult with the U.S. Fish and Wildlife Service (FWS) about alternative water management policies to help protect the species. The court held that the Corps does not have discretion under the statutory mandates of the Flood Control Acts that govern the Middle Rio Grande. Three dams were built along the river as part of the congressionally-approved Middle Rio Grande Conservancy District Project. The Jemez Canyon Dam was authorized by the 1948 Flood Control Act, which limited operations to flood control, except as otherwise authorized by the 1939 Rio Grande Compact. The Cochiti and Galisteo Dams were authorized by the 1960 Flood Control Act, and those reservoirs were similarly limited to operations for flood control and sediment control. "The Corps is required to operate within strict parameters because the Rio Grande Compact between Colorado, New Mexico, and Texas equitably apportions waters of the Rio Grande Basin, and the Corps is not to interfere with its operations."

Notes	Under Section 7 of the Endangered Species Act, federal agencies must formally consult with the USFWS if an agency action may affect a listed species, and if the agency has discretion to act for the benefit of an endangered species. Although the Corps has previously taken action to protect the minnow and flycatcher, it has done so with approval from the Rio Grande Compact Commission. Regardless, the plain language of the Flood Control Acts indicate the Corps lacks discretion. The 2018 America's Water Infrastructure Act authorized Corps discretion to further ESA objectives, and instructed the Corps to restart "fill and spill" deviations. However, it also required permission from not only the Compact Commission, but also the Pueblos of Cochiti and Santa Ana, showing that the Corps still "lacks discretion to engage in freestanding consultation with the FWS." The court said: "In the arid southwest, the Rio Grande is one of only a handful of rivers that create crucial habitat for plants, animals, and humans. And it is a fact of life that not enough water exists to meet the competing needs. Recognizing these multiple uses, Congress has authorized the Bureau of Reclamation and the Army Corp of Engineers to maintain a balance between the personal, commercial, and agricultural needs of the people in New Mexico's Middle Rio Grande Valley and the competing needs of the plants and animals." The 10th Circuit affirmed the district court's holding that the Corps "was not authorized by the statute to allocate additional water to species' needs and therefore was not required to consult with the FWS."
Case Name Save the Colorado, et al. v. DOI Case Number 3:19-cv-8285 Court U.S. District Court for the District of Arizona Relevant Dates 10/1/2019: Complaint 12/5/2019: DOI answer 4/2/2020: Joint Motion to Intervene by Colorado, California, Arizona Department of Water Resources, Nevada, Utah, and Wyoming 4/30/2020: Joint Motion to Intervene by Southern Nevada Water Authority, Central Arizona Water Conservation District, and Metropolitan Water District of Southern California 6/2/20: Administrative record filed 7/2/20: State joinder to answer Related Cases Notes	Issues Colorado River Plaintiffs allege that DOI failed to take into consideration the effects of climate change and the aging infrastructure of the Glen Canyon Dam in its environmental analysis of future operations. They also assert that DOI failed to consider the alternatives of decommissioning the dam, filling Lake Mead first, and returning the river to its natural flow. The plaintiffs seek to set aside DOI's final environmental impact statement for violations of NEPA, and to require the inclusion of the impacts of climate change and a reasonable range of alternatives in the proposed action. DOI denied all the allegations, and asserted that the plaintiffs are not entitled to the relief they seek, and that the court lacks subject matter jurisdiction. The Colorado River Basin states and agencies intervened, joining in DOI's answer, and laid out the intricate complexities of the Law of the River, with its many compacts, treaties, Congressional deference to state water rights and laws, and ongoing efforts among the states and various other organizations and interested parties to manage the flow, salinity, and ecological benefits of the river.

Case Name California v. Bureau of Land Mgmt. Case Number 18-521 20-16157 Court U.S. District Court for the Northern District of California 9th Circuit Relevant Dates 1/24/18: Lawsuits filed 7/17/18: U.S. Motion to transfer case to Wyoming denied 10/9/18: BLM lodged administrative record with the court 6/3/19: CA filed Motion for Summary Judgment 8/2/19: BLM filed Cross Motion for Summary Judgment 8/23/19: WY and petroleum organizations filed Cross MSJs 1/22/20: Hearing on MSJs 3/27/20: BLM and WY's Cross MSJ's granted, CA's MSJ denied 6/12/20: CA filed appeal, 9th Cir. #20-16157 10/21/20: Opening briefs due 11/20/20: Answering brief (consolidated) due Related Cases Sierra Club et al. v. Zinke, No. 18-524 (consolidated) Notes	Issues Hydraulic fracturing On December 28, 2017, the Bureau of Land Management (BLM) published its Federal Register notice of the final decision to rescind the stayed 2015 Hydraulic Fracturing Rule. BLM's review of the Rule found that all 32 of the states with federal oil and gas leases have regulations to address hydraulic fracturing, and that companies are disclosing the chemical content of their hydraulic fracturing fluids using FracFocus or other state regulatory databases. Rescinding the 2015 Rule was also considered consistent with the Administration's Executive Order 13771 to reduce the costs of regulatory compliance. On January 24, 2018, California and several environmental groups sought to vacate the rescission and reinstate all of the Hydraulic Fracturing Rule's provisions. CA argues that hydraulic fracturing on federal and Indian lands, particularly those not subject to state jurisdiction, will impact surface water and groundwater resources, air pollution, and seismicity from the disposal of wastewater. Additionally, states do not have BLM's stewardship standards and trust responsibilities over federal lands.). California said that although new administrations are entitled to change policy positions, the APA requires a reasoned explanation for those changes, particularly addressing any inconsistencies with prior factual findings. California argues that state and tribal regulations fall short of the 2015 Rule requirements. "For example, at least six of the nine states where the majority of fracking on federal land occurs did not require the use of tanks instead of pits for containing injection waste fluids, as the Fracking Rule does. Additionally, most of the nine states' regulations on monitoring and verifying the integrity of cement casing fell short of the Fracking Rule's requirements. The Fracking Rule contemplated concurrent state regulation of wells on federal lands and in no way prevented states from enacting stricter requirements. States or tribes could also apply for a variance from the requirements of the Fracking Rule." State requirements also differ "with regard to mechanical integrity testing, pressure monitoring during hydraulic fracturing operations, and post-fracturing disclosure requirements." The district court rejected CA's arguments. "The Court's task is not to decide whether the changes [BLM] seek[s] to make will result in better or worse environmental policy...[or] to decide whether it would find the rationales advanced by the agency compelling (or even persuasive) if it were reviewing the matter from scratch. Instead, the narrow APA question before the Court is whether the admitted policy change represented by the Repeal was so inadequately explained as to be arbitrary and capricious." The court added that it may not question BLM's choice to weigh socioeconomic concerns more heavily than the value of consistent federal regulations the 2015 rule may have provided. The court also rejected Wyoming's argument that BLM lacked authority to promulgate the rule. Aside from the fact that the 2015 rule wasn't before the court (only the repeal of the rule), the court said BLM never conceded that it lacked legal authority, only eliminated the need for further litigation over BLM's statutory authority by repealing the rule. The case is now on appeal before the 9th Circuit.
Case Name Florida v. Georgia Case Number #22O142 Court U.S. Supreme Court Relevant Dates 11/3/14: Complaint filed 2/21/17: S. Ct. received the Special Master's Report 6/27/18: S. Ct. Remand to (new) Special Master 1/31/19: FL and GA filed supplemental briefs 11/7/19: Oral argument before the Special Master 12/11/19: Special Master's Second Report 4/13/20: Florida's Exceptions to the Special Report filed 6/26/20: Georgia's Reply to FL Exceptions to the Special Report filed 7/6/20: US amicus brief filed, in support of FL claims Related Cases	Issues Equitable Apportionment On June 27, 2018, the Supreme Court issued a 5-4 decision to remand the case to the Special Master for further evidence. Rather than deny Florida's request for relief due to the absence of the Corps as a necessary party, the Court noted that the Corps has agreed to cooperate in implementing any determinations and obligations this Court decrees. While the Corps must meet statutory obligations when it operates dams and impounds water, and any cooperation would be at the Corps' discretion, the Court determined that it is premature to assume that a remedy to the interstate conflict would be in vain without an order binding the Corps. The Court held that Florida made a legally sufficient showing at this stage of the case that equitably apportioning the water from the interstate Apalachicola -Chattahoochee-Flint River Basin might be an effective remedy. The Special Master's assumptions about Florida's significant ecological and economic harms entitle Florida to the opportunity to show that the benefits of equitable apportionment outweigh the harms of placing a cap on Georgia's use of Flint River waters. While the Court reserved judgment on the correct findings of fact and the ultimate disposition of the case, it held that the Special Master's standard of proof for a workable remedy was too strict. Florida was required to show the general availability of judicial relief by clear and convincing evidence, but the details and effectiveness of a decree is a separate consideration. The Court remanded the case to conduct an equitable-balancing inquiry. To determine whether Florida's harms may be redressed by a court decree, the Special Master must make findings of fact regarding the scope of Florida's harm caused by the absence of water, and the approximate amount of water that must flow into the Apalachicola River to ameliorate the harm. The new Special Master determined that additional discovery and evidentiary hearings were not merited, due to the voluminous records already produced. On January 31, 2019, Florida and Georgia filed supplemental post-remand briefs, with responses filed February 28, and Florida has requested oral argument. Florida must prove by clear and convincing evidence that the benefits of an equitable apportionment decree substantially outweigh any harm that might result.

Notes For more information, see the Special Master's website, https://www.ca10.uscourts.gov/special-master-142, or http://www.scotusblog.com/case-files/cases/florida-v-georgia-2/	On December 11, 2019 the Special Master issued his recommendations to the U.S. Supreme Court. The Special Master found other causes for Florida's injuries than Georgia's consumption of water, including drought, mismanagement of aquatic resources, and changes in stream-estuary morphology due to Corps operations. The Special Master wrote: "Given my factual findings, I recommend denying Florida's request for a decree because it has not proved the elements necessary to obtain relief. Florida has pointed to harm in the oyster fishery collapse, but I do not find that Georgia caused that harm by clear and convincing evidence. Next, although Georgia's use of the Flint and Chattahoochee Rivers has increased since the 1970s, Georgia's use is not unreasonable or inequitable. Last, I have determined that the benefits of an apportionment would not substantially outweigh the harm that might result. This is especially true given that the Army Corps' reservoir operations on the Chattahoochee River would prevent most streamflow increases from reaching Florida during the times when more streamflow is needed to alleviate Florida's alleged harms."
Case Name Mississippi v. Tennessee Case Number No. 22O143 Court U.S. Supreme Court Relevant Dates 6/6/2014: Motion for leave to file complaint 8/12/2016: Special Master's Memorandum of Decision on various motions 11/29/18: Special Master denied Tennessee's MSJ 12/21/18: TN and MS filed pre-hearing briefs 5/20/19-5/24/19: Evidentiary hearing (transcripts posted) 9/19/19: Post hearing briefs 2/25/20: Closing arguments Related Cases Hood ex rel. Mississippi v. City of Memphis, Tenn., 533 F. Supp. 2d 646 (N.D. Miss. 2008) (aff'd 570 F.3d 625 (5th Cir. 2009)); Mississippi v. City of Memphis, 559 U.S. 901 Notes For more information, see http://www.ca6.uscourts.gov/special-master	Issues Interstate Groundwater, Equitable Apportionment On August 12, 2016, the Special Master issued a Memorandum of Decision, noting 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. 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. However, tasked with erring on the side of over-inclusiveness to assist the Supreme Court in making its ultimate determination, he 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." On November 29, 2018, the Special Master denied Tennessee's Motion for Summary Judgment. On December 21, 2018, the parties filed their pre-hearing briefs. The evidentiary hearing was held May 20-24, 2019. Post-hearing briefs were filed in the Fall of 2019, and the final oral arguments were February 25, 2020.
Case Name Utah v. Environmental Restoration LLC et al. Case Number 2:17-cv-866 Court U.S. District Court for the District of Utah Relevant Dates 7/31/17: Utah filed complaint against EPA 4/4/18: MDL for pre-trial proceedings 7/25/18: EPA filed MTD 2/28/19: MTD denied 10/4/19: Environmental Restoration LLC filed interlocutory re applicable SOL 1/31/20: status conference on discovery and briefs 9/1/20: Court granted Utah's motion to dismiss its claims against EPA and certain contractor parties	Issues Abandoned Hard Rock Mines On July 25, 2018, the federal defendants filed a Motion to Dismiss the state and tribal claims for lack of jurisdiction over the CERCLA, RCRA, CWA, and tort claims. On February 28, 2019, the Special Master denied the motion. The DOJ argued that the court lacked jurisdiction to hear the claims due to the sovereign immunity of the United States, asserting that the waiver provisions of the statutes did not apply to EPA's actions in this case. The Court disagreed, finding that EPA qualified as an operator, arranger, and transporter under CERCLA's waiver of sovereign immunity; that the state and tribal plaintiffs were entitled to discovery regarding EPA's discretionary actions for the tort claims; and that the RCRA and CWA claims dealt with facts in dispute, and the federal defendants could file a motion for summary judgment after jurisdictional discovery. Subsequent motions to dismiss from other parties were largely denied, and after the Answers were filed, on June 5, 2019, the Court issued a scheduling order and set the scope of discovery. On October 4, 2019, Environmental Restoration LLC filed interlocutory appeal on whether NM or CO statute of limitations applied (potentially impacting claims of 300 Allen v. US plaintiffs and the scope of discovery) BACKGROUND: On July 31, 2017, Utah filed a complaint for damages against EPA and various companies related to the 2015 Gold King Mine spill. The lawsuit alleges negligence and other claims to recover costs related to the cleanup and compel the mine owners and EPA contractors to investigate and pay for cleanup, and collect civil penalties for violations of the Utah Water Quality Act and the Utah Solid and Hazardous Waste Act. Utah filed an amended complaint on January 4, 2018 to add an EPA contractor as a defendant. Utah is negotiating with EPA over damages. This case has been consolidated with the New Mexico and Navajo Nation cases for pre-trial proceedings. (MDL-2824)

Related Cases New Mexico v. EPA, 1:16-cv-465; Navajo Nation v. EPA, 1:16-cv-931 (now consolidated with 1:16-cv-465); Allen v. US, 18-cv-744; IN RE: Gold King Mine Release in San Juan County, Colorado, on August 5, 2015, 1:18-md-2824	
Notes	
Case Name New Mexico v. EPA et al. Case Number 1:16-cv-465 Court U.S. District Court for the District of New Mexico Relevant Dates 5/23/16: New Mexico v. EPA filed 8/16/16: Navajo Nation v. EPA filed 11/28/16: NM and NN cases consolidated 2/13/17: EPA Motion to Dismiss consolidated NM and NN cases 4/4/18: MDL for pre-trial proceedings 7/25/18: EPA filed MTD 2/28/19: MTD denied 10/4/19: Environmental Restoration LLC filed interlocutory re applicable SOL 1/31/20: status conference, setting deadlines for witnesses, bellweather case briefs, and issues of economic damages 6/19/20: order setting deadlines for depositions 9/1/20: Court granted Utah's motion to dismiss its claims against EPA and certain contractor parties Related Cases Navajo Nation v. EPA, 1:16-cv-931 (now consolidated with 1:16-cv-465); Utah v. Environmental Restoration LLC et al., 2:17-cv-866; Allen v. US, 18-cv-744; IN RE: Gold King Mine Release in San Juan County, Colorado, on August 5, 2015, 1:18-md-2824 Notes	Issues Abandoned Hard Rock Mines On July 25, 2018, the federal defendants filed a Motion to Dismiss the state and tribal claims for lack of jurisdiction over the CERCLA, RCRA, CWA, and tort claims. On February 28, 2019, the Special Master denied the motion. The DOJ argued that the court lacked jurisdiction to hear the claims due to the sovereign immunity of the United States, asserting that the waiver provisions of the statutes did not apply to EPA's actions in this case. The Court disagreed, finding that EPA qualified as an operator, arranger, and transporter under CERCLA's waiver of sovereign immunity; that the state and tribal plaintiffs were entitled to discovery regarding EPA's discretionary actions for the tort claims; and that the RCRA and CWA claims dealt with facts in dispute, and the federal defendants could file a motion for summary judgment after jurisdictional discovery. Subsequent motions to dismiss from other parties were largely denied, and after the Answers were filed, on June 5, 2019, the Court issued a scheduling order and set the scope of discovery. On October 4, 2019, Environmental Restoration LLC filed interlocutory appeal on whether NM or CO statute of limitations applied (potentially impacting claims of 300 Allen v. US plaintiffs and the scope of discovery) BACKGROUND: In May and August 2016, New Mexico and the Navajo Nation filed lawsuits in the U.S. District Court in New Mexico against the EPA and mining companies for injuries relating to releases of heavy metals and waste from the Gold King Mine and Sunnyside Mine, requesting relief under CERCLA, RCRA, CWA, and various tort claims. The two cases were consolidated in November 2016. EPA filed a Motion to Dismiss in February 2017, arguing (1) that CERCLA does not waive EPA's sovereign immunity to suit when its sole connection to the site at issue arises from exercising its authority under CERCLA to respond to other entities' legacy contamination; (2) that EPA does not fit the definitions of a liable party under CERCLA; and (3) that EPA is already engaged in remediation efforts, and that judicial review of those efforts is premature or prohibited, and that the parties have other means of participating in and commenting on the agency remediation process. On December 11, 2017, defendant Environmental Restoration filed a motion with the U.S. Judicial Panel on Multi-District Litigation, requesting a transfer of the cases for coordinated or consolidated pre-trial proceedings. This request was granted on April 4, 2018, and on June 19, 2018, a Special Master was appointed. (MDL-2824)
Case Name Texas v. New Mexico and Colorado Case Number #220141	Issues Rio Grande Compact On December 21, 2018, the United States filed a Motion for Judgment on the Pleadings, and on December 26, Texas and New Mexico filed motions for partial judgment. The Special Master heard arguments on the motions by Texas, the United States, New Mexico, Colorado, and several amici on April 2, 2019 in Denver, CO. Discovery, depositions, and supplemental disclosures are still ongoing. Remote videoconference hearings were held May 15, May 29, and June 12, 2020. Judge Oliver Wanger (ret.) was appointed as a mediator on June 25, 2020.

Court

U.S. Supreme Court

Relevant Dates

1/8/13: Texas filed its complaint
2/27/14: United States Motion to Intervene
3/20/17: Special Master Report received by the Supreme Court
8/4/17: Kansas amicus brief in support of Texas re: interstate compacts and impact of upstream groundwater diversions
1/8/18: S. Ct. oral arguments
3/5/18: S. Ct. decision to allow US to intervene
5/23/18: NM filed Answers and Counterclaims
7/20/18: TX Answer
7/23/18: U.S. Answer
12/21/18: U.S. Motion for Judgment on the Pleadings
12/26/18: Texas and New Mexico motions for partial judgment
4/2/19: Hearing on motions before Special Master
3/31/20: Status conference to discuss completion of discovery, to set hearing dates, to establish a trial date, and to discuss potential for settlement
6/25/20: Mediator appointed

Related Cases**Notes**

For more information, see <https://www.ca8.uscourts.gov/texas-v-new-mexico-and-colorado-no-141-original> and <https://www.scotusblog.com/case-files/cases/texas-v-new-mexico-and-colorado/>

BACKGROUND: 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 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 February 9, 2017, the Special Master submitted the First Interim Report with recommendations 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. On March 5, the Supreme Court ruled that the United States may pursue its complaint as an intervenor, asserting its claim that New Mexico has violated the Rio Grande Compact, and remanded the case back to the Special Master.

Tab T – State Reports

Arizona State Report for October 2020 Western States Water Council Meeting

COVID-19 continues to impact Arizona Department of Water Resources (ADWR) business in a variety of ways. Late fees for annual reports received after the March 31 deadline were waived until June 26. Despite this waiver, we've seen an increase in the Failure to File rate, year-over-year. Public meetings have successfully transitioned to online platforms and stakeholder participation remains high. The Department remains focused on working from home to the greatest extent possible.

ADWR has participated in two [Arizona Reconsultation Committee](#) (ARC) meetings that reconvene many of the same leaders that worked on the Steering Committee of the Colorado River Drought Contingency Plan in Arizona. The ARC has created a Modeling and Analysis Work Group, which convened on [July 30](#), as well as an Arizona Strategy Team, which convened on [August 27](#). Moving forward, the ARC will begin preparing the state's vision of what Colorado River management should look like once the current set of rules expire in 2026. Its members represent Arizona's diverse water interests, including elected leaders, tribes, municipalities, agriculture, industry and environmental groups. This committee will undergo a collaborative and transparent process and has implemented virtual participation in light of COVID-19.

ADWR continues to work with Central Arizona Project agricultural districts to distribute legislatively approved funds for their groundwater infrastructure programs through the Regional Conservation Partnership Program.

On January 31, 2019, as a corollary to the Drought Contingency Plan legislation, Governor Ducey signed an Executive Order creating a Water Conservation Augmentation and Innovation Council (Council). Membership includes legislators as well as water managers and stakeholders and meetings are held quarterly. The Council made notable progress in its inaugural year. Much of the work of the Council is accomplished through its committees—the Post-2025 Active Management Areas (AMA) Committee, the Non-Active Management Area Groundwater Committee, the Desalination Committee and the Long-Term Water Augmentation Committee. The committees work to identify and discuss issues and to develop, evaluate and prioritize recommendations for the Council to consider. In August 2019, the Long-Term Water Augmentation Committee published the report entitled [Long-Term Water Augmentation Options for Arizona](#), which identified potential augmentation strategies appropriate for each of Arizona's 22 planning areas. Council Committee meetings were suspended due to the COVID-19 outbreak shortly after the Council met in March 2020. Despite this, the work of the Council and committees continued. The chairs and staff to the Post-2025 AMAs Committee drafted and began refining several [issue briefs](#) with input from committee members. ADWR staff completed the Council's annual report and published it on the [ADWR website](#). Committees began reconvening via webinar in May. Council meetings were held virtually on [September 10, 2020](#) in which Tribal Water Rights and Water Settlements were discussed and on [September 15, 2020](#) in which the Council received an update on the Management Plans and the Arizona Reconsultation Committee.

ADWR has now adopted [4th Management Plans \(4MPs\)](#) for three out of the five Active Management Areas (AMAs). The Order of Adoption for the Pinal AMA 4MP was issued on September 19 and will become final on October 25. A public hearing was held for the Santa Cruz AMA 4MP on September 22. A

summary and findings from that hearing will be issued by October 22. With these milestones, ADWR is on track to meet its goal of completing the adoption of these remaining 4MPs by the end of 2020. Work continues on the 5th Management Plans (5MPs) for all AMAs with regular virtual meetings of the 5th Management Plans Work Group and the related sub-groups. Stakeholder engagement in these workgroups remains high despite the virtual format, perhaps even increasing. The online meetings have drawn 50 to 120 participants. A [concepts](#) webpage has been developed that summarizes concepts and contains interactive data dashboards and stakeholder comments related to 5MP conservation programs, facilitating the exchange of ideas and enhancing engagement.

The 2020 Monsoon combined record temperatures with near-record dryness throughout Arizona. Tucson experienced its 2nd driest monsoon since records began, while Phoenix enjoyed the two hottest months on record in [July and August](#). September precipitation was generally less than an inch across the state and Phoenix, Flagstaff and Tucson all reported zero inches. As a result, the entire state is in Moderate or worse [drought condition](#), including Extreme Drought covering 67% of the state.

Report of Nebraska Department of Natural Resources

New Agency Director

In August, Governor Pete Ricketts appointed Tom Riley, founder and president of The Flatwater Group, as the next director of NeDNR. Riley will join the NeDNR's team on November 2nd and bring with him a wealth of experience and knowledge in water management in Nebraska. In announcing the appointment of Director Riley Governor Ricketts said, "Tom brings a wealth of experience in water resources planning and environmental engineering to the Department of Natural Resources. He has effectively managed a number of large-scale projects, such as hydrologic analyses and flood control efforts. From our family farms to municipal water partners, Tom's expertise and proven leadership will help Nebraska be a wise steward of our water resources as we grow our state."

Tom is a graduate of the University of Nebraska-Lincoln (UNL) where he received a Bachelor of Science in Civil Engineering and a Master of Science in Civil Engineering. In receiving the appointment Tom said, "I was born and raised in this beautiful state and fortunate to visit so many areas over the years. I'm still amazed of Nebraska's beauty and plentiful water resources. I'm honored to have the opportunity to help grow Nebraska through the wise stewardship of our abundant natural resources."

Water Supply Conditions

The 2019 water supply conditions were well above average over much of the state with historic spring flooding across much of eastern Nebraska, extended flooding along the Missouri River through much of the summer, and record stages at several long-term monitoring sites. The 2020 water supply conditions have quickly begun to turn, with areas of western and southwestern Nebraska beginning to see drought related impacts. Fortunately, carry over water supplies and ample groundwater recharge from 2019 were generally able to support full irrigation operations, but soil moisture and reservoirs will need to refill prior to next year's irrigation season



Missouri River Studies

Nebraska continues to work with the other three lower basin states (Iowa, Missouri, and Kansas) and the Corps to identify and evaluate flood mitigation strategies. Under the current Planning Assistance to States study Nebraska has been working with the other states to reach out to stakeholders impacted by repetitive flooding events over the past decade and develop a matrix of

problem areas and potential solutions that will be advanced to a General Investigation (GI) study. The four states have signed an agreement with the Corps to conduct the \$3M GI study with scoping expected to get underway shortly.

Legislative Updates

The 2020 Nebraska legislative session was scheduled to conclude in April but adjourned early with 17 days remaining due the COVID-19 situation. The legislature reconvened on July 20th to adopt mid-biennial budget adjustments. The budget impacts of COVID-19 on FY 20 did have an impact on revenues, but final revenues still met forecasts. The future impacts on the FY 21 budget and beyond is being closely monitored, but thus far state budgets have only seen minor impacts to revenues.

Critical Infrastructure Funds

Following the collapse of a large irrigation supply canal tunnel in the middle of the 2019 irrigation season, the Gering-Fort Larimie Irrigation District (GFLID) and Goshen Irrigation District (Wyoming) worked with USBR to complete temporary repairs to ensure the canal would be operational for the 2020 irrigation season. The tunnel collapse caused approximately 100,000 acres to lose access to irrigation water supplies during the 2019 irrigation season. In the 2020 Nebraska legislative session \$3.8M in funding was provided to NeDNR to reimburse the GFLID for the expenses associated with completing temporary repairs of the tunnels. Payments to GFLID are expected to be made over the next several months.

Respectfully submitted

Jesse Bradley

Interim Director

North Dakota State Report (October 2020 WSWC Meeting)

- North Dakota's ongoing battle over ownership of Lake Sakakawea (and also Lake Oahe), including ownership of the oil and gas, has concluded in the ND Supreme Court. The Court decided in the Sorum case that the majority of the lakebed, with the exception of the historical river channel as it existed at the time Garrison and Oahe dams were closed, belongs to the federal government under the Submerged Lands Act. Contact Jen Verleger if you want more information on this case because it's much more complex than can be reflected here.
- ND has intervened in litigation in the D.C. District Court between the Dept. of Interior and the MHA tribe over ownership of the bed of the Missouri River. The Solicitor's office issued an M-opinion in the final days of the Obama administration stating that the tribe owned the riverbed. The Solicitor's office under Trump quickly stayed that opinion and conducted further analysis, which resulted in a third M-opinion that the riverbed was owned by the State of ND. The Tribe then sued Interior and requested a preliminary injunction. Rather than decide the PI motion, the judge requested EXTREMELY expedited Summary Judgement briefing, which we are in the middle of. (Case was filed on July 16, and briefing concludes October 15.)
- One of the key functions of the North Dakota State Water Commission is to provide cost-share assistance to local project sponsors for water development projects they are trying to move forward. State funding provided through this program comes from North Dakota's Resources Trust Fund (RTF), which is funded by oil extraction taxes. With COVID-related impacts affecting multiple economic sectors – the oil industry has also seen tremendous downturns in prices and production. This in turn has greatly impacted the Water Commission's available revenue for project cost-sharing and support. For example, RTF payments to the Commission for May, June, and July were originally budgeted to be \$18.3 million, \$17.7 million, and \$18.3 million, respectively. The revenue payments that actually came in were \$7.9 million, \$2.9 million, and \$2.3 million for those three months. In response, the Water Commission had to temporarily defer cost-share requests from sponsors. August and September have shown signs of improvement, with monthly RTF payments of \$6.3 million and \$8 million – with anticipated average monthly payments of \$10.5 million through June 2021. As a result, the Water Commission will re-evaluate cost-share requests that have been deferred in prior months.
- The North Dakota Atmospheric Resources Board (part of the Water Commission) finished up their summer Cloud Modification Program (CMP) for the year at the end of August. Six NDCMP aircraft flew a total of 479.05 hours for the purposes of hail suppression, rainfall enhancement, and reconnaissance. The NDCMP target areas include five counties in western North Dakota covering over 8,000 square miles.
- Jon Patch, the director of the Water Appropriations division retired October 2 after a 39 year career with the State Engineer's office.

- The Water Commission has recently secured full funding to participate in a 4-year, multi-state DOT Pooled Fund study, in cooperation with the USGS, on the impacts of climate indices, changing basin characteristics, and nonstationary climate conditions on determining flood-frequency curves and annual peak-flow records in line with Bulletin 17C guidelines. Other participating states include Illinois, Iowa, Minnesota, and South Dakota.
- The State of North Dakota, in cooperation with FEMA partners, have developed an innovative and transparent flood mapping tool; North Dakota Risk Assessment Mapservice, or NDRAM. NDRAM displays not only FEMA's NFIP current effective maps in an interactive format, NDRAM also displays high-resolution mapping results from a state-wide 2-Dimensional Base Level Engineering effort for the 10 percent, 4 percent, 2 percent, 1 percent, and 0.2 percent annual chance flood events. All hydraulic models and reports generated from the Base Level Engineering effort are available for download for free through NDRAM's user interface. Where it can rain, it can flood. NDRAM's large-scale mapping efforts now allow community leaders and members of the public, regardless of NFIP participation or not, to make sound data-driven and risk-informed decisions. Become risk-aware and check it out today: <https://ndram.swc.nd.gov>

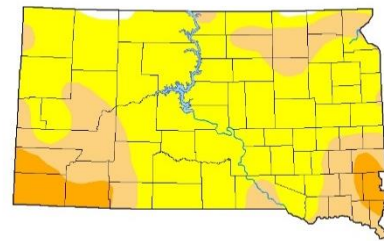
South Dakota State Report

Department of Environment & Natural Resources and Department of Agriculture Merge

On August 27, 2020, Governor Noem announced the merger of the Department of Environment and Natural Resources and the Department of Agriculture. Given that both agencies are regulatory in nature, and the fact that agriculture, conservation, and natural resource protection go hand-in-hand, it makes sense for South Dakota to regulate, and protect these industries under one department. The merger also puts the state's agriculture and environmental experts in one department allowing for less bureaucracy, more collaboration, and better outcomes for the environment, agriculture, and South Dakota's citizens. Hunter Roberts is currently the Secretary of the Department of Environment and Natural Resources and the interim Secretary of the Department of Agriculture. Work is progressing on the merger with an estimated completion date of April 2021, for the creation of the Department of Agriculture and Natural Resources.

Most of South Dakota in Drought

In contrast to last year which was very wet at this time of the year, the drought monitor continues to show the majority of South Dakota in drought.



Class B Firefighting Foam Collection

As part of an ongoing effort to prevent further Per- and Polyfluoroalkyl (PFAS) impacts to drinking water sources, DENR conducted a survey of fire departments and airports across the state to identify the amount of Class B PFAS containing fire-fighting foam being stored. In



September, DENR and our contractor collected approximately 3,875 gallons of old and/or unwanted Class B PFAS foam from 34 fire departments. Some of the foam collected, was manufactured in the 1980's and was stored in rusty or degraded containers. PFAS releases were clearly prevented as a result of this collection effort. However, because some fire departments and airports were reluctant to give up their Class B foam at this time, a second collection may be warranted in the future.

Navigable Waters Rule Impact

South Dakota is currently trying to determine the impacts of the new Navigable Waters Protection Rule and the 401 certification rules. It appears many of South Dakota's wetlands will no longer fall under the definition of waters of the United States, which may leave them vulnerable to impacts from development. Since the new rule went into effect, the COE's workload has increased enough that it has been difficult to find time to discuss the extent of waters that now fall outside of federal jurisdiction.

US Army Corps of Engineers Approves Contracts to Install Plains Snowpack Monitors

Sens. Rounds and Thune and Rep Johnson today praised the news that the U.S. Army Corps of Engineers has awarded major contracts to four universities, including South Dakota State University, to establish a network of stations to monitor snowpack and soil moisture throughout the plains area of the Upper Missouri River Basin. SDSU will receive a \$12.8 million contract, and the first 10 sites will be installed in South Dakota. The project is expected to be completed by 2025.

State Report – Utah

Prepared by Todd Stonely | Erica Gaddis | Norm Johnson
October 15, 2020

DIVISION OF WATER RESOURCES

Recent Developments

Todd Adams, the new Director of the Utah Division of Water Resources, sends his greetings to the council and wants me to make the following announcements in the event that you are not already aware:

- The Utah Division of Water Resources has requested additional time to address extensive public comments received related to the Lake Powell Pipeline Project Draft EIS issued by the U.S. Bureau of Reclamation on June 9. The public comment period ended on Sept. 8. Central to this request were concerns raised by other Colorado River Compact states that the other basin states agreed would best be handled outside the NEPA process. This request for a delay was submitted to Reclamation over a month ago and the Division has yet to hear back.

Legislative Summary

Several noteworthy water bills passed the legislature and were signed by Governor Herbert this year:

- Water Distribution Efficiency – A new bill has been proposed that would require new water loss reporting by water utilities to their governing bodies and to the state through existing water conservation plan updates.
- Green River Pipeline Cost Analysis – The legislature has directed the division to update the cost estimate associated with an obscure, unpublished 2002 draft study of a potential project to divert water from the Green River (Flaming Gorge Reservoir) to the Wasatch Front. The division believes that the many challenges associated with such a project make the likelihood that it would ever be pursued highly unlikely.
- Watershed Councils – Legislation that created a statewide watershed council and voluntary local watershed councils passed. Implementation has been delayed due to COVID-19.
- Water Banking – Legislation creating a framework for the establishment of water banks and several pilot projects also passed. Implementation is presently underway, with three water banks likely to be organized in the coming months and other areas expressing interest.

Other Priorities

The Utah Division of Water Resources has completed or is pursuing the following initiatives:

- Regional Water Conservation Goals for regions throughout the state were published in November of 2019. These build upon the statewide goal of achieving 25% water

conservation by 2025 and would increase water conservation beyond that mark by an additional 11-21%.

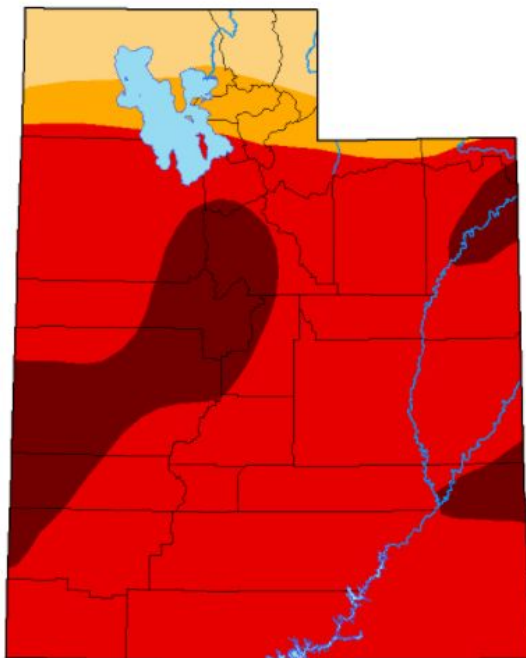
- An update to the Utah State Water Plan is nearing publication. The plan should be available early next year.
- Exploring additional cloud seeding opportunities statewide and especially in the the Colorado River Basin. The state recently received an additional \$50,000 ongoing funding to sustain the cloud seeding program.

Water Conditions

Although the State of Utah entered the spring runoff period with above average snowpack and precipitation, warm and dry conditions through the spring and extremely dry conditions throughout the summer quickly moved the vast majority of the state into extreme or exceptional drought conditions. Were it not for a single storm event, portions of southwest Utah would have broken the record for the most days without precipitation--a record that was set just two years ago.

Most reservoirs throughout the state started off the runoff period with above average storage and drought impacts were largely isolated to areas without storage. However, after a long, dry summer most reservoirs are below average for this time of year and some are alarmingly low with current capacity below 10% of average for this time of year. Without a good winter snowpack, areas served by these reservoirs will experience increasing drought impacts next year.

US Drought Monitor



Map released: Thurs. October 15, 2020

Data valid: October 13, 2020 at 8 a.m. EDT

Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

DIVISION OF WATER QUALITY

Recent Developments

John Mackey, PE, has been promoted to the position of Assistant Director of the Division. He previously served as the manager of DWQ's Engineering Section.

DWQ recently reorganized the regulatory sections of the Division to create two permitting sections and a new Compliance and Enforcement section. Samantha Heusser has been hired to manage the new section which will focus on ensuring all compliance and enforcement activities are consistent, efficient, and fair.

Water Quality Updates

Utah is nearing completion of a combined 2018 and 2020 Integrated Report summarizing the state of the state's water quality. The report will be public noticed by early November and submitted for EPA approval by the end of the year.

DWQ is currently tracking harmful algal blooms at 17 waters, including benthic blooms in two National Parks. The Division scaled back monitoring efforts this year after legislative funding was cut. The Division is also actively monitoring advisories for waterborne pathogens at four lakes and reservoirs.

The Division will request permission from the Water Quality Board on October 28 to finalize the Fremont River E. coli TMDL including a portion of the river that runs through Capitol Reef NP.

Water Quality Priority Initiatives

[Agricultural Voluntary Incentive Program](#): Utah launched a new voluntary incentive program to provide cash payments to agricultural producers that implement nutrient management plans on their operations. Currently, less than 1% of Utah's agricultural acres are enrolled in nutrient management plan programs. This program aims to increase this to at least 10% over the next 3 years.

[Monitoring SARS-CoV-2 in wastewater](#): The Division has been coordinating a wastewater surveillance program as part of the state's response to the COVID-19 pandemic. The program has been identified as one of the earliest and most robust in the country and is being used by state and local health partners.

[Discharging legacy mine inventory](#): The Division will work with partners at DOGM and federal agencies to complete a discharging legacy mine inventory in Utah. Following the inventory, discharges will be prioritized for water quality characterization.

ATTORNEY GENERAL'S OFFICE

Pending Litigation

The Ute Indian Tribe of the Uintah and Ouray Indian Reservation brought suit in March of 2018 against the United States alleging a variety of water-related claims, many of which implicated

Utah interests. The Court granted Utah's motion to intervene in February of this year. The Tribe subsequently amended its complaint and named the State as a defendant.

Response briefing to the amended complaint is underway. *Ute Tribe v. U.S., et al.*; 1:18-cv-00547-CJN; (D.D.C.). Utah, along with other states, has also intervened in *Save the Colorado v. U.S.*, 3:19-cv-08285-MTL (D. Ariz.) and *Center for Biological Diversity v. DOI*, 2:19-cv-00636-JNP D. Utah) which challenge Colorado River operations on a variety of grounds, including climate change.

In *Ute Tribe v. U.S.*, *Utah*, and *Central Utah Water Conservancy District* defendants have filed motions to dismiss the Tribe's complaint. Briefing on those motions will be complete late next month and the parties anticipate that the court will hear argument on the motions early next year. In *Save the Colorado v. U.S.* the plaintiffs and the United States are wrangling over the completeness of the administrative record in the case. Once the court makes a determination about the record the case is likely to move forward.

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Tab W – Newsletter Index

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	Western Federal Agency Support Team (WestFAST)	06-26 07-03 07-10	2406 2407 2408
	Airborne Snow Observatory	08-28	2415
	America's Water Infrastructure Act (AWIA) (special report)	05-08	2399
	Army Corps of Engineers (Corps) -Appropriations	01-17 08-21	2383 2414
	Bureau of Reclamation (USBR) Appropriations	08-21	2414
	Clean Water Act (CWA)	01-10	2382
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	Drinking Water Infrastructure Act (special report)	05-08	2399
	Drought	03-20	2392
	Great American Outdoors Act	06-12	2404
	FY2021 Appropriations	03-06	2390
	FY2021 NASA/NOAA Appropriations	05-08	2399
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	Invasive Species	03-13	2391

	Lead and Copper Rule House Hearing (special report)	03-06	2390
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	Navigable Waters Protection Rule	05-22	2401
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	Per- and Polyfluoroalkyl Substances (PFAS)	03-13	2391
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	USDA Appropriations (special report)	04-10	2395
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		08-21	2414
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	Infrastructure	02-28	2389
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		09-18	2418
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		03-20	2392
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	Clean Water Act - Section 401	02-28	2389
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	<i>Colorado v. EPA</i>	06-12	2404
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		05-01	2398
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	<i>Maui v. Hawaii Wildlife Fund</i>	04-24	2397
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	Per- and Polyfluoroalkyl Substances (PFAS)	03-13 08-28	2391 2415
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	Toxic Substances Control Act (TSCA)	09-18	2418
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	Water Quality-Quantity Nexus (special report)	02-28	2389
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Drought	02-28	2389

	Endangered Species Act (ESA)	04-03 06-26	2394 2406
	Indian Water Rights	04-03 06-12 06-26	2394 2404 2406
	Infrastructure	02-28 06-26	2389 2406
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	More Water Now Act	02-21	2388
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	Tribal Water Rights	02-21	2388
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	Endangered Species Act (ESA)	09-04	2416
	Environmental Protection Agency	07-03	2407
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	FY2021 Interior & Environment Appropriations (special report)	02-07	2386
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	Infrastructure	02-28	2389
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	Idaho		
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	Water Resources Development Act (WRDA)	03-06	2390
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	Tom Buschatzke	08-07	2412
	Maia Bellon	01-10	2382
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	Kelly Brown	08-07	2412
	Jennifer Carr	01-03	2381
	Bradley Crowell	01-03	2381
	Garland Erbele	01-31	2385

Micheline Fairbank	01-03	2381
Gordon "Jeff" Fassett	02-14	2387
Jeanne Goodman	08-07	2412
Eric Gronlund	08-07	2412
Ryan James	01-03	2381
Greg Lovato	01-03	2381
Kyle Miller	08-07	2412
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Hunter Roberts	08-07	2412
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Ayesha Vohra	08-07	2412
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Tab XYZ – Sunsetting Positions for Spring
2021 Meetings (#417 - #422)



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
to Support the Use of
FORECAST INFORMED RESERVOIR OPERATIONS and INNOVATIONS
Arlington, Virginia
March 14, 2018**

WHEREAS, Western States experience great variability in precipitation, with serious impacts and consequences for the operation of water projects, particularly aging water infrastructure, as well as water supply and emergency planning and management, drought and flood preparedness and response, and other public and private decisions; and

WHEREAS, decisions to operate water projects to protect life and property by reducing flood risks, while at the same time maximizing water supply storage, including carryover storage, impact billions of dollars of economic investments in the West to maintain and protect municipal and industrial centers, agriculture, hydropower generation, and fisheries; and

WHEREAS, these investments depend on our ability to observe, understand, model, predict, and adapt to precipitation variability on operational time scales ranging from hours to days, weeks and months, seasons and longer; and

WHEREAS, observations, modeling, high-performance computing capabilities, research, and demonstration projects are essential to significantly improving operational forecasting of precipitation to maximize the use of our existing water storage projects to reduce flood damages, mitigate economic and environmental damages, and maximize water storage and water use efficiently; and

WHEREAS, operating aging water infrastructure effectively in the face of growing and often competing water supply and water management and flood protection demands requires that state, federal, tribal, and local agencies optimize operations and seek innovative alternative strategies to support their decision-making; and

WHEREAS, project operations and alternatives may include, but are not limited to, using enhanced forecasting capabilities to better inform reservoir operators, operations, and actions – to dynamically determine reservoir levels to improve storage opportunities, and to alter static reservoir operating rule curves and requirements based on updated hydrologic information.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council supports the use of innovative and forecast informed reservoir operations by public and private entities at all levels to maximize the effective and efficient use of our existing and future infrastructure to benefit our myriad and growing economic uses of water, while at the same time balancing and protecting our need for public health and safety, as well as a resilient and healthy environment.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
in Support of
WEATHER STATION NETWORKS
Arlington, Virginia
March 14, 2018**

WHEREAS, Western States experience great variability in precipitation, with serious impacts and consequences for water supply planning and management, drought and flood preparedness and response, water rights and water market administration, operation of water projects, and irrigation management; and

WHEREAS, sound decision-making to protect life and property and to inform decisions involving billions of dollars of economic activity involving urban centers, agricultural production, and fisheries depends on our ability to observe, understand, model, predict and adapt to precipitation variability; and

WHEREAS, data made available by weather station networks of all kinds operated by federal and state agencies, local interests, volunteer private observers, and universities that span the West is critical for sound decision-making; and

WHEREAS, at the local scale the National Weather Service's (NWS') Cooperative Observer Program – the nation's oldest and largest weather network – collects critical information on precipitation intensity that supports design of community flood control infrastructure and planning for flood hazard mitigation, especially in rural areas; and

WHEREAS, at the global scale NWS geostationary and polar-orbiting weather satellites capture the data needed to make hourly to two-week forecasts, and issue public safety warning and watches; and

WHEREAS, the U.S. Bureau of Reclamation's Agrimet network is an example of an agroclimate network of weather stations whose data can be used for improving water planning and water use efficiency in the agricultural sector, conserving water, improving crop yields, reducing pesticide and fertilizer application, and reducing energy costs for growers; and

WHEREAS, weather station network data serve as an important and efficient ground-truthing, calibration, and model validation tool for analysis of information products derived from satellite and remote-sensing platforms such as Landsat and others; and

WHEREAS, network observations can provide near real-time information for estimation of vegetation evapotranspiration (ET) and in-the-field crop water use, that can be used to

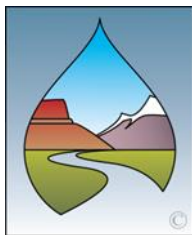
optimize production and increase the efficiency of irrigation, and are used extensively by irrigation districts, farmers, resource conservation agencies, municipal and state entities, and agricultural consultants; and

WHEREAS, agricultural water use is the largest consumptive use of water in the West, and weather stations and other observing systems that aid in water conservation and more efficient use of water will be a critical tool for meeting future water supply and water quality challenges posed by growing needs for food and fiber; and

WHEREAS, many of the nation's weather observing networks suffer from the challenges of aging instrumentation infrastructure, deferred maintenance, need for technology upgrades, and budgets that fail to keep up with observing system needs, making it difficult to maintain data continuity for users; and

WHEREAS, weather station networks operate very efficiently and yield public safety and water supply benefits that are much greater than the cost of their operation providing significant value to their users.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council expresses its continuing support for critical weather station network observations and programs and urges the Administration, Congress, and supporting partners at all levels, to give a high priority to the allocation and appropriation of funds for their continued operation and expansion.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
in support of
WATER INFRASTRUCTURE FUNDING
Arlington, Virginia
March 14, 2018**

WHEREAS, maintaining and delivering sufficient water supplies of suitable quality is key to the West's economic prosperity, environmental needs, and our quality of life, both now and in the future; and

WHEREAS, appropriate water-related infrastructure investments ensure our continued ability to store, manage, conserve, and control water during both floods and droughts – as well as protect and treat our water resources; and

WHEREAS, existing and new infrastructure is critical to meet drinking water, wastewater treatment, irrigation, hydropower, flood control, interstate compact, tribal and international treaty, fish and wildlife habitat needs; and

WHEREAS, the West depends on an intricate and aging system of weirs, diversions, dams, reservoirs, pipelines, aqueducts, pumps, canals, laterals, drains, levees, wells, stormwater channels, and water and wastewater treatment and hydroelectric power plants; and

WHEREAS, water infrastructure in the West is financed and maintained under a complex network of state, tribal, local, private, and federal ownership, benefitting a broad segment of water users and other stakeholders;

WHEREAS, inconsistent, inadequate, and untimely funding increases project construction and financing costs, as well as risk, including the failure of critical infrastructure; and

WHEREAS, substantial and sustained investments in water project construction, maintenance, rehabilitation and replacement is necessary and pays long-term dividends to the economy, public health and safety, and the environment; and

WHEREAS, water infrastructure systems require ongoing, thoughtful investments to account for life-cycle costs, and should be managed with planned retirement or replacement in mind; and

WHEREAS, existing federal, state and local programs to publicly finance water-related infrastructure projects are crucial, but insufficient to meet water quality and water resources management challenges related to future growth, including municipal, industrial, agricultural, environmental, and energy needs; and

WHEREAS, the federal government has a significant role to play in financing and cost-sharing for water-related infrastructure given federal economic and environmental objectives, federal tribal trust and treaty obligations, other past commitments, and federal regulatory mandates; and

WHEREAS, aging federal water infrastructure has deteriorated – due to underfunded and deferred maintenance, repair, and replacement needs – and in many cases has exceeded its useful lifespan, raising public health and safety issues, risking loss of life and threatening public and private property; and

WHEREAS, federal financial resources are limited and many authorized federal water infrastructure projects have not been started or remain incomplete for decades due to inconsistent, incremental, or insufficient appropriations; permitting and licensing backlogs; duplicative environmental reviews; litigation delays; and oversight by multiple federal agencies without adequate interagency coordination; and

WHEREAS, current federal budget scoring guidelines assess the full cost of infrastructure investments up front, while disproportionately discounting long-term economic, public health and safety, and environmental benefits – sometimes making new water project investments challenging to justify financially; and

WHEREAS, local water district and state agency investments, private capital markets, performance-based contracting, and other alternatives offer help to close the federal funding, delivery, and maintenance gaps, and meet some of our national water infrastructure needs in partnership with federal agencies; and

WHEREAS, such partnerships have the potential to reduce overall project development costs and risks associated with such capital investments, expedite project delivery and associated water resource benefits, improve efficiencies and cost effectiveness, and maximize the respective strengths of the public and private sectors; and

WHEREAS, opportunities exist to leverage federal and non-federal funding through grants, loans and credit enhancements, as well as provide greater access to private sources of financing; and

WHEREAS, there is no one-size-fits-all program, but several federal financial and technical assistance programs, grants, loans, cost-share programs, and federal-state-local or public-private partnerships have proven beneficial to the timely completion and ongoing maintenance of infrastructure projects at all scales; and

WHEREAS, federal agencies often lack legislative authority to dedicate a sustained revenue stream to assure non-federal investors are fairly compensated for the costs and risks of constructing or maintaining federal water projects, sometimes requiring approval through an act of Congress to proceed.

NOW, THEREFORE, BE IT RESOLVED that the Council supports collaboration and leadership at all government levels – federal, state, tribal, and local – and the private sector – to address the Nation’s infrastructure needs and establish water infrastructure improvements as a public policy priority.

BE IT FURTHER RESOLVED that the Council supports appropriate federal investments in water-related infrastructure projects and programs that provide jobs and economic security, while protecting the environment.

BE IT FURTHER RESOLVED, that the Administration and Congress should work together to ensure adequate, stable, and continuing federal appropriations for constructing, maintaining, and replacing critical federal water projects and to assist States and local governments as they address their water infrastructure needs.

BE IT FURTHER RESOLVED that the Council encourage Congress and the Administration to continue to work together and with States to streamline permitting processes and coordinate environmental and other regulatory reviews to eliminate duplicative procedures, reduce costs of compliance and construction, and ensure timely completion, maintenance, or relicensing of authorized infrastructure projects so vital to the West and the Nation.

BE IT FURTHER RESOLVED that the Council supports the creation and maintenance of dedicated water infrastructure funding through special accounts with dedicated receipts to be promptly appropriated for authorized purposes following their deposit, as well as a variety of grant, loan, credit enhancement and other financial incentive programs to help meet diverse needs at all scales.

BE IT FURTHER RESOLVED that the Council supports appropriate infrastructure asset management and capital budgeting.

BE IT FURTHER RESOLVED that the Council supports a method of congressional budget scoring that considers the unique timing of the costs and benefits of water infrastructure investments, and accounts for long-term public health and safety, economic and environmental benefits, with fair and appropriate discounting.



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
Integrating Water and Energy Planning and Policy**

**Arlington, Virginia
March 14, 2018**

WHEREAS, the West enjoys diverse and abundant energy resources, including renewable and non-renewable resources, but water is scarce in much of the region and may or may not be sufficient for all proposed uses; and

WHEREAS, power plant cooling and other energy resource development and related water requirements can be significant on state, local and westwide scales; and

WHEREAS, the West is a leader in the planning, development, diversification, management and protection of the Nation's water and energy resources; and

WHEREAS, in the West, maintaining adequate and sustainable supplies of clean water and energy present interrelated challenges given a growing population, increasing water and energy demands, and an uncertain climate subject to multi-year drought and other extremes; and

WHEREAS, an integrated approach to water and energy resource planning, development, diversification, management and protection is necessary to achieve a thriving and sustainable future for the West; and

WHEREAS, effectively planning for the future requires gathering and integrating data and information on past, present and future water and energy supplies and demands, including embedded demands by different sectors/uses and users; and

WHEREAS, in general, current water use data (especially consumptive water use data) are not sufficient for detailed and comprehensive analyses to support many water/energy decisions and policymakers' needs; and

WHEREAS, the Western Governors' Association (WGA), Western States Water Council (WSWC), Department of Energy (DOE), Sandia National Laboratories (and other DOE laboratories), Western Interstate Energy Board (WIEB), Western Electric Coordinating Council (WECC), Electric Reliability Council of Texas (ERCOT) and others have worked collaboratively to develop a better understanding of water and energy supplies and demands; and

WHEREAS, public-private partnerships are increasingly important in addressing our future water and energy challenges; and

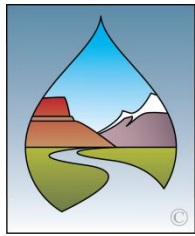
WHEREAS, there is a continuing need for federal and state water and energy resource agencies, public utility commissions, and other planners, regulators and policymakers to better

define and consider the nexus between water and energy resources in their respective areas of jurisdiction; and

WHEREAS, continuing water and energy nexus research and development is needed to further our understanding and evaluate the effectiveness of different policies and programs given various future scenarios;

NOW THEREFORE BE IT RESOLVED, that western water and energy planners, policymakers, managers and regulators should consider the following:

- (1) integrating water and energy policies and engaging water and energy planners to maximize program and project effectiveness and efficiencies;
- (2) supporting new and continuing data gathering, analyses and research related to better understanding water and energy supplies and demands, and related science;
- (3) promoting integrated water and energy conservation and use efficiency;
- (4) seeking to minimize economic, environmental and other costs of providing adequate, reliable and sustainable supplies of water and energy;
- (5) expanding public education, engagement and outreach to highlight the importance, vulnerability and interrelated nature of our water and energy resources;
- (6) 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;
- (7) 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;
- (8) seeking to develop a diversified portfolio of water and energy resources and assets to maximize reliability and flexibility;
- (9) taking advantage of synergies and economies of scale related to integrating water and energy conservation, development and protection programs and projects;
- (10) evaluating and integrating life-cycle costs related to water and energy supply development, conveyance and transmission;
- (11) integrating short and long-range water and energy supply planning;
- (12) promoting the development and use of “smart” technologies for management of water and energy demands and production; and
- (13) ensuring that the West maintains sustainable, reliable and robust infrastructure systems necessary to deliver adequate supplies of clean water and energy to meet present and future needs.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
supporting
FEDERAL RESEARCH ON CLIMATE ADAPTATION
Arlington, Virginia
March 14, 2018**

WHEREAS, climate variability has serious potential consequences for water supply availability, water resources planning and management, water rights administration, flood management, and water quality management; and

WHEREAS, much of the West's water infrastructure was designed and constructed prior to our current understanding of climate variability, often from short hydrologic records from the first half of the 20th century; and

WHEREAS, the impacts of climate variability can include increased frequency and intensity of severe weather (droughts and floods), reduction of mountain snowpacks, changes in timing and amount of snowmelt runoff, and changes in plant and crop evapotranspiration resulting in changed water demand patterns; and

WHEREAS, climate variability is an additional stressor on western water resources, which are already challenged by population growth, competition for scarce resources, increasingly stringent environmental regulations, and other factors; and

WHEREAS, water resources planning and management at all levels of government and sound future decision-making depend on our ability to understand, monitor, predict, and adapt to climate variability; and

WHEREAS, the Council has over the years co-sponsored several workshops to gather input on climate adaptation and research needs, including research on extreme events; and

WHEREAS, these workshops and various federal reports have helped in identifying knowledge gaps, research needs, opportunities to improve planning capabilities, and other activities that would assist in climate adaptation, including those that could impact water quality and thus, available water supply; and

WHEREAS, applied research needs and improvements to water resources planning capabilities include subjects such as evaluation of modifications to reservoir flood control rule curves, evaluation of the adequacy of existing federal hydroclimate monitoring networks, improvements to extreme precipitation observing networks and forecasting capabilities, development and improvement of applications for remote sensing data (satellite imagery), preparation of reconstructed paleoclimate datasets for drought analyses, and development of new guidelines for estimation of flood flow frequencies;

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council supports state and federal applied research and hydroclimate data collection programs that would assist water agencies at all levels of government in adapting to climate variability and making sound scientific decisions.



**POSITION
of the
WESTERN STATES WATER COUNCIL
on
STATE PRIMACY OVER GROUNDWATER**

**Arlington, Virginia
March 14, 2018**

WHEREAS, groundwater is a critically important natural resource that is vital to the economy and environment of the arid West;

WHEREAS, the Desert Land Act of 1877 and the United States Supreme Court in *California Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142 (1935) recognize States have exclusive authority over the allocation and administration of rights to the use of the groundwater within their borders and States and their political subdivisions are primarily responsible for the protection, control and management of the resource;

WHEREAS, the Congress has created and the U.S. Supreme Court has recognized federal reserved rights to surface water, but no federal statute has addressed any federal property or other rights related to groundwater; and

WHEREAS, the regulatory reach of federal statutes and regulations, including but not limited to the Clean Water Act, Endangered Species Act, Multiple-Use Sustained-Yield Act, National Environmental Policy Act, Organic Administration Act (USFS), Reclamation Act of 1902, Safe Drinking Water Act, Wild and Scenic Rivers Act, Wilderness Act and the Comprehensive Environmental Response, Compensation, and Liability Act, were never intended to infringe upon state ownership or control over groundwater; and

WHEREAS, States recognize the importance of effective groundwater management and are in the best position to protect groundwater quality and allow for the orderly and rational allocation and administration of the resource through state laws and regulations that are specific to their individual circumstances; and

WHEREAS, working cooperatively with their federal partners, states have shown that they have the ability and authority to address federal needs regarding groundwater within existing legal frameworks, including but not limited to memoranda of understanding, water rights compacts, stipulations, and other methods; and

WHEREAS, the conditions affecting groundwater supplies, demands, and impairments vary considerably across the West and within individual states; and

WHEREAS, federal efforts to exert control over or ownership interests related to groundwater or otherwise infringe upon or supersede state rights to the use of groundwater or state groundwater management laws and authorities are contrary to federal law and threaten effective groundwater management and protection; and

WHEREAS, nothing stated in this position is intended to apply to the interpretation or application of any interstate compact, court decrees, international treaty or tribal settlement agreement.

WHEREAS, states have exclusive authority over the allocation and administration of rights to the use of the groundwater located within their borders and are primarily responsible for allocating, protecting, managing and otherwise controlling the resource; and

NOW THEREFORE BE IT RESOLVED, that the Western States Water Council opposes any and all efforts that would establish a federal ownership interest in groundwater not otherwise recognized or allowed under state law, or diminish the primary and exclusive authority of States over groundwater; and

BE IT FURTHER RESOLVED, that federal agencies should work cooperatively with appropriate state agencies and officials to address federal needs involving groundwater through state laws and authorities.