

2019

ANNUAL REPORT

of the

WESTERN STATES WATER COUNCIL

54th Annual Report

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OF THE

WESTERN STATES WATER COUNCIL

INTRODUCTION

The first official meeting of the Western States Water Council (WSWC) was held on the south shore of Lake Tahoe, at Stateline, Nevada on August 3, 1965. The Western Governors' Conference approved the creation of the WSWC during meetings in Portland, Oregon on June 10-13, 1965. The Governors' resolution explicitly stated: "The future growth and prosperity of the western states depend upon the availability of adequate quantities of water of suitable quality." Further, the governors felt that a fair appraisal of future water needs, and the most equitable means of meeting such needs, demanded a regional effort. Water availability and interbasin transfers of water were important issues. Western states found themselves in an era of rapid federal water resources development, and regional or basinwide planning, without a sufficient voice in the use of their water resources. The WSWC has since provided a unified voice on behalf of western governors on water policy issues.

The WSWC is a government entity, and instrumentality of each and every participating state. The emphasis and focus of the WSWC has changed over the years as different water policy problems have evolved. However, the commitment toward reaching a regional consensus on issues of mutual concern has continued. The WSWC has proven to be a dynamic, flexible institution providing a forum for the free discussion and consideration of many water policies that are vital to the future welfare of the West. As envisioned by the Western Governors' Conference, it has succeeded as a continuing body, serving the governors in an expert advisory capacity. Over the years, the WSWC has sought to develop a regional consensus on westwide water policy and planning issues, particularly federal initiatives. The WSWC strives to protect western states' interests in water, while at the same time serving to coordinate and facilitate efforts to improve western water management.

WSWC membership and associate membership status is determined based on a request from the governor. Originally, WSWC membership consisted of eleven western states: **ARIZONA, CALIFORNIA, COLORADO, IDAHO, MONTANA, NEVADA, NEW MEXICO, OREGON, UTAH, WASHINGTON and WYOMING**. In 1978, **TEXAS** was admitted to membership, after many years of participation in WSWC activities in an "observer" status. **ALASKA** requested and received membership in 1984. **NORTH DAKOTA** and **SOUTH DAKOTA** both received membership in 1988 after a long association with the WSWC. **HAWAII** was a member from 1991-1999. In 1999, **OKLAHOMA** requested and received membership. In 2000, both **KANSAS** and **NEBRASKA** joined the WSWC at the request of their respective governors. WSWC membership is automatically open to all member states of the Western Governors' Association (WGA). Other states may be admitted by a unanimous vote of the member states.

Associate membership has also been granted states exploring the benefits of membership, experiencing financial hardship, or otherwise temporarily unable to maintain full membership.

Each member state's governor is an ex-officio WSWC member. The governor may appoint up to three Council members or representatives, and as many alternate members as deemed necessary. They serve at the governor's pleasure. (Associate member states are limited to two representatives and two alternates.)

WSWC officers, including the Chair, Vice-Chair, and Secretary-Treasurer, are elected annually from the membership. State representatives are appointed to working committees, with one representative per state also appointed to an Executive Committee. The Executive Committee attends to internal WSWC matters with the assistance of a Management Subcommittee, which includes the WSWC officers, immediate past Chair, and Executive Director. The WSWC's working committees are the Legal Committee, the Water Quality Committee, and the Water Resources Committee. Each working committee is directed by a committee chair and vice-chair. Committee chairs, in turn, name special subcommittees and designate subcommittee chairs to study issues of particular concern.

Meetings of the Council are held on a regular basis, rotating among the member states, with state representatives hosting Council members and guests. In 2019, meetings were held in: Chandler, Arizona on March 19-22; Leavenworth, Washington on July 16-18; and Breckenridge, Colorado on October 15-18. Guest speakers are scheduled according to the relevant subjects to be considered at each meeting. The Council meetings are open to the public. Information regarding future meeting locations and agenda items can be obtained by contacting the Council's office, or visiting our website. Included herein are reports on each of the Council meetings, positions and resolutions adopted by the Council, and a discussion of other important activities and events related to western water resources. Other information about the Council and Council members is also included.

The WSWC relies primarily on state dues for funding the organization. Dues are set by the Executive Committee and each state pays the same amount. A copy of the audit performed for the fiscal year ending June 30, 2019 can be obtained from the WSWC office.

During 2019, the WSWC staff was comprised of: Anthony G. (Tony) Willardson, Executive Director; Michelle Bushman, Legal Counsel; Sara Larsen, Senior Program Manager; Adel Abdallah, Senior Hydroinformatics Specialist; John D'Anontio (USACE) and Deborah Lawler (USBR), WestFAST Liaisons; Cheryl Redding, Office Manager; and Julie Groat Administrative Assistant.

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WESTERN STATES WATER COUNCIL Committee Assignments

EXECUTIVE COMMITTEE

David Schade - Alaska
Thomas Buschatzke- Arizona
Jeanine Jones - California
(Chair)
Karla Nemeth - California
(Alternate)*
John Stulp - Colorado
Hal Simpson - Colorado
(Alternate)*
Jerry Rigby - Idaho
David Barfield - Kansas
Tim Davis - Montana
(Vice-Chair)
Jeff Fassett - Nebraska
Tim Wilson - Nevada
Roland Westergard - Nevada
(Alternate)*
John D’Antonio - New Mexico
Garland Erbele - North Dakota
Julie Cunningham - Oklahoma
Thomas Byler - Oregon
Kent Woodmansey - South Dakota
Jon Niermann - Texas
Eric Millis - Utah
Mary Verner - Washington
Patrick T. Tyrrell - Wyoming

Management Subcommittee

Jeanine Jones
(Chair)
Tim Davis
(Vice-Chair)
Jennifer Verleger
(Secretary/Treasurer)
Tony Willardson
(Executive Director)
Jerry Rigby
(Former Chair)

Nominating Subcommittee

Roland Westergard **(Chair)** - Nevada
Hal Simpson - Colorado
Jeff Fassett - Nebraska
Garland Erbele - North Dakota
Pat Tyrrell - Wyoming

Ex-Officio Representatives

*For purposes of Committee rosters, the designation as an “alternate” only reflect the person’s function on the Committee.

LEGAL COMMITTEE

David Schade - Alaska
William Staudenmaier - Arizona
Cynthia Chandley - Arizona
(Alternate)*
Jeanine Jones - California
Kevin Rein - Colorado
Jerry Rigby - Idaho
John Simpson - Idaho
(Alternate)*
Kenneth Titus - Kansas
Jay Weiner - Montana
Jim Macy - Nebraska
Tim Wilson - Nevada
Roland Westergard - Nevada
(Alternate)*
Greg Ridgley - New Mexico
Maria O'Brien - New Mexico
(Alternate)*
Jennifer Verleger - North Dakota
Rob Singletary - Oklahoma
Thomas Byler - Oregon
Kent Woodmansey - South Dakota
Jon Niermann - Texas
Norman Johnson - Utah
Alan Reichman - Washington
Chris Brown - Wyoming
(Chair)

Clean Water Act Jurisdiction

Trisha Oeth - Colorado
Barry Burnell - Idaho
Tom Stiles - Kansas
Jennifer Verleger - North Dakota
Allison Woodall - Texas
Lauren Driscoll - Washington
Bill DiRienzo - Wyoming

Non-Tribal Federal Water Needs Subcommittee

Jay Weiner - Montana
Kristen Geddy - Nevada
Susan Joseph-Taylor - Nevada
Greg Ridgley - New Mexico
Jennifer Verleger - North Dakota
Jonathan Allen - Oklahoma
Dwight French - Oregon
Jesse Ratcliff - Oregon
Kathy Alexander - Texas
Norm Johnson - Utah
Buck Smith - Washington
Abigail Boudewyns - Wyoming
Chris Brown - Wyoming

Ex-Officio Representatives

BLM - Paul Curtis
BOR - Deborah Lawler
Owen Walker
DOD - Marc Kodack
Lauren Dempsey
USFS - Michael Eberle, Chris Carlson
NPS - Jeff Hughes, Peter Fahmy

Tribal Reserved Water Rights Subcommittee

William Staudenmaier - Arizona
Cynthia Chandley - Arizona
Jay Weiner - Montana
Greg Ridgley - New Mexico
Arianne Singer - New Mexico
Norman Johnson - Utah

WRDA/Corps Policies

Tom Stiles - Kansas
Tim Davis - Montana
Jennifer Verleger - North Dakota
Kathy Alexander - Texas

WATER QUALITY COMMITTEE

Vacant - Alaska
Trevor Baggione - Arizona
Eileen Sobeck - California
Betty Olson - California
(Alternate)*
Trisha Oeth - Colorado
Patrick Pfaltzgraff - Colorado
(Alternate)*
John Tippets - Idaho
Tom Stiles - Kansas
Tim Davis - Montana
Jim Macy - Nebraska
Greg Lovato - Nevada
Vacant - New Mexico
David Glatt - North Dakota
Julie Cunningham - Oklahoma
Shellie Chard - Oklahoma
(Alternate)*
Jennifer Wigal - Oregon
Kent Woodmansey - South Dakota
(Chair)
Jon Niermann - Texas
L'Oreal Stepney - Texas
(Alternate)*
Scott Baird - Utah
Erica Gaddis - Utah
(Alternate)*
Maia Bellon - Washington
Kevin Frederick - Wyoming
(Vice-Chair)
Todd Parfitt - Wyoming
(Alternate)*

Clean Water Act Subcommittee

Trisha Oeth - Colorado
Barry Burnell - Idaho
Tom Stiles - Kansas
Jennifer Verleger - North Dakota
Allison Woodall - Texas
Lauren Driscoll - Washington
Kevin Frederick - Wyoming

Water Quality/Quantity Nexus Workgroup

Tom Stiles - Kansas
Kent Woodmansey - South Dakota

WATER RESOURCES COMMITTEE

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Karla Nemeth - California
Jeanine Jones - California
(Alternate)*
Rebecca Mitchell - Colorado
John Stulp - Colorado
(Alternate)*
John Simpson - Idaho
Jerry Rigby - Idaho
(Alternate)*
David Barfield - Kansas
John Tubbs - Montana
Tim Davis - Montana
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Jeff Fassett - Nebraska
Tim Wilson - Nevada
John D'Antonio - New Mexico
Garland Erbele - North Dakota
Julie Cunningham - Oklahoma
Thomas Byler - Oregon
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Kent Woodmansey - South Dakota
Jon Niermann - Texas
L'Oreal Stepney - Texas
(Alternate)*
Eric Millis - Utah
(Vice-Chair)
Maia Bellon - Washington
Steve Wolff - Wyoming

Climate Adaptation and Drought Subcommittee

Jeanine Jones - California (Chair)

Ex-Officio Representatives

Corps - Rolf Olsen
NRCS - Mike Strobel

Water Information and Data Subcommittee (WIDS)

Lisa Williams - Arizona
Mathew Weaver - Idaho
Lane Letourneau - Kansas
Ginger Pugh - Kansas
Julie Cunningham - Oklahoma
Kent Wilkins - Oklahoma
Ken Stahr - Oregon
Kathy Alexander - Texas
Todd Adams - Utah
Candice Hasenyager - Utah
Steve Wolff - Wyoming

Ex-Officio Representatives

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USBOR - Allison Danner
USEPA - Dwane Young
USGS - Nancy Barber
NASA - Brad Doorn
NOAA - DeWayne Cecil
NRCS - Mike Strobel

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**Council Members
Leavenworth, Washington
June 19, 2019**



Front Row: (left to right)

Jeanine Jones, Greg Ridgley, Tom Buschatzke, Kent Woodmansey, Kyle Miller, Mary Verner, Sara Gibson, L'Oreal Stepney

Second Row: (left to right)

Jon Niermann, Kevin Frederick, John D'Antonio, Steve Goans, Chris Brown, Garland Erbele, Tom Byler

Back Row: (left to right)

Steve Wolff, Jan Langel, Todd Stonely, Buck Smith, Mike Gallagher, Jerry Rigby, David Barfield

COUNCIL STAFF



Anthony G. (Tony) Willardson
Executive Director



Michelle Bushman
Legal Counsel



Sara Larsen
Senior Program Manager



Adel Abdallah
Sr. Hydroinformatics Specialist



Cheryl Redding
Office Manager



Julie Groat
Administrative Assistant



John D'Antonio, USACE
WestFAST Liaison
2018 - 2019



Deborah Lawler, USBR
WestFAST Liaison
2019 - Current

COUNCIL MEMBERSHIP/STAFF CHANGES/NEWS

IN MEMORIAM

Ray Wendell Rigby, 96, a former WSWC Chair from 1982-1983, passed away on June 12. He was appointed by Idaho governors to serve on numerous boards and committees for the state - including representing Idaho on the WSWC for 15 years (1973-1988). His son Jerry currently represents Idaho and served as WSWC Chair from July 2016-2018. Ray founded Rigby, Andrus & Rigby, PLLC in 1950. Because of his background in farming and his knowledge of the value of water and electricity, his law practice emphasis was on water law and rural electric cooperatives and was recognized as one of Idaho's foremost experts in water law and rural electrification law. He worked tirelessly for over 62 years, also as an advocate with countless individuals to ensure that their affairs were in order and their rights were recognized and protected. He received the Idaho State Bar's Professionalism Award, and the Idaho State Bar's highest award, the Distinguished Lawyer Award. He was a loving father, grandfather, and great-grandfather. We express our sincere condolences to Jerry and the rest of Ray's family.

Nebraska

In October, **Jim Macy**, Director, Nebraska Department of Environment and Energy, was named as President of the Environmental Council of the States (ECOS). ECOS is a national nonprofit, nonpartisan association of state and territorial environmental agency leaders. The purpose of ECOS is to improve the capability of state environmental agencies and their leaders to protect and improve human health and the environment. Jim was appointed to the Council in May 2015 and served on the Legal and Water Quality Committees.

Nevada

In January, after 28 years of service to Nevada, WSWC member **Jason King**, retired as State Engineer, Nevada Division of Water Resources, a position he held for the last eight years. Jason was appointed to the WSWC in February 2012 and served on the Executive, Legal, and Water Resources Committees.

In December, Governor Steve Sisolak appointed **Micheline Fairbank**, Deputy Administrator (Water Rights), Nevada Division of Water Resources (NDWR); **Adam Sullivan**, Deputy Administrator (Hydrology), NDWR; and **Jennifer Carr**, Deputy Administrator, Nevada Division of Environmental Protection (NDEP) to the WSWC. Governor Sisolak also appointed **Bradley Crowell**, Director, Nevada Department of Conservation and Natural Resources; **Tim Wilson**, Acting State Engineer, Nevada Division of Water Resources; **Greg Lovato**, Administrator, NDEP; and **James Bolotin**, Deputy Attorney General, Nevada Attorney General's Office to serve as alternate representatives. **Roland Westergard**, former State Engineer, and long-time WSWC member will also continue to serve as an alternate member.

South Dakota

In July, After 44 years of service to South Dakota, WSWC member, **Steven Pirner**, Secretary, South Dakota Department of Environment and Natural Resources, announced his retirement to Governor Kristi Noem. Steven was appointed to the WSWC in June 1998 and has served on the Executive and Water Quality Committees.

Utah

In December, after 32 years of service to the State of Utah, WSWC Member, **Eric Millis**, Director, Utah Division of Water Resources announced his retirement. Eric was appointed to the WSWC in February 2014 and has served on the Executive and Water Resources Committees.

Wyoming

In March, **Harry LaBonde**, WSWC Member and Director of the Wyoming Water Development announced his retirement. Harry was appointed as an alternate member to the Council in January 2013.

WSWC/WestFAST

In July, **Sara Larsen**, Sr. Program Manager, accepted a position as Deputy Director of the Upper Colorado River Commission, an interstate administrative agency that was established by action of five state legislatures and Congress with the enactment of the 1948 Upper Colorado River Basin Compact. Sara joined the WSWC staff on January 1, 2012 to help implement and manage our then new Water Data Exchange (WaDE). Her service as a Sr. Program Manager was a catalyst in helping WSWC States improve their water informatics to better support state and federal decisionmaking, related to water availability and planning efforts. Under her direction, the WSWC stood up its WaDE portal, through which 16 States now share data. WaDE will continue as part of her legacy, with significant recognition and support from public and private partners. Sara earned her Professional Engineering license in 2018.

Dr. Adel Abdallah, the WSWC's Senior Hydroinformatics Specialist, was promoted to the WaDE Program Manager position. He completed his PhD in civil engineering at Utah State University. He directed efforts with an outside firm to complete the WaDE 2.0 architecture and is overseeing efforts of three interns in assisting member states to update their water data and improve accessibility and visualization for better decisionmaking.

Deborah Lawler was selected as the new WSWC and Western States Federal Agency Support Team (WestFAST) Federal Liaison. Deborah, U.S. Bureau of Reclamation (USBR), will serve a two-year detail. She has nearly 35 years of federal experience, and previously served as Special Assistant to the USBR's Deputy Commissioner for Operations. Most recently, Lawler served as the liaison between the USBR's Commissioner and the Assistant Secretary for Water and Science, where she was involved in major water resources activities including legislation, policy, construction, planning, operation and maintenance, administration, and program coordination. She replaced John D'Antonio, former WestFAST Liaison, who was appointed New Mexico State Engineer in February.

COUNCIL MEETINGS

189th Council Meetings Chandler, Arizona March 19-22, 2019

The 189th meetings of the Western States Water Council (WSWC) were hosted by the State of Arizona in Chandler on March 19-22. The Council renewed two sunseting positions with minor revisions. The first supports federal and state legislative and administrative actions to authorize and implement rural water supply projects and programs that enhance water supplies and promote economic development, through streamlined permitting processes and appropriate financing instruments, while protecting environmental resources and taxpayers.

The second position supports federal legislative and administrative actions to authorize and implement reasonable hydropower projects and programs that enhance our electric generation capacity and promote economic development, through efficient permitting processes, while appropriately protecting environmental resources and respecting States' §401 certification authority under the Clean Water Act (CWA).

Hunter Moore, Natural Resources Policy Advisor to Governor Doug Ducey, discussed Arizona's efforts to prepare for drought and improve water management in an arid climate. He acknowledged several of Arizona's important water leaders – Rod Lewis, Mo Udahl, Bruce Babbitt, John Kyl – and said Governor Ducey has picked up that torch and is continuing to address critical water issues. He noted the bipartisan effort to complete the Arizona Drought Contingency Plan (DCP) and thanked the other states for their patience as Arizona worked with water stakeholders to find workable solutions. He compared water to a Rubik's cube, including federal, state, tribal, local, mining, utility, groundwater and surface water interests. When the governor says he wants to tweak the cube, everyone sits forward in their seat and says, "Before you do that, let me tell you how that will affect me." Making any changes requires carefully talking through how each water user will be impacted.

During a State Water-Related Infrastructure Financing Strategies Workshop prior to the meetings, representatives from Arizona, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming discussed their respective financing programs for water infrastructure. They addressed legislation, fees and revenue streams, planning, permitting, projects built, cost-sharing programs, implementing state water plans, and lessons learned. The Water Resources Committee directed WSWC staff to prepare a summary of the workshop.

In the Water Resources Committee, WSWC Chair, Jeanine Jones (California) provided an update on seasonal to sub-seasonal forecasting improvement efforts. She also noted the upcoming workshop with National Aeronautics and Space Administration (NASA) to address technology transition and the need to move missions from research to operations. WSWC Vice-Chair Tim Davis (Montana) led discussions about state infrastructure financing, adding to the previous day's workshop, and groundwater recharge and recovery projects.

Virginia O'Connell, Manager, Arizona Water Banking Authority (AWBA), discussed the history and policies that led to Arizona's groundwater banking program. The 1980 Groundwater Management Act was intended to reduce groundwater use, and secure federal approval of the Central Arizona Project (CAP). CAP water was costly, but the project needed to be repaid, and Arizona wanted to use their full allocation of Colorado River water, so they developed a framework for groundwater recharge and recovery, with separate permitting systems for facilities, water storage, and recovery. Arizona has 101 recharge projects, with 4.2 million acre-feet stored as water credits for future use. The AWBA was established to store unused Colorado River entitlements and assist in fulfilling Active Management Area objectives. The program requires monitoring, ensuring legal access to the source water, analysis of well spacing and hydrology to ensure no harm to others, and consideration of losses to the aquifer.

Sharon Megdal, Director, Arizona Water Resources Research Center, spoke about the governance and management of groundwater, including recharge and banking, which varies across the West. She noted the benefits of sharing our expertise, and she expressed interest in collaborating with states and bridging academic work with real world experience.

In the Water Quality Committee, David Castanon, Los Angeles Regulatory Division Chief, U.S. Army Corps of Engineers (Corps) and David Lelsz, CWA §404 Project Manager, Arizona Department of Environmental Quality, provided federal and state perspectives on Arizona's efforts to assume CWA §404 authority for enforcement efficiencies. They developed a Corps-Arizona Memorandum of Agreement (MOA) to maintain cooperation and coordination through the transition, addressing how to handle existing projects, environmental reviews, and permits.

Jeri Sullivan Graham, Research Professor, University of New Mexico Center for Water and the Environment, provided an overview of New Mexico's efforts to identify technological and legal constraints on using produced waters from oil and gas production. The Environmental Protection Agency (EPA) and New Mexico held a workshop last Fall, addressing topics such as vetting effective treatment technology, use of public-private partnerships, developing a resource recovery master plan, tying incentives to reductions in the use of fresh water for oil and gas production, and how to deal with waste from treated water.

Ward Scott, Policy Advisory, Western Governors' Association (WGA), provided a summary of efforts to communicate with members of Congress, EPA, and the Corps regarding state CWA §401 certification authority, emphasizing the importance of consulting with states before making any changes to rules or guidance. Roger Gorke, EPA WestFAST, provided an update on the Water Reuse Action Plan. He invited the states to participate on a conference call to discuss practical ways the plan can meet state and local needs.

During the Legal Committee, Pam Williams, Director, Secretary's Indian Water Rights Office, Department of the Interior (DOI), offered a presentation on the federal government's role in negotiating Indian water rights settlements. She noted that the new House leadership has indicated it will not adhere to the requirements of the Rep. Rob Bishop (R-UT) letter.

A presentation on Federal Collaborative Action and Dispute Resolution (CADR) programs was given by: Brian Manwaring, Director, U.S. Institute for Environmental Conflict; Sarah Palmer, Senior Program Manager, DOI CADR; and Cathy Humphrey, Collaboration Specialist, Bureau of

Land Management, CADR. They recently completed a ten-year report from all federal conflict resolution centers, which includes important lessons learned. The programs operate as impartial facilitators and mediators to engage federal agencies, partners, and the public for better solutions to complex problems, to turn conflict into constructive dialogue.

A field trip prior to the meetings offered members the opportunity to see the Gila River Indian Community's Riparian Restoration and Underground Storage Project, prehistoric canal systems of the Hohokam people, and the Rio Salado Habitat Restoration area. Members also visited the Tempe Environmental Sampling Campus, one of four training sites created to pass on institutional knowledge from retirees to incoming employees.

**190th Council Meetings
Leavenworth, Washington
June 16-19, 2019**

The 190th meetings of the WSWC were hosted by the State of Washington in Leavenworth on July 16-18. The Council adopted a new position supporting interagency coordination between the Federal Communications Commission (FCC), the National Oceanic and Atmospheric Administration (NOAA) and other state and federal agencies, to preserve radio frequencies necessary for weather forecasting and water and emergency management. The FCC is considering auctioning more bandwidth for expansion of 5G communications, raising concern over possible interference.

The WSWC revised and re-adopted three sunseting positions that: (1) support current and future needs to improve subseasonal to seasonal (S2S) forecasting and extreme events response and resiliency; (2) state that the WSWC "opposes any and all efforts that would diminish the primary and exclusive authority of states over the allocation of water resources used in hydraulic fracturing;" and (3) urge support for water research at the Department of Energy National Laboratories.

In the Water Resources Committee, Mindi Dalton, Program Coordinator, Water Availability and Use Science Program, U.S. Geological Survey (USGS), talked about Integrated Water Availability Assessments (IWAAs), a new activity stemming from provisions of the SECURE Water Act. USGS is working toward water use data that is nationally consistent. Chad Wagner, Program Coordinator, Groundwater and Streamflow Information Program, USGS, provided an update on the Next Generation Water Observing System (NGWOS), which will provide high temporal and spatial resolution in real-time for both field and remote sensing data, including snowpack, evapotranspiration, rainfall, soil moisture, and other information. USGS will implement NGWOS pilots in ten medium-sized watersheds that represent larger water resource regions, augmenting the existing streamgauge network with modest enhancements. The IWAAs and NGWOS programs will build on each other in a collaborative and iterative process.

Tom Tebb, Director, Office of the Columbia River, Washington Department of Ecology (WaDOE), provided an overview of the water-related issues Washington faces, from aggressively pursuing water supply development and investing in infrastructure to restoring native fisheries and pursuing environmental justice. WaDOE is working to address declining groundwater levels in the Odessa aquifer through conservation and developing surface water resources, and continuing efforts to implement the Yakima Basin Integrated Plan. WaDOE is also exploring potential uses of aquifer storage and recovery. Updating aging infrastructure and technology is another challenge. Mike

Gallagher, Water Resources Section Manager, WaDOE, talked about variations in annual precipitation, the current drought, groundwater depletions and geologic constraints on aquifer recharge. It is challenging to work within various state and federal laws and meet diverse water needs across the state. They manage water rights alongside instream flows, tribal treaties, endangered species, infrastructure needs, and exempt wells.

In the Water Quality Committee, Heather Bartlett, Water Quality Program Manager, WaDOE, described the CWA §401 certification process in Washington, and the significant adverse impacts that the Millennium Bulk Terminal coal export project would have on water quality, leading to certification being denied with prejudice. Ward Scott, Policy Advisory, WGA, provided an update on recent efforts to communicate with the EPA on the importance of protecting states' authority under CWA §401 to certify that any federal license, permit or other action will comply with state water quality standards. Jessica Kramer, Office of Water, EPA, confirmed that a proposed rule on §401 procedures is currently at the Office of Management and Budget (OMB) for review, and is expected to be released on August 8.

The Committee discussed EPA's Water Reuse Action Plan, and decided to update the Council's 2011 report on water reuse. Additionally, members expressed interest in continuing the pre-meeting workshops on the water quality-water quantity nexus, incorporating the state water reuse update. There was a discussion on state and federal efforts to promote Good Samaritan cleanups of abandoned mines within existing laws. Several states also provided updates on addressing harmful algal blooms with guidance and advisories.

During the Legal Committee, Alan Reichman, Assistant Attorney General, Ecology Division, Washington State Attorney General's Office, talked about trends in Washington's case law. He noted the significant milestone of completing the Aquavella general adjudication of over 22,000 water rights in Yakima County. The state is evaluating which basin is most appropriate for the next adjudication. He shared the details of two recent cases dealing with a state instream flow rule. In *Bassett v. Ecology*, the court validated the rule and said that instream flows were not subject to the same requirements as other water appropriations. In *CELP v. Ecology*, the court determined that Ecology erred by focusing too narrowly on fish populations in setting instream flows.

The new Legal Committee Chair, Chris Brown, Senior Assistant Attorney General, Water and Natural Resources Division, Wyoming Attorney General's Office, led a robust discussion on perfecting water rights and proving beneficial use, including whether or not economic or drought hardships were allowable grounds for extensions of time, and if permittees were routinely granted extensions to prove beneficial use, at what point does an application become speculative and should be denied. Members talked about metering water use, challenges of abandonment, partial and full forfeiture of water rights, and reopening adjudications and decrees.

The Committee also discussed the Columbia River Treaty, and compared the hands-on participation of the Colorado River Basin states in the Mexico Water Treaty Minute 323 negotiations with the arm's length participation of the Columbia River Basin states through the U.S. State Department in treaty renegotiations with Canada. There are differences in the way the USBR operates the Colorado River system and how the Corps operates the Columbia River system. Idaho, Washington, and Oregon have different perspectives of ecological considerations of the system, the impacts on their respective water resources, and whether or not they should be included in the Treaty.

During the Full Council, WestFAST Chair Kevin Werner, Science and Research Director, NOAA Fisheries, reported on their work plan and activities. He noted that Patrick Lambert, Southwest Region Associate Director, USGS, will become the new Chair, and he will continue to advise in his role as past Chair. The new WestFAST Liaison, Deborah Lawler, Special Assistant, USBR, started working in the WSWC's office on April 28.

A field trip prior to the meetings included stops at Rocky Reach Dam and hydroelectric facilities on the Columbia River, with its innovative fish passage system for juvenile salmon, Prey's Farm orchards watered with both drip and sprinkler irrigation, and the Leavenworth National Fish Hatchery, which was built by and operates with USBR funds to mitigate the impacts of interrupted fish passage caused by Grand Coulee Dam.

**191st Council Meetings
Breckenridge, Colorado
October 15-18, 2019**

The 191st meetings of the WSWC were hosted by the State of Colorado in Breckenridge on October 15-18. The WSWC revised and re-adopted three sunseting positions that: (1) urge the NASA to enhance its focus on water resources applications; (2) continues support for implementation of the Science and Engineering to Comprehensively Understand and Responsibly Enhance (SECURE) Water Act; and (3) urges Congress to reaffirm deference to state water law in the administration and adjudication of all water rights, and pass legislation that requires the federal government to pay applicable fees for the appropriation, use, and distribution of water rights to the same extent as all other persons.

In the Water Resources Committee, Major General Scott Spellmon, Deputy Commanding General for Civil Works and Emergency Operations, Corps, addressed the Council regarding the status of the Water Supply Rule. He emphasized that the Corps has heard the states and tribes about the need for consultation, and the Corps will be reaching out to the Governors with an invitation to meet over the winter. He described some of the complex issues that the rule has attempted to resolve, showed slides depicting the differences between regulated (surplus) and unregulated (natural) flows of water, and acknowledged that one rule may not be appropriate to regulate all regions of the country.

Michael Woodside, Acting Program Manager, NGWOS, USGS, provided an update on the program that will provide real-time field and remote-sensing data when fully implemented. The first pilot program in the Delaware River Basin began in 2018. The second pilot program will be selected from among the western water basins of the Willamette, the Upper Colorado, or the San Joaquin in the coming weeks, and eight subsequent water basin pilot programs will be selected in the coming year.

Elizabeth Ossowski, Program Coordinator, NOAA, provided an update on the National Integrated Drought Information System (NIDIS) program and the Drought Forum in Washington, DC in July 2019. She described the current drought outlook for western states and efforts to improve the sources that inform those outlooks.

Steven Wallander, U.S. Department of Agriculture (USDA), provided information about an upcoming survey of irrigation organizations and requested state assistance to ensure all relevant organizations have been correctly identified. WSWC Chair Jeanine Jones discussed the challenges of transitioning NASA technology to ongoing operations and summarized a workshop held in August to improve that process toward more advanced planning for smoother transitions.

Mindi Dalton, USGS, and Adel Abdallah, WSWC Water Data Exchange (WaDE) Program Manager, gave an update on the September 2019 Water Information Management Systems (WIMS) and the USGS National Water Use Data Collaboration workshop, with 54 representatives from state and federal agencies attending and sharing their water data experiences. Adel also gave an update on the WaDE 2.0 program as it transitions to a cloud hosted solution. Both Mindy and Adel emphasized that federal and private grant funding is available to states to assist them with their water data needs.

The Water Resources Committee discussed recent water infrastructure legislation introduced before Congress that could impact the West, and considered various provisions that the Council is interested in supporting. The Committee also discussed potential water infrastructure pilot projects from the states that the Council could recommend that would be suitable both for federal interagency cooperation as well as meeting state goals under their respective water plans or other state objectives.

In the Water Quality Committee, Pat Pfaltzgraff, Director of the Colorado Water Quality Control Division, shared some of the water quality and drinking water challenges they face, including compliance with the revised lead and copper rule and Per/Poly Fluorinated Alkyl Substances (PFAS). He talked about Colorado's protected water rights and efforts to integrate water quantity and quality strategies, with the goal for Colorado waters to fully support their classified uses of drinking water, agriculture, recreation, aquatic life and wetlands by 2050.

Jennifer Carr, Deputy Administrator, Nevada Division of Environmental Protection, shared recent experiences in multi-agency coordination to address harmful algal blooms in several water bodies in Nevada. Alex Davis, Deputy Director Water Resources, Aurora Water, talked about the city's challenges related to the water quantity-quality nexus and the complex efforts to ensure adequate source water protection across several water basins. Ward Scott provided an update on the WGA's comments regarding CWA §401 as well as WGA's report on biosecurity and invasive species.

The Water Quality Committee discussed the EPA's draft Water Reuse Action Plan and reviewed survey questions to update the Council's 2011 report on water reuse in the western states. The Council will coordinate with other interstate organizations to avoid unnecessary duplicative work in responding to survey questions.

During the Legal Committee, Micheline Fairbank, Deputy Engineer, Nevada Division of Water Resources, shared Nevada's experience with federal agencies refusing to pay fees for the administration of water rights. Other states have had varied experiences, with some agencies willing to pay certain fees in some states but not in others.

Scott Steinbrecher, Senior Assistant Attorney General, Colorado Department of Law, described the factual and procedural background of the *Hill v. Warsewa* case, which involves issues

of state sovereignty in the beds of navigable rivers and whether a private party may assert the rights of the state for his own benefit.

Lauren Leuck, U.S. Army Department of Civil Works, shared progress on the Revolutionize Corps program and their efforts to complete projects more quickly as well as communicate more effectively with partners. Stephen Bartell, U.S. Department of Justice, described ongoing adjudications and water litigation involving federal agencies in the western states.

The Full Council Meeting included federal presentations and a panel discussion on efforts to address abandoned mine drainage from Katie Walton-Day, Research Hydrologist, USGS; Victor Ketellapper, EPA's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Site Assessment Team Leader; Scott Ludwig, U.S. Forest Service Minerals and Geology Management; Jenelle Stefanic, USBR Leadville Mine Water Treatment Plant Supervisor; and Krista Doebbler, Environmental Engineer, Abandoned Mine Lands, Bureau of Land Management.

Representatives from states, federal agencies, and stock owner associations met for a pre-meeting workshop on issues related to grazing water rights, building on an initial workshop held in the Fall of 2018. Pat O'Toole, President, Family Farm Alliance, and a private stockowner, provided an overview of the challenges stockowners face with the patchwork of federal lands, changes in Administration policies and turnover of federal employees, and the complexity of state water laws. Eva Bauer, a facilitator with the DOI's CADR program, led participants through a discussion of perceived issues with private or federal ownership of water rights on federal grazing lands and the impact of relationships on solving problems. Participants agreed that they would like to continue the discussion moving forward.

A field trip prior to the meetings included stops at Dillon Reservoir and the Climax Mine and Water Treatment Facility. Various presentations were shared on Denver's Forests to Faucets program, forest and watershed management in a natural fire regime, water management of the reservoir to supply needs on both sides of the Continental Divide, treatment of active and abandoned mine waters, and diverting uncontaminated water supplies before they reach abandoned mines.²

²PowerPoint presentations given at the meetings are posted on the WSWC's website. See: <http://www.westernstateswater.org/upcoming-meetings/past-meetings/>.

OTHER MEETINGS

Western Governors' Association

Annual Meeting/Water Data and Forecasting

The WGA held its annual meeting on June 10-12, in Vail, Colorado. Twelve governors attended including Chairman David Ige (Hawaii), Vice Chair Doug Burgum (North Dakota), Jared Polis (Colorado), Brad Little (Idaho), Laura Kelly (Kansas), Steve Sisolak (Nevada), Michelle Lujan Grisham (New Mexico), Kate Brown (Oregon), Kristi Noem (South Dakota), Gary Herbert (Utah), Mark Gordon (Wyoming) and Lourdes Leon Guerro (Guam).

Secretary of the Interior David Bernhardt was the keynote speaker, addressing the governors in a question and answer session. He was introduced by Governor Polis as originally from Rifle, Colorado. Polis expressed thanks for Interior's help with the states on development and approval of the Colorado River Drought Contingency Plans (DCPs), particularly for the wonderful work of USBR Commissioner Brenda Burman. Bernhardt recognized the intense collaboration with the states, and legacy of cooperation in the basin, no matter who the secretary is.

Bernhardt was asked about the National Park Service (NPS) deferred maintenance backlog and efforts to correct the problem. He replied that the lack of investment in infrastructure on public lands in general is entirely unsustainable, and the problem was also a concern for previous administrations. The NPS maintenance and rehabilitation backlog is \$12.6 billion and growing. "It's time to address that problem." Interior has proposed using some of the revenue from activities on public lands to fund improvements. The NPS is the "keeper of the Nation's stories.... They are the icon of Interior."

Governor Herbert thanked the Secretary for attending the celebration of the 150th anniversary of the completion of the transcontinental railroad in Utah and noted the importance of NPS lands referring to Utah's Mighty 5 National Parks. He agreed with Bernhardt that we either pay now for maintenance, or it will cost more later. The Governor then turned to Interior's reorganization and asked specifically about the possibility of moving the headquarters of the Bureau of Land Management (BLM) out West. While acknowledging former Secretary Zinke's bold vision, Bernhardt explained reorganizational plans have evolved, including changes to the original Zinke proposal to align Interior's regional structure along watersheds. Regarding moving agency headquarters, Interior was looking broadly to review jobs and responsibilities to see if they were even needed, and if so, does it have to be done from the District of Columbia. He recognized the potential value of having greater accountability on the "front lines," saying some folks will likely be repositioned.

Governor Burgum expressed appreciation for Bernhardt driving a culture of responsiveness to the states. He referred to hunting and fishing access to fringe lands on refuges in North Dakota, as well as a \$50 million state endowment for a library at Theodore Roosevelt National Park, the Elkhorn Ranch part of the Park, and the importance of private/public and state/federal foundation cooperation on conservation efforts. Secretary Bernhardt observed that the future of managing public lands is a strong commitment from the public sector with community support. "My view is that on a lot of things we do, we have a shared conservation responsibility." Wildlife doesn't

recognize political boundaries. Interior is undertaking a line-by-line review of fishing and hunting restrictions on refuges and considering related state regulatory requirements. He added that the lack of public access is the number one reason people get out of hunting and fishing, and that regulations were the second reason.

Governor Gordon noted Wyoming is home to Yellowstone, the oldest National Park, before turning to the topic of infrastructure, flooding, and opportunities to work with the USBR to better manage silt loads, as well as develop small catchments on public lands. Bernhardt stated that infrastructure challenges are bigger than the DOI, and the Administration is working to find a bipartisan agreement, which still needs a nudge to move forward.

Governor Sisolak asked, “What can we do to work with you on wildfires?” He highlighted the loss of life and environmental impacts, as well as the large amount of cheat grass as a fuel source. Bernhardt said Interior works on fire efforts in a very collaborative manner with states and the U.S. Forest Service (USFS). He is working to make sure Interior has the necessary resources to respond to wildfires, and also to improve land and forest management. “We are going to be aggressive on vegetation management.”

Governor Brown raised concerns about protecting BLM lands in Southeast Oregon with wilderness characteristics and involving stakeholders. Governor Noem asked about opportunities to collaborate with states. She noted Bernhardt had offered Governors his personal cell phone number! “You may regret that.”

WGA Chair Ige moderated a roundtable discussion highlighting biosecurity and invasive species, his central policy initiative this past year. WGA released a related report.³ The greatest invasive species threat to western waters are zebra and quagga mussels which cost billions nationwide in damages to municipal, agricultural and industrial water systems and hydropower projects, and can “crush” natural ecosystems.

Elizabeth Brown, Colorado Parks and Wildlife addressed their aggressive and proactive approach to protect headwaters, including boat inspections stations operated by cities, counties, state and federal agencies, and others. She also Chairs the Executive Committee of the Western Regional Panel on Aquatic Nuisance Species (ANS), which has prepared a model legal framework for ANS management and a detailed gap analysis state-by-state nationwide. Lakes Mead, Powell and Havasu in the Southwest have the largest ANS problems. A border perimeter defense with inspection stations, as well as monitoring of specific water bodies, appear to be the most effective combination.

Governor Burgum noted state ANS programs were underfunded and understaffed. Governor Brown observed that once introduced, we do not have an open water control tool for invasive mussels.

A panel on Data and Forecasting in Western Water Management was introduced by Governor Little. He specifically referred to a number of WGA policy positions on water and mentioned the WSWC’s WaDE program. He highlighted the need for reliable information and major steps to improve data collection, forecasting and modeling.

³www.westgov.org

Forrest Melton, with NASA's Western Water Applications Office (WWAO), discussed NASA's earth sciences program and scientific insights into our planet, including tools for mapping wildfire risk and monitoring water to sustaining agriculture. We are in a golden age of remote sensing tools providing actionable information used by state, local and federal partners. NASA has a long history of working with state water managers, culminating with WWAO's establishment, and including work with the WSWC. WWAO is supporting activities in fourteen western states and working on rapid assessment of extreme weather conditions.

Landsat 8 images provide information on both flooding and drought. Remote sensing complements ground-based measurements and helps monitoring water supplies and water quality, including the development of harmful algal blooms. NASA has also demonstrated the use of an air-borne observation system for measuring snow water equivalent at meter-scale resolution for watersheds with 24-hour data latency. NASA is also looking to license technologies for private sector application.

Melton is also leading an Open Evapotranspiration (ET) effort, with significant support among private foundations. ET represents consumptive use to grow food. We do not have a consistent measure, and it is difficult and expensive to measure on the ground. Remote sensing can fill data gaps. Field scale ET data can help save water, as well as facilitate water rights administration and water markets. State staff need help with training on Open ET and consistent westwide measurement standards are also needed.

Jay Jaspers, Chief Engineer, Sonoma County (California) Water Agency, described the challenge balancing reservoir operations for both flood control and a reliable water supply. He discussed innovative approaches to reservoir management, including the use of Forecast Informed Reservoir Operations (FIRO) at Lake Mendocino. The Corps owns and operates the dam and reservoir, and is constrained by information on water on the ground, as well as an existing flood guide rule curve that was developed in 1958, before the advent of modern precipitation forecasting technology. Sonoma has worked with the Corps for six years to demonstrate the feasibility of FIRO with deviations from past rules to allow for more proactive, rather than reactive, reservoir operations.

Jaspers declared, "Our reservoirs need to work a lot harder than they did in the 60s." Water managers are faced with greater stresses and continue to seek to balance reservoir benefits for water supply, fisheries, and flood protection. How can existing facilities work more efficiently? Operations need to take advantage of modern technology, modeling and forecasting skill and innovation. He noted that it took about a year to learn each other's terminology! Working with the Corps, Sonoma experimented with modified reservoir releases in 2012, and it worked well. However, in 2013, water levels in the reservoir spiked in response to a precipitation event encroaching into the flood control pool, and the Corps released water, even though there appeared to be little likelihood of additional storms. Subsequently, drought conditions set in, and reservoir levels dropped precipitously, threatening water supply reliability.

Continuing experimentation with FIRO and modeling has led to a 36% increase in water supply reliability, with no significant change in flood risk, as well as ecological benefits from raising summer river flows. The Corps has allowed major deviations from the flood rule curve operations. FIRO also can mean earlier flood control releases. It turned out that 2018 was the wettest year in 35 years, and Sonoma successfully tested FIRO again. This work is helping develop justification

for the Corps to permanently change Lake Mendocino reservoir operations. FIRO is also being tested at Prado, Oroville, and New Bullard Bar dams in California.

Lynn Budd, Director, Wyoming Office of Homeland Security, with responsibility for state flood control, described the use of water data and forecasting in emergency management. Forecasting and monitoring begins in October with the beginning of the water year and is monitored through the winter, with attention focused on the federal SNOTEL system for information on snowpack. Current SNOTEL numbers for various basins are compared with similar years in the past to roughly estimate potential spring/summer runoff. Air temperatures are watched for indications of the potential for ice jams, run off and flooding. Temperatures in the 60s above 9000 feet in Wyoming mean accelerating runoff and potential flooding. Rain on snow events are also important to watch, and the office coordinates with the National Guard to deploy resources.

Questions from the Governors included Governor Little expressing interest in actions to address ground water depletion in California and encourage aquifer storage and recovery. California's Sustainable Groundwater Management Act (SGMA) was signed by then – Governor Jerry Brown in September 2014. Over 200 agencies must develop management plans by 2020-2022. State agencies are also reviewing their policies to encourage better efficiency including the timing of reservoir releases to recharge flood waters. Idaho has a number of active recharge and recovery activities.

Governors Burgum and Gordon both asked about the Corps' participation in flood risk management. Jaspers noted the use of Corps models. Melton mentioned NOAA has a nice strategy to work towards improving forecasts at a 30-day time scale, in part by better assessing antecedent conditions. He also noticed the USBR is hosting forecasting rodeos to test innovative methodologies.

Governor Gordon asked about earlier run off and more rain over snow events. The panelists responded that there are changes in the timing of runoff, coming earlier in the Spring, and more precipitation coming as rain, particularly at lower elevations. It is increasingly important for water managers to have accurate information to make the best decisions.

Governor Lujan Grisham declared that we don't effectively gather water data. She asked if WGA should be looking at regional data sets and techniques to provide data in real time to improve management and accuracy for making decisions. She also mentioned state aridification. Melton responded that state innovation is important and talked about the use of Landsat data sets by Idaho and Wyoming. He specifically referred to the WSWC's WaDE program and efforts to coordinate information. Grisham noted the need for data to help improve management of entire basins, including interstate river basins like the Upper Colorado River Basin. She added that it would help if all states used the same approach to gathering and presenting data. This would also have a significant benefit in communicating with the public. On February 14, Governor Lujan Grisham signed a bipartisan Water Data Act. [With Rep. Melanie Stansbury as the primary sponsor, the bill (HB651) ultimately passed the New Mexico House and Senate unanimously.]

Jaspers offered that streamflow data is critical, while USGS streamgage funding is declining. "We have had to pick up the cost of priceless gages with over 30 years of record – spending over \$500,000/year." Budd added that many local agencies are contributing to the USGS streamgaging program.

Winter Meeting

The WGA's winter meeting was held in Las Vegas, Nevada on December 13-14, under the leadership of WGA Chairman Doug Burgum, Governor of North Dakota, with a welcome from Nevada Governor Steve Sisolak. Others attending and participating included: Governors Kate Brown, Oregon (WGA Vice Chair); Steve Bullock, Montana; Doug Ducey, Arizona; David Ige, Hawaii; Gary Herbert, Utah; Brad Little, Idaho; Kristi Noem, South Dakota; Jared Polis, Colorado; and Kevin Stitt, Oklahoma. The governors discussed state-federal relationships and announced the launch of a Western Governors' Center of Excellence for Improving the State Federal Relationship, an online repository that includes case studies, reports, correspondence and other research and policy work. They also updated their resolution on Strengthening the State-Federal Relationship.⁴

Four other resolutions adopted by the governors covered the States' Share of Royalties and Leasing Revenues from Federal Lands and Minerals; Tax-Exempt Federal Lands and Secure Rural Schools; Financial Assurance Regulation; and Physical and Behavioral Health Care in Western States. The governors note that the impacts of western mines and industrial facilities are primarily related to water and it is therefore appropriate and consistent with Congressional intent to recognize the states' primary role in regulating water-related impacts of mine reclamation, including associated financial assurance requirements. Western Governors believe that states have financial assurance regulatory programs in place that are working well and that those programs should not be preempted or duplicated by any federal program.

The governors also addressed the challenges of reinvigorating rural communities, science education, energy innovations, precision agriculture, students in recovery from substance abuse, cybersecurity, and the epidemic of missing and murdered indigenous women.

Governor Burgum's Reimagining the Rural West Initiative is all about "unique things happening demographically and technologically and take advantage in order to create opportunity." Land O'Lakes CEO Beth Ford provided a keynote address about how the national cooperative is central to the vibrancy of the communities in which they do business. She noted the hardships agricultural producers and families face. "It is heartbreaking to go to those farmers who work so hard but make so little, but they're not concerned about themselves, they are concerned about the kid down the road not getting enough food. They deserve our attention."

Inventor Dean Kamen talked about how to best educate the workforce of the future, and how to inspire young people to enter STEM fields that sponsors robotics competitions. "The industry was concerned 30 years ago about not having enough tech people. They said it was an education problem. We don't have an education problem; we have a culture problem. Technology and media have created superstars in entertainment and sports.... Be part of the culture that makes science and technology and engineering seem exciting and accessible to kids. Put it in the format that makes them want to participate.... We don't use kids to build robots, we use robots to build kids."

⁴www.westgov.org

A panel addressed how farmers and ranchers are using various technologies to innovate their operations and adopt policies that can support the growth of advanced precision agriculture across the West. Jim Ethington, CEO, Arable asked: “How do we better manage our natural resources in the face of many challenges? Our mission is to use science and data to improve productivity and sustainability of agriculture. Starts with an integrated system.” Raj Khosla, Professor, Colorado State University added: “Today we have more GPS users on the planet than cell phone users. GPS totally revolutionized how we practice agriculture today.... There is significant spatial and temporal variability in the field. Precision agriculture tries to manage that spatial and temporal variability.” Lastly, John Jansen, Vice President of North America, The Climate Corporation, declared: “Our belief is that the next big breakthroughs in ag are going to come from data and analysis and helping inform better decisions. Data science helps farmers and agronomists make better decisions about the seeds they plant, how they manage their crop, and reduce risk in their operation.”

Water Subcabinet/Infrastructure

On April 3, a “Water Subcabinet,” addressed members of the WSWC, Interstate Council on Water Policy (ICWP), National Water Resources Association (NWRA) and National Water Supply Association (NWSA) at a Water Infrastructure Forum in Washington, DC. The subcabinet officials included: Tim Petty, Assistant Secretary for Water and Science, DOI; David Ross, Assistant Administrator for Water, EPA; Timothy Gaullaudet, Assistant Secretary of Commerce for Oceans and Waters, NOAA; William Northey, Under Secretary for Farm Production Conservation, USDA; R.D. James, Assistant Secretary of the Army for Civil Works; Alex Fitzsimmons, Chief of Staff, and Daniel Simmons, Assistant Secretary, Department of Energy’s (DOE) Office of Energy Efficiency and Renewable Energy.

Mr. Petty noted the different agencies’ roles and the importance of partnerships, with all the agencies coming together on water. “If the parts of your watch aren’t working together, you are not going to stay on time!” We need to be more effective and are committed to working with each other to function more efficiently. We need your thoughts and suggestions. He has responsibility for the USBR and the USGS, and specifically noted the importance of NOAA forecasting to determining water supply availability.

Mr. Ross picked up the partnership theme and added that they had the power as a group to change policy and priorities at our agencies. He stated that he started his career in San Diego on a water reuse project. In this job, I’ve asked how EPA can incorporate water reuse under our portfolio and was disappointed that EPA hasn’t progressed more on this front. EPA is developing a framework for a National Water Reuse Action Plan as a national priority and will reach out to states and stakeholders. What can we do better to coordinate federal policy? What can I contribute? Ross noted that he and Northey co-chair the National Drought Resiliency Partnership (NDRP). DOE’s Grand Water Challenge is addressing reuse of produced water. How can I contribute?

Mr. Gaullaudet observed that NOAA data, information and predictions is what makes water infrastructure work. He referred to Midwest flooding along the Missouri River, and 3-day excessive rainfall outlooks that provide lead time for emergency managers. The National Weather Service (NWS) predicted with confidence the 50 inches of rain from Hurricane Harvey in August 2017 that fell in some areas near Houston in 24 hours, which led to early evacuation orders. A graduate of the Scripps Institute of Oceanography, he also mentioned prediction of atmospheric river events on the

West Coast. He noted that the FY2020 budget includes the use of drones for mapping flooding. Further, NOAA is working to transform satellite architecture from large federal missions to private systems.

In Puerto Rico, Gaullaudet added NOAA is working on coastal and near shore water quality improvements, and to conserve coral reefs. Heavy rain events erode the land with rivers and streams carrying high sediment loads, covering corals and sea grass. In predicting events, the European Union (EU) weather model is out performing U.S. models, but operational model changes are coming to regain the lead. He observed that the NWS's daily forecast skill, was once only 50-50, but now NWS makes 10-day forecasts with 90% skill. NOAA is now working to improve subseasonal to seasonal forecasting skill. NOAA is working to help people plan and keep people safe.

He also discussed consultation under the Endangered Species Act (ESA) and efforts to coordinate with members of this panel to speed things up. They are also working to reduce by 30% the time needed to complete National Environmental Policy Act (NEPA) reviews.

Mr. Northey observed, "When we get together, we often learn much about what we are doing." A former Secretary of the Iowa Department of Agriculture, he had experience with USDA's Natural Resources Conservation Service (NRCS), which has lots of private/organizational partners. Further, the Risk Management Agency provides crop insurance delivered through private agents. We need to talk about how we functionally work together with states and within watersheds so our program requirements/regulations are more consistent. The 2018 Farm Bill gave us a little more flexibility with the regional partnership program. We want to hear from you how we can be more effective. There is a State Conservationist in every state. The Farm Service Agency has an executive director in every state. USDA is working on an idea for building a revolving fund for conservation projects. We are looking for creative ways to get more done.

R.D. James declared, "This is a pleasure compared to some of the meetings I have to go to!" He is responsible for the Army's Civil Works Program, which includes the Corps. The Corps' main missions are flood control, navigation and environmental restoration. The Corps does projects. Once those projects begin to move forward, "...we have to deal with all these people [on the panel]." Mr. James served for many years as a member of the Mississippi River Commission, so he understands public and stakeholder needs. My 37 years of experience on the Mississippi with other federal agencies were "awful!" We waste time and dollars. We have to provide a smoother road forward. Currently the Missouri River flooding is absolutely awful. The Corps has to try to maximize multiple objectives (eight).

He observed, "Water in the West is so sacred – to people that don't have water." Drought highlights the need for water, but there is also a need for flood control. We monitor watersheds and snowmelt, reservoirs, and flooding (threatening Sacramento). "Water is the most precious thing to life and to man. It is all one thing." Sometimes we have to protect ourselves from water. Water supply needs are growing across the West. Providing water for water supply, takes away storage for flood control. We need more water supply reservoirs. Some areas are going to be in dire need of water. "I am happy to be a part of this group, benefitting the whole country."

Alex Fitzsimmons focused his remarks on DOE's Water Security Grand Challenge, which addresses improving our capabilities regarding desalination, produced waters, municipal wastewater, and reducing water use by thermal power plants. He also mentioned off-the-grid rural energy and water systems. He noted DOE, EPA and DOI are cooperating on a prize competition focused on research and development of next generation technologies.

In response to questions, the panel noted that they have identified over 240 water-related working groups, taskforces and different programs. They are trying to list every group "we have equity in." They are also working to institutionalize their organization and leverage their resources to address agency priorities as a group. Some of the areas in which they see a need to work together include the Colorado River, the Ogallala Aquifer and the Chesapeake Estuary. They have begun a constructive dialogue among the federal agencies, and a new effort to set goals and challenge themselves to find ways to meet goals.

Streamlining regulatory processes is very important, as is moving towards "One Federal Decision." Another concern raised was the fact that with retirements, "human infrastructure" is not being replaced. The Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West was mentioned.

A panel of non-federal interests preceded the above discussion, that consisted of: Julie Cunningham, Oklahoma Water Resources Board; Darren Gore, City of Murfreesboro, Tennessee; Cheryl Zittle, Salt River Project and Agribusiness and Water Council of Arizona, Heidi Moltz, Interstate Commission on the Potomac River Basin, and Ben Grumbles, Maryland Department of the Environment.

National Drought Forum

On July 30-31, the NIDIS and the NDRP co-hosted the Second National Drought Forum in Washington, DC. Attendees included representatives from state, local, and federal agencies, research institutions, organizations, and the private sector. Participants were welcomed by Veva Dehaza, NIDIS Executive Director, and the Forum Co-Chairs, Bill Northey, USDA, Chuck Chaitowitz, U.S. Chamber of Commerce, and Tony Willardson, WSWC Executive Director.

Willardson quoted the Presidential Memorandum (PM) on Promoting the Reliable Supply and Delivery of Water in the West. "To the maximum extent practicable...appropriate bureaus are to promote the expanded use of technology for improving the accuracy and reliability of water and power deliveries." The PM calls for investment in programs that promote and encourage innovation, research, and development of technology that improve water management, using best available science through real-time monitoring. He also quoted President Thomas Jefferson (1793): "Science never appears so beautiful as when applied to the uses of human life, nor any use of it so engaging as agriculture and domestic economy." Jefferson also said (1793): "Laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths disclosed..., institutions must advance also, and keep pace with the times." We face similar challenges today related to scientific research, infrastructure, institutions, laws and policy.

Speakers discussed lessons learned since the 2012 NIDIS Forum; past, present and forecast drought conditions; the economics of drought; progress toward proactive drought preparedness, opportunities for coordination, flexibility, resilience and innovation; as well as infrastructure, water management, forecasting and monitoring drought, and national security. There was also a congressional panel.

Senior administration officials released, Priority Actions Supporting Long-Term Drought Resilience, a document developed by NDRP. An EPA press release noted that the document outlines key ways that “federal agencies support state, tribal, and local efforts to protect the security of our food supply, the integrity of critical infrastructure, the resilience of our economy, and the health and safety of our people and ecosystems.... While authority lies with the states to manage water resources, federal agencies play a key role in supporting states, tribes, communities, agriculture, industry, and the private sector owners and operators of critical national infrastructure to prepare for, mitigate against, respond to, and recover from drought.” It provides a framework of systematic support for long-term drought resilience in six categories: (1) data collection and integration; (2) communicating risk to critical infrastructure; (3) drought planning and capacity building; (4) coordination of drought activity; (5) market-based approaches for infrastructure and efficiency; and (6) innovative water use, efficiency, and technology.

Tim Petty, Assistant Secretary for Water and Science, DOI said: “Under the leadership of President Trump, we are taking unprecedented steps at the federal level to coordinate and empower states, tribes, local communities, and water users to promote drought preparedness and resiliency and ensure reliable water supply throughout the West. The [USGS] and [USBR] play integral parts in this, whether it’s the science or infrastructure piece of this equation.” David Ross, EPA Assistant Administrator for Water, said: “The impact of drought on public health and the environment is far reaching because it reduces both water quantity and water quality. Through EPA initiatives, such as the National Water Reuse Action Plan, we are working to ensure a sufficient supply of clean water for the American people.”

Bill Northey, Under Secretary for Farm Production and Conservation, USDA, said: “These priorities are a large part of our game plan to how we can protect our food and water supply, and to build resilience on our farms and ranches and in our communities and businesses.” Brenda Burman, USBR Commissioner, said: “The Western states have experienced intense drought with the potential to severely impact agriculture, municipal water supplies and hydropower production. We’ve demonstrated that infrastructure investments, innovative approaches to conservation, and collaboration build drought resiliency and reduces risks.”

R.D. James, Assistant Secretary of the Army for Civil Works, said the NDRP is essential to collaboration between the federal agencies, and added, “I am committed to this partnership and will ensure the Corps’ support to other agencies as they work drought-related issues and coordinate to reduce duplicative and redundant efforts.” Daniel Simmons, Assistant Secretary for Energy Efficiency and Renewable Energy, DOE said NDRP is inspiring federal action. “DOE is pleased to collaborate with other agencies to stimulate American innovation and technology solutions that address drought resilience through the Water Security Grand Challenge and other activities.”

Technology Transfer and the Transition of Applications from Research to Operations

On August 7-9, WSWC and NASA's WWA0 held a workshop in Irvine, California on Technology Transfer and the Transition of Applications from Research to Operations (R2O). The overall goals of the workshop were to: (1) build agency partnerships and a network of experts to facilitate application transition from NASA for water resources management decision support; (2) discover and document best practices for successful application transition; and (3) identify current barriers to technology transfer and establish pathways to overcome those barriers.

Rep. Grace Napolitano (D-CA) addressed participants. She is a member of the House Natural Resources Committee and former Chair of the Water and Power Subcommittee. She now Chairs the Water Resources and Environment Subcommittee of the House Transportation and Infrastructure Committee. She is a strong advocate for securing a clean, reliable and inexpensive water supply even in times of drought. She has fought for increased water recycling, improved water conservation, and environmental protections for our natural sources of drinking water, as well as supporting desalination, and sound groundwater management and storage.

WSWC Chair Jeanine Jones, California Department of Water Resources (CalDWR), and WSWC Executive Director Tony Willardson welcomed participants. Brad Doorn, NASA, and Indrani Gracyk, WWA0, provided an overview of NASA's Applied Sciences Program and how WWA0 supports NASA's role in technology development and transition/transfer. Forrest Melton, WWA0, and Savannah Cooley, NASA, further elaborated on NASA Earth Science applications with a high potential for transfer for use in western water management. A number of speakers covered NASA interagency partnerships addressing an Evaporative Stress Index, Airborne Snow Observatory, Cyanobacteria Assessment Network Project, mapping fallowed Lands in California, and mapping evapotranspiration for the Western U.S.

Various perspectives were presented by federal partners, including representatives from the EPA, NOAA, USGS, and USBR. State partner perspectives were also presented by agency staff from California, Nebraska, Oregon and Wyoming. Adel Abdallah, WSWC staff, also described WaDE and Tony provided an overview of the federal budget process and how to communicate with Congress. The meetings also included a number of breakout groups and discussion of recommendations. NASA/WWA0 staff are preparing a summary of the meeting.

Symposium on the Settlement of Indian Reserved Water Rights Claims

The WSWC and Native American Rights Fund (NARF) cosponsored their 16th biennial Symposium on the Settlement of Indian Reserved Water Rights Claims on August 13-15, in Fanner, California. The meetings were held at Harrah's Southern California Resort on the Rincon reservation and hosted by the Rincon, La Jolla, San Pasqual, Pauma and Pala Bands of Luiseno Indians. A pre-meeting primer on Western Water Law and Indian Reserved Water Rights was presented by Norm Johnson, with the Utah Attorney General's Office. He also outlined provisions of a settlement agreement between the State of Utah and the Navajo Nation, stressing the need to come up with something that works for everyone. There are no "good guys" or "bad guys."

John Echohawk, NARF Executive Director, welcomed attendees and provided a brief history of NARF, a non-profit started in 1970 to address tribal legal concerns, including the protection and

quantification of water rights. Once the tribes convinced the federal government to file claims as trustee, the states, businesses and other stakeholders began to see the value of negotiating settlements over litigation.

Tony Willardson, WSWC Executive Director, noted that communication and efforts to find common ground despite our differences are key to avoiding conflict. WSWC and NARF have worked together for four decades, and the challenges of negotiating settlements, getting them passed by Congress, and implemented with adequate funding aren't getting any easier. Well-defined water rights make good neighbors, and we continue our joint efforts to resolve these claims across the West.

Following their remarks, there was a traditional Pauma Band prayer and blessing ceremony. Tribal prayers were offered at the beginning of each day.

WSWC Chairman Jeanine Jones, CalDWR, and Chairman Bo Mazzetti, Rincon Band (and President of the San Luis Rey Indian Water Authority) addressed the group. Jeanine noted that one thing we all share in common is water scarcity. We can provide greater certainty for everyone by working cooperatively, understanding our constraints and the complicated legal framework governing water development and management. Bo noted he was raised to worry about others stealing the Bands' water, and that he had to change how he looked at things. These are our neighbors. Water is not just a commodity, not just something to sell, but something that has to be shared. We aren't making any more water. It has taken time to build trust and real engagement.

Jeanne Whiteing, Blackfeet Nation Water Rights Counsel, provided the keynote address. She explained that water is important to tribes culturally and traditionally, and that makes it difficult for tribes to view water use as a right that needs to be quantified in a court. However, these treaty rights are critical to maintaining a homeland and securing the future of the tribe. States and the federal government have historically been perceived as "unfriendly" to tribes. It is difficult to set that aside. Entering negotiations was politically risky for the Blackfeet leadership, and once an agreement was reached, and enacted, it still had to be ratified by referendum by tribal members. Decades of work could have been voted down, but it was important for the tribe to agree to the settlement.

Two panels followed on the basics of negotiations, including gathering background information, the role of technicians, identifying parties and issues, and how to bind larger groups – with speakers from the Blackfeet Tribe, NARF, Navajo Nation, Montana Department of Justice, New Mexico Interstate Stream Commission, Oklahoma Water Resources Board, USBR, and DOI.

A special panel addressed water planning, scarcity and collaboration – focused on development of the Arizona Drought Contingency Plan – given projected Colorado River shortages. Stephen Roe Lewis, Governor of the Gila River Indian Community, who spoke on the panel, was presented with a plaque and quilt honoring the memory of his late father, Rod Lewis, for his lifelong support for tribal interests and negotiated water rights settlements. Others on the panel represented The Arizona Department of Water Resources, USBR, and Environmental Defense Fund (EDF). The EDF shared their premier showing of "Resilience on the River," a video created to highlight the

critical role of the Gila River Indian Community in a historic seven-state agreement to conserve water from the Colorado and build a more resilient future in the face of a nearly two-decade drought.⁵

Wednesday began with another invited guest, Cristina Snider, Tribal Advisor to California Governor Gavin Newsom. She specifically mentioned the Governor's June 2019 apology to California Native Americans on behalf of the State and its citizens for the "violence, exploitation, dispossession and the attempted destruction of tribal communities," as well as the "maltreatment and neglect California inflicted on tribes." By Executive Order Governor Newsom also directed his Administration to engage in government-to-government consultation with California Native American tribes regarding policies that may affect tribal communities and established a Truth and Healing Council to examine, record and document narratives regarding their historical relationship.

Mike Connor, Partner, Wilmer Hale (and former Deputy Secretary of the DOI) is a recently enrolled member of the Taos Pueblo in New Mexico. He was also involved in tribal settlements as a U.S. Senate staffer. He discussed the federal trust responsibility to protect the tribes' interests. There has been a pause in congressional approval of settlements, but the prospects are good for the next wave of settlements to go through. There are champions of settlements in the Congress, but it has been hard to get this Administration to clearly articulate its position. The cost of funding settlements in the face of a growing deficit is a challenge, but it is a worthwhile investment. Undefined, inchoate tribal rights create uncertainty. There are tremendous benefits from recognizing, adjudicating and settling tribal rights.

Alan Mikkelsen, Senior Advisor to the Secretary of the Interior for Water and Western Resource Issues, and Pam Williams, Director, Indian Water Rights Office, spoke and then took questions. Alan said that Secretary Bernhardt sent his regards and expressed his support for settlements. "For over two and a half decades, I have been a believer in the merit of resolving our long-standing water rights issues." Alan noted that working with tribes on a government to government basis is essential. Water is a key to economic development and infrastructure investment to revitalize native communities. Interior is committed to funding and implementing existing settlements and is exploring new funding mechanisms. Failure is not an option. One alternative is a fund-based settlement, as opposed to promising a federal water project, that allows tribes the flexibility to determine when, where and how to build their needed water infrastructure. He also said that we "have to be realistic" as to what the federal costs and benefits are. Interior is trying to impress tribes and others with this message, even if it isn't what they want to hear.

Pam stated that the federal view is broader than state perspectives, and sometimes the DOI struggles to figure out how their trust and other responsibilities fit together. There are federal reserved rights for tribes, but also for other federal reservations, then there are aboriginal rights, as well as water needs for fish, wildlife and parks. Needs are not limited to uses for agricultural, municipal and industrial purposes. There are also spiritual uses. She summarized the rise of concern for tribal water rights, as sovereigns, following a long period of western water development

⁵<https://www.youtube.com/watch?v=RIEV9tea04c&feature=youtu.be>

promoted by federal projects without regard for tribal needs. A bar chart of the number of settlements completed and in progress was presented, and Arizona tribes had the most by far. Ideally, settlement negotiations lead to binding agreements, approved by the Administration and the Congress, then implemented by DOI. Negotiations, as opposed to litigation, are designed to provide “wet water,” not just a paper right, but with a commitment to build the infrastructure necessary to put the water to use. Settlements also allow local parties to use local knowledge and values to find creative solutions. No one gets all they want.

In response, a panel of tribal and state representatives discussed the federal government’s historical failure to protect tribal water rights, and subsequent evolution of law and policy, as well as the difficult task of now working together to achieve a sustainable future for tribal and surrounding communities. Something we don’t often talk about is that existing water rights may have to be retired to make it work. Tule River Chairman Neil Peyron shared a video describing the difficulties the tribe faces as it lacks running water for domestic, fire suppression, and other uses.

A special part of the Symposium was the presentation of a film, “Once There Was a River,” about the past and future of the San Luis Rey Indian Water Rights Settlement, produced by Anecita Agustinez, now Tribal Policy Advisor, CalDWR. A panel discussion followed with representatives from the San Luis Rey Indian Water Authority, Vista Irrigation District, City of Escondido, Metropolitan Water District of Southern California, and Interior’s Solicitor’s Office describing the history of the settlement and their interactions, as well as interests and concerns. Significant to the settlement was the importance of improving existing infrastructure to create water savings that could stretch limited water resources, such as lining the All-American and Escondido canals.

Symposium participants ended the day with a field trip through tribal lands along the San Luis Rey River, which was flowing in August and provided a beautiful setting. A discussion of the area’s water management was presented at an overlook at Lake Henshaw, followed by dinner at the La Jolla Indian Campground nearby.

The final day began with a presentation by the Chippewa Cree Construction Corporation and Advanced Engineering and Environmental Services, focused on the construction projects and program development and management related to implementation of the Rocky Boys settlement in Montana. The tribe manages a portfolio of projects for the benefit of tribal members and strives to achieve economies of scale, reduce risk and costs, better communicate and provide faster response time and better services.

The process for getting bills through Congress was outlined by Brandon Ashley, Majority Deputy Staff Director, Senate Committee on Indian Affairs, and Matthew Muirragui, Majority Staff Director, House Natural Resources Committee, Subcommittee on Water, Oceans and Wildlife. Brandon’s role is to shepherd settlements through the process, from introduction of a bill, to hearings, markup, committee reports, and full Senate action. He focuses on the intended outcome, settlement language, report language, and often following passage, needs for a technical fix. There really is no roadmap through the legislative process, as it is always evolving and changing. More and more the cost of settlements is questioned, and there is a need to explain why they are important.

Matt addressed some of the challenges. Former House Natural Resources Committee Chair Rob Bishop (R-UT) required approval from the Department of Justice and OMB before scheduling hearings on settlements. That has changed, but Administration opposition to some of the current settlements is an obstacle, and the 1990 Criteria and Procedures for evaluating settlements remain in place. Unreliable future discretionary funding is another challenge that H.R. 1904 and S. 886 address with extension of a settlement fund.

Thereafter, a federal, state and tribal response panel emphasized the need to show up in person to tell your story and find a “champion” among Congressional members and staff to carry your settlement forward. Administration support still matters. Often legislation is introduced before all the settlement language is final to get the process started. There is a lot still to do. Eleven Arizona tribes still have outstanding claims. Federal concerns often transcend Administrations. Also, the precedent set by other settlements has to be considered. You have to look at the big picture.

WSWC Executive Director Tony Willardson’s wrap up remarks noted that the Symposium has been about our stories: stories about water, stories about lands, and stories about people – about our lives and those of our grandfathers and ancestors, about our dreams for our children, grandchildren, and great grandchildren. There are many lessons to be learned. Many here have lived or are living these stories, and the same basic stories are told differently by each of those involved from their own perspective. Stories were presented of the hardships some endure when they don’t have access to safe, clean water for drinking and household purposes, or lack water for irrigation or other community developments.

Whether natives or immigrants, we are all connected to the land and water. While it has been said many times that water is life, it has also been said that water is power and money. Rincon Chairman Bo Mazzetti shared he doesn’t like to view water as a commodity. Water is key to economic development, environmental protection, public health, social and cultural well-being, and often religion.

We all have our own story. Some are adventures, many are dramas. There are tragedies, and healing is a painful process. We have seen documentaries about the journeys of the Tule River Tribe and Luiseno Bands. The past is past, and we can’t change that. We can learn from the good and the bad, failures and successes. We look forward to working together to build a better future for all, but progress comes too slowly in many cases and it is easy to become discouraged. We must be patient and persevere.

It is all about building relationships. Here we have had a few days to get to know each other better – to learn about each other, our history, our needs and wants, our values, and our common interests. We need to be educated. We need to educate others. We need to respect sovereignty and treat each other with dignity and understanding. Trust is key, and it comes with experience and familiarity. We will often have to compromise. It can be hard to give, when so much has been taken. We heard how the Gila River Indian Community, with its quantified water rights, participated in Arizona’s critical approval of a drought contingency plan.

There is never enough – enough water, enough money, enough time. We will have to make hard choices. We need to know what our choices are, and the impact of those choices. We need to talk to each other, really communicate, and be transparent. We need good science and information for decision-making.

We’ve talked about the importance of well-defined water rights. We’ve litigated, negotiated, legislated, renegotiated, again legislated, and sometimes litigated again. Litigation is sometimes necessary to resolve some issues, but often it just raises others. It is designed to be adversarial and is divisive. Judges also by law have limited remedies. It may also take decades and is expensive.

“Peace in the Valley” is achieved when we work together and negotiate agreements that advance our common interests, allowing us to leverage resources and find solutions to the challenges that face us all. Settlements create “buy in” from the parties involved. Together we have a much better chance to find bi-partisan support for legislation and the resources to implement settlement agreements. There is now a window of opportunity to advance a legislative package with multiple benefits. We also need to continue to work with the Administration – Interior, Justice and OMB – in shaping and implementing settlements and getting settlements through Congress.

Together we can find, improve and assist each other on our path to a self-reliant, prosperous and sustainable future. There are still significant future challenges that have been mentioned related to groundwater, water marketing, scarcity, climate and other uncertainties. Our journey can be frustrating, but also fascinating and rewarding.

Water Information Management Systems Workshop

The WSWC, in cooperation with the USGS cosponsored a WIMS Workshop/USGS National Water Use Data Collaboration on September 16-19, at the Fort Collins Science Center in Fort Collins, Colorado. The focus of the workshop was on the status of water use data science, state agency strategies for getting to high-quality water use information, including online reporting, automated data checking, and remote-sensing tools. The workshop and collaboration meetings served as a forum for states and other attendees to exchange information on this highly specialized and important category of water data.⁶

⁶<http://www.westernstateswater.org/2019-wims/>

CONGRESSIONAL TESTIMONY

House Natural Resources Committee, Subcommittee on Water, Oceans and Wildlife

On February 26, 2019, the WSWC was invited to testify before the House Natural Resources Committee's, Subcommittee on Water, Oceans and Wildlife regarding "The State of Water Supply Reliability in the 21st Century." Tony Willardson, Executive Director for the WSWC, provided the following testimony.

Water is an increasingly scarce and precious resource and should be a public policy priority. In the West, water is critically important to our public health, economy, food security, environment, and western way of life. We must cultivate a water conservation ethic through greater understanding of, and appreciation for, water's value.

Population growth, competing economic and ecological demands, and changing social values have stressed surface and groundwater supplies in many areas. As a result, the number and complexity of conflicts among users and uses is increasing. A secure water future is becoming increasingly uncertain. Numerous factors contribute to the uncertainty, including our unpredictable climate, aging and often inadequate infrastructure, data limitations regarding water supplies and demands, competing or poorly defined water rights, and a constantly evolving regulatory landscape.

An integrated, collaborative, and grassroots approach to water resources management is essential to ensure an adequate, secure and sustainable supply of water of suitable quality to meet our diverse economic and environmental needs now and in the future. This will require stronger collaboration and cooperation that transcends political and geographic boundaries between states, federal agencies, tribes, and local communities. We should work together to identify water problems and develop optimal solutions at the lowest appropriate level of government. Striving for cooperation rather than conflict and litigation, we must recognize and respect national, state, regional, local and tribal differences in values related to water resources.

The States' primary stewardship over water resources is fundamental to a sustainable water future. Federal water planning, policy development, regulation, protection, and management must recognize, defer to, and support state water laws, plans, policies, and programs, as well as state water rights administration, adjudication and regulation, compacts and settlements. Rather than attempt to dictate water policy, the federal government should engage states early in meaningful consultation - avoiding, or at least minimizing, the need for federal regulatory mandates. Further, the federal government should contribute its fair share of funding in support of federal obligations and objectives that may be implemented as part of state water planning, management, and protection programs and projects.

A secure and sustainable water future will be determined by our ability to maintain, replace, expand and make the most efficient use of critical water infrastructure. We must preserve and improve existing infrastructure, as well as encourage and support innovative water supply strategies and new storage options to better balance supplies with demands.

All levels of government must prioritize the collection, analysis and open sharing of reliable data regarding water availability, quality, and usage given its importance to research for sound science and data driven decision making.

Water Data

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

This includes the USBR's Agrimet network of weather stations and similar networks that provide data used for improving agricultural water use efficiency and ground-truthing, calibrating and validating remote-sensing platforms such as Landsat.⁸

Quoting from a 2007 National Science and Technology Council report, A Strategy for Federal Science and Technology to Support Water Availability and Quality in the United States, September 2007: "Many effective programs are underway to measure aspects of our water resources. However, simply stated quantitative knowledge of U.S. water supply is currently inadequate. A robust process for measuring the quantity and quality of the Nation's water resources requires a systems approach. Surface water, groundwater, rainfall, and snow-pack all represent quantities of water to be assessed and managed - from the perspectives of quantity, quality, timing, and location." Sound decisionmaking demands accurate and timely data on precipitation, temperature, evapotranspiration, soil moisture, snow depth, snow water content, streamflow, groundwater, water quality and similar information.

The demands for water and related climate data continue to increase, and this information is used by federal, state, tribal, and local government agencies, as well as private entities and individuals to: (1) forecast flooding, drought and other climate-related events; (2) project future water supplies for agricultural, municipal, and industrial uses; (3) estimate streamflows for hydropower production, recreation, and environmental purposes, such as for fish and wildlife management, including endangered species needs; (4) facilitate water management and administration of water rights, decrees, and interstate compacts; and (5) design and construct resilient water infrastructure projects.

Without timely and accurate information, human life, health, welfare, property, and environmental and natural resources are at considerably greater risk of loss. Data gathering and analysis needs transcend administrative agency boundaries and congressional committee jurisdiction requiring collaboration. State-of-the-art technology has been and is being developed to provide real

⁷WSWC Position No. 428, October 26, 2018.

⁸WSWC Position No. 418, March 14, 2018.

or near real-time data in formats that can be shared and used by different computer programs with the potential to vastly improve the water-related information available to decisionmakers in natural resources and emergency management, and thus better protect the public safety, welfare and the environment.

Vital information is gathered and disseminated through a number of important federal programs that provide useful products to assist in visualizing and interpreting data on water and snow, making water supply and availability information more accessible, and easy to interpret.

These include, but are not limited to: (1) the Snow Survey and Water Supply Forecasting Program, administered by the National Water and Climate Center (NWCC) in Portland, Oregon, and funded through USDA's NRCS; (2) NWCC's Soil and Climate Analysis Network (SCAN); (3) the USGS's Groundwater and Streamflow Information Program (GWSIP) and National Streamflow Network, which are funded through the DOI; (4) Landsat thermal data, archived and distributed by the USGS, and other remotely-sensed data acquired through the NASA and its water-related missions; (5) the NOAA's NWS and Climate Programs Office; and (6) the EPA's National Environmental Information Exchange Network (NEIEN).

Over many years, the lack of capital investments in water data programs has led to the discontinuance, disrepair, or obsolescence of vital equipment needed to maintain existing water resources related data gathering activities. There is a serious need for adequate and consistent federal funding to maintain, restore, modernize, and upgrade federal water, weather and climate observation programs, not only to avoid the loss or further erosion of critical information and data, but also to address emerging needs, with a primary focus on coordinated data collection and dissemination.

Climate Adaptation

The 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.⁹

Climate variability has serious potential consequences for water supply availability, water resources planning and management, water rights administration, flood management, and water quality management. Further, 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. 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.

⁹WSWC Position No. 421, March 14, 2018.

Climate variability leads to additional stress on western water resources, which are already challenged by population growth, competition for scarce resources, increasingly stringent environmental regulations, and other factors. Water resources planning and management at all levels of government and sound future decisionmaking depend on our ability to understand, monitor, predict, and adapt to climate variability. The Council has over the years co-sponsored several workshops to gather input on climate adaptation and research needs, including research on extreme events. 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.

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.

Drought Preparedness

The Council supports the USBR's Drought Response Program, as well as other federal programs including, but not limited to, the NIDIS, under the NOAA, and other programs designed to improve our forecasting and response capabilities. Further, the Council urges and encourages the Congress and the Administration to assess and consider the need for a comprehensive national drought preparedness and response program on par with federal efforts to address natural disasters such as hurricanes, tornadoes, floods and similar extreme events.¹⁰

Since its inception the Council has been actively involved in national drought preparedness, planning and response, as well as related policy and program development and implementation. Drought is a recurring threat. According to the NOAA, National Centers for Environmental Information, from 2015-2017, economic losses due to drought have been estimated at \$11.1 billion.

The USBR's current Drought Response Program supports a proactive approach to drought and provides financial assistance to water managers and users via its WaterSMART program to: (1) develop drought contingency plans; (2) implement drought resiliency projects to build the capacity of communities to mitigate and respond to drought – increasing the reliability of water supplies, improving water management and operational flexibility, facilitating voluntary sales, transfers or exchanges of water, and providing benefits for fish and wildlife and the environment; and (3) undertake emergency actions to minimize losses due to drought through temporary construction activities and other activities, including water purchases and the use of Reclamation facilities to convey and store water.

¹⁰WSWC Position No. 430, October 26, 2018.

The Council strongly supports legislation to permanently authorize Title I activities under the Reclamation States Emergency Drought Relief Act and provide adequate appropriations to meet priority needs and continue the Reclamation Drought Response Program. There is a continuing need for making permanent the temporary authority allowing Reclamation the flexibility to continue delivering water to meet authorized project purposes, meet environmental requirements, respect state water rights, work with all stakeholders, and provide leadership, innovation, and assistance.

There is a need for maintaining and improving existing monitoring networks that help provide drought early warning signals, as well as for tracking the impacts of drought. There is a continuing need for developing new monitoring technologies, such as remote sensing, that provide more timely data on water availability and better spatial coverage for assessing water supplies and drought impacts. The collection of basic monitoring data on streamflow, snow pack, groundwater levels, and weather and climate data are essential to understanding water availability and interpreting the early signs of drought.¹¹

Subseasonal and Seasonal Forecasting

The Council urges the federal government to support and place a priority on research to improve subseasonal to seasonal (S2S) forecasts and research related to extreme events, including research on better understanding of hydroclimate processes, paleoflood analysis, design of monitoring networks, and probabilistic outlooks of climate extremes. Further, the Council supports development of an improved observing system for Western extreme precipitation events such as atmospheric river storms, as well as baseline and enhanced stream, snow and soil moisture monitoring capabilities.

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, operation of water projects, and aging water infrastructure. Sound decisionmaking 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 on operational time scales ranging from a few weeks to a season or more. Investments in observations, modeling, high-performance computing capabilities, research and operational forecasting of precipitation provide an opportunity to significantly improve planning and water project operations to reduce flood damages, mitigate economic and environmental damages, and maximize water storage and water use efficiency.¹²

The federal government should place a priority on continuing federal research to develop new and improved predictive capabilities for precipitation at subseasonal to seasonal time scales (as

¹¹WSWC Position No. 429, October 26, 2018.

¹²WSWC Position No. 399, April 14, 2017.

described in the report to Congress prepared by NOAA pursuant to Title II of PL 115-25).¹³ Our present scientific capability for forecasting beyond the weather time domain – beyond the ten-day time horizon – and at the subseasonal to interannual timescales important for water management is not skillful enough to support water management decisionmaking. The Council has sponsored a number of workshops on hydroclimate data and extreme events, to identify actions that can be taken at planning to operational time scales to improve readiness for extreme events.¹⁴ Multiple approaches have been identified at these workshops that could be employed at the planning time scale, including ensembles of global circulation models, paleoclimate analyses, and improved statistical modeling, to improve flood frequency analysis and/or seasonal forecasting.¹⁵

Advances in forecasting research, such as the hydrometeorological testbed program on West Coast atmospheric rivers, demonstrate the potential for improving extreme event forecasting at an operational time scale. The federal government should sustain and expand its Hydrometeorology Testbed - West program, in partnership with states and regional centers, to build upon the initial progress made in that program for developing and installing new technologies for precipitation observations.

The responsibility for operational weather forecasting rests with the NWS, but improvements through Forecast Informed Reservoir Operations (FIRO) is also of particular interest to the USBR and Corps, which can also contribute to this effort.

Infrastructure Financing

The Council supports appropriate federal investments in water infrastructure projects and programs that provide jobs and economic security, while protecting the environment – as well as dedicated federal water infrastructure funding.¹⁶

The West and the Nation depend 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. Maintaining and delivering sufficient supplies of water of suitable quality is key to maintaining the Nation's and the West's economic prosperity, meeting our environmental needs, and sustaining our quality of life, both now and in the future. 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. 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.

¹³Subseasonal and Seasonal Forecasting Innovation: Plans for the Twenty-First Century, <https://repository.library.noaa.gov/view/noaa/27408>.

¹⁴<https://westernstateswater.org/topical-resources/s2s/>

¹⁵WSWC Position No. 407, June 29, 2017.

¹⁶WSWC Position No. 419, March 14, 2018.

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. Aging 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. Inconsistent, inadequate, and untimely funding increases project construction and financing costs, as well as risk, including the failure of critical infrastructure. 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. The Council supports appropriate infrastructure asset management and capital budgeting.

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. Water infrastructure systems require ongoing, thoughtful investments to account for life-cycle costs, and should be managed with planned retirement or replacement in mind.

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. 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.

Further, 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.

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. 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. 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.

One challenge is that 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. 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.

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. The Congress and the Administration 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. Further, they should work together and with the 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.

Moreover, 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.

Rural Water Projects

The Council strongly supports Congressional action to expedite construction of authorized rural water supply projects in a timely manner, including projects that meet tribal trust and other federal responsibilities – recognizing and continuing to defer to the primacy of western water laws and tribal settlements in allocating water among users.¹⁷

Across the West, rural and tribal communities are experiencing water supply shortages due to drought, declining streamflows and groundwater supplies, and inadequate infrastructure, with some communities hauling water over substantial distances to satisfy their potable water needs. Often water supplies that are available to these communities are of poor quality and may be impaired by naturally occurring and man-made contaminants, including arsenic and carcinogens, which impact communities' health and their ability to comply with increasingly stringent federal water quality and drinking water mandates. At the same time, many rural and tribal communities in the West are suffering from significant levels of unemployment and simply lack the financial capacity and expertise to finance and construct needed drinking water system improvements.

In 2014, the USBR working with other federal agencies and the WSWC sought to identify and evaluate rural water needs and the demand for new rural water supply projects. Reclamation estimated the costs for rural potable water supply system improvements in the 17 western states to be in the range of \$5 billion to \$9 billion for non-Indian projects and approximately \$1.5 billion for

¹⁷WSWC Position No. 423, August 3, 2018.

specific Indian water supply projects. Reclamation also estimated that the cost to complete currently authorized projects that are under construction rose from the \$2 billion originally authorized to \$2.4 billion (in 2014) and costs continue rising. Given past levels of funding these priority projects will not likely be completed until well after 2065 at a cost of more than \$4.8 billion.

Reclamation has not requested funds for grants to undertake additional appraisal investigations or feasibility studies for new rural water projects, given the significant backlog of authorized projects and lack of federal funding. Federal expenditures for rural water projects generate significant returns on the investment through increased national and local economic benefits, as well as improvements in quality of life. However, project benefits can not be fully realized until the projects are completed.

Reclamation Fund Spending

The Council has a long-standing policy in support of fully appropriating receipts accruing to the Reclamation Fund for authorized projects, including rural and tribal water supply projects, as well as supporting an investigation of converting it to a true revolving trust fund.¹⁸

Under the Reclamation Act of 1902, the Reclamation Fund was envisioned as the principle means for financing federal western water and power projects with revenues from western resources – but these receipts are only available for expenditure pursuant to annual appropriation acts. Receipts are largely derived from water and power sales, project repayments, and receipts from public land sales and leases, as well as oil and mineral-leasing and related royalties, almost exclusively from western lands, many adjacent to rural and tribal communities. With growing receipts – in part due to energy development across the rural West – and declining federal appropriations for Reclamation Act purposes, the unobligated balance grows larger and larger (and is expected to soon exceed \$16 billion), while the money is actually spent elsewhere, for other federal purposes, contrary to the Congress’ original intent.

The Council is committed to continuing to work cooperatively with the Congress, the DOI and USBR to meet our present rural water needs in the West for present and future generations, within the framework of state water law. The Council recommends that the Congress and the Administration investigate the advantages of converting the Reclamation Fund from a special account to a true revolving trust fund with annual receipts to be appropriated for authorized purposes in the year following their deposit (similar to some other federal authorities and trust accounts).

Tribal Water Rights Settlements

The Council has consistently supported negotiated settlement of disputed tribal water claims, as well as steps to ensure that settlements, once enacted, will be funded. Unresolved tribal claims leave tribal and non-tribal water supply reliability uncertain.¹⁹ The settlement of Native American

¹⁸WSWC Position No. 408, June 29, 2017.

¹⁹WSWC Position No. 412, October 20, 2017.

water right claims is one of the most important aspects of the United States' trust obligation and is of vital importance to the country as a whole and not just individual tribes or states. The public interest and sound public policy require the resolution of tribal water rights claims in a manner that is equitable and least disruptive to existing uses of water. Negotiated quantification of tribal water rights claims is a highly desirable process which can achieve quantifications fairly, efficiently, and with the least cost. The advantages of negotiated settlements include: (1) the ability to be flexible and to tailor solutions to the unique circumstances of each situation; (2) the ability to promote conservation and sound water management practices; and (3) the ability to establish a foundation for cooperative partnerships between Native American and non-tribal communities.

The successful resolution of certain claims may require physical solutions, such as development of federal water projects and improved water delivery and application techniques that provide tribes with "wet water." The United States has developed many major water projects that compete for use of waters claimed by Native American and non-tribal communities and has a responsibility to assist in resolving such conflicts. Tribal water rights settlements involve a waiver of 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. 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.

Current federal 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. Tribal water rights settlements are not and should not be defined as Congressional earmarks.

Steps should be taken to ensure that any water settlement, once authorized by the Congress and approved by the President, will be funded. Congress should expand opportunities to provide funding for the USBR 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.

Energy and Water Planning

The Council supports integrating water and energy program and project planning, including promoting conservation and use efficiency, while seeking to minimize economic, environmental and other costs.²⁰

The West enjoys diverse and abundant energy resources, including renewable and non-renewable resources, and the West is a leader in the planning, development, diversification, management and protection of the Nation's water and energy resources. Maintaining adequate and sustainable supplies of

²⁰WSWC Position No. 420, March 16, 2018.

clean water and energy present interrelated challenges. Water is scarce in much of the region and may or may not always be sufficient for all proposed uses. Power plant cooling and other energy development related water requirements can be significant on state, local and westwide scales.

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. Effectively planning for the future requires gathering and integrating data and information on past, present and future water and energy supplies and demands, including demands by different sectors, uses and users. 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. The Council has worked collaboratively with state and federal agencies to develop a better understanding of water and energy supplies and demands.

Public-private partnerships are increasingly important in addressing our future water and energy challenges; and 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. 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.

Hydropower

The Council supports federal legislative and administrative actions to authorize and implement reasonable hydropower projects and programs that enhance our electric generation capacity and promote economic development, through streamlined permitting processes, while appropriately protecting environmental resources. The future development of potential hydropower resources should be appropriately undertaken in compliance with substantive and procedural state water law and interstate compacts, and consistent with the states' authority under CWA Section 401. Further, all rights and preference privileges of existing water and power users should be respected.²¹

The hydropower resources of the West have been developed through partnerships between energy and water users and continue to be inextricably connected. Clean, efficient, inexpensive hydropower is a vital part of the energy resources needed to meet our present and future energy demands. Hydropower is a prominent component of electricity generation in a number of western states, and an important part of state renewable portfolio standards. Hydropower is the largest source of renewable electricity in the United States, representing about 48% of total renewable electricity generation, with approximately 101 gigawatts (GW) of capacity and nearly 7% of total electricity generation.²²

The potential exists for further public and private hydropower development by upgrading existing generators, developing small hydro and the power potential from existing man-made conduits and canals,

²¹WSWC Position No. 391, March 22, 2016.

²²*Chapter 2: State of Hydropower in the United States*, U.S. Department of Energy, July 2016: www.energy.gov/sites/prod/files/2016/10/f33/Hydropower-Vision-Chapter-2-10212016.pdf.

as well as hydroelectric pumped storage projects. Such development can often be undertaken with little impact on the environmental and important ecological resources, requiring minimal further environmental review. Permitting requirements may be appropriately minimized and streamlined so as to promote reasonable development while avoiding unnecessary costs.

House Natural Resources Committee

On April 4, 2019, the WSWC was invited to testify before the House Natural Resources Committee, regarding H.R. 1904 - Reclamation Water Settlement Fund. Michelle Bushman, Legal Counsel for the WSWC provided the following testimony.

In the West, water resources are often scarce, circumscribing the growth, development, economic opportunity and social and environmental quality of life, for Indian and non-Indian communities alike. The WSWC strongly supports tribal water rights settlements and the appropriation and use of receipts that accrue to the Reclamation Fund for their intended purpose of financing the construction of authorized western water projects and programs, including those related to tribal settlements.

Indian Water Rights Settlements

Tribal water rights typically have priority dates that are senior to non-Indian uses, and therefore have the potential to displace established state-issued rights and permitted uses. The un-quantified nature of many tribal rights creates great uncertainty with regard to existing state-based rights and uses and can impede local, state, and regional economic development. Quantifying Indian water rights claims and determining their impacts on state-issued rights is essential for western states to address increasing water demands related to the West's growing population.

The federal government holds Indian water rights in trust for the benefit of the tribes and is joined as a party in all water rights adjudications involving tribes. This means that the federal government has a fiduciary duty to protect tribal water rights and has a major responsibility (particularly the DOI) to help tribes adjudicate their rights and ensure that settlements are funded and implemented. It also means that each settlement must be authorized by Congress and approved by the President.

These negotiated settlements enable Indian and non-Indian communities to: (1) tailor solutions to their unique circumstances; (2) provide infrastructure that allows Indian communities to receive wet water (not merely a legal right to water they might be financially unable to develop); (3) preserve existing water rights and uses for the surrounding non-Indian communities; (4) promote sound water management practices; and (5) establish cooperative partnerships between Indian and non-Indian communities. Tribes often waive some water rights claims, as well as breach of trust claims against the federal government, in exchange for the funding necessary for water infrastructure projects. Funding these settlements is an obligation of the United States analogous to judgments rendered against it in litigation, and failure to fund settlements could lead to new or renewed litigation and increased costs for American taxpayers.

Title X of the Omnibus Public Lands Management Act of 2009 established a Reclamation Water Settlements Fund (RWSF) in the U.S. Treasury to finance Reclamation projects that are part of

Congressionally-approved Indian water right settlements. The RWSF will receive up to \$120 million per year, prioritized for settlements in New Mexico, Montana, and Arizona, beginning in FY2020. Congress only authorized the RWSF to be funded for 10 years, and authorized disbursements from the RWSF only through 2034.

Despite federal trust obligations, obtaining federal funding to promote and implement the negotiated resolution of these claims has proven to be difficult. Current budgetary policy requires water rights settlement funding to be offset by a corresponding reduction in some other discretionary program. It is difficult for the Administration, states, and tribes to negotiate settlements knowing that funding is uncertain or may only occur at the expense of some other essential tribal or Interior Department program. It is important to recognize that the United States is receiving something of significant value in exchange for appropriating settlement funds and fulfilling its tribal trust responsibility. In addition to avoiding litigation costs, it is facilitating self-sufficient tribal economic development, and avoiding the disruption of established non-Indian uses and related Western economies. If Congress is unable to fund authorized settlements, litigation will be the primary means of resolving tribal water right claims.

For instance, the Navajo Nation's settlements with New Mexico and Utah provides the Navajo Nation with quantified amounts of water from within the respective states' Colorado River Compact allocation. In both settlements, the tribe has voluntarily reduced its claimed reserved water rights which would exceed both states' apportionments of the Colorado River. Without the Congressional authorization, appropriated funding, court approval, and full implementation of these settlements, the Navajo Nation would have no choice but to litigate its water rights claims. If the Navajo Nation were to prevail, many junior water users could lose water.

Other settlements remain to be completed. The Secretary's Indian Water Rights Office currently has 21 federal negotiation teams assigned, including tribes with settlements previously introduced before Congress. Arizona and the Hualapai tribe have worked to complete their water rights settlement, and a Navajo-Hopi settlement was also previously introduced. Kansas and the Kickapoo tribe were able to reach a settlement of tribal claims. Montana has reached settlements with the Fort Belknap Tribes and the Confederated Salish and Kootenai Tribes as part of a state-wide adjudication process aimed at resolving all water rights claims in the state. However, until Congress authorizes and funds these settlements, state-issued water rights in basins where these tribes have claims will remain uncertain. If Congress delays authorization and funding of negotiated settlements, the tribes may litigate their claims in court, which could disrupt established non-Indian uses. Moreover, postponing the authorization and implementation of Indian water rights settlements will be far more expensive for the federal government in the long-run because growing water demands, decreasing water supplies, construction cost inflation and other factors will only increase the costs of resolving these claims.

The Congress and the Administration should fully support the use of the funds that accrue to the Reclamation Fund for their intended purpose of supporting western water development, including water infrastructure projects that are part of authorized Indian water rights settlements. One way to ensure stability in settlement implementation would be to make both the authorized annual transfers to the RWSF and the ability to expend monies from the RWSF permanent.

The Reclamation Fund

Recognizing the importance of water to the development of the arid West, the Congress passed the Reclamation Act on June 17, 1902. It provided that monies be “reserved, set aside, and appropriated as a special fund in the Treasury to be known as the ‘reclamation fund,’ to be used in the examination and survey for and the construction and maintenance of irrigation works for the storage, diversion, and development of water for the reclamation of arid and semiarid land...” in the seventeen western states, to be continually invested and reinvested.

President Theodore Roosevelt stated, “The work of the Reclamation Service in developing the larger opportunities of the western half of our country for irrigation is more important than almost any other movement. The constant purpose of the Government in connection with the Reclamation Service has been to use the water resources of the public lands for the ultimate greatest good of the greatest number; in other words, to put upon the land permanent homemakers, to use and develop it for themselves and for their children and children’s children....”

Under the Reclamation Act of 1902, the Reclamation Fund was envisioned as the principle means to finance federal western water and power projects with revenues from western resources. Its receipts are derived from water and power sales, project repayments, certain receipts from public land sales, leases and rentals in the 17 western states, as well as certain oil and mineral-related royalties – but these receipts are only available for discretionary federal expenditures pursuant to annual appropriation acts. This includes construction and operational expenditures of the USBR and the Western Area Power Marketing Administration.

The Reclamation Fund originated as a revolving fund for development of irrigation projects on the arid and semiarid lands of the 17 western states. However, receipts were not sufficient to fund early Reclamation projects. The Mineral Leasing Act of 1920 provided for the deposit of receipts from natural resource royalties into the Reclamation Fund. Originally over 50% of receipts, in 1976 that amount was reduced to 40% of federal royalty payments from the production of oil, gas, coal, potassium, and other minerals on federal lands. Such payments currently account for more than half the Fund’s receipts. In recent years, these receipts have increased significantly, with greater energy development and rising energy prices. The WSWC has recommended the Administration and the Congress investigate the advantages of restoring the Reclamation Fund as a true revolving trust fund with annual receipts appropriated for authorized purposes in the year following their deposit.

Reclamation’s dams and reservoirs, water conveyance systems, and power generating facilities are integral components of America’s infrastructure. Reclamation’s water and power projects and activities throughout the western United States are not only essential for sustainable and safe water supplies for agricultural, municipal and industrial purposes, but also provide energy in the form of hydropower, and maintain ecosystems that support fish and wildlife, hunting and recreation, as well as rural economies.

The Reclamation Act succeeded as a catalyst for the settlement of the arid West, which is now among the most urbanized regions in America. The water and power resources developed and provided by the USBR (as well as the flood control benefits) over more than a century supported growth and

continue to be critical to the maintenance of water supply for the major metropolitan areas of Albuquerque, Amarillo, Boise, Denver, El Paso, Las Vegas, Los Angeles, Lubbock, Phoenix, Portland, Reno, Sacramento, Salt Lake City, Seattle, Tucson and numerous other smaller cities and diverse rural communities across the West. However, the federal government has not adequately invested in maintaining its complex water infrastructure so vital to the West, and the lack of water infrastructure throughout Indian country hinders economic growth and self-sufficiency.

Bureau of Reclamation Water Infrastructure Budget

Over the years, rising energy prices and declining federal appropriations from the Fund for USBR purposes have resulted in an increasingly large unobligated balance. According to the Administration's FY2020 budget request, actual receipts accruing to the USBR Fund from various sources were \$1.842 billion for FY2018, with estimated receipts of \$3.321 billion for FY2019, and \$2.583 billion for FY2020. By way of comparison, actual appropriations were \$1.233 billion for FY2018, and estimated appropriations are \$1.308 billion for FY2019, while the President's FY2020 USBR budget request is \$885 million. The unobligated balance in the Reclamation Fund at the end of FY2018 was \$16.630 billion. It is estimated to be \$18.643 billion at the end of FY2019, and \$20.341 billion by the end of FY2020. This unobligated balance has been used to support other federal purposes, contrary to Congress' original intent.

Requested and appropriated funds have not been sufficient to complete many authorized projects in a timely manner or address many identified Reclamation program needs, including authorized tribal settlements. Increasing appropriations from the Reclamation Fund proportionate to receipts would expedite work to meet pressing water resources infrastructure and conservation and management program priorities. The WSWC supports collaboration and leadership at all government levels – federal, state, tribal, and local - and the private sector – to address America's infrastructure needs and establish water infrastructure improvements as a public policy priority.

Substantial and sustained investments in water project construction, maintenance, rehabilitation and replacement is necessary and pays long-term dividends. Inconsistent, inadequate, and untimely funding increases project construction and financing costs, as well as risk.

The federal government has a significant role to play in financing and cost-sharing for water-related infrastructure given federal tribal trust and treaty obligations, other past commitments, and federal regulatory mandates. The WSWC urges the Congress to investigate the advantages of converting the Reclamation Fund from a special Treasury account to a true revolving trust fund with annual receipts appropriated for authorized purposes in the year following their deposit (similar to some other federal authorities and trust accounts).

Conclusion

In conclusion, Congress should provide adequate funding for the USBR to undertake project construction related to Indian water rights settlements from revenues accruing to the Reclamation Fund, while recognizing the existence of other legitimate needs that may be financed by those reserves.

WSWC recommends the Congress carefully consider present and future needs for investment in water resources infrastructure. It is vital that the West maintain sustainable, reliable and robust infrastructure systems necessary to deliver adequate supplies of clean water to meet present and future needs of both tribal and non-tribal communities. Further, the Congress should investigate the advantages of converting the Reclamation Fund from a special account into a true revolving trust fund with receipts promptly and fully appropriated for their intended purpose in the continuing conservation, development and wise use of western water resources and work with the states to meet their future water, energy and infrastructure needs.

House Natural Resources Oversight Subcommittee

On July 24, 2019, the WSWC was invited to testify before the House Natural Resources Oversight Subcommittee regarding the Status of the Reclamation Fund and the Bureau of Reclamation's Future Infrastructure Funding Needs. Tony Willardson, Executive Director for the WSWC provided the following testimony.

The WSWC strongly supports the appropriation and use of receipts that accrue to the Reclamation Fund for their intended purpose of financing authorized western water projects and programs. Moreover, the Council has recommended the Administration and the Congress investigate the advantages of restoring the Reclamation Fund as a true revolving trust fund with annual receipts appropriated for authorized purposes in the year following their deposit.

The Council is currently comprised of 18 states, including the 17 Reclamation States and Alaska, covering an expansive and diverse geographic, topographic, climatologic, meteorological, hydrologic and political spectrum. It should also be noted that "... federal land ownership generally is concentrated in the West. Specifically, 61.3% of Alaska is federally owned, as is 46.4% of the eleven coterminous western states. By contrast, the federal government owns 4.2% of lands in the other states."

In the West, water is indeed our "life blood." The Council's offices are located in the Great Salt Lake Valley. Brigham Young led the first company of pioneers into the valley on July 24, 1847. Overlooking the land and lake he declared, "This is the right place." I'm sure it didn't look like much, but they started to plow fields and plant crops, diverting City Creek for irrigation. City blocks were laid out and soon homes and gardens began to rise. From there, communities near and far were established across an area that covered what are now the States of Utah and Nevada, as well as northern Arizona, southern California, western Colorado, and parts of Idaho, New Mexico, Oregon, and Wyoming. Other pioneers and settlements followed western rivers, streams and springs. With the help of those waters, they made the desert blossom as a rose, irrigating thousands of acres, moving water to the people, building communities and territories that eventually became states. Water then and now is a vital resource, the availability of which has and continues to circumscribe growth, development, economic opportunity and our social and environmental quality of life.

The Council held its summer meetings in Leavenworth, Washington. I drove up the Columbia River lined with apple orchards and fields of corn, grains and hay. I drove through the Columbia Basin Project (CBP), in east central Washington, currently serving about 671,000 acres. The agricultural

potential of the rich soil of the plateau was evident to early settlers, but with annual rainfall averaging less than 20 inches, and with most of that falling as snow in the winter, dryland farming was difficult, at best. The Reclamation project serves irrigation water to some 2,050 farms. Apples, wheat and corn are the largest-volume crops. There also are large herds of dairy cows and beef cattle. Annually, the cash value of farm production in the Columbia Basin Project is about \$630 million.

Most of the currently irrigated lands were developed in the 1950s and 1960s, with some acreage added sporadically until 1985. The 1945 feasibility report anticipated incremental development would take place over 70 years, and Congress originally authorized irrigation of over one million acres. There are over 300 miles of main canals, about 2,000 miles of laterals, and 3,500 miles of drains and wasteways on the project. Construction of an East High Canal and extension of the East Low Canal has been indefinitely deferred.

Principal CBP hydropower features include Grand Coulee Dam, Franklin D. Roosevelt Lake, the Grand Coulee Powerplant Complex, switchyards, and a pump-generating plant.

Underlying the easternmost portion of the CBP is the Odessa Aquifer Subarea where the Washington Department of Ecology (WA DOE) permitted irrigation wells in the mid-1970s expecting that the CBP would eventually provide project water to these lands via the unconstructed East High Canal. Without a surface water supply and continuing pumping, the aquifer has declined to the extent that farmers' crops are at risk and domestic, commercial, municipal and industrial uses and water quality are also affected. Some wells reach as deep as 2,400 feet, power for pumping is expensive, and water from such depths can be hot with high sodium concentrations.

Under its Columbia River Water Management Program, WA DOE has secured enough water to move 90,000 acres of farmland from relying on the severely declining aquifer to surface water by employing conservation measures and working with the USBR to make operational changes in the CBP storage and delivery system.

Today we benefit from past public and private investments in the wise conservation, use and management of our water resources. Similarly, the well-being of future generations will depend on our investments in developing and protecting our water resources.

Federal participation in funding projects and programs is appropriate under a number of circumstances, particularly where the federal government is a direct or indirect beneficiary, where the federal government is in the best position to finance and then recover costs from beneficiaries, or where the federal government has recognized or created a right, such as to clean and safe drinking water, or where the federal government has made promises, such as tribal treaties and water rights settlements that are both a legal and ethical obligation.

The Reclamation Fund

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a special fund in the Treasury to be known as the ‘reclamation fund,’ to be used in the examination and survey for and the construction and maintenance of irrigation works for the storage, diversion, and development of water for the reclamation of arid and semiarid land...” in the seventeen western states, to be continually invested and reinvested.

President Theodore Roosevelt stated, “The work of the Reclamation Service in developing the larger opportunities of the western half of our country for irrigation is more important than almost any other movement. The constant purpose of the Government in connection with the Reclamation Service has been to use the water resources of the public lands for the ultimate greatest good of the greatest number; in other words, to put upon the land permanent homemakers, to use and develop it for themselves and for their children and children’s children....”

Under the Reclamation Act of 1902, the Reclamation Fund was envisioned as the principle means to finance federal western water and power projects with revenues from western resources. Its receipts are derived from water and power sales, project repayments, certain receipts from public land sales, leases and rentals in the 17 western states, as well as certain oil and mineral-related royalties – but these receipts are only available for discretionary federal expenditures pursuant to annual appropriation acts. This includes construction and operational expenditures of the USBR and the Western Area Power Marketing Administration.

The Reclamation Fund was originally designed to fund the development of authorized irrigation projects on the arid and semiarid lands of the 17 western states. However, receipts were not sufficient to fund early Reclamation projects, such as the Grand Coulee and Hoover Dams.

The Mineral Leasing Act of 1920 provided for the deposit of receipts from natural resource royalties into the Reclamation Fund. Originally over 50% of receipts, in 1976 that amount was reduced to 40% of federal royalty payments from the production of oil, gas, coal, potassium, and other minerals on federal lands. Such payments currently account for more than half the Fund’s receipts. In recent years, these receipts have also increased significantly.

According to the Administration’s FY2020 budget request, actual receipts accruing to the Reclamation Fund from various sources were \$1.842 billion for FY2018 (compared to estimated receipts of \$1.702 billion), with FY2019 estimated receipts of \$3.321 billion and \$2.583 billion for FY2020. By way of comparison, actual appropriations from the Reclamation Fund were \$1.233 billion for FY2018, and estimated appropriations are \$1.308 billion for FY2019, with the President’s budget request of \$885 million for FY2020.

The unobligated balance in the Reclamation Fund at the end of FY2018 was \$16.63 billion, and an estimated balance at the end of FY2019 of \$18.643 billion and FY2020 of \$20.341 billion.

This unobligated balance continues to grow as appropriated funds are substantially less than receipts. The unobligated figure gets larger and larger, but the money in the Reclamation Fund is in fact spent elsewhere for other federal purposes contrary to the Congress’ original intent. Any unobligated balance essentially reduces federal borrowing to finance other federal expenditures. While Congress, by

legislation, dedicated 10% of federal mineral leasing revenues for the Treasury, it has effectively taken much more. You could say that Congress has borrowed the “golden egg” and left the goose sitting on a Treasury I.O.U.

The Council has long called for the Congress to investigate the advantages of converting the Reclamation Fund from a special Treasury account to a true revolving trust fund with annual receipts appropriated for authorized purposes in the year following their deposit (similar to some other federal authorities and trust accounts).

Fully appropriating Reclamation Fund receipts for current and future authorized purposes would expedite completion of delayed projects, fund deferred maintenance, repair and replacement expenditures, expedite dam safety work and otherwise support expenditures for essential water and power development, environmental restoration and water conservation projects and programs. One advantage of a revolving fund, with respect to project operation and maintenance, would be the ability to more efficiently plan and schedule construction activity without the uncertainty surrounding annual appropriations acts.

Specifically, greater investments could be made in California’s Central Valley Project and in the Columbia Basin Project, the Columbia and Snake River Salmon Recovery Project, the Dam Safety Program and the Endangered Species Recovery Implementation Program. More emphasis could be placed on addressing invasive species threats to water infrastructure. Increasing investments would benefit the Klamath and Middle Rio Grande Projects and Pick-Sloan Missouri Basin Program, the Trinity River Restoration Program, and Yakima Project and Yakima River Basin Water Enhancement.

Construction related to Indian water rights settlements could be expedited including the Aamodt, Blackfeet, and Crow settlements, as well as the Navajo-Gallup water supply project. Money would also be more readily available for pending and future settlements, including the Navajo Utah and Navajo-Hopi in Arizona.

A federal commitment to authorized rural water supply projects in Montana, New Mexico, North and South Dakota that have languished due to inadequate funding for timely completion could be fulfilled benefiting rural communities, including many tribal communities. The WSWC has long supported greater investment in these authorized projects, on an expedited timetable, which would provide significant cost savings given increasing construction costs.

Increased appropriations for WaterSMART programs would advance basin studies, cooperative watershed management, drought response assistance, water reclamation and reuse projects, and water conservation.

Bureau of Reclamation Benefits/Budget

The Reclamation Act succeeded as a catalyst for the settlement of the arid West, which is now among the most urbanized regions in the Nation. The water and power resources developed and provided by the USBR (as well as the flood control benefits) over more than a century supported growth and continue to be critical to the maintenance of the water supply for the major metropolitan areas of

Albuquerque, Amarillo, Boise, Denver, El Paso, Las Vegas, Los Angeles, Lubbock, Phoenix, Portland, Reno, Sacramento, Salt Lake City, Seattle, Tucson and numerous other smaller cities and diverse rural communities across the West.

As the largest supplier and manager of water in the Nation and the second largest producer of hydroelectric power, Reclamation's projects and programs are foundational to driving and maintaining economic growth in hundreds of watershed basins throughout the United States. Reclamation manages water for agricultural, municipal and industrial use, and provides flood control and recreation for millions of people.

USBR facilities include 337 reservoirs with the capacity to store 245 million acre-feet of water and irrigating approximately 10 million acres of farmland that produce 60 percent of the Nation's vegetables and 25 percent of its fruits and nuts. Reclamation projects also provide water to about 31 million people for municipal and industrial uses, while generating more than 40 billion kilowatt hours of energy each year. Reclamation owns 76 power plants and operates 53 hydroelectric power plants serving some 3.8 million households. Reclamation collects over \$1.0 billion in gross power revenues for the Federal government each year.

Reclamation and its partners manage 289 recreation areas, with over 90 million visits annually. Reclamation projects also provide flood control, and fish and wildlife benefits.

Reclamation's dams and reservoirs, water conveyance systems, and power generating facilities are integral components of the Nation's infrastructure. Effectively managing the benefits provided by these structures are among the many significant challenges that Reclamation faces. Changing demographics and competing demands are increasingly stressing already strained systems. Reclamation's water and power projects and activities throughout the western United States are not only essential for sustainable and safe water supplies for agricultural, municipal and industrial purposes, but also provide energy in the form of hydropower, and maintain ecosystems that support fish and wildlife, hunting and recreation, as well as rural economies.

USBR activities support 463,000 jobs, \$35.5 billion in value added and \$63.5 billion in economic output. These figures broken down by sector include: (1) hydropower 12,400 jobs, \$1.9 billion in value added, and \$3.3 billion in economic output; (2) irrigation 366,000 jobs, \$24.9 billion and \$44.5 billion; (3) municipal and industrial water supply 52,100 jobs, \$6.1 billion and \$11 billion; (4) USBR payroll with 5,550 employees adding \$506 million in value and total economic output of \$906 million; and lastly (5) recreation 26,900 jobs, \$2.1 billion and \$3.8 billion.

The FY2020 budget request includes \$1.1 billion for Reclamation's water resource programs, with \$962 million for the Water and Related Resources account, \$434.8 million for construction, planning, and management of water and energy projects and programs, and \$527.2 million for water and power facility operations, maintenance, and rehabilitation activities. The Reclamation Fund also provides appropriations for the Bureau's non-construction related expenses. There is \$60 million for the Policy and Administration account.

Reclamation's 5-year estimate (FY2016-2020) for major rehabilitation and replacement (MR&R) needs total \$2.9 billion including extraordinary maintenance (\$114.1 million requested in FY2020), deferred maintenance, and dam safety modifications (\$92.7 million FY2020 request). Other estimated construction needs include: \$1.2 billion for authorized Title XVI water reclamation and reuse projects (\$3 million FY2020 request); \$1.3 billion for authorized rural water projects (\$27.8 million FY2020 request); \$1.5 billion for projects related to Indian water rights settlements (\$132.9 million requested for FY2020); and \$1.6 billion for new water and power projects, related to the Central Valley Project in California, the Yakima Integrated Plan in Washington, and the Platte River. Reclamation is also working with water contractors on potential new water storage, such as raising Shasta Dam and Upper San Joaquin River storage in California.

Similarly, the President's FY2020 budget request for Reclamation's WaterSMART grants and programs, including basin studies, water conservation and field services, drought response and plans, resilient infrastructure and cooperative watershed management totals \$19.9 million compared to FY2019 enacted levels of \$113.2 million. This includes spending for the Basin Studies Program, Cooperative Watershed Management, Drought Response, Title XVI Projects, WaterSMART Grants, and the Water Conservation Field Service Program.

Other FY2020 requests included \$54.8 million for the Central Valley Project Restoration Fund. Permanent appropriations in FY2020 total \$430.1 million, including \$97.2 million for the Colorado River Dam Fund, \$207.4 million for the San Joaquin River Restoration Fund, and \$122.0 million for the Reclamation Water Settlements Fund.

Still, requested and appropriated funds have not been sufficient to complete many authorized projects in a timely manner or address many identified program needs. Increasing appropriations from the Reclamation Fund proportionate to receipts would expedite work to meet pressing water resources infrastructure and conservation and management program priorities.

Within the existing unobligated balance in the Reclamation Fund, there is no limit on annual expenditures. Rather, any limitations apply to projects. Congress could substantially increase funding from the Reclamation Fund for any project with the exception of those covered by the Colorado River Dam Fund or the Upper and Lower Colorado River Basin Funds. Reclamation receipts are not available for construction of the CAP, Colorado River Water Quality Improvement Program, Central Utah Project, Animas-La Plata Project, or projects authorized under the Small Reclamation Projects Act. Under existing law, these projects and programs require appropriations from the General Fund.

The Water/Energy Nexus in the West

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. Water and energy in the West are inseparably connected! Energy production requires water (whether hydropower or thermal generation), and water development requires energy. Current law regarding receipts and expenditures from the Reclamation Fund recognizes the importance of providing financial

assistance to ensure adequate water is available in the West to meet its current and future needs, including water for energy needs.

The Western Area Power Administration (WAPA) was created in 1977 under the Department of Energy Organization Act. WAPA assumed power marketing and transmission functions which were previously the responsibility of the DOI. Appropriations from the Reclamation Fund finance expenditures for the Western Area Power Administration, including construction and operation and maintenance of transmission facilities as part of the federal hydropower system.

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. 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.

Federal Mineral Leasing Revenues

Reclamation Fund receipts from federal royalties on natural resources for FY2017 totaled \$1.136 billion, with \$1.221 billion in FY2018, and estimates of \$2.847 billion in FY2019 and \$2.29 billion in FY2020.

As explained by the Tax Foundation, “The existing federal mineral royalty system is a result of the way in which lands in the U.S. were historically developed. Royalties collected by the federal government from mineral production on public lands is disbursed to a variety of areas, one of which serves as compensation to states for the costs accrued from production.... Rather than divest land from federal to state ownership, the government has opted to compensate states that contain federal lands on which production occurs via the disbursement of a portion of royalty revenues to affected states.... Mineral royalties collected by the federal government are disbursed to a variety of funds. Fifty percent of onshore lease revenue goes to the state in which the lease is located (except in the case of Alaska, where 90 percent of the royalties go back to the state), 40 percent is disbursed to the national Reclamation Fund (except in the case of Alaska, where no Reclamation Fund disbursement takes place), and the remaining 10 percent goes to the U.S. Treasury.”²³

Other Bureau of Reclamation Funds

Appropriations for construction from the Reclamation Fund are limited to the Central Valley Project, Columbia Basin Project, and Pick-Sloan Missouri Basin Program. Money for construction of federal reclamation projects in the Colorado River Basin has come through appropriations from the General Fund. Reclamation receipts are not available for construction of the CAP, Colorado River Water Quality Improvement Program, Central Utah Project, Animas-La Plata Project, or

²³*Federal Mineral Royalty Disbursements to States and the Effects of Sequestration*, May 2013, Liz Malm <https://taxfoundation.org/research/all/federal/federal-mineral-royalty-disbursements-states-and-effects-sequestration/>.

projects authorized under the Small Reclamation Projects Act. Under existing law, these projects and programs require appropriations from the General Fund. Congress has dedicated revenues from the Colorado River Basin projects to repay the construction advances from the General Fund.

The Colorado River Dam Fund was created in 1928 by the Boulder Canyon Project Act. Fund revenues come mainly from power sales generated through Hoover Dam. They are deposited in the Fund and must be appropriated annually for operation and maintenance. Further, direct payments are made to the Treasury to amortize advances from the General Fund, with interest, for construction of Hoover Dam and the power plant.

General Fund appropriations for the CAP and Colorado River Storage Project features are passed through the Lower Colorado River Basin Development Fund and the Upper Colorado River Basin Fund, respectively.

The Upper Colorado River Basin Fund and Lower Colorado River Basin Development Fund, as revolving funds, were established to account for the collection of project revenues from water and power users, pay operation, maintenance, replacement and emergency expenses, and repay construction advances from the General Fund. None of these expenses are paid from the Reclamation Fund.

The Lower Colorado River Basin Development Fund was established by the Colorado River Basin Project Act of 1968, which authorized construction of the CAP, as well as the Navajo Thermal Power Plant at Page, Arizona and pertinent transmission facilities. Revenues from authorized facilities are deposited in the Fund, but cannot be used for construction, which must be financed by appropriations from the General Fund. Revenues have come almost totally from power sales at the Navajo Plant, with only minor amounts from miscellaneous sources such as farming and grazing leases.

In addition to repayment of the CAP, and related operations and maintenance costs, the Lower Colorado River Basin Development Fund will repay reimbursable costs incurred in connection with any future authorization of projects or programs to augment water supplies on the Colorado River below Lee's Ferry.

Under reclamation law, the sale of water and power provide the necessary revenue to cover project operation and maintenance and replacement costs while repaying the federal investment, with interest, for reimbursable elements. Costs allocated to irrigation are repaid without interest, and to the extent that they are beyond the water users' "ability-to-pay," are subsidized by power revenues.

The Boulder Canyon Project Act authorized construction of the All-American Canal and provided a dependable water supply for the irrigation of over one million acres of land in southern California, and southwestern Arizona.

The Colorado River Development Fund was created by the Boulder Canyon Project Adjustment Act of 1940, which authorized the transfer of \$500,000 annually from the Colorado

River Dam Fund. It is a special fund in the Treasury and expenditures are authorized and must be specifically appropriated “only for the continuation and extension under the direction of the Secretary, of studies and investigations by the Bureau of Reclamation for the formulation of a comprehensive plan for the utilization of waters of the Colorado River system for irrigation, electrical power, and other purposes, in the states of the Upper Division and the Lower Division, including studies of quantity and quality of water and all other relevant factors.”

Water Infrastructure Funding

The WSWC 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. The West depends on an intricate and aging system of weirs, diversions, dams, reservoirs, pipelines, aqueducts, pumps, canals, laterals, drains, levees, wells, stormwater systems, water and wastewater treatment plants, and hydroelectric power plants. 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.

The Council supports appropriate federal investments in water-related infrastructure projects and programs that provide jobs and economic security, while protecting the environment. 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. 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.

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. Inconsistent, inadequate, and untimely funding increases project construction and financing costs, as well as risk, including the failure of critical infrastructure. 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.

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.

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. Many authorized federal water infrastructure projects have not been started or remain incomplete for decades.

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.

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. The Council also 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.

Conclusion

In conclusion, the WSWC would suggest the Congress carefully consider present and future needs for investment in water resources infrastructure, given existing financial resources, including appropriate infrastructure asset management and capital budgeting. It is vital that the West maintain sustainable, reliable and robust infrastructure systems necessary to deliver adequate supplies of clean water and energy to meet present and future needs.

Further, the Congress should seriously consider the advantages of converting the Reclamation Fund from a special account into a true revolving trust fund with receipts promptly and fully appropriated for their intended purpose in the continuing conservation, development and wise use of western water resources and work with the states to meet present and future water infrastructure needs.

WATER DATA EXCHANGE

In 2019 the Water Data Exchange (WaDE) Program went through some major transformations. This summary provides an overview of the status of the WaDE program, including: (1) staff changes and interns; (2) an update on WaDE Grants and a summary of WaDE 1.0 accomplishments and its assistance to member states; (3) an overview of the WaDE 2.0 architecture and transition plan; and (4) a brief overview of the outreach and collaboration activities during the year.

Staff Changes

In January 2019, Adel Abdallah was hired as a full-time Senior Hydroinformatics Specialist. Adel worked previously as a WSWC intern, beginning in July 2017. He finished his Ph.D. in 2019 in Civil and Environmental Engineering with emphasis on Hydroinformatics at Utah State University, in Logan, Utah. In his research, Adel has designed the Water Management Data Model (WaMDaM) which is an information model and supporting software tools to organize, visualize, and compare many water systems management datasets in a single database.

In May 2019, the WSWC hired three interns: Gaby Garcia, Morgan Gallagher, and Joseph Brewer. Gaby was pursuing her Master of Environmental Management degree with a focus in Water Resources Management at Duke University, North Carolina. She worked with the Utah Division of Water Resources (UDWR) to assist them in sharing water budget data using an ESRI Open Data Portal. The UDWR wanted to publicly share water budget data for all the state's 29 counties in an interactive visualization dashboard illustrating consumptive use estimates and surface and groundwater withdrawals. Gaby returned to Duke University to continue her Master studies, while still working part time remotely for the WSWC importing the Utah Division of Water Rights data into the new WaDE database system. Morgan graduated with a B.S. in Environmental Science and another B.A. in French at Virginia Tech, Virginia. Joseph was pursuing his MS in Civil & Environmental Engineering - Water Resources and Hydrology at Utah State University, Logan, Utah. Both Morgan and Joseph assisted the Wyoming Water Development Office (WWDO) in digitizing and mapping "points of water use" to their respective water rights. The WWDO needed assistance to manually fix and document thousands of mapping errors that were not mapped correctly by an automated digitizing software. Both interns then developed visualization dashboards to create reports for water budget and use trends for each of Wyoming's seven major watersheds. Morgan completed her internship in late August, and now she is in France as part of a Fulbright Scholarship. Joseph continued to work remotely for the WSWC to connect Wyoming's water rights data into the new WaDE system. He will be working on finishing his Master's Degree next year.

In July 2019, Sara Larsen, WSWC Senior Program Manager, accepted a position as the Deputy Director and Chief Engineer at the Upper Colorado River Commission. Sara led the WaDE Program since late 2011 and her contributions and relationships that she established with member state and federal agencies staff, as well as academia, provided a firm foundation and profoundly shaped the WaDE Program and enabled its success so far. Adel was promoted to the WaDE Program Manager.

In September, the WSWC hired two new interns: Tseganeh Gichamo and Ryan James. Tseganeh completed his PhD in Spring 2019 in Hydroinformatics at Utah State University. He assisted staff in connecting fifteen datasets across our member states into the new WaDE 2.0 system. Ryan completed his master's degree in water resources management at Utah State University in Summer 2019. He assisted staff in compiling and analyzing a water use vocabulary in the Colorado River Basin as used by all involved state and federal agencies. This effort was in collaboration with staff at the Internet of Water that are working on building a national glossary and repository for water-related vocabulary.

In December 2019, the WSWC offered Ryan a full-time position as Data Analyst/Hydroinformatics specialist, which he started in January 2020.

WaDE Grants Update and Assistance to Member States

In December 2019, we closed the FY2015 Environmental Information Exchange Network (EN) grant from the U.S. Environmental Protection Agency (EPA) entitled “Data Integration, and Implementation of WaDE Dataflow.” The grant was led by the California Department of Water Resources, in partnership with the Nevada Division of Water Resources, South Dakota Department of Environment and Natural Resources, and the WSWC. The project helped our member states build and improve their water rights and water use data exchange protocols using the WaDE schema. The grant brought \$442,708 to the partners and funded our work with them for 4 years. WSWC also closed the Mitchell Foundation grant that help fund WaDE for 2019.

The WSWC has an active grant from the Water Foundation (since 2018), which is set to expire in July 2020. Our current main funding that started in October 2019 and extends to October 2021 is from the Moore Foundation under a contract with Duke University (Internet of Water). Funding from these different groups has allowed us to sustain the WaDE program with its two full-time positions and fund its assistance contracts to our member states and our information technology (IT) contractor.

Since its inception in late 2011, the WaDE program has assisted its member states in improving and making their water-related data more readily accessible to the public, as well as other agencies. WaDE 1.0 has supported data sharing by water agencies spanning sixteen states, generating a variety of administrative, water right, water budget, site-specific withdrawal, and regulatory data. The most common data being shared is water rights, followed by aggregated water use. Efforts are ongoing to support Montana in sharing their water rights data, while North Dakota has not yet started, pending their data program revamp.

The WSWC has helped secure nearly \$644,000, mainly through EPA Exchange Network grants to assist states financially. Most member states have taken advantage of some of the opportunities, while others still have the potential to use funds to improve their data, data management and sharing through WaDE, especially in its next phase WaDE 2.0, moving to a cloud-based architecture.

WaDE 2.0 Architecture and Transition Plan

In January 2019, the WSWC started working with Don't Panic Labs (DPL), an IT contractor based in Nebraska to upgrade WaDE using the latest technology standards and a cloud-based system. The new system will significantly increase staff's ability to monitor usage and update the database system. The WaDE 2.0 system also significantly reduces the effort for member states' staff to participate or maintain their data sharing protocols. WaDE 2.0 data and its metadata schema have been designed to address data interoperability needs related to sharing time series data according to the use standards set by the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI). In addition, the new schema complies with USGS data and metadata indexing needs to enable data queries based on the fabric of national hydrography dataset. All WaDE 2.0 documentation and source code are being publicly maintained and updated on the GitHub repository.²⁴

Transitioning to WaDE 2.0 has been an incredibly involved process that is anticipated to provide easier and faster access over time. It took about seven years to connect most member states to WaDE 1.0 and it is planned to connect most of the states to the new system by the end of 2020. By design, it will take much less effort for both WSWC staff and state agencies to maintain data flow under the new system. Initial efforts started with connecting the Upper Colorado River states of Utah, Wyoming, and Colorado to the new system. New Mexico and Montana are scheduled to be connected next, with plans to connect California, Nevada, and Arizona in Spring 2020. In Summer 2020, five more states will be connected, and the last five states will be connected later in the Fall of 2020.

Outreach and Collaboration

WSWC staff continued to participate in several forums and conferences to increase awareness of general "open water data" concepts and in support of the WaDE program. These include the USGS hosted Open Water Data Initiative monthly calls, in support of publication of federal water-related datasets. The WaDE Program Manager continues to work with the USGS Water Availability and Use Science Program (WAUSP) and the Water Use Data and Research (WUDR) Program staff to ensure that WaDE water use data will support both the National Water Census and USGS's 5-year water-use compilations.

WSWC staff presented at the annual meeting of the Universities Council on Water Resources (UCOWR) and the National Institutes for Water Resources (NIWR) held in Snowbird, Utah in June 2019. WSWC staff also presented at the California Water Data Science Symposium in Sacramento, in July 2019, as part of a panel discussion on the Internet of Water. The WSWC organized a technical workshop about the upcoming WaDE schema and web-services as part of the CUAHSI Hydroinformatics Conference that was held in Provo, Utah also in July 2019.

²⁴<https://github.com/WSWCWaterDataExchange/WaDE2.0>

WSWC also helped co-organize a workshop on technology transfer for water management in the western United States with the National Aeronautics and Space Administration's (NASA) Western Water Applications Office in August 2019 in Irvine, California. The workshop goals were to: (1) build agency partnerships and a network of experts to share data and information and facilitate the application and transition of technology from NASA to water resources managers for decision support; (2) discover and document best practices for successful application transition; and (3) Identify current barriers to technology transfer and establish pathways to overcome those barriers.²⁵

The WSWC and USGS Water Use Mission Area staff co-hosted the Water Management Information Systems (WIMS)/USGS National Water Use Data Collaboration Workshop. The workshop was held at the USGS Science Center in Fort Collins, Colorado. It focused on the status of water use data science, state agency strategies for getting high-quality water use information including online reporting, automated data checking, and remote-sensing tools. The WIMS and USGS workshop also served as a forum for states and other attendees to exchange information on highly specialized and important water data topics. Overall, fifty-four representatives attended the workshop from eighteen states, including five eastern states, as well as different federal agencies, universities, organizations, and the private sector.²⁶

Other outreach and collaboration efforts include participating in the California Data Streaming workshop, as part of the AB 1755 data sharing and transparency law, that was held at the San Diego Supercomputer Center (SDSC) in La Jolla, California in September 2019. The workshop discussed ideas for a centralized data streaming service where state agencies could submit data reports for streaming. The service would in turn provide customized reports to the many different regulatory agencies according to consistent standard operating procedures. The WaDE program will work with John Helly's group at the SDSC to connect California water balance data into the new system.

On November 3, 2019, in conjunction with AWRA's annual meeting, WSWC Executive Director Tony Willardson and WaDE Program Manager Adel Abdallah, together with representatives from the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) and the Internet of Water, presented: "That's so Water Meta!" The free hands-on pre-conference workshop focused on best practices for sharing data, creating and applying metadata and ensuring findable, accessible, interoperable, and reusable (FAIR) data practices. 20 participants attended the workshop from state, federal, private organizations and consulting groups. States represented included: Alabama; New Mexico; North Dakota; Utah; and Texas. The workshop is the first in a series that will be held at different venues in the next two years as part of WaDE education and outreach efforts in partnership with CUAHSI and the Internet of Water.

²⁵<https://westernstateswater.org/events/2019-wswc-nasa-technology-transfer-for-water-management-in-the-western-united-states/>

²⁶<https://westernstateswater.org/events/2019-wims>

WESTERN STATES FEDERAL AGENCY SUPPORT TEAM

The Western States Federal Agency Support Team (WestFAST) promotes collaboration between the WSWC and twelve federal agencies with water resource management responsibilities in the West. WestFAST was established pursuant to a request from the WGA and a recommendation in the WGA's 2008 report titled: *Water Needs and Strategies for a Sustainable Future: Next Steps (Next Steps Report)*. Specifically, WestFAST was formed to promote cooperation and coordination between federal agencies, and between states and federal agencies. WestFAST was intended to help the WSWC implement recommendations and collaborative efforts outlined in the *Next Steps Report*.

WestFAST federal agencies include: U.S. Department of Agriculture's Forest Service (USFS) and Natural Resources Conservation Service (NRCS); U.S. Army Corps of Engineers (Corps); U.S. Department of Defense (DOD); U.S. Environmental Protection Agency (EPA); the U.S. Department of the Interior's - Bureau of Land Management (BLM), Bureau of Reclamation (USBR), National Parks Service (NPS), U.S. Fish and Wildlife Service (FWS), and U.S. Geological Survey (USGS); National Aeronautics and Space Administration (NASA); and National Oceanic and Atmospheric Administration (NOAA). In 2019, there were two WestFAST/WSWC Liaisons who served. John D'Antonio (USACE) served from January through February 2019; and Deborah Lawler (USBR) served from the end of April through December 2019.

In 2019, WestFAST focused on many federal initiatives and promoted communication between federal agencies relevant to priority issues identified in the above-referenced WGA and WSWC reports and resolutions. WestFAST representatives reviewed WSWC committees' work plans and developed a WestFAST 2019 – 2021 Work Plan, ensuring consistent activities would be promoted during 2019. The Federal Liaison held conference calls with WSWC leadership and WestFAST leadership to correlate WestFAST actions and WSWC priority objectives.

- WestFAST members held monthly conference calls to discuss ongoing programs and coordinate interagency and federal-state collaboration and outreach opportunities.
- WestFAST published a monthly newsletter distributed to more than 181 federal agency staff, and state and local partners.
- WestFAST continued to maintain a WestFAST web site containing information about WestFAST's origins, goals and objectives, and documentation of activities, reports, newsletters, and webinars.
- On April 3, 2019, a Water Infrastructure Forum was co-hosted by WestFAST and WSWC, the National Water Supply Alliance, and the National Water Resources Association, with participation by the Federal Water Policy Committee/Water Sub-Cabinet. The objectives of the Forum were to identify state, interstate, and federal areas of collaboration on important projects and programs to allow federal agencies and states to work better together using existing authorities and leveraging respective resources.

- WestFAST participated in three WSWC meetings and four jointly-sponsored WSWC seminars and workshops. WestFAST agencies gave a combined 33 presentations during these events. These efforts were well received, and very beneficial to both the WSWC and the federal agencies, in that they provided a forum for discussion of a number of priority issues.
- The WestFAST Federal Liaison continued working with the Western Regional Partnership (WRP) on the water-resource components of their programs. The WRP is a Department of Defense-led collaboration between federal, state, local and tribal interests in six western states: Arizona; California; Colorado; Nevada; New Mexico; and Utah.
- The WestFAST and WSWC continue its work on Non-Tribal Federal Water Rights. This is a continuing state-federal relationship through the implementation phase of decreed and adjudicated water rights. A Stock Water Rights for Grazing Livestock on Federal Lands, Part II, was held in Breckenridge, Colorado, as a part of the WSWC Fall meetings.

OTHER IMPORTANT ACTIVITIES AND EVENTS

Western States Water

Since the first issue in 1974, the WSWC's weekly newsletter, *Western States Water*, has been one of its most visible and well received products. Its primary purpose is to provide governors, members and others with accurate and timely information with respect to important events and trends. It is intended as an aid to help achieve better federal, state, and local decisionmaking and problem solving, improve intergovernmental relations, promote western states' rights and interests, and highlight issues. Further, it covers WSWC meetings, changes in WSWC membership, and other WSWC business.

The newsletter is provided as a free service to members, governors and their staff, member state water resource agencies, state water users associations, selected multi-state organizations, key congressional staffs, and top federal water officials. Other public and private agencies or individuals may subscribe for a fee.

The following is a summary of significant activities and events in 2019 primarily taken from the newsletter. However, this does not represent an exclusive listing of all WSWC activities, or other important events. Rather, it seeks to highlight specific topics.

Western Governors' State of the State Addresses

During their state of the state addresses, a few western governors touched on water-related issues. Arizona Governor Doug Ducey addressed Arizona's water future. "Our duty is to leave this state in far better shape than we found it – and we are well on our way.... When conversations stall, as they sometimes do during difficult discussions, we let history be our guide and the hand that lifts us back up." The Governor continued, "Nearly four decades ago, in 1980, Arizona's accelerated water consumption forced a sobering ultimatum from the federal government: reform or suffer severe water cutbacks. The can could not be kicked any further. But Arizona's history is not one of missed opportunities or efforts that came up short. Rather we find, that in the darkest times, Arizona's pioneering spirit shines the brightest. Democrats and Republicans rose above party labels. They brought skeptical and reluctant stakeholders to the table. And they acted – and they did it with good faith and honest intentions. For the people in this crowd and many across our state, I don't have to spell out the parallel circumstances in which we find ourselves today. It's simple. Arizona and our neighboring states draw more water from the Colorado River than Mother Nature puts back. And with a critical shortfall imminent, we cannot kick the can any further. It's going to mean rising above self-interest and doing the right thing. It means taking the action our past and future generations demand."

Governor Ducey called "...on state leaders to put party labels aside and do the 'things that matter' – securing our water future.... The issues we need to tackle aren't partisan ones. In some cases, they aren't even political.... It's time to protect Lake Mead and Arizona. It's time to ratify the Drought Contingency Plan and we have 17 days to do it. Doing so will require compromise. No

one stakeholder is going to get everything they want. Everyone is going to have to give. And I've been impressed by the willingness of those involved to do just that."

California Governor Gavin Newsom said, "California has always helped write America's future. And we know the decisions we make, would be important at any time. But what we do today is even more consequential, because of what's happening in our country. People's lives, freedom, security, the water we drink, the air we breathe – they all hang in the balance. The country is watching us. The world is waiting on us. The future depends on us. And we will seize this moment."

Colorado Governor Jared Polis talked about agricultural exports and volatile commodities markets, the damaging trade war, and increasingly serious water shortages, which make life harder. "The lifeblood of our agriculture industry is water – which is why we must commit to a bipartisan and sustainable funding source for the Colorado Water Plan. Governor Hickenlooper, along with the leadership of John Stulp, did extraordinary work bringing together a coalition of Coloradans from all corners of our state to create the Water Plan. Now we're going to do our part by implementing it. We will also partner with organizations like the Rocky Mountain Farmers Union's Co-Op Development Center and others to reduce barriers to employee ownership and grow wages in the agriculture sector. And we'll work with the Rural Colorado Venture Capital Fund to expand access to capital and help the next generation of farmers thrive."

Governor Polis also talked about climate change and protecting Colorado's way of life. "Climate change is a scientific reality. It's real. There's no pretending otherwise for farmers and ranchers who are facing historic water shortages. There's no pretending otherwise for the 46,000 women and men who work in Colorado's ski industry and see their jobs threatened by decreased snowpack. And there will be no pretending otherwise in this administration. We're going to confront this challenge head-on – not only because we must, but because we want to take advantage of the huge opportunities associated with being a leader in the growing green-energy economy. I launched my campaign for Governor in Pueblo at an all-solar coffee-roasting small business, just 10 miles from the Vestas Wind Turbine factory, which employs 800 Coloradans today. I did so to demonstrate that our commitment to reaching 100% renewable energy by 2040 is not just about climate change. It's about saving money for consumers with cheaper energy, and it's about making sure the good-paying green jobs of the future are created right here in Colorado."

Concerning the oil and gas industry, he said: "And just as we stand up for workers and good jobs, so too must we stand up for our communities – and their right to have a voice when it comes to industrial activities within their borders. It's time for us to take meaningful action to address the conflicts between oil-and-gas drilling operations and the neighborhoods they impact, and to make sure that all of our communities have clean air and water."

Idaho Governor Brad Little stated, "You all know water is Idaho's lifeblood, and we've made great strides in protecting it. Under the leadership of the Water Resource Board, we have doubled our goal of refilling and replenishing our critically important Eastern Snake Plain Aquifer, adding more water this year than was removed. While this is an impressive accomplishment, this must be

an ongoing effort. Regardless of the water year, we must focus on expanding the water infrastructure across our state.”

Governor Little also talked about public lands as one of Idaho’s greatest assets, and the importance of collaboration to addressing many challenges, while protecting important industries for the economy and quality of life for all Idahoans. He continued: “Wildfire is a part of living in the West. Several factors contribute to the increasing frequency of catastrophic wildfires. These fires threaten public safety and pump millions of tons of pollutants into the air, harming the health of our citizens. They damage wildlife habitat and contaminate our pristine waters. They disrupt our economy and cost taxpayers millions of dollars every year. One of those threats is the buildup of fuels on our public lands closest to where we live, work, and play. A few weeks ago, I signed a first-of-its-kind agreement between Idaho and the U.S. Department of Agriculture. This collaborative agreement will reduce wildfire risk, improve forest health and enhance wildlife habitat, by actively managing more acres of federal forests. The new ‘shared stewardship’ approach unifies land management activities that are now disjointed across federal, state, and privately-owned tracts. We’ll use all the tools available to us to reduce fuels around communities, including timber harvest, prescribed burns, and other activities. We’re already seeing a return on our investment in the Good Neighbor Authority, a program that utilizes state employees and contracting processes for restoration work on federal lands. Idaho is leading the country in our fresh, collaborative approach to land management. Other states have already reached out to Idaho for the Shared Stewardship blueprint we created with the Feds. In addition, there are now over 300 ranchers and farmers who are members of nine rangeland fire protection associations across southern Idaho. The initial attack and intel they provide on more than 9 million acres of Idaho’s rangeland have given Idaho significantly improved chances against the devastation of large wildfires. I want to carry over this successful wildland firefighting model to Idaho’s forestlands by expanding the initial attack capabilities of our loggers.”

New Mexico Governor Michelle Lujan Grisham set infrastructure as one of her priorities: “Let us also take the time in this session to recognize our infrastructure needs – and to act with the sense of urgency the situation demands.... We have improvements to make to our water systems, our dams, our school buildings, broadband internet in our rural communities – all of these items need our attention, right now. We have a chance to transform our infrastructure to promote and leverage serious economic development while we address critical community needs. I call on you to work with me in expanding and fast-tracking these investments. Infrastructure is the bedrock of our communities and our state. It is the foundation of the diversified economic growth we all envision. We must make these critical investments in safer communities and a stronger economy.”

North Dakota Governor Doug Burgum talked about the current relative abundance of resources across the globe, including access to clean water. As one of his administration’s top priorities, he proposed a new Legacy Fund for infrastructure needs, with “nearly \$1.5 billion for roads, essential water projects, and airport infrastructure, as well as the \$174 million for technology investments.... By investing \$55 million into an infrastructure revolving loan fund, we can leverage an estimated \$370 million in borrowing power. Imagine a source of super low-interest loans for local political subdivisions to support everything from street paving and sewer replacement to flood

control projects and water treatment plants. With an additional \$25 million investment in the school construction revolving loan fund – leveraging \$165 million – we can drive a total of \$535 million in construction.

Utah Governor Gary Herbert said, “Drought has created punishing conditions for wildlife and agriculture. Fires have devastated our forests, fouled our watersheds and polluted our air. But Utahns have faced these challenges as they have always done, with faith, courage and resilience. And overall, 2018 was indeed a banner year of accelerated economic growth and prosperity. I am pleased to report to you tonight that in spite of challenges, the state of our state is strong, it is resilient, and our outlook is very bright.”

Wyoming Governor Mark Gordon said in his State of the State address: “Wyoming is a headwater state. Wyoming has some of the cleanest water and cleanest air in the nation. Our heritage of wildlife, unparalleled vistas and open space, make us the envy of the world. These are important and special assets for Wyoming that inspire tourism and just plain make Wyoming communities nicer places to live.” He talked about the 15-year history of the Wyoming Wildlife Natural Resource Trust, which has contributed \$58 million toward projects that have leveraged matching funds. “This Fund has facilitated energy development and made our wildlife populations stronger by controlling invasive species, improving irrigation diversions, and mitigating erosion throughout Wyoming.”

Bureau of Reclamation

President’s FY2020 Budget Request

On May 16, USBR Commissioner Brenda Burman, testified on the President’s FY2020 budget request before the House Natural Resources Committee, Subcommittee on Water, Oceans and Wildlife. Reclamation’s request is \$1.1 billion in discretionary appropriations, “...to be supplemented by over \$1B in other Federal and non-Federal funds in FY2020. Of the total discretionary appropriations, \$962M is for the Water and Related Resources account, Reclamation’s largest account; \$60M is for the Policy and Administration account; and \$33M is for the California Bay-Delta Restoration account. A total of \$54.8M is requested for the Central Valley Project Restoration Fund, to be offset by expected discretionary receipts in the same amount. We will continue to seek to optimize non-Federal contributions to accomplish more with limited federal dollars.”

The FY2020 budget provides funding for Water and Energy Management (\$249.8 million), Land Management (\$43 million), Fish and Wildlife Management (\$141.9 million), Facility Operations (\$297.3 million), and Facility Maintenance and Rehabilitation (\$230 million). Reclamation has identified 363 high and significant hazard dams, and the request includes \$92.8 million for Dam Safety. The budget includes \$114.1 million for Extraordinary Maintenance (XM) related activity, while other XM items are directly funded by revenues, customers, or other Federal agencies (e.g., Bonneville Power Administration).

The FY2020 budget includes \$132.9 million for Indian water rights settlements, including third-year funding for the Blackfeet Water Rights Settlement, which by statute requires full funding by January 21, 2025. It also continues funding to keep implementation of other water settlements on track for completion consistent with legislated schedules. These include the Navajo-Gallup Water Supply Project, part of the Navajo San Juan Settlement, the Aamodt Settlement, and Crow Tribe Settlement. Funding is also included for the Ak-Chin, San Carlos Apache, Colorado Ute (through the Animas-La Plata Project), and Nez Perce (through the Columbia/Snake River Salmon Recovery Program).²⁷

Title Transfers

On May 22, DOI Secretary David Bernhardt, announced an update on procedures to expedite the transfer of eligible USBR facilities into local ownership and management, including a new Categorical Exclusion under the NEPA. The actions will make it easier for water users to take title – ownership – to simple, non-complicated USBR facilities consistent with direction from President Trump and Congress. Streamlining the title transfer process allows for more efficient management of water and water-related facilities.

The limited conveyance of federal USBR projects or facilities, such as diversion dams, canals, laterals and other water-related features, provide local water project sponsors and beneficiaries greater autonomy and flexibility in managing water deliveries. Local ownership also provides financial collateral for capital improvements. Federal divestiture removes the financial burden on federal taxpayers for operation and maintenance, and decreases federal liability.

“This new title transfer process embodies the President’s goals of streamlining bureaucratic processes and making our government more efficient and accountable,” said Secretary Bernhardt. “Title transfers are a win for local communities and a win for the American taxpayer. The Department looks forward to continuing our work with local water users to reduce title transfer costs, stimulate infrastructure investment through local ownership with the bottom line goal of making this new streamlined approach a major success.”

“Reclamation and non-federal entities have worked together for many years on specific title transfers that can become time-consuming and costly,” said Reclamation Commissioner Brenda Burman. “This new streamlined title transfer process – including the new Categorical Exclusion and the new authority provided by Congress – will allow for appropriate transfers to take place without congressional legislation in a more timely and cost-effective manner.”

Since the mid-1990s, Congress has authorized 33 title transfers. The Trump Administration and Congress agreed that the program needed streamlining to facilitate more voluntary transfers. Today’s actions follow President Donald Trump’s FY2020 budget request on “title transfer” activities and the recent enactment of S. 47, the John D. Dingell, Jr. Conservation, Management, and Recreation Act.

²⁷*Western States Water*, Issue #2339, March 15, 2019.

Secretary Bernhardt's first administrative action to facilitate title transfers is the new Categorical Exclusion – submitted to the *Federal Register* – which is the first one for Reclamation in decades. To determine if simple, non-controversial or uncomplicated facility transfers can be expedited under NEPA.

Second, under Title VIII of the Dingell Act, Reclamation is allowed to transfer title of certain types of Reclamation facilities without separate authorizing legislation. Reclamation has updated its operating manual to implement the law and the new NEPA Categorical Exclusion. Each title transfer will be reviewed on a case-by-case basis.²⁸

Infrastructure

On September 25, the Senate Energy and Natural Resources Committee, Chaired by Senator Lisa Murkowski (R-AK), approved a number of energy and water bills during a business meeting to consider pending legislation. Among those bills approved by voice vote were: (1) S. 334, a 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 (introduced by Senator Daines R-MT); (2) S. 860, a bill to amend the Omnibus Public Land Management Act of 2009 to modify the terms of the Jackson Gulch rehabilitation project in Colorado (Senator Gardner R-CO); (3) S. 990, a bill to authorize the Secretary of the Interior to participate in the implementation of the Platte River Recovery Implementation Program First Increment Extension for threatened and endangered species in the Central and Lower Platte River Basin (Senator Barrasso R-WY); (4) S. 1570, a bill to provide flexibility to allow greater aquifer recharge (Sen. Risch R-ID); (5) S. 1751, a bill to amend the Reclamation Project Act of 1939 to authorize pumped storage hydropower development utilizing multiple USBR reservoirs (Senator Cantwell D-WA); (6) S. 1882, a bill to make available the continued use of Pick-Sloan Missouri Basin Program project use power by the Kinsey Irrigation Company and the Sidney Water Users Irrigation District (Senator Daines R-MT); and (7) S. 2044, a bill to amend the Omnibus Public Land Management Act of 2009 to establish an Aging Infrastructure Account, to amend the Reclamation Safety of Dams Act of 1978 to provide additional funds under that Act, to establish a review of flood control rule curves pilot project within the USBR (Senator McSally R-AZ). Senator Mike Lee (R-UT) voted “no” on S. 2044 and S. 334.

Water Supply Infrastructure Rehabilitation and Utilization Act

On September 25, the Senate Energy and Natural Resources Committee ordered the Water Supply Infrastructure Rehabilitation and Utilization Act (S. 2044), to be reported. Sponsored by Senators Martha McSally (R-AZ) and Krysten Sinema (D-AZ), 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.

²⁸<https://www.usbr.gov/title>

According to McSally, “This bill will allow water managers to access the funds they need to repair and rebuild aging facilities and promote efforts to utilize our existing surface storage facilities to the maximum extent possible.... Eighty percent of the [USBR] facilities are more than 50 years old and are in dire need of major upgrades or replacement costs.... Throughout Arizona and across the West – new storage, conveyance, and recycling projects are needed to increase drought resilience and provide the water security required to sustain growing populations and promote economic growth. There is also a tremendous need to reinvest in the water infrastructure that our farms and cities were built upon, many of which are a century old.”

The bill simplifies the process for maintaining facilities by streamlining local operators’ access to USBR 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 USBR for use on future extraordinary maintenance projects without further appropriations. It ensures funding for key dam safety projects by raising the Safety of Dams program authorization by \$550 million 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 to give operators of eligible USBR projects more flexibility to temporarily store water in reservoirs dedicated to flood control space during certain low-risk times of the year.

WaterSMART Drought Response Program

On November 7, the USBR released its FY2020/2021 WaterSMART Drought Response Program - Drought Contingency Planning Grants Funding Opportunity Announcement (FOA). Applicants may request up to \$200,000 to develop a drought contingency plan, or update an existing plan, over two years. There is a cost-share waiver available under exceptional/limited circumstances (see C.2. in the FOA). Eligible applicants include states, tribes, irrigation districts, water districts, and other organizations with water or power delivery authority in the 17 Western United States and Hawaii.

Clean Water Act/Environmental Protection Agency

Litigation

Maui v. Hawaii Wildlife Fund/Groundwater

On January 3, U.S. Solicitor General Noel Francisco responded to the Supreme Court’s invitation to weigh in on whether the Court should grant certiorari in *County of Maui v. Hawaii Wildlife Fund* (18-260) and *Kinder Morgan v. Upstate Forever* (18-268), appealed from the 9th and 4th Circuits, respectively. The primary question at issue is whether a discharge of a pollutant occurs under the meaning and jurisdiction of the CWA when a pollutant is released from a point source, travels through groundwater, and migrates to navigable waters.

Francisco started with a statement acknowledging Congress' intent in the CWA to restore and maintain the chemical, physical, and biological integrity of the Nation's waters while also recognizing, preserving, and protecting the primary responsibilities of states to prevent, reduce and eliminate pollution.²⁹ He outlined the conflicting interpretations of "discharge of a pollutant"³⁰ between the 9th, 4th, and 6th Circuits, as well as various U.S. district courts, and supported granting certiorari to resolve the conflict. "Given the potential breadth of those provisions, and the ways in which groundwater may be connected to navigable waters, the question presented here has the potential to affect federal, state, and tribal regulatory efforts in innumerable circumstances nationwide. The implications for regulated parties are also significant, including because CWA violators may face serious civil penalties and, in certain cases, criminal punishment." He distinguished the significance of the primary question presented from the secondary issues of both petitions, and argued that the *Maui* petition "provides the better vehicle for resolving the circuit conflict."

Francisco noted the EPA's public request for comment³¹ last February on "whether pollutant discharges from point sources that reach jurisdictional surface waters via groundwater or other subsurface flow that has a direct hydrologic connection to the jurisdictional surface water may be subject to CWA regulation." While EPA's request is intended to facilitate further action in the form of guidance or rulemaking to provide greater certainty in the face of various court interpretations, Francisco argued that the review process is "not an appropriate reason to deny certiorari here." EPA expects to take action on its review in the "next several weeks," he said, and EPA's views should be available "before any brief on the merits is due," enabling the Court to consider the agency's views in deciding the issue.

On January 8, Respondents Hawaii Wildlife Fund et al., filed a supplemental response arguing that the issue is not fully ripe for the Supreme Court's consideration. "The United States declines to support Petitioner County of Maui's bold assertions that permitting in this context presents practical problems for the regulatory agencies or expands the scope of CWA regulation." The Respondents characterized the U.S.' brief as urging review "solely on the basis of an asserted conflict created by two decisions from the same divided panel of the Sixth Circuit."

The Respondents asserted that there is no circuit split. The 6th Circuit's deliberation on the pending petition for *en banc* review of the panel's ruling in *Tennessee Clean Water Network* has gone on for more than two months, indicating "the court has not yet come to rest on this issue. A grant of rehearing in [*Tennessee*] *Clean Water Network* and an *en banc* decision reversing the panel would abrogate the analysis in [*Kentucky*] *Waterways [Alliance]* and eliminate the circuit conflict." They further argued that the conflicting interpretations at the district court level "only confirms that it is unnecessary for this Court to intervene now. There will continue to be periodic opportunities for the Court to address this issue in the future, if warranted."

²⁹33 U.S.C. 1251(a) and (b)

³⁰33 U.S.C. 1362(12)(A)

³¹83 FR 7126

EPA’s timeline of the “next several weeks” may be administratively delayed by the government shutdown and in any case, the Respondents argued, “the needs of the adversarial process would be ill-served by granting certiorari with the knowledge that the parties and potential amici will not know the regulatory landscape until some undefined point in the briefing process.” The Respondents also argued that any new EPA action may “alter its longstanding interpretation” that permits are required for the pollutant discharges at issue in *Maui*, and be subject to administrative challenges for being procedurally defective, arbitrary and capricious, or an impermissible construction of the statute. The validity of EPA’s action “should be addressed in the lower courts before any request that this Court consider the agency’s views in deciding the CWA issue presented here on the merits.”

On February 19, the U.S. Supreme Court granted the petition for certiorari in *Maui v. Hawaii Wildlife Fund*, limited to a review of Question 1 presented in the petition. Question 1 asks whether the CWA requires a permit when pollutants originate from a point source but are conveyed to navigable waters by a nonpoint source, such as groundwater. Question 2, which was not included in the decision to hear the case, was about fair notice when the underground injection wells were already operating for 40 years subject to other provisions of law.³²

On September 20, the Maui County Council voted 5-4 to settle *County of Maui, Hawaii v. Hawaii Wildlife Fund* and avoid a decision by the U.S. Supreme Court that could affect the future jurisdictional scope of the CWA. The case was scheduled to be heard by the Supreme Court on November 6. Mayor Michael Victorino questioned the authority of the Maui County Council to settle the case. In a letter to the Maui County Council in August, the Mayor said that the County cannot abandon its case without the lower courts abandoning their orders, and that the decision to settle is costly and not a responsible choice for the County’s property owners and residents. The settlement approved by the Council requires the County to pay a \$100,000 fine, make good faith efforts to decrease the use of injection wells, invest in wastewater reuse, and seek National Pollutant Discharge Elimination System (NPDES) permits.³³

On November 6, the U.S. Supreme Court heard oral arguments in *County of Maui v. Hawaii Wildlife Fund* (#18-260). Much of the discussion between the justices and attorneys centered on: (1) the meaning of the text and context of the statute; (2) whether the absence of the word “groundwater” in the relevant definition indicated a Congressional intent to exempt or include groundwater as a potential conveyance of pollutants; (3) identifying some clear and limited principle that would provide fair notice to those subject to NPDES permits and prevent undue evasion of the federal laws; and (4) whether nonpoint source protections and state laws adequately addressed pollutants that initially issued from a discernable source.

The court walked through several hypotheticals to explore the extreme ends of potential consequences of both petitioner’s and respondent’s arguments. There was also some discussion of

³²*Western States Water*, Special Report #2316, October 5, 2018; #2314, September 21, 2018; and #2282, February 9, 2018.

³³*Maui News*, 8/30; *E&E News*, 9/23.

the differences between pollutants that travel from point source to point source before discharging into navigable waters, and pollutants that travel from point source to nonpoint source.

The petitioner's attorney, Mr. Lin, said: "This case is not about whether the releases from Maui's underground injection wells should be regulated at all but how. They are already regulated under several existing state and federal environmental programs, including the Clean Water Act's (CWA) nonpoint source program. But is a Clean Water Act point source permit also required? The question is where the line falls between the Clean Water Act's federal point source program and its state law nonpoint source program."

Justice Sotomayor noted that other regulations do not have the same preventative measures as the CWA, but are remedial in nature. The purpose in requiring a CWA permit is so we don't have to clean it up, she said. The pollutants in this case made it to the ocean, and the state did not stop that from happening, and she characterized that as a failure because the preventative measures of the CWA were not followed. Mr. Lin said that even under NPDES permits, point source discharges can include pollutants below effluent limits.

Mr. Henkin, attorney for the respondents, argued that traceability of pollutants back to the point source and foreseeability that pollutants will make their way to navigable waters makes the point source the proximate cause of the pollution. Justice Breyer noted that most water makes it to navigable waters eventually, and the traceability test – depending on the sophistication of the technology – "puts all kinds of people in the position of having to get a permit." In seeking an appropriate standard for an opinion, Breyer was interested in allowing EPA some leeway to make rules, ensuring that polluters can't simply evade the provisions of the CWA by changing the method of pollution to take advantage of a groundwater exemption, and also avoiding a scenario where 500 million people suddenly discover that they have to go apply for a permit from EPA. Mr. Lin added that under a permitting regime that imposes punitive penalties of \$50,000 a day, it makes more sense that Congress would have written a rule.

Henkin said: "Congress did not intend to create a loophole. I want to briefly address the United States' argument there's something about the structure of the Act, something special about groundwater. Well, nearly every provision that they cite that talks about these programs for groundwater in the same breath say and surface waters and navigable waters. Congress treated them the same."

Justice Kavanaugh noted that Congress debated whether to regulate groundwater and voted not to enact national standards to control the quality of groundwater. Henkin argued that this was a separate issue, and that Congress did recognize the link between ground and surface waters. "If Congress had wanted to say point source discharge that reaches the navigable waters through groundwater is exempt, because we want to leave that completely to the states, they would have said that in the language of the Act. They didn't. In the same way that they said we don't want point source discharges that could be characterized as agricultural stormwater or irrigation return flows."

Gold King Mine

On February 28, Chief Judge William Johnson of the U.S. District Court for New Mexico – appointed as the Special Master in the pre-trial proceedings for the Gold King Mine cases (MDL 2824) – denied the federal government’s motion to dismiss the CERCLA, RCRA, CWA, and tort claims from Utah, New Mexico, and the Navajo Nation against EPA. The United States 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 at the Gold King Mine spill in 2015. 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.³⁴

Utah Governor Gary Herbert said: “This is a great victory for the environment and the communities affected by the Gold King Mine Blowout. Protecting the health of our families and the precious environment of Utah should be our shared goal with EPA. We would much prefer EPA to focus now on cleanup efforts rather than continuing to litigate.” Sean D. Reyes, Utah Attorney General, said: “The Court is sending a strong message that EPA must be held as equally responsible as other polluters to clean up its contamination.... Utah is only enforcing the type of environmental laws EPA is duty bound to uphold – [and which] EPA would be aggressively prosecuting if the polluters were private parties.”

New Mexico Environment Department Secretary James Kenney said: “We are ready to continue our fight to hold the defendants responsible for the environmental and economic harm done to our communities.” New Mexico Attorney General Hector Balderas said: “I am pleased the court has sided with the State of New Mexico and our citizens. I look forward to continuing to fight... so that the EPA makes New Mexico whole.”

In 2018, then Navajo Nation President Russell Begaye declared, “This is unacceptable. Our farmers and ranchers have been waiting for disaster compensation for three years.... I stood alongside farmers in their fields. I watched them weep for their crops that were slowly dying because they couldn’t get water for them. The EPA’s actions throughout the disaster and even to the present have been shameful.... Each day that goes by without compensation is salt in open wounds. Every time a storm comes through, the sediment is washed up from the banks and riverbed. The river water is contaminated all over again.”³⁵

Pacific Coast Federation of Fishermen’s Associations, et al., v. Glaser/NPDES/Agriculture

On September 6, the 9th Circuit reversed and remanded *Pacific Coast Federation of Fishermen’s Associations, et al., v. Glaser, et al.* (17-17130) to the Eastern District Court of

³⁴*Western States Water*, #2277, January 5, 2018.

³⁵<https://www.nhnews.com/news/2018/aug/14/>

California. The case dealt with discharges of pollutants into navigable waters, and whether the discharges fell under the CWA agricultural exception (33 U.S.C. §1342(1)(1), or were a violation of the National Pollutant Discharge Elimination System (NPDES) permitting requirements.

The Grasslands Bypass Project – jointly administered by the defendants, USBR and the Delta Mendota Water Authority as part of the Central Valley Project – is a drainage system of perforated drain laterals underlying farmlands to catch irrigation water and redirect it to the San Luis Drain toward the Mud Slough, the San Joaquin River, and the Bay-Delta Estuary. The project was created as a result of a previous lawsuit for the purpose of preventing irrigation water from leaching selenium and salt from the agricultural soil into the groundwater.

The plaintiffs argued that because some of the discharges came from land underlying the Vega Solar Project, seepage from highways and residences, and farmland that was fallowed or retired, the agricultural exception did not apply. The District Court held that because the majority of the water came from agricultural lands, the exception applied. The 9th Circuit disagreed. The exception language is “for discharges composed entirely of return flows from irrigated agriculture.” The 9th Circuit also noted that the defendants bore the burden of proof to demonstrate that the discharges fit the exception, rather than the plaintiffs. The case was remanded to consider the Vega and seepage claims under the corrected exemption standard.

The 9th Circuit held, however, that the fallowed and retired land fell within the definition of irrigated agriculture in this case. “We have ordered Defendants, in separate litigation, to provide drainage ‘to lands receiving water through the San Luis Unit.’ The retirement of farmlands was a component of that drainage plan. To hold that drainage from retired lands does not fall under the CWA’s statutory exception for discharges from agriculture would lead to contradictory and illogical results. We decline to require Defendants to provide a drainage plan that includes the retirement of farmland, on the one hand, and hold that those activities violate the CWA absent a permit, on the other.”

Groundwater Permitting Requirements

On April 15, the EPA issued an Interpretive Statement to clarify the application of the CWA permitting requirements to groundwater. In the press release, EPA states that they considered over 50,000 comments to their February 2018 request, and undertook a comprehensive review of prior agency statements as well as the text and legislative history of the CWA. “EPA concluded that releases of pollutants to groundwater are categorically excluded from the Act’s permitting requirements because Congress explicitly left regulation of discharges to groundwater to the states and to EPA under other statutory authorities.”

The Interpretive Statement is intended to guide states and EPA regions in future permitting decisions outside the 9th and 4th Circuits, where court decisions have applied an interpretation of the CWA that differs from EPA’s guidance. The agency is soliciting additional public input on what may be needed to provide further clarity and regulatory certainty, with a 45-day comment period once the Interpretive Statement is published in the *Federal Register*.

EPA’s press release notes: “States are the primary regulators of discharges to groundwater within their jurisdictions, as provided in state law and envisioned under the CWA. EPA will continue fulfilling its role in protecting groundwater and hydrologically connected surface waters as authorized by Congress through the Safe Drinking Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act.”³⁶

Section 401 Water Quality Certification Authority

According to *Politico*, in an article on January 23, “Senior White House officials met last week to discuss a strategy for moving a broad infrastructure initiative...” that includes proposals related to energy projects. The Trump Administration is focusing efforts to expedite oil and gas pipelines, through executive action that includes changing EPA guidance related to States’ CWA Section 401 water quality certification authority. A “pipeline” executive order would be similar to the President’s earlier efforts to streamline regulatory approvals and “drive U.S. energy dominance abroad.” A second proposed Executive Order would address CWA Section 401 guidance in light of some states’ denial of state water quality certification, required for any related federal permit. In recent years, the State of New York has denied a Section 401 certification for the Constitution natural gas pipeline, and the State of Washington denied certification for the Millennium coal export terminal.

Secretary of Energy Rick Perry criticized New York for blocking the Constitution pipeline that would deliver natural gas to the Northeast from Pennsylvania. Under a Federal Energy Regulatory Commission (FERC) order the company has until 2020 to build and place the pipeline in service. Wyoming Senator John Barrasso (R) in the 115th Congress introduced legislation that would have limited the State of Washington’s exercise of its authority under Section 401 to deny certification for the Millennium project, which would export coal from Montana and Wyoming.³⁷ *Politico* reported the Administration’s move “...is intended to rein in mostly Democratic state governors, such as Gov. Cuomo [New York], who have used the law to block energy projects... The White House also has been calling friendly Republican governors to assure them any alterations to the guidance won’t infringe on state sovereignty, as many western lawmakers have raised alarms about that possibility.” Changing CWA 401 state certification authority would require Congress to act, and any change in EPA guidance may lead to a legal challenge.

On January 31, the WGA addressed a letter to President Trump signed by Hawaii Governor David Ige, WGA Chair, and North Dakota Governor Doug Burgum, Vice Chair. “Western Governors are aware of reports that the White House is considering issuance of an executive order to address energy infrastructure development and that the order may include provisions affecting the implementation of the state water quality certification program under Section 401 of the federal Clean Water Act (CWA). We urge you to direct federal agencies to reject any changes to agency rules, guidance, or policy that may diminish, impair, or subordinate states’ well-established

³⁶<https://www.epa.gov/npdes/releases-point-source-groundwater>

³⁷*Western States Water*, #2309, August 17, 2018.

sovereign and statutory authorities to protect water quality within their boundaries. Further, any executive order (or corresponding federal action) aimed at improving or streamlining the state water quality certification program under CWA Section 401 should be informed by early, meaningful, substantive, and ongoing consultation with state officials who have vast experience and expertise in the program's implementation."

The letter adds: "Since the enactment of the CWA, states have exercised their authority under Section 401 efficiently, effectively and equitably. We question the need for any federal action to amend or clarify federal policy or regulations governing the implementation of Section 401, as instances of delays or denials of state water quality certifications are extremely limited. Moreover, the CWA provides ample avenues for challenging state certification determinations. Curtailing or reducing state authority under CWA Section 401, or the vital role of states in maintaining water quality within their boundaries, would inflict serious harm to the division of state and federal authorities established by Congress.... Western Governors are committed to establishing a framework to incorporate the early, meaningful and substantive input of states in the development of federal regulatory policies that have federalism implications.... By working cooperatively with the states, the Administration can create a legacy of renewed federalism, resulting in a nation that is stronger, more resilient and more united."

Water Quality Certification Improvement Act

On April 9, Senator John Barrasso (R-WY) reintroduced the Water Quality Certification Improvement Act (S. 1087). Barrasso said: "The water quality certification process is being abused in order to delay important energy projects. Washington state has hijacked the water quality certification process and blocked Wyoming coal from being exported. Workers across the West would benefit from the coal export terminal Washington state has blocked. Washington state's obstruction is about politics, not water quality. Similarly, east coast states are using these authorities to block natural gas pipeline projects. We shouldn't weaken our economy and make America dependent on foreign energy. My legislation ensures the water quality certification process is used only to protect America's water, not further political agendas."

The bill is intended to clarify that the scope of a 401 review is limited to water quality impacts only, that states can only consider discharges that would result from the federally permitted activity itself, requires states to publish clear requirements for certification requests and make decisions based only on water quality reasons, and requires states to inform a project applicant within 90 days whether or not the state has all the necessary materials to process a certification request. The bill was referred to the Committee on Environment and Public Works.

On November 19, the Senate Committee on Environment and Public Works held a hearing on the Water Quality Certification Improvement Act (S. 1087). The hearing focused on state perspectives on potential reforms to the implementation of Section 401 of the CWA. Witnesses included: Governors Mark Gordon (R-WY) and J. Kevin Stitt (R-OK), and Laura Watson, Washington Senior Assistant Attorney General and Division Chief.

Chairman John Barrasso (R-WY) opened the hearing with his perspective of problems with the implementation of Section 401: “Governor Gordon and Governor Stitt have joined us to discuss a dangerous trend preventing our nation from reaching full energy independence. A group of states are holding critical energy infrastructure projects hostage by abusing a provision in the [CWA]. Congress created Section 401 of the [CWA] to give states a seat at the table before federal permits are issued. States deserve a seat at the table. The majority of states carry out this role in a responsible way. Recently, a select group of states have weaponized Section 401 to stop energy projects from moving forward.” He described the potential economic and cleaner energy benefits of the Millennium Bulk Terminal Project blocked by Washington, a liquefied natural gas terminal and pipeline project denied by Oregon, and multiple natural gas pipeline certifications denied by New York. Barrasso said: “That is why I introduced [S.1087] so that states cannot unfairly block energy projects.... States like Wyoming, Oklahoma, and others have found responsible ways to protect the water within their borders while growing their economies.”

Gordon said: “Protecting water quality within our state, and when it flows across state boundaries, has always been important to Wyoming.... It is in our best interest to protect our waters. This is done, in part, through responsible application of the [CWA] Section 401 certification decisions.” He described Wyoming’s energy production and environmental protection, and noted that Section 401 is designed to allow states to protect water quality. “It is not a tool to erect a trade barrier based on political whims or parochial politics. I strongly contend that Section 401 must not be used to impede lawful interstate commerce. Thus, Section 401 reform is not an ‘assault on the environment,’ a means to prevent states from ‘taking control of their own destiny’ or, at worst, a cloaked attempt at ‘climate change denial.’ We know the world needs power to build things, transport things, and improve the quality of life. We acknowledge that CO2 concentrations in our atmosphere are an urgent concern for our climate that must be addressed effectively. With commitment, vision, and courage, we can take advantage of all our resources in a responsible manner. However, Section 401 certification decisions are not the appropriate means to achieve this.”

Gordon recommended reforms for focused and efficient decisions, with an appropriate balance between state autonomy and federal jurisdiction. “I advocate that certification denials must have a clear and reasonable assertion that project activities would: (1) result in violation or fail to conform to one or more surface water quality standards; (2) result in an increase in pollutant loading to a [CWA] 303(d) listed water; or (3) would not conform to applicable 401 certification conditions or Corps nationwide permit conditions.”

Stitt said that regulations are best left to the states as often as possible. “We know our people. We know our geography. We know our economies. And we know best when innovation demands regulatory flexibility and when protecting our citizens requires action.” He described Oklahoma’s success in being a leader in energy production and environmental protection, and striking a balance between state’s rights and federal partnerships. “Unfortunately, the misuse of Section 401 threatens Oklahoma’s potential and the endless opportunities for her 4 million residents. It prevents Oklahoma from achieving all it can be because a loophole within Section 401 is allowing a small handful of coastal states to dictate the future for all 40-plus states. That is unacceptable.” He noted that the northeastern fuel needs last winter “could have been met safely and reliably with

a steady supply of clean burning natural gas from Oklahoma,” but due to stalled pipeline development, were instead met by a Russian tanker of liquefied natural gas sitting in the Boston Harbor.

Watson emphasized that Section 401 is not broken, that allegations of improper motives for two state certification denials are unfounded, and that judicial review has been a sufficient safeguard for the small number of cases where an applicant disagrees with the state’s decision. She described the bipartisan concerns and opposition of state water quality managers, attorneys general, and coalitions of multi-state organizations such as the WGA, both to the recent rulemaking efforts of the EPA, as well as Senator Barrasso’s bills in 2018 and 2019.

Watson said the proposed limits to Section 401 would “eliminate states’ ability to apply state water quality requirements to 401 decisions and would allow states to consider only a short list of federal requirements. As a result, several water pollution prevention measures would be on the chopping block – including measures related to erosion and sedimentation standards, construction and post-construction stormwater management, coastal protections, groundwater protections, and state laws protecting threatened and endangered species.” She said the legislation would transfer traditional state power to federal agencies. “Washington State supports streamlining federal and state processes in a responsible and transparent manner, and we are always willing to assist in good faith efforts to make the process work better. However, Section 401 is not a problem that needs to be fixed. It is working as effectively today as it has over the past five decades. We urge you not to dismantle this important tool for preventing water pollution.” No further action has been taken.

Executive Order “Promoting Energy Infrastructure and Economic Growth”

On April 10, President Donald Trump issued an Executive Order (EO) 13868 “Promoting Energy Infrastructure and Economic Growth,”³⁸ paving the way for energy infrastructure development. The order is intended to streamline federal licensing and permitting processes, review regulatory barriers to financing new energy infrastructure, address regional and local energy supply constraints, prioritize the safe operation of existing energy infrastructure on federal land, and promote an efficient energy market. “When it comes to the future of America’s energy needs, we will find it, we will dream it, and we will build it,” said Trump.

The Department of Transportation is directed to update its safety regulations to reflect the modern Liquefied Natural Gas (LNG) development ongoing in the United States. The Secretaries of the Interior, Commerce, and Agriculture are directed to develop a master agreement for energy infrastructure rights-of-way renewals or reauthorizations. It directs the heads of federal agencies to report on how to more efficiently and effectively use existing authorities to provide intergovernmental assistance relating to the transportation and development of domestic energy resources.

³⁸84FR15495

Over the next 60 days, the EPA is directed to review regulations and guidance – in consultation with the states, tribes, and other federal agencies – regarding state certification under Section 401 of the CWA. The EO acknowledges that states and tribes have a direct role in federal permitting and licensing processes, to ensure that projects comply with established water quality requirements. “Outdated Federal guidance and regulations regarding section 401...however, are causing confusion and uncertainty and are hindering the development of energy infrastructure.”

In addition to evaluating regulations and guidance for best practices, timely actions, efficient processes and procedures to avoid duplicative studies and environmental reviews, EPA “shall also take into account federalism considerations underlying section 401...and shall focus on: (i) the need to promote timely Federal-State cooperation and collaboration; (ii) the appropriate scope of water quality reviews; (iii) types of conditions that may be appropriate to include in a certification; (iv) expectations for reasonable review times for various types of certification requests; and (v) the nature and scope of information states and authorized tribes may need in order to substantively act on a certification request within a prescribed period of time.”

The EPA was directed to publish proposed rules revising its regulations for notice and comment, to be completed within 13 months of the order. Simultaneously, EPA was also directed to lead an interagency review with all other federal agencies that issue permits or licenses subject to 401 certifications, with the intent that each agency will update their respective agencies’ guidance and regulations for consistency.

On April 10, the WGA issued a statement expressing concerns regarding the President’s Executive Order. WGA noted the potential impact on the authority of states to administer Section 401 of the CWA, but welcomed the opportunity to work closely with federal partners on improved policies for water quality certification under Section 401.

WGA emphasized recent efforts to reach out to this Administration and Congress to preserve states’ vital authority under a system of cooperative federalism. States have “unique expertise and insights that can inform federal decisions relating to effective and efficient water quality certification,” WGA said. “As such, Western Governors are ready now to begin substantive, meaningful consultation with federal partners on an aggressive timetable.”

WGA also noted more broadly that the “Western Governors are eager to work with the Administration to advance efficient environmental review, siting, and permitting processes for energy infrastructure that do not shorten timelines for state input and consultation, or compromise natural resource, wildlife, environmental quality, or cultural values.

On April 15, the EPA held a webinar for states and tribes to discuss the President’s Executive Order.

EPA solicited pre-proposal comments and recommendations from the states and tribes on its forthcoming rulemaking and guidance efforts through June 10.³⁹ In particular, the agency wanted to know: (1) whether any states/tribes have processes to facilitate information sharing; (2) suggestions on how to increase coordination between states, federal agencies, and project applicants; (3) what factors slow down or expedite certifications; and (4) what federal permits or licenses are subject to §401 certification besides CWA §402, §404, Federal Energy Regulatory Commission (FERC) licenses, and Rivers and Harbors Act permits.

Over 200 state and tribal representatives participated on the call, and over 100 written questions were submitted. Some raised concerns about the short review deadline and whether states and tribes would have an opportunity to comment on new guidance or rulemaking. Others questioned whether EPA or other agencies had tracked certifications to have an idea of how many were denied or delayed. Some raised the likelihood of more denials if states do not have time for information gathering, environmental reviews, public comment, or other state regulatory/statutory actions. Others suggested the utility of pre-application meetings, and completing environmental reviews before filing. EPA indicated that they will engage in further outreach to states and tribes over the next two months.

State Comments and Recommendations

On February 20, the WGA sent a letter with a list of potential process improvements to ensure efficient and effective administration of CWA Section 401 state authority to EPA Acting Administrator Andrew Wheeler and Assistant Secretary for the Army (Civil Works) R.D. James. The letter emphasizes that the agencies' efforts to develop rules, guidance, or policies to modify state certification processes under Section 401 must not come at the expense of state authority, or their vital role in maintaining water quality within their boundaries. The letter was also signed by the WSWC, the Association of Clean Water Administrators, the Association of State Wetland Managers, the National Conference of State Legislatures, and the Council of State Governments - West.

The letter declared any federal action "...should be informed by early, meaningful, substantive, and ongoing consultation with state officials." It continued, "We stand ready to be helpful in that regard." Included with the letter was a list of "potential process reforms that would reduce the instances of certification delays or denials, while preserving the balance of state and federal powers in the implementation of the CWA." The recommendations included measures to preserve cooperative federalism; working with states on timelines and waivers; increasing coordination and communication between state and federal officials and applicants; recognizing the scope of state review to include the relationships between water quality, quantity, and management, beyond the chemical composition of water; shared data and application information; and support for adequate staffing for state agencies charged with implementing CWA Section 401.⁴⁰

³⁹www.regulations.gov, docket EPA-HQ-OW-2018-0855

⁴⁰<http://westgov.org/letters/>

A February 26 letter signed by seven Republican State Attorneys General (AG) stated, “...we support an effort by EPA to maintain cooperative federalism and the rule of law in the Section 401 process.” The letter from Louisiana AG Jeff Landry is also signed by Alabama AG Steve Marshall, Montana AG Tim Fox, Nebraska AG Doug Peterson, South Carolina AG Alan Wilson, Texas AG Ken Paxton and West Virginia AG Patrick Morrisey.

The letter read: “States are on the front line of protecting the environment, public health, and the welfare of citizens within our respective borders. The cooperative federalism principles that are central to many of our nation’s environmental statutes recognize the critical role states play and, when implemented appropriately, encourage partnership between states and the federal government.”

It continued: “Unfortunately, the cooperative federalism principles of the Clean Water Act are sometimes coopted to advance the political agendas of certain state actors. In particular, Section 401 of the Clean Water Act has been manipulated to block infrastructure projects that are in the public interest of other states and the nation generally. This tactic has been implemented to delay or to block vital oil and gas pipeline projects, coal projects, LNG terminal projects, and other fossil energy projects. The actions of individual state actors are disruptions to interstate commerce and negate the intent of providing the consistent and reliable permitting process envisioned by the Clean Water Act.”

The letter specifically referred to actions taken by New York and Washington State, the latter called out for “opaquely” denying certification “with prejudice.” “Without these Water Quality Certificates, these projects cannot go forward regardless of their importance to the nation. Individual state actors should not be allowed to unilaterally and negatively impact the economies of multiple other states and the nation as a whole under the guise of implementing federal law.”

The letter concluded: “While the cooperative federalism principles of Section 401 can be maintained through clarification of the process by which federal and state regulatory authorities are expected to implement the law, this clarification should recognize and preserve the states’ primary responsibility over and rights concerning water quality. Congress intended Section 401 as an opportunity for states to evaluate water quality impacts from federally-permitted projects. Instruction from EPA on the respective roles of state and federal authority within the bounds intended by the statute is needed to ensure that Section 401 is used for its intended purpose to protect water quality, to minimize its potential for misuse, and to provide predictability in permitting energy infrastructure.”

In an April 30 letter from Oklahoma Governor Kevin Stitt (R) expressing support for the EPA’s efforts to provide clarity and regulatory certainty to the CWA Section 401 certification process, Governor Stitt wrote: “Protecting water quality and ensuring it is drinkable, swimmable, and fishable is one of the most important functions of a state’s government, including Oklahoma’s. CWA Section 401 is one tool in the cooperative federalism toolbox that allows states to work with our federal partners to protect water quality while ensuring that vital federally permitted infrastructure projects are built and maintained.” He continued: “In recent years, states, including Oklahoma, have encountered increasingly contentious Section 401 proceedings, challenging our

ability to evaluate and implement projects in a timely manner. Moreover, misuse of Section 401 disrupts the proper roles of federal and state authorities.”

The Governor noted: “It is critical that energy resources have the opportunity to reach markets and that consumers have the certainty that comes from unencumbered interstate energy commerce.... The unnecessary delay in the Section 401 process disrupts a number of vital economic goals of our state, including predictable energy supplies, job creation, and lower energy costs. It also deprives our downstream neighbors of the same, while harming consumers.... Clear instruction from EPA on how the 401 process is to be implemented can reduce uncertainty and cost in the Section 401 process. Realigning the Section 401 process with statutory requirements and recent caselaw would restore the balance in the state-federal relationship under the Clean Water Act.”

On May 21, the WSWC submitted a letter to the EPA,⁴¹ commenting on the importance of state authority under CWA §401 to review federally-permitted projects to ensure that they comply with state water quality standards. EPA sought pre-proposal recommendations for upcoming CWA §401 rulemaking under the President’s Executive Order on Promoting Energy Infrastructure and Economic Growth.

“Over the past several months, the Administration and Congress have placed great emphasis on permitting delays and state certification denials of a few projects, with an interest in curbing state authority under CWA §401. However, States have responsibly carried out their CWA §401 certification authority for decades. Our survey of Western States indicates that the vast majority of applications are handled expeditiously, and that occasional delays are most often the result of incomplete applications and complex projects that require further study to ensure water quality protection. While there may be opportunities to improve communication and coordination between applicants, federal agencies, and state agencies responsible for CWA §401 certifications, the authority of states to protect their water quality should not be reduced in scope nor arbitrary deadlines imposed, particularly without accounting for legitimate reasons for any delays.”

WSWC also joined the WGA and a coalition of other organizations in a letter dated May 24, to point out the inadequacies of the consultation process under the abbreviated schedule outlined in the President’s EO. “The agency’s constrained timelines to review, revise, and replace longstanding guidance and rules – as directed by Executive Order 13878 – heighten our concerns about the agency’s ability to consult in a meaningful and collaborative manner. EPA’s inadequate outreach reduces our confidence in the prospects for improved cooperation between federal agencies and state and local governments on issues of joint interest and concern.” EPA is expected to release a proposed rule in late summer 2019.⁴²

On May 21, Washington Governor Jay Inslee and Washington Attorney General Bob Ferguson jointly responded to EPA’s call for comments on guidance related to administration of CWA Section 401 state certifications. The letter read: “Section 401 of the Clean Water Act gives

⁴¹Regulations docket EPA-HQ-OW-2018-0855

⁴²<https://www.epa.gov/cwa-401>

states a vital role in decisions that could impact the quality of their waters. This Administration must not undermine the states' role at the behest of a few special interests who stand to profit at the expense of our environment and our residents.... Washington State submits this letter to express opposition to any proposal changing the existing EPA guidance and regulations regarding states' section 401 certification under the Clean Water Act if the change is in any way detrimental to state authority. The notice from the EPA stems from an ill-advised Executive Order issued by President Trump on April 10, 2019, to speed up approval for energy projects.”

The letter adds: “In moving in this direction, it is clear that the Trump Administration has consulted with – and responded to – industry interests. However, this Administration has failed to satisfy its fundamental obligation to consult with the states or tribal governments. The EPA has not released any draft guidance or draft rule changes. Additionally, the EPA has not identified any specific section of regulations or guidance for revision. The EPA must provide more detailed information and a meaningful opportunity for states to engage in a dialogue on any proposed changes (see *California Wilderness Coalition v. Department of Energy*, 631 F. 3d 1072, 1087 (9th Cir. 2011)). Two one-hour webinars during which the EPA refuses to provide information about what changes are actually being considered does not constitute ‘consultation’ under any understanding of that term. Proper respect for federalism demands that states have the opportunity to help craft any regulatory changes that the EPA contemplates in this area.”

The letter continued: “Under a system of cooperative federalism, the Clean Water Act and EPA’s current guidance and regulations properly recognize that section 401 determinations are fundamentally matters of state law. The courts have held that state law governs the scope of state review, the information the state may consider, and the conditions the state may impose (see, e.g., *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700 (1994)). To the extent a dispute arises, an applicant can file a 401 appeal in state court. Within this framework, there is very little room for the EPA to establish generally applicable rules or to provide additional guidance beyond what already exists.”

In conclusion, the letter declared: “For over forty years, Washington State has worked cooperatively with our federal partners – including the EPA, Federal Energy Regulatory Commission, National Oceanic and Atmospheric Administration, and Army Corps of Engineers – to allow development projects to move forward while preserving and protecting our state’s water quality. We are proud of our achievements and our track record of environmental stewardship. This legacy would be threatened by any effort by the EPA to undermine the careful balance of state-federal cooperation currently in place.... As our actions have demonstrated, we stand ready to take all steps necessary to manage and protect our state’s water quality, and to preserve the State’s important role under section 401 of the Clean Water Act. We urge the Administration to reverse the ill-founded, short-sighted and dangerous path it has chosen.”

On May 24, Maia Bellon, Director, Washington Department of Ecology also commented. “Ecology is the state agency responsible for protecting water quality in Washington through the Section 401 process. EPA has indicated its intention to curtail state authority by limiting the scope and shortening timelines for review of applications. Pursuant to the CWA and Congressional

authority, states are the government entities charged with reviewing Section 401 permit applications. We strongly oppose EPA's attempts to subvert authority and responsibility from state governments. Furthermore, since EPA has failed to consult with Washington or any other state, we question the justification for such action."

She continued: "The CWA Section 401 certification process is critical to ensuring that state water quality standards will be met by proposed projects needing a federal permit or license. Any action taken by EPA to constrict the scope of federal protection will have direct and significant impacts on Washington State's water quality and beneficial uses. Washingtonians expect and demand clean water for agriculture, industry, residential use (including drinking water), and recreation (including clean, cool water for fishing and swimming). Therefore, we emphasize that no changes to the scope of water quality review for Section 401 certifications should be made and there should not be any restrictions on the types of conditions that states or tribes determine to be reasonably appropriate to include in a Section 401 certification. Any attempted changes by EPA must uphold United States Supreme Court rulings that states may impose permit conditions in accordance with state law."

Bellon added Congress clearly intended states to have adequate time to review requests providing up to one year to issue certification decisions. Further, states need sufficient information in order to be able to ensure "state water quality standards will be met and beneficial uses protected. Constrained review times will likely have the unintended consequence of increasing denials.... My agency reviews are conducted fairly, on time, and in compliance with the law. That is why Ecology's certifications and denials continue to prevail in the courts. Furthermore, EPA has failed to provide evidence supporting the assertion that states have been abusing the Section 401 certification process and that it needs to be fixed."

She echoed concerns raised by many related to the constrained period of time provided for state comments. "I am also troubled with the 30-day time frame EPA has provided Washington and others to comment on changes to so-called guidance without even providing us proposed language. The two webinars EPA held for states and tribes are not a replacement for consultation and did not provide an adequate forum for us to provide feedback. Many of the questions posed during the first webinar in particular were left unanswered.... EPA is not actually interested in earnest conversations with states but rather simply going through the motions. Again, without EPA consulting with states and tribes and without our consent to changes, we question the justification for moving forward.... In conclusion, I urge you to withdraw this misguided attempt to diminish state authority for the sake of furthering special interests. States, like Washington, have a long record of stewarding Section 401 permitting responsibly, justly, and consistent with the law. The people of Washington deserve clean water, and they do not deserve to be glossed over and ignored."

The EPA has posted additional comments submitted by state representatives regarding changes to its CWA Section 401 state certification guidance. A 17-page comment letter dated May 24, was signed by fifteen States' Attorneys General (AG), including New York AG Letitia James; California AG Xavier Becerra; New Mexico AG Hector Balderas; Oregon AG Ellen Rosenblum; and Washington State AG Ferguson, as well as state environmental department directors from

Connecticut, New York, North Carolina and Pennsylvania. All are Democrats. The letter urges EPA “...not to weaken its existing guidance and regulations. Section 401 explicitly preserves states’ independent and broad authority to regulate the quality of waters within their borders. Neither the President’s Executive Order nor EPA’s guidance and regulations can contradict or undermine the plain language and congressional intent of section 401. EPA’s expedited and overly broad ‘consultation’ process fails to provide adequate public notice and opportunity for comment. Additionally, revisions to EPA’s existing guidance and regulations are wholly unnecessary, as states efficiently and effectively review thousands of water quality certifications each year. Any revisions to EPA’s guidance or regulations must be consistent with the Clean Water Act, preserve the states’ broad authority to protect water quality, maintain the flexibility contemplated by the Act for states to follow their own administrative processes, and not limit the one-year review period prescribed by Congress. EPA may not upend the well-established, statutorily mandated role of states in implementing the Clean Water Act’s water quality protections within their borders.”

The letter addressed in detail these assertions: (1) EPA’s review of its Section 401 guidance and regulations under the Executive Order is procedurally deficient; (2) the guidance and regulations are unnecessary; (3) any revision may not impair states’ well-established authority to independently evaluate the water quality impacts of federal projects on state waters; (4) EPA must preserve state authority to condition certification on compliance with any appropriate requirement of state law; (5) any revisions must ensure that states can comply with their own administrative procedures when reviewing Section 401 applications; (6) EPA should clarify that the timeframe for state review of an application commences once a state deems an application complete; and (7) EPA should continue to provide applicants with the flexibility to extend administrative review through the withdrawal and resubmission of applications.

In a separate undated comment, signed by Basil Seggos, Commissioner, the New York Department of Environmental Conservation (DEC), opposed “...the Trump Administration directive to weaken states’ authority under the [CWA] Section 401 water quality certification process. The [EPA], consistent with the law, must refrain from making a proposal that would curtail or reduce state authority under CWA Section 401 and DEC’s critical role in maintaining water quality within New York’s borders. In this respect, EPA has not provided any concrete reasons why this effort is necessary. States have clear authority to protect their water resources utilizing CWA Section 401.... This authority cannot, and must not, be changed by regulation or guidance. In this respect, EPA must not depart from consistent interpretations of state and federal courts, including the U.S. Supreme Court, that recognize states’ broad authority to review and act upon requests for water quality certification under CWA Section 401 to the proposed activity as a whole.”

Seggos added, “Conversely, there are activities that federal agencies can take to better coordinate with DEC. For example, to avoid duplicative analysis, DEC should have access to application information relating to a proposed project’s review under other federal statutes (e.g., NEPA, ESA, etc.) to use, when appropriate, in a water quality certification review under CWA Section 401. Similarly, EPA should support the adequate funding and staffing of state and federal agencies charged with implementing CWA Section 401, as opposed to the significant funding reductions to state water programs repeatedly proposed by the Trump Administration.... Any

curtailment of state authority under CWA Section 401 would inflict serious harm to the division of state and federal authorities established by Congress and fails to recognize the vital role of states in maintaining water quality within their boundaries. Any regulatory change to the Section 401 permitting process must not come at the expense of state authority and should be developed through genuine consultation with the states. EPA must also recognize, and defer to, states' sovereign authority over the management and allocation of their water resources."

Notably, Shaun McGrath, Director of the Montana Department of Environmental Quality, declared: "As one of the first states to receive Clean Water Act primacy, Montana has always valued its relationship with the Environmental Protection Agency (EPA) and Army Corps of Engineers (Corps). However, Montana is concerned that the directives in Executive Order 13868, Promoting Energy Infrastructure and Economic Growth could significantly constrain Montana's ability to protect our water quality under Section 401.... This would undermine the principle and practice of cooperative federalism, which is the core of Section 401. Montana recognizes that there may be opportunities to improve coordination between applicants, federal agencies, and our state agencies responsible for CWA §401 certifications. However, Montana's authority to protect our water quality should not be reduced in scope nor should arbitrary deadlines be imposed."

Montana has existing regulations that outline requirements for application completeness and review deadlines. These regulations align with federal review and ensure timely Section 401 certification and compliance with State Water Quality Standards.... Montana is concerned that the Executive Order could weaken the ability of states and tribes to protect their water quality. At the same time, through revision of the Waters of the United States (WOTUS) definition, the EPA and Corps are seeking to reduce the number of jurisdictional waters. Montana requests clarification of how the final WOTUS definition and the Executive Order will work together and an explanation of how they will not result in a weakening of water quality for Montana and will preserve existing state authority.⁴³

Section 401 Certification Guidance

On June 7, in advance of formal rulemaking, the EPA released CWA Section 401 Certification Guidance for federal agencies, states, and authorized tribes, clarifying existing Section 401 regulations and providing recommendations on coordination between federal agencies, states, and authorized tribes. The guidance addresses requirements and procedures on a variety of topics including: (1) statutory and regulatory timelines for review and action on a Section 401 certification request; (2) the appropriate scope of CWA Section 401 certification conditions; and (3) the scope of a state or authorized tribe's CWA Section 401 review.⁴⁴

EPA Administrator Andrew Wheeler said: "Many states implement Section 401 of the Clean Water Act faithfully, however, on occasion, inconsistent implementation and outdated guidance and regulations have caused delays in infrastructure projects with significant national benefits. EPA will

⁴³<https://www.regulations.gov/docket?D=EPA-HQ-OW-2018-0855>

⁴⁴<https://www.epa.gov/cwa-401>

immediately engage with our state and tribal partners to identify ways we can modernize the 401 certification process and accelerate infrastructure projects that will improve the lives of Americans.”

Britt Carter, Director of Intergovernmental Relations, reviewed EPA’s formal consultations with state, local, and tribal partners, as well as outreach with its federal partners and invited written pre-rulemaking recommendations. EPA held webinars on April 17, May 7-8, May 15, and a federalism kick off meeting on April 23. EPA said it was reviewing input it received through these engagements and comments submitted to a public docket prior to issuing a proposed rule. The agency said it would continue to engage with states, tribes, and federal agencies throughout the rulemaking process.

Proposed Section 401 Rule

On August 22, EPA published its proposed rule, “Updating Regulations on Water Quality Certification,”⁴⁵ relating to Section 401 of the CWA. The agency proposed to revise the Code of Federal Regulations, 40 CFR part 121 to include definitions of various terms to provide greater clarity. “While the EPA recognizes that states and tribes have broad authority to implement state and tribal law to protect their water quality...section 401 is a federal regulatory program that contains explicit limitations on when and how states and tribes may exercise this particular authority.”

The proposed rule contained 75 requests for input on issues related to the rulemaking, including examples from states, tribes, and project proponents on how §401 certifications have been implemented, and alternatives to the provisions EPA has proposed. Comments were due no later than October 21.

A CWA §401 certification is required when a proposed project requires a federal license or permit, and the project may result in a discharge. Under 121.1(g), “Discharge for purposes of this part means a discharge from a point source into navigable waters.” EPA noted that this would only apply to waters of the United States, not to waters of the state or the tribe. EPA also noted that when the term “discharge” is used in the CWA without qualification that it includes discharge of pollutants. Instead, the agency proposed CWA §401 “be triggered by any unqualified discharge, rather than by a discharge of pollutants,” consistent with the Supreme Court’s decision in *S.D. Warren Co. v. Maine Board of Environmental Protection*, 547 U.S. 370 (2006). However, to trigger CWA §401, the discharge must be from a point source.

EPA also addressed the holding in *PUD No. 1 of Jefferson County and City of Tacoma v. Washington Department of Ecology*, 511 U.S. 700 (1994), stating: “Although this decision has been interpreted by some to broadly expand state authority under section 401 – beyond assessing water quality impacts from the discharge and allowing conditions beyond the enumerated CWA provisions – the Court did not stray from the bedrock principles that a section 401 certification must address

⁴⁵84 Fed Reg 44080

water quality and that appropriate conditions include those necessary to assure compliance with the state's water quality standards.”

The proposed rule limited the scope of a certification “to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements.” Section 121.1 (p) defined “water quality requirements” as the “applicable provisions of §§301, 302, 303, 306, and 307 of the Clean Water Act and EPA-approved state or tribal Clean Water Act regulatory program provisions.” This included state and tribal provisions of law under EPA-approved CWA regulatory programs, even if they are more stringent than federal requirements, but did not include non-water quality related state or local laws.

A nationally-applicable “certification request” was proposed to replace the previous guidance that required a “complete application,” which varied according to state laws and regulations. Receipt of the certification request would trigger the statutory clock to complete the certification process. The certification request would identify the applicant, the project, the applicable federal license or permit, the location of the project and any potential discharge sites, a description of the proposed methods or means to monitor or control the discharge, a list of all other authorizations required for the project, and a statement: “The project proponent hereby requests that the certifying authority review and take action on this CWA section 401 certification request within the applicable reasonable timeframe.”

Any conditions imposed on licenses or permits would have had to include: (1) a statement explaining why the condition is necessary to assure that the discharge from the project will comply with water quality requirements; (2) a citation to federal, state, or tribal law that authorizes the condition; and (3) a statement whether and to what extent a less stringent condition could satisfy applicable water quality requirements. EPA acknowledged that these proposed requirements might create new obligations for some states and tribes, but anticipated that the value of including this information for greater transparency and certainty “will far outweigh the minimal additional administrative burden of including this information in a certification.”

The conditions may not include concerns about environmental media other than water, or state laws or policies unrelated to the regulation of point source discharges to waters of the United States. “The EPA recognizes that the majority of certification actions reflect an appropriately limited interpretation of the purpose and scope of section 401. However, the Agency is also aware that some certifications have included conditions that may be unrelated to water quality, including requirements for biking and hiking trails to be constructed, one-time and recurring payments to state agencies for improvements or enhancements that are unrelated to the proposed federally licensed or permitted project, and public access for fishing and other activities along waters of the United States. The EPA is also aware of certification conditions that purport to require project proponents to address pollutants that are not discharged from the construction or operation of [the project]. Using the certification process to yield facility improvements or payments from project proponents that are unrelated to water quality impacts from [the project] is inconsistent with the authority provided by Congress.”

In the alternative, a state could have waived the requirement either expressly or by failing or refusing to act in a reasonable period of time not to exceed one year, or it could grant or deny the certification. “A certifying authority may choose to deny certification if it is unable to certify that the proposed activity would be consistent with applicable water quality requirements. If a certification is denied, the federal agency may not issue a license or permit for the proposed activity.”

EPA recommended, once a final rule is established, that states update their regulations to ensure consistency with EPA’s regulations. “Additionally, the EPA encourages certifying authorities to work with neighboring jurisdictions to develop regulations that are consistent from state to state. This may be particularly useful for interstate projects, like pipelines and transmission lines, requiring certification in more than one state.”

Waters of the United States

On February 28, 2017, President Trump issued Executive Order 13778, “Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the ‘Waters of the United States’ Rule.”⁴⁶ Section 1 of the Executive Order states that “...[i]t is in the national interest to ensure that the Nation’s navigable waters are kept free from pollution, while at the same time promoting economic growth, minimizing regulatory uncertainty, and showing due regard for the roles of Congress and the States under the Constitution.” The Executive Order directed the agencies to review the 2015 Rule for consistency with this policy.

EPA and the Corps implemented EO 13778 in a two-step process, “to provide certainty to the regulated community and the public while the agencies developed the revised definition of ‘waters of the United States.’” Step One was to repeal the 2015 Rule and recodify the regulation in place before the 2015 Rule. Step Two was to publish a rule revising the WOTUS definition, to clearly define where federal jurisdiction begins and ends, including the difference between federally regulated waterways and those waters that rightfully remain solely under state authority.⁴⁷

Revised Definition of WOTUS

On February 14, the EPA and Corps published their proposed rule, Revised Definition of “Waters of the United States,” (WOTUS) in the *Federal Register*. The agencies held an online webcast presentation the same day, which provided an overview of the proposed WOTUS rule, including categories of water that would be jurisdictional, and waters that would be excluded. The agencies emphasized that the proposed rule is informed by science, but the definitions are based on policy and law. The proposed rule also makes the distinction between regulatory programs for waters that fall under federal jurisdiction, and voluntary non-regulatory EPA programs, which include financial and technical assistance to the states to address pollution from non-point sources and other waters that are not waters of the United States.

⁴⁶82 FR 12497

⁴⁷<http://www.epa.gov/wotus-rule>

The proposed definition would include: (1) traditional navigable waters (TNW); (2) perennial and intermittent tributaries to navigable waters; (3) wetlands adjacent to navigable waters and tributaries; (4) certain ditches constructed in or modifying prior tributaries or wetlands, or operating as TNWs; (5) lakes and ponds; and (6) impoundments. Adjacent wetlands are defined as either: (a) physically touching a TNW or tributary; or (b) having a direct hydrologic surface connection to a TNW or tributary, through inundation from the TNW or tributary, or via perennial or intermittent flow between the wetland and TNW or tributary. Any isolated wetlands physically separated from a TNW or tributary and lacking a perennial or intermittent surface connection in a typical year would fall under state or tribal jurisdiction.

Interstate waters were removed as a separate jurisdictional category, on the basis of their absence in the statute, Congressional history, and courts' reluctance to extend jurisdiction beyond explicit authorizing language. The agencies assumed that most interstate waters would still fall under one of the six jurisdictional categories of waters. If there are any interstate waters that would not be jurisdictional under the proposed rule, the agencies invited comment on those waters and any alternative basis for federal jurisdiction.

Notably, any waters that do not fall under one of the six jurisdictional categories would be excluded from federal jurisdiction and would fall under state or tribal jurisdiction. Specifically excluded from federal regulation would be groundwater, ephemeral features that only contain water in response to rainfall, most ditches constructed in uplands, prior converted cropland that has not been abandoned and reverted back to wetland, stormwater control features, and wastewater treatment systems. The agencies pointed out that several of these features may still be or become a point source if they discharge pollutants into any of the six categories of jurisdictional waters, and thus subject to CWA discharge permitting. However, they would not be classified as WOTUS.

The agencies were still in the initial stages of evaluating geospatial datasets and tools. The proposal solicited comment on how to create a regulatory framework that would authorize interested states, tribes, and federal agencies to develop geospatial datasets of waters within their borders. The datasets would build off of existing state, tribal, and federal expertise, and be subject to EPA and Corps approval before use for jurisdictional (identifying WOTUS and non-WOTUS) purposes. The proposed rule did not include a framework for geospatial data, but solicited comment to work toward a subsequent rulemaking informed by public comment.

The agencies prepared two supporting documents. Resource and Programmatic Assessment evaluated how the proposed rule could affect categories of aquatic resources, various CWA programs, state and tribal programs, and existing state laws. An Economic Analysis evaluates the costs and benefits of the proposed rule. The agencies invited comment on the information contained in both supporting documents.

Comments were due by April 15, although several organizations, including the WGA, submitted letters seeking an extension of the deadline to allow time for meaningful consultation and provide more thorough feedback. The agencies announced a public hearing February 27-28 at the Reardon Convention Center in Kansas City, Kansas. They also planned to hold meetings with co-regulators.

State Outreach

On February 11, the EPA and the Corps sent letters to the Governors regarding state outreach following publication of the proposed rule revising the definition of WOTUS. The letter explains: “The proposed rule would replace the agencies’ 2015 definition of [WOTUS] with a straightforward definition that would result in significant cost savings, protect the nation’s waterways, help sustain economic growth, and reduce barriers to business development.”

The agencies will host three discussion sessions with state officials during the public review process, to hear input and initial feedback from the state co-regulators, provide a question and answer session to clarify various provisions in the proposed rule, and allow time for robust discussion of implementation considerations. They will also discuss the potential to develop geospatial datasets for WOTUS including what data and resources currently exist, what could be developed, and next steps. The meetings will take place in Kansas City, Kansas (February 26), Atlanta, Georgia (March 11), and Albuquerque, New Mexico (March 26).

The letter concludes: “In addition to these half-day discussions with state officials, the EPA and Army plan to seek additional opportunities to engage with you directly, as well as your state agencies. Please do not hesitate to contact the agencies if you have any questions or would like to discuss this proposal directly.... We look forward to your input and engagement on this important rulemaking.”

North Dakota Roundtable Discussion

On October 7, Senators Kevin Cramer (R-ND) and John Hoeven (R-ND) and Representative Kelly Armstrong (R-ND) met with EPA Administrator Andrew Wheeler and other state, industry, and agricultural leaders at the University of Mary in Bismarck, North Dakota for a roundtable discussion on efforts to define WOTUS and how that definition impacts land use and numerous small water bodies in North Dakota. Wheeler said: “Today I learned firsthand that waters and wetlands in over 90% of the state’s land mass would have fallen under federal purview with the 2015 Rule. Because of this type of federal overreach, the Trump Administration repealed the 2015 Rule, and our new proposed WOTUS definition would respect North Dakota’s traditional authority to regulate its land and water resources.” North Dakota Agriculture Commissioner Doug Goehring said that the amount of water under federal jurisdiction in the state would have gone from 5,100 up to 85,604 linear miles under the 2015 Rule.

Lt. Governor Brent Sanford said that repealing the 2015 Rule was a win for states’ rights, farmers, landowners, and local governments, and that he appreciated hearing firsthand how the new rule would protect waters while promoting economic growth, and recognize that “states are in the best position to manage their own waters in partnership with the federal government.” Senator Hoeven said: “North Dakota has some of the cleanest water and air in the nation, showing that we can maintain good environmental stewardship while also supporting a strong economy. We will continue working with EPA to provide certainty to our farmers, ranchers and energy producers and preserve the role of states in protecting our water resources as the agency drafts a new WOTUS

rule.” Attorney General Wayne Stenehjem, who led a multistate coalition challenging the 2015 Rule in federal court, said that the repeal of the rule isn’t a victory yet, because there may be new lawsuits challenging the Administration’s repeal.

Wheeler said the new WOTUS rule will be finalized this winter. He said there are six main categories of waters under federal jurisdiction, including traditional navigable waters, their tributaries, certain ditches used for navigation or affected by tides, certain lakes and ponds, impoundments, and adjacent wetlands. Excluded features are groundwater, agricultural ditches, water treatment facilities, and features that only hold rainfall.⁴⁸

Repeal of the 2015 WOTUS Rule

On September 12, EPA Administrator Andrew Wheeler and Department of the Army Assistant Secretary of the Army for Civil Works R.D. James announced the repeal of the Obama Administration’s 2015 rule defining WOTUS under the CWA. The agencies recodified the regulatory text that existed prior to the 2015 Rule and planned to end “a regulatory patchwork that required implementing two competing Clean Water Act regulations, which has created regulatory uncertainty across the United States.”

“Today, EPA and the Department of the Army finalized a rule to repeal the previous administration’s overreach in the federal regulation of U.S. waters and recodify the longstanding and familiar regulatory text that previously existed,” said Wheeler. “Today’s Step 1 action fulfills a key promise of President Trump and sets the stage for Step 2 – a new WOTUS definition that will provide greater regulatory certainty for farmers, landowners, home builders, and developers nationwide.”

“Today, Administrator Wheeler and I signed a final rule that repeals the 2015 Rule and restores the previous regulatory regime exactly how it existed prior to finalization of the 2015 Rule,” said James. “Before this final rule, a patchwork of regulations existed across the country as a result of various judicial decisions enjoining the 2015 Rule. This final rule reestablishes national consistency across the country by returning all jurisdictions to the longstanding regulatory framework that existed prior to the 2015 Rule, which is more familiar to the agencies, States, Tribes, local governments, regulated entities, and the public while the agencies engage in a second rulemaking to revise the definition of ‘waters of the United States.’”

Two federal district courts reviewed and remanded the 2015 Rule back to the agencies. Multiple other federal district courts preliminarily enjoined the 2015 Rule pending a decision on the merits. By this action, EPA and the Army jointly concluded that multiple substantive and procedural errors warranted repeal, as the rule stretched the limits of the agencies’ constitutional and statutory CWA authority absent a clear statement from Congress and as reflected in Supreme Court cases. The 2015 Rule also failed to adequately recognize, preserve, and protect the primary responsibilities and rights of states to manage their own land and water resources, the agencies said. Further, it

⁴⁸[epa.gov/newsroom](https://www.epa.gov/newsroom); *AgWeek* 10/7/19.

suffered from certain procedural errors and a lack of an adequate record to support it as it relates to the 2015 Rule's distance-based limitations.

With this final repeal, the agencies will implement the pre-2015 regulations, which are currently in place in more than half of the states, informed by applicable agency guidance documents and consistent with Supreme Court decisions and longstanding agency practice. The final repeal takes effect 60 days after publication in the *Federal Register*.

WOTUS Litigation

On October 22, the New Mexico Cattle Growers' Association (CGA) filed suit against EPA and the Corps in the U.S. District Court for the District of New Mexico (#2019-cv-00988). CGA alleges violations of the Administrative Procedure Act (APA) because the agencies refused to consider public comment on the proposal to readopt their 1986 regulations, post-*Rapanos* guidance, and other guidance documents in place before the 2015 Rule defining WOTUS. These regulations and related guidance were never submitted to Congress for review, which CGA says is a violation of the Congressional Review Act. Several provisions exceed the scope of the CWA, including the Migratory Bird Rule and the Tributary and Adjacent Wetland rules, which CGA says have been declared invalid by the Supreme Court. "The inclusion in the 1986 Regulations of all interstate waters and of many intrastate waters that are not navigable-in-fact also exceeds the agencies' authority under the Act."

CGA challenges the "1986 Regulations and related guidance as they are readopted...." because CGA members "hold beneficial interests in property that is or will be subject to increased federal regulatory control under the 1986 Regulations and guidance. This will require them to seek federal permit approval at significant cost to use their property for its intended purpose. Or, it will require [CGA] members to seek a determination from the Army or a private party expert whether the 1986 Regulations and related guidance apply to them." CGA alleges that the following provisions of those regulations and guidance exceed the scope of the CWA as interpreted by the Supreme Court: (1) categorical regulation of all tributaries; (2) categorical regulation of all waters adjacent to such tributaries; (3) regulation of all interstate waters regardless of navigability or connection to navigable-in-fact waters; and (4) regulation of isolated intrastate waters that may be used in interstate commerce but are not themselves used to transport interstate commerce. CGA alleges that the regulations "extend federal jurisdiction so far into local land and water resources that it necessarily undermines State power, in violation of the Tenth Amendment." CGA says the Supreme Court has also held that prior regulation of small water bodies, tributaries and adjacent wetlands exceeds the scope of Congress's commerce power, and a return to those regulations is therefore "contrary to law, in violation of the Administrative Procedure Act."

CGA further alleges that the term "navigable waters" in the CWA itself is void for vagueness in violation of the Due Process Clause of the Constitution. The Act imposes criminal penalties for violations of its protections of navigable waters, which have been interpreted as more than just navigable-in-fact waters, but the Act "provides no notice to the person of ordinary intelligence which non-navigable waters it regulates and which it does not." The Act does not set forth the facts or

criteria for agencies to consider in defining or determining navigable waters, and “provides no intelligible principle for determining which upstream non-navigable waters are included and which are not, in violation of the non-delegation doctrine.”

On October 23, the South Carolina Coastal Conservation League (CCL) and several organizations concerned with water quality, sued EPA and the Corps in the U.S. District Court for the District of South Carolina (#2019-cv-03006) to vacate the agencies’ recent rule (84 Fed. Reg. 56626) repealing the 2015 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.

Water Infrastructure Financing

State Revolving Funds

On March 7, the House Committee on Transportation and Infrastructure’s Subcommittee on Water Resources and Environment held its first hearing, titled “The Clean Water State Revolving Fund: How Federal Infrastructure Investment Can Help Communities Modernize Water Infrastructure and Address Affordability Challenges.” Chairwoman Grace Napolitano (D-CA) acknowledged the Water Quality Protection and Job Creation Act (H.R. 1497), introduced on March 6, by Rep. Peter DeFazio (D-OR) and co-sponsored by Napolitano, Rep. Don Young (R-AK), and Rep. John Kalto (R-NY). The bill would reauthorize the State Revolving Fund program.

Napolitano included in the hearing record a letter sent by the WGA, dated March 5, which included WGA’s positions on Water Resource Management in the West, and Water Quality in the West, as well as a joint letter from WGA, WSWC, and others regarding the importance of state certification under CWA Section 401.

Witnesses at the hearing included: Spokane Mayor David Condon, United States Conference of Mayors; John Mokszycki, Grenport Water and Sewer Superintendent, the National Rural Water Association; Catherine Flowers, Montgomery Rural Development Manager, The Equal Justice Initiative; Maureen Taylor, Chairperson, Michigan Welfare Rights Organization; Andrew Kricun, Executive Director/Chief Engineer, Camden County Municipal Utilities Authority, National Association of Clean Water Agencies; and Professor Jill Heaps, Vermont Law School.

Condon pointed out the disparity between the \$20 billion for SRFs that would be authorized by H.R. 1497 and the \$123 billion per year the EPA described as the investment and local spending needed to comply with existing law. “The math... suggests that if Congress appropriates \$80 billion a year for five years the EPA’s need gap could be closed. So the question is – If Congress doesn’t have that kind of money to spend on wastewater systems how does anyone expect local governments to have that level of resources?” He emphasized the importance of federal partners implementing the CWA with flexibility. He described Spokane’s integrated planning and permitting approach to meet storm and wastewater needs, while keeping utility rates affordable.

Mokszycki addressed economies of scale, and the relatively limited financial and technical resources that small communities have to meet CWA requirements and maintain aging wastewater and drinking water infrastructure. He recommended prioritizing SRFs for the most severely non-compliant communities with the greatest per capita need. A small percentage of SRF money should be set aside for shared technical assistance for small communities. Grants should be authorized as well as loans to make compliance projects affordable for ratepayers.

Flowers testified on the unique challenges posed by clay soils and poverty when it comes to finding effective and affordable waste treatment solutions in Lowndes County, Alabama. She said that funding must take into account community input and the unique geography of an area, and must go to those who cannot afford wastewater services or upgrades without assistance. “Congress should use its oversight powers to ensure that investments are meaningful, distributed equitably, and the agencies and engineers approving the use of the funds are ultimately accountable if a system fails.”

Kricun talked about the need for water utilities to optimize internal efficiencies before seeking outside assistance. He noted that SRF’s low interest rates enabled Camden County to replace its aging infrastructure with a modest increase to ratepayers, and added that this effort “would be aided immeasurably if there were affordability/rate assistance programs” for lower income customers, similar to programs for electricity and heat. He addressed public-private partnerships, tax incentives to encourage investments, and development of peer-to-peer programs for information sharing.

Heaps noted that since a high of about \$16.8 billion in the mid 1970s, federal spending on water and wastewater utility infrastructure has decreased dramatically to some \$4 billion in 2016, while state and local spending on water infrastructure has quadrupled, according to the Congressional Budget Office. EPA’s Water Infrastructure and Resiliency Finance Center (WIRFC) has identified an estimated \$600 billion gap between infrastructure investments and needs. She testified Congress must invest more in clean water, with more grants for the neediest communities.

Further, she noted increased funding for the Clean Water and Drinking Water SRFs and the Water Infrastructure Financing and Innovation Act (WIFIA) loans is not enough. She called for creation of a federal trust fund for water infrastructure improvements, testifying that 27 million Americans are served by systems that do not meet Safe Drinking Water Act health-based standards.

Water Infrastructure Funding Transfer Act

On September 23, Congress presented the Water Infrastructure Funding Transfer Act (S. 1689) to the President for signature. The bill authorizes states, in consultation with the EPA, 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.

The bipartisan bill passed the Senate and House unanimously. Senator Cory Booker (D-NJ), who sponsored the bill, praised its passage and said: “Every American should have access to safe, clean drinking water, and this legislation will allow New Jersey to provide Newark with substantial funding as Newark moves to rapidly replace lead service lines.”

Water Quality Protection and Job Creation Act

On October 29, the House Transportation and Infrastructure Committee marked up and approved an amended version of the Water Quality Protection and Job Creation Act (H.R. 1497). The bill reauthorizes several CWA programs and funding through FY2024. The amendment reduces the total authorized funding over five years from \$20 billion as introduced down to \$16.68 billion. State management assistance under CWA §106 would receive \$1.3 billion over five years. Watershed pilot projects under CWA §122 would be amended to include “watershed, wet weather, and resiliency projects,” and receive \$110 million (to remain available until expended) providing grants for stormwater management and increase the resiliency of utilities to natural or man-made disasters. The pilot program for alternative water source projects under CWA §220 would receive \$150 million over five years, including for wastewater reuse or stormwater augmentation of existing water supplies. The bill authorizes \$1.1 billion for grants to municipalities to capture, treat, or reuse sewer overflows or stormwater. For CWA State Revolving Funds (SRFs), the bill authorizes \$14 billion over five years.

The amended bill requires states to pay a greater share of construction costs for disadvantaged communities participating in EPA’s sewer overflow and stormwater grant program. It requires states to set aside 10% of SRF money to provide grants to communities with affordability concerns. It authorizes states to use a portion of SRF funds for workforce training and development. It requires states to include in their biennial assessment of CWA infrastructure needs estimates to address resiliency and climate change. It also requires utilities to evaluate and, where feasible, implement efforts to increase energy efficiency for wastewater treatment.

Section 7 of the amended bill would extend the term of the National Pollutant Discharge Elimination System (NPDES) permits up to ten years. It also required that states make administrative decisions on permit applications and triggering actions requiring review or modification of the permit within specified deadlines, or the permit will go to EPA for determination. A permit modified by EPA will be considered a state-issued permit and “shall not affect any other authority or responsibility of the State relating to the permit.” No further action was taken on this bill.

Water Infrastructure Finance and Innovation Act Program

On April 5, the EPA posted a Notice of Funding Availability in the *Federal Register*,⁴⁹ opening the third round of credit assistance under the Water Infrastructure Finance and Innovation Act (WIFIA) program. Congress provided \$60 million for the program in the February 2019 Consolidated Appropriations Act. EPA estimates that these funds will provide \$6 billion in credit assistance and may finance \$12 billion in water infrastructure investment. EPA planned to host several one-day information sessions in May about the WIFIA program and application process. Letters of interest were due by July 5.⁵⁰

On July 19, EPA announced that it received 51 letters of interest for the third round of WIFIA funding, with \$6 billion available for loans to leverage \$12 billion in funding for infrastructure projects. Requests for WIFIA loans included projects for water reuse and recycling, wastewater and drinking water treatment, desalination, stormwater management, and integrated projects.

Prospective borrowers from all three rounds of funding came from 35 states, and include municipal government agencies, small communities, public-private partnerships, and corporations. EPA will evaluate the letters for financial, engineering, and regulatory eligibility, and select projects that will be invited to submit formal applications this Fall.

EPA Administrator Andrew Wheeler said: “Since the WIFIA program’s inception in 2017, EPA has received requests totaling \$21.7 billion for water infrastructure projects across the country – evidence of the urgent need to modernize our nation’s infrastructure.” EPA has issued nine WIFIA loans so far from previous rounds of funding, with over \$2 billion in credit assistance. The most recent loan for \$218 million, announced July 17, will help Silicon Valley Clean Water (SVCW) to upgrade its aging wastewater infrastructure in the San Francisco area, a project costing \$495 million. The new pipeline, pump stations, and treatment facility will add capacity to manage stormwater and improve the system’s safety and reliability.

On October 8, Administrator Wheeler announced that the Fargo-Moorhead Diversion Authority was among the projects selected as eligible to apply for a loan under the WIFIA program. The Corps began work on an inlet for the project last month. The federal commitment to the \$2.75 billion project is \$750 million, and the WIFIA loan would provide an additional \$510 million in

⁴⁹84 Fed Reg 13657

⁵⁰<https://www.epa.gov/wifia/wifia-resources#information>

low-interest financing for the state and local cost share, providing major cost and time saving for construction.⁵¹

On October 24, the EPA and the USBR entered into a voluntary agreement to align funding for water infrastructure projects through EPA's WIFIA and water reuse and reclamation opportunities through USBR's WaterSMART program.

The two agencies' cooperation, according to the signed MOU, will bring more "consistent, efficient, and effective" administration of federal credit to address water shortages and financing improvements to the nation's aging water infrastructure. Reclamation's Title XVI Program and Desalination Construction projects selected for funding will give consideration for those receiving WIFIA loan funding.

EPA has prioritized water reuse and recently released a Water Reuse Action Plan. More coordinated funding could provide greater return on investments of federal dollars to address drought and inadequate infrastructure.⁵²

Clean Water Act §404

Pebble Mine

On July 30, the EPA announced that it had withdrawn the 2014 preemptive CWA §404 veto of the proposed Pebble Mine disposal site, which was issued before the Corps application was complete. Since then, a lawsuit settlement, new guidance from the EPA Administrator, and extensive information contained in the permit application have caused the veto to be outdated. The veto was based on three hypothetical scenarios for the mine site, none of which matched the actual permit application submitted to the Corps in 2017.

The EPA's news release noted that the withdrawal of the veto "...restores the well-understood permit review process." The Corps reached some preliminary conclusions that conflicted with the conclusions in the veto. Additionally, "...other processes are available and better suited for EPA to resolve issues with the Corps as the record develops; specifically, the well-understood elevation process under CWA section 404(q) and the NEPA process. EPA believes these processes should be exhausted prior to any decision by EPA, based upon all information that has and will be developed, to exercise its 404(c) authority."

EPA General Counsel Matthew Leopold said: "Region 10's decision restores the proper process for 404(c) determinations, eliminating a preemptive veto of a hypothetical mine and focusing EPA's environmental review on an actual project before the Agency." Region 10 Administrator Chris Hladick said: "After today's action EPA will focus on the permit review process for the Pebble Mine project. The agency has worked closely with the Army Corps to engage with stakeholders and

⁵¹epa.gov/newsroom

⁵²*Western States Water*, #2337, March 1, 2019.

the public on this issue, which has resulted in an expansive public record, including specific information about the proposed mining project that did not exist in 2014.”⁵³

Section 404(c) Rulemaking

On August 13, the EPA held a conference call with intergovernmental associations as part of its pre-proposal outreach on rulemaking for CWA §404 procedures. Section 404 authorizes the Corps, or approved states and tribes, to issue permits for discharges of dredged or fill material into WOTUS. Section 404(c) authorizes EPA to restrict or veto such a permit whenever it determines that the discharge will have unacceptable adverse effects on municipal water supplies, fish and wildlife, or recreational areas.

EPA’s authority can be exercised prior to submission of a permit application, while an application is pending, and after a permit has been issued, after notice and an opportunity for public comment on the proposed determination. EPA has issued a total of thirteen §404(c) final determinations since 1972.

The EPA’s Office of Water is considering revisions to the §404(c) regulations under the direction of a June 26, 2018 memorandum from former Administrator Scott Pruitt. Proposed revisions include: (1) to identify considerations for when EPA initiates a §404(c) review, such as whether adequate information exists, the degree of certainty as to the nature and magnitude of adverse effects, and the expected impacts on the permittee and the community; (2) to identify how EPA regional offices coordinate with EPA headquarters prior to taking action on a §404(c) review; (3) to update the referral process for the individual permit elevation procedures to reference the 404(q) memorandum of agreement with the Corps; and (4) to create a specific process for how to modify or withdraw a §404(c) final determination.

EPA announced an informational webinar on September 4, with the pre-proposal comment period closing on September 13.

Non-Point Source Water Quality Trading/NPDES

On September 5, the EPA released a pre-publication notice on Water Quality Trading under the CWA’s National Pollutant Discharge Elimination System (NPDES). The notice and request for comment builds on EPA’s February 2019 Memorandum on Updating the EPA Water Trading Policy to Promote Market-Based Mechanisms for Improving Water Quality. The agency is proposing to update and clarify its 2003 Water Quality Trading Policy and 2009 Toolkit for Permit Writers. The updates will modernize information about technology, mapping and modeling efforts, and the performance of many best management practices. It also clarifies that the 2003 Policy and 2009 Toolkit do not mandate specific actions, but provide non-binding and non-mandatory recommendations and guidance for permitting authorities to consider when establishing and implementing trading programs for NPDES permit compliance.

⁵³<https://www.epa.gov/newsreleases>

The recommendations are intended to encourage simplicity and flexibility in defining and implementing baseline concepts in watersheds where Total Maximum Daily Loads (TMDLs) have been approved or established. “The baseline portions of the 2003 Policy were seen by some stakeholders as confusing, complex and restrictive, creating a barrier to entry for point source-nonpoint source trading in watersheds where a TMDL has been approved by the EPA. Another concern is that expecting a nonpoint source to meet a pollutant reduction baseline derived from a TMDL load allocation before the nonpoint source can generate tradable credits may be inconsistent with the definition of baseline in the 2003 Policy.”

EPA proposed a revision to the baseline definition, allowing nonpoint sources to generate credits immediately available for use by point sources for any pollutant reductions that are not already included in the assumptions that support the EPA-approved TMDL load allocation. EPA notes that for increased certainty that the overall load allocation will be met, states and tribes may want to provide greater levels of detail in their implementation plans, including prioritizing specific areas of a watershed for reduction.

EPA also made alternative recommendations for incremental baselines, discretionary compliance schedules, water quality standard (WQS) variances, disaggregation of load allocations, and in-lieu fee programs. The incremental baseline approach would divide nonpoint source reductions into some ratio of immediately tradeable credits and reductions assigned toward meeting the load allocation. The state would identify the appropriate ratio to align with anticipated reductions or policy goals. The point source could meet its reduction requirements through onsite controls or purchasing credits, or a combination of the two. This could be combined with a compliance schedule to account for the time it would take for a nonpoint partner to generate sufficient pollutant reduction credits or offsets to achieve compliance.

WQS variances could also be designed to support a market-based program where it is not clearly known whether the point source will be able to buy enough pollutant reduction credits from nonpoint sources to meet its water quality-based effluent limitations. States might collect funds from point sources to pay for nonpoint source reductions, including an in-lieu fee program, or point sources may enter into binding agreements with nonpoint sources directly. States and tribes could consider whether it is appropriate to apply broad load allocations across the watershed or apply it differentially to nonpoint sources on a geographic or other basis to maximize water quality improvements.

EPA requested comments on these various approaches, preferences between approaches, mechanisms to implement these approaches, other policy ideas or enhancements to promote or facilitate market-based programs, and other clarifications that would be beneficial, including potential conflicting or ambiguous policy advice. The request for comment would be open for 30 days once published in the *Federal Register*. EPA also announced a public listening session to hear feedback from interested members of the public on issues and concerns.⁵⁴

⁵⁴<https://www.epa.gov/npdes/nonpoint-source-baselines-water-quality-trading>

Water Reuse Action Plan

On February 27, the EPA announced the development of a Water Reuse Action Plan (WRAP) that would look at technological improvements, regulatory and policy analysis at all levels of government, financial incentives, performance requirements, access to water use and availability data, and public outreach and education opportunities. EPA planned to facilitate discussions among federal, state, and water sector stakeholders to develop a plan, and form partnerships to leverage the expertise of industry and governments to ensure the effective use of the nation's water resources. A draft of the plan was scheduled for release and public review in September at the Annual WaterReuse Symposium in San Diego. David Ross, EPA's Assistant Administrator for Water, said: "There is innovative work happening across the water sector to advance water reuse, and the EPA wants to accelerate that work through coordinated federal leadership."

The plan is part of a larger effort by the Administration to better coordinate with the DOI, the USDA and other federal partners to collaboratively address western water supply and other resource management challenges. Tim Petty, Assistant Secretary for Water and Science at DOI, said: "The Department of the Interior is excited about forging this partnership with EPA so that we can leverage each other's success and move forward on one path. Communities across the country are facing water shortages, and it is the role of the federal government to ensure that all have reliable access to the water needed to protect human health and maintain our robust economy."

On April 18, the EPA released a 13-page discussion framework to inform the collaborative development of a WRAP. EPA planned to reach out to states and various water stakeholders in the coming months to "brainstorm action items and specific activities related to water reuse" that will provide more water to users while protecting human health and the environment. Some of EPA's key considerations to develop a useful WRAP included: (1) identifying specific actions that federal agencies, states, tribes, local governments, and the entire water sector can take now and in the future; (2) addressing improvements to state-federal coordination of water reuse activities; (3) identifying barriers, opportunities, and areas of focus that should be in the WRAP; and (4) creating an overarching emphasis on integrated water resources management where reuse is considered. With that input, EPA intends to prepare an initial draft WRAP for release in September 2019 at the 34th Annual WaterReuse Symposium in San Diego.

The framework document provided illustrative examples of water reuse applications, including agricultural, industrial, aquifer recharge, drinking water, and environmental restoration. It listed some of the implementation challenges, such as lack of cost-effective treatment technologies, lack of water quality data, infrastructure limitations, and lack of public understanding or support. The framework also provided a list of past and present federal policies, legislation, agency guidance, workgroups, and opportunities for collaboration on water reuse. It included a list of relevant published literature. "The WRAP will not attempt to repeat these recent efforts, but will draw on their findings and recommendations to determine what knowledge gaps or actions need to occur to bolster opportunities for water reuse across all sectors of the U.S. economy."

For example, one high level action might be to ensure state and federal funding eligibility is clear and can be easily integrated with other funding programs. Another might be to consider alternatives for the management and disposal of wastewaters, similar to recent efforts of New Mexico and EPA to understand their respective regulations affecting the reuse of produced waters from energy development. Also, how information about water quality and water quantity may be shared in a way that is usable at different scales to facilitate integrated water resources management, and how collaborative information hubs can be encouraged.

EPA notes several recurring themes raised by the literature and stakeholders, including: (1) technological improvements; (2) regulations and policies; (3) financial initiatives; (4) performance metrics; (5) water information use and availability; and (6) public outreach. “Each type of reuse could be evaluated against these six components to provide greater understanding of the incentives for and barriers to water reuse.”

On September 10, David Ross, EPA Assistant Administrator, announced the release of the National WRAP. Water reuse presents an opportunity to provide additional water supplies to communities across the nation. Ross said: “Forty states anticipate experiencing fresh water shortages in certain regions within their borders over the next decade. Diversifying our nation’s water portfolio must be a nationwide priority, and water reuse has the potential to ensure the viability of our water economy for generations to come.”

The WRAP was developed through extensive outreach to governmental and non-governmental organizations, and identifies actions, leadership, and collaboration that is needed between federal, state, tribal, and local governments and governmental organizations, as well as all stakeholders across the water sector. EPA is releasing the draft plan for 60 days of comment, and the agency’s goal is to issue a final plan that will include clear commitments and milestones for actions that will further water reuse to bolster the sustainability, security, and resilience of the nation’s water resources.⁵⁵

During the summer and fall 2019 WSWC meetings, the Water Quality Committee decided to update the Council’s 2011 “Water Reuse in the West: State Programs and Institutional Issues.” The report included narrative summaries for each member state based on a survey circulated to the states in 2010. The report contained information pertaining to each state’s: (1) laws and regulations governing reuse; (2) available funding options for reuse projects; (3) legal, political, technical, and institutional issues that encourage or discourage reuse; and (4) specific state efforts to encourage reuse or overcome barriers. A number of states also provided information on their existing water reuse projects, included in an appendix. Many western states have made considerable progress over the past decade in developing water reuse laws, funding mechanisms, public outreach, and projects, and the WSWC determined an update would be beneficial internally, as well as support the WRAP efforts.

⁵⁵<https://www.epa.gov/waterreuse/water-reuse-action-plan>

On December 16, the WSWC submitted a comment to the WRAP docket, volunteering to help fulfill Action 2.2.1, which seeks to coordinate and integrate federal, state, tribal, and local water reuse programs and policies by compiling state policies and approaches to implement water reuse programs. The WSWC also volunteered to coordinate with WestFAST and other technical or national organizations with common interests to co-host a workshop or symposia on water quality-quantity nexus issues, including the potential water resource solutions offered by water reuse.

Harmful Algal Blooms

On May 22, the EPA issued its final Recommended Recreational Ambient Water Quality Criteria for the Cyanotoxins Microcystins and Cylindrospermopsin⁵⁶ – two toxins associated with harmful algal blooms – at concentrations to protect human health for swimming and recreation. The final values were revised upward following comments to the 2016 proposed rule, to 8 µg/L for microcystins and 15 µg/L for cylindrospermopsin. The recommended values supplement the 2012 Recreational Water Quality Criteria, and can be used by states and authorized tribes to establish their Water Quality Standards under CWA §304(a), and may serve as the basis for swimming advisories in recreational waters to protect the public.

Corps of Engineers

Missouri River Basin/Flooding

Senate Environment and Public Works Committee Field Hearing

On April 17, the Senate Environment and Public Works Committee held a field hearing in Glenwood, Iowa on the March 2019 flooding in the lower Missouri River basin. Major General Scott Spellmon, Deputy Commanding General for Civil Works and Emergency Operations for the Corps testified. He was accompanied by John Remus, Chief of the Missouri River Basin Water Management Division. The following are excerpts from his written testimony.

“On the Missouri River, the flood event that began on March 13 was triggered by a bombogenesis, or ‘bomb cyclone’ rain event, which brought a significant amount of precipitation and warmer temperatures to a large area in central and western Nebraska, southeastern South Dakota, and western Iowa, and a portion of northern Missouri and Kansas. The combination of rainfall and warmer temperatures quickly melted the plains snowpack, and thawed its frozen soils, resulting in rapid runoff and ice jams. This led to record discharges on a number of tributaries of the Missouri River, particularly the lower Platte, Elkhorn, and Niobrara Rivers, and in portions of the main stem of the Missouri River downstream of these tributaries. These rivers rose quickly to flood stage, in some cases within the first 24 hours to 48 hours.

“Generally, the Corps operates the Missouri River Mainstem Reservoir System consistent with eight authorized project purposes – flood control, navigation, hydropower, water supply, water

⁵⁶84 Fed Reg 26413

quality, irrigation, recreation, and fish and wildlife. However, flood control is the highest operational priority of the Corps during periods of significant runoff, when loss of life or property from flooding could occur. The Mainstem System includes six large dams: Fort Peck in northeastern Montana; Garrison in central North Dakota; Oahe, Big Bend, and Fort Randall in South Dakota; and Gavins Point along the Nebraska and South Dakota border. Together they comprise the largest reservoir System by storage volume in North America. Nearly all of the storage volume of the system (roughly 99 percent) is in the upper five of these dams. Together, these five upper dams can capture runoff from approximately half of the Missouri River drainage basin. However, they cannot hold back runoff from the rain that falls in the Missouri River watershed below these five dams. That is where most of the rain from the March 2019 storm, which flooded the lower Missouri River basin, fell.

“The Corps designed this system of the six main stem reservoirs to capture runoff from mountain and plains snowpack, and rainfall in the upper basin that could otherwise (in the absence of the reservoirs) result in flooding, and then release that water gradually over the year to serve the other seven authorized project purposes. However, the intent is to do this in a way that will also provide the greatest amount of flood risk reduction. The Corps achieves this objective by evacuating all of the water in the flood storage space before the beginning of the next year’s runoff season to create the flood storage space need for that next year. The Corps did not design the System to carry over flood water from one year to the next. We operate the six main stem dams as a system, governed by the Missouri River Master Water Control Manual, which is the water control plan that guides how much water we will release, and when, and for how long we will release it from the six reservoirs, consistent with the authorized purposes while maintaining compliance with all Federal laws....

“During last month’s flood event, the Niobrara River, one of the tributary rivers that enters the Missouri River just above the Gavins Point Reservoir, delivered record setting inflows into the Gavins Point reservoir. To provide a sense of scale, at its peak, the Corps estimates that the Niobrara River and its tributaries were sending more than 180,000 cubic feet per second of water into the Gavins Point reservoir – while the typical daily inflow during March is only 4,000 cubic feet per second.

“Gavins Point, the southernmost of the six dams of the System, contains less than one percent of the total System flood control storage. Gavins Point has some flood storage space, but is operated primarily as a re-regulation dam to smooth out the power peaking flows from the upstream reservoirs. We estimate that during this flood event the inflows into Gavins Point were over five times the dam’s designed flood storage capacity, so these large inflows quickly exceeded the ability to store the runoff, necessitating increased releases to prevent water from spilling over the spillway gates.

“We were, however, able to use the storage from the other five dams to mitigate some of this flood event. On March 13, during the time that the Niobrara River basin was peaking, the Corps shut down releases from Fort Randall Dam, which is the main stem dam that is immediately upstream of Gavins Point. By essentially impounding all of the water from the upper Missouri River basin

during the worst of the flood, we were able to use all of the available space in Gavins Point reservoir to reduce the releases from Gavins Point dam to downstream areas at the peak of the flood.

“During the March 2019 flood, several of the tributary rivers that join the Missouri River below Gavins Point Dam, including the James (in South Dakota), Vermillion, Big Sioux, Floyd, Elkhorn, Papillion, and Platte Rivers, contributed significantly to downstream Missouri River stages. Gage data show that many of the levees, in portions of Iowa, Nebraska, Missouri, and Kansas, overtopped before any of the increased releases from Gavins Point Dam reached these levees. These levees were overwhelmed by the record inflows, caused solely from runoff from these tributaries, which flow into the Missouri River below Gavins Point Dam....

“The day after the storm, we dispatched liaison teams to local levee districts to assist with the flood fight. These teams shared technical expertise and provided supplies such as sandbags, water pumps, and flood barriers. The ability of these teams to provide assistance during the flood reflects the strong working relationships that the Corps has developed across the country with local levee districts, county, state, and local emergency managers. Fortunately, over one hundred of these Corps partners were participating in Corps-led flood fight training the day before the disaster unfolded. The damage to levees in the region is extensive. Across a large area, extending roughly from near Omaha, Nebraska, to near Kansas City, Missouri, many levees overtopped during the flood. At least 32 levee systems were overtopped or completely under water and, at last count, the Corps had discovered 114 breach sites in these systems. Many other levees were damaged, some of them severely. It appears that many of the levees held firm until flood waters rose above the levee crests. In other cases, it is more difficult to say when the failures occurred, since the flood waters themselves often prevented inspectors from witnessing levee failures.”

He also said, “In North Dakota, the Red River of the North is currently in flood stage downstream of Fargo. In Colorado, we are seeing near record amounts of snow pack in the mountains. In California, snow pack exceeds 160% of average in portions of the Sierra Nevada Mountains. Additionally, significant weather systems have been coming onshore on the west coast causing major flooding along the Russian River north of San Francisco, as well as in the Willamette and Rogue River basins in Oregon. In many of these watersheds, Corps dams and reservoirs have been able to hold back enough water to prevent significant flooding downstream.”

Spellmon concluded, “In summary, the number one priority of the Corps in its operations is life and public safety. Our current focus remains to protect life, and work with the other Federal agencies and state and local authorities to help these communities recover from this flood.”

Also testifying at the hearing were: Cathy Crain, Mayor, City of Hamburg, Iowa; Leo Ettleman, Fremont County, Iowa farmer and community advocate; Joel Euler, Doniphan County, Kansas attorney; and Blake Hurst, Executive Director, Coalition to Protect the Missouri River.

Mayor Crain painted a picture of destruction with some eleven feet of water inundating two thirds of the town. “We had evacuated our lowest elevations. But this time the devastation went where flood water had never been.... It was 3:00 am when our senior housing was evacuated....

Our volunteer firemen carried them out in their nightgowns and pajamas, leaving their walkers, scooters, wheelchairs and treasures.... We had no water. We lost the water plant, wells, lift station, natural gas and City equipment.... No restaurant, gas station, hair salon, barbershop, parts store, drug store, grain elevator, insurance office, bank, motel or farm implement dealership can open. There are no dry buildings for our businesses to move to. They're underwater and City Hall is housed at the grade school with laptops and cell phones.... We want our future in our town with our businesses back and everybody home again. We belong together. These people. This Community.” She noted that a 5-foot federal levee 5 miles away was inadequate for protection from the Missouri, while the town had been required to tear down a levee that in 2011 had held back 12 feet of water for 120 days and kept the town dry, because they couldn't raise the \$5.6 million needed to bring the levee up to federal certification requirements. “The system is in desperate need of practicality. When we asked in 2012 to keep our levee, there was no funding for prevention, just emergency. Make prevention an option. Give small towns a chance.”

Mr. Euler from Troy, Kansas represents six drainage districts located in Kansas and Missouri beginning at the Kansas-Nebraska line to just north of Atchison, Kansas. He has assisted with regulatory, operation and maintenance, flooding and related activities since the “great flood of 1993 and including the events of 1998, 2009, 2011 and 2019.” These are primarily agricultural districts, but two also cover industrial/commercial and residential interests. Recent estimates of the value of the assets protected by district structures is in excess of \$2.7 billion, with an annual estimated input to the local economy of \$100 million. He addressed issues related to the Missouri River Mainstem Reservoir System Master Control Manual, the Missouri River Recovery Program (MRRP), policies and procedures relating to the repair and improvement of existing levees, and the Corps involvement in the 2019 flooding.

Euler noted that without prioritization of purposes in the manual, “there is question among the downstream stakeholders as to the motives for operation of the system.” He emphasized the need for flood control, suggesting that the resources that would be saved from recovery efforts could be directed to the remaining seven purposes. He also questioned whether habitat work for species recovery “causes a degradation in the foreshore area [between the levees and river bank] which acts to impede the flow of water during a flood event. When the levees were initially designed the goal was to move the water downstream as quickly as possible....” He noted that in 1993 the Elwood Gladden Drainage District levee was overtopped and failed. At the district's request, in 1995, the Corps conducted a reconnaissance study of federal and local interests in improving the structure which led to a project management plan in 2014, and final cost estimate of \$70.7 million in 2017. A period of 22 years elapsed, slowed by inadequate federal funding for its share of the project and resulting in about a 50% cost increase.

Euler added: “The process for the repair or upgrade of an existing flood control project is the same process used to determine whether or not a new flood control project should be constructed.... Part of this process includes a cost-benefit analysis to determine whether or not the project has enough benefit to the affected area to justify the expenditure of funds to construct the project. This along with other environmental and comment requirements extend the time between when a decision is made to repair or upgrade an existing structure and the time that the repair can be made. It would

seem that if a project already exists it would be feasible to do away with a number of the prerequisites for construction.” He commended the Corps on its efforts during the March 2019 flooding as a working partner in both the flood fighting activities, as well as flood repair and improvement activities, comparing it to his experience with the 1993 flood when the Corps was “difficult to reach and offered little or no assistance with regard to flood fighting efforts, levee monitoring or river level determination.”

Mr. Ettlemann, a life-long farmer in and around Percival, Iowa, provided another view. “This flooding event happened quickly and essentially without warning from the Omaha District [which]...provided little communication with local levee sponsors and officials. Moreover, the information that was received from the Omaha District...was outdated by up to 24 hours and was not reliable. As a result, Basin residents were not able to make timely and informed decisions to protect human life and property such that millions of dollars of equipment and stored grain were lost as well as other private property. The Corps must do a better job of communication with Basin stakeholders.... Also the [U.S. Geological Survey] USGS stream gauge readings and National Weather Service [NWS] data was not current or accurate. Actual river crest levels were two, and in some locations, three feet higher than the information relayed on the NWS website.... This inaccurate information gave stakeholders a false sense of security as to evacuation, relocation, etc. Levee sponsors and stakeholders watch these websites numerous times daily during flood events and rely heavily on them.”

A member of the Missouri River Recovery Implementation Committee (Mr. RIC), he also testified regarding significant changes to the Corps’ long-term risk management adopted in collaboration with the USFWS in 2004 to protect endangered and threatened species, under the MRRP. These changes “....as mandated by Congress pursuant to the Endangered Species Act (ESA) and other acts such as the National Environmental Protection Act...played a major role in causing all the flooding since 2004, including 2019, flooding that would not have been as frequent and severe but for those changes.... While Mother Nature plays a role in providing water for flooding, the fact is that the manner in which that water is managed by the Corps plays a major role in whether that water ultimately results in the type of flooding that has been devastating the Midwest since the adoption and implementation of the MRRP in 2004.”

Hurst, a family farmer from Tarkio, is President of the Missouri Farm Bureau. His family raises row crops and operates a commercial greenhouse. Their farm had not been flooded, but an estimated “...187,000 acres have been flooded in four counties in northwest Missouri. As you know, this is extremely productive farmland with yields normally far above the state average. Most, if not all, of these acres will not be planted this growing season and we estimate the value of lost production of corn and soybeans alone at slightly over \$100 million, not including crops that were stored in bins and lost to the flood waters. Much has been said about this event, including criticism directed toward the U.S. Army Corps of Engineers (Corps). While there will be plenty of time to analyze if anything could’ve been done better, we’re thankful for the Corps’ efforts on several fronts, including positioning flood control gates at Gavins Point Dam to allow it to hold over two feet of extra water at Lewis and Clark Lake, and stopping releases from reservoirs in Kansas, the Osage River and Fort Randall Dam. These extraordinary measures undoubtedly prevented further damage.”

He concluded: “Going forward, government agencies and stakeholders should engage in renewed discussion on how to enhance flood control throughout the system. While virtually all the discussion has centered on the mainstem Missouri River regulated by dams, it’s worth noting this event primarily originated in the ‘unregulated’ portion of the basin, which produces just less than half of the average runoff into the Missouri River. Any discussion that ignores this important fact misses the mark. It’s time to redouble our efforts on providing lower Missouri River residents with an improved flood control system that can better withstand events of the magnitude we’re seeing in 2019.... Serious consideration must be given to increased upstream flood control storage, whether that be in the mainstem dams or on tributary projects. Any proposed change in flood control storage must also keep an eye toward times of drought, which the Missouri River system is just prone to.”⁵⁷

Damage/Levee Repairs

On April 26, Nebraska Governor Pete Ricketts, Kansas Lt. Governor Lynn Rogers, Iowa Governor Kim Reynolds, and Missouri Governor Mike Parson met for a second time with the Corps and the Federal Emergency Management Agency (FEMA) to assess flood damage along the Missouri River. They discussed regional solutions for flooding and levee repairs. Governor Ricketts said: “Over the past few weeks, Nebraskans have continued to recover and rebuild after the most widespread natural disaster in our state’s history. My fellow Governors and I have been urging the Corps to give states a role in river management. This meeting was a productive conversation discussing short-term, mid-term, and long-term plans to put people first and protect communities. I look forward to continued engagement as the Corps works to make positive changes.”⁵⁸

At a press conference following the meeting, Governor Ricketts said the states are considering a Missouri River management group of state representatives. He pointed, as an example, to the Mississippi River Commission, which recommends policy regarding flood control, navigation, and environmental projects.⁵⁹

Legislation

On May 21, Senator Josh Hawley (R-MO) introduced two bills related to the recent flooding on the Missouri River. The Corps Flood Control Civilian Advisory Council Act (S. 1565) would establish an advisory council composed of two representatives from each of the States of Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, and South Dakota, as well as representatives from the agriculture and river commerce industries, and any other industries as deemed appropriate. The members of the council will be appointed by the President based on recommendations of the Senators from those respective states. The advisory council is intended to last one year, and its purpose is to “develop recommendations on how to best revise the Missouri River Mainstem Reservoir System Master Water Control Manual to prioritize flood control and navigation.”

⁵⁷<https://www.epw.senate.gov/public/index.cfm/hearings?ID=298FB2A9-A163.-4238-92EA-C020221C797A>

⁵⁸<https://governor.nebraska.gov/press>

⁵⁹*Associated Press*, 4/26/19.

The second bill is the Missouri River Flood Control Prioritization Act (S. 1571), which would remove fish and wildlife as an authorized purpose of the Missouri River Mainstem Reservoir System, and would make flood control the highest priority. The bill directs the Corps to revise the Master Water Control Manual accordingly within 90 days.

Senator Hawley stated: “The Missouri River flooding has once again devastated our state and it’s clear something has to change. People who live along the river regularly deal with catastrophic flooding, simply because the Army Corps is acting under conflicting priorities. What’s more, farmers feel like they have been shut out and their voices don’t matter – and that is completely unacceptable. By introducing these bills, we can get at the root of the problem, demand change, and ensure the Army Corps prioritizes the safety and sustainability of our communities.” The bill was referred to the Committee on Environment and Public Works, but no further action was taken.

Rep. Sam Graves (R-MO) introduced the House companion bill Missouri River Flood Control Prioritization Act (H.R. 2174) and said: “Flood control must be the main priority on the Missouri River. People and property should always take precedent over fish and birds. Senator Hawley recognizes this and I’m thrilled that he is leading on this issue in the Senate. Working together, I’m hopeful that we can properly address the management priorities on the Missouri River, saving lives and livelihoods in the process.” Rep. Graves has introduced similar legislation deleting fish and wildlife as an authorized purpose, and elevating flood control as the highest priority at all times, over the past four Congresses since 2011. The bill was referred to the Subcommittee on Water Resources and Environment, but no further action was taken.

The WSWC supports a comprehensive study of the Missouri River Mainstem Reservoir System’s authorized purposes and related benefits before addressing priority uses. Maintaining fish and wildlife as an authorized purpose provides substantial recreational and economic activity, and the U.S. Fish and Wildlife Coordination Act requires the Corps to continue mitigating fish and wildlife habitat losses. Additionally, flood control, hydropower, and water supply have provided significant benefits, while navigation has decreased significantly in recent decades.

Upper Basin Runoff

On August 6, the Corps’ Northwestern Division said that July runoff in the Upper Missouri River Basin was 213% of average, due to heavy rainfall above Sioux City, SD. Gavins Point Dam releases are currently 70,000 cubic feet per second, nearly twice the average. John Remus, Chief of the Corps’ Missouri River Basin Water Management Division, said: “We will maintain Gavins Point releases at this rate to continue evacuating water from the Missouri River mainstem reservoir system.” Reservoir releases will continue to be above average for several months to ensure evacuation of all stored flood waters.

The Corps’ news release says: “The 2019 upper basin runoff forecast is 52.9 maf. If realized, this runoff total will be the second highest runoff in 121 years of record-keeping, only surpassed by 2011 (61.0 maf) and exceeding 49.0 maf observed in 1997. Total upper basin runoff through July 31 was 45.3 maf, exceeding the total upper basin runoff in 2018 of 42.1 maf.”

Weekly water management calls have included states, tribes, congressional delegations, local governments, and levee and drainage districts. The stakeholder calls have included “...a briefing from the National Weather Service’s Missouri Basin River Forecast Center, an update on the Missouri River mainstem reservoir system operations, and updates on the ongoing and planned flood recovery efforts in the Omaha and Kansas City Districts.”⁶⁰

On October 3, the Corps issued a news release indicating that Missouri River levels remain high. September runoff was 200% of normal in eastern Montana, much of North Dakota, portions of South Dakota, and northern Nebraska. The upper basin runoff forecast for 2019 is now 61.0 million acre-feet (maf), which would equal the highest runoff experienced in 2011, over 161 years of record-keeping. Water storage in the Missouri River mainstem reservoir system was 64.0 maf on October 1, which occupies 7.9 maf of the 16.3 maf flood control zone. Release rates remain high in an effort to evacuate the stored flood water before the 2020 flood season next spring. The continuous high river levels have hampered efforts to repair breached levees. The Corps has spent \$113 million on temporary repairs, with an estimated cost of \$1.1 billion over the next several years. The mainstem hydropower plants are projected to generate 13.3 billion kWh of electricity in 2019, compared to the long-term average of 9.4 billion kWh.⁶¹

Forecast Informed Reservoir Operations

On April 29, the Yuba Water Agency launched an initiative with the CalDWR and University of California San Diego’s Scripps Institution of Oceanography to improve storm and runoff forecasting and significantly reduce flood risk through enhanced operations of New Bullards Bar and Oroville Dams and Reservoirs. Yuba Water owns and operates New Bullards Bar Dam and CalDWR owns and operates Oroville Dam. Yuba already partners with CalDWR, the Corps and NWS, under the Forecast-Coordinated Operations Program, to minimize regional flood risk. The agencies all work together to coordinate flood releases during major storms. Forecast informed reservoir operations will elevate that work to the next level, significantly reducing flood risk. In dry and drought years, there is also the potential to improve water supply reliability.

This research initiative will supply information for the Corps to update the 1970s-era water control manuals, which dictate storm-season operations of both reservoirs. Yuba Water’s goal is to have a new water control manual approved about the same time as completion of construction of a new, planned secondary spillway at New Bullards Bar Dam, estimated for completion in 2024.

“The updated manuals, combined with the planned secondary spillway at New Bullards Bar, will help us maximize the value of that critical infrastructure improvement, enabling us to respond to changing climate conditions,” said Yuba Water General Manager Curt Aikens. “This will significantly improve our ability to operate the project in extreme events and help us more efficiently

⁶⁰<https://www.nwd.usace.army.mil/Media/News-Releases/Article/1927366/system-storage-has-peaked-gavins-point-releases-to-remain-at-high-levels-into-f/>

⁶¹[nwd.usace.army.mil/Media/News-Releases/](https://www.nwd.usace.army.mil/Media/News-Releases/); *WSJ* 10/7/19.

manage water for local farmers, ranchers and fisheries, as well as the 80% of Yuba County's population that relies on groundwater for their primary water supply.”

CalDWR Director Karla Nemeth said, “We’re excited to partner with Yuba Water Agency to modernize how our facilities are operated in this new reality under climate change. It’s important we collaborate as our infrastructure is part of a larger system and cannot operate in isolation. As California continues to adapt to the impacts of climate change, preparing our water system for intense storms and periods of drought is more critical than ever.”

Civil Works Program

Senate Environment and Public Works Committee Oversight Hearing

On May 8, the Senate Environment and Public Works Committee held an oversight hearing on the Corps’ Civil Works Program. Witnesses included: Assistant Secretary of the Army (Civil Works) R.D. James; Deputy Commanding General of Civil and Emergency Operations Scott Spellmon; Director of the Wyoming Office of Homeland Security Lynn Budd; and Chairman of the Louisiana Coastal Protection and Restoration Authority Board.

James and Spellmon said the Missouri River System needs a comprehensive flood-risk study to determine how the patchwork of federal and local levees, multipurpose reservoirs, dams, and other flood control protections can better work together, but the Corps needs Congressional approval, but a lot of work has already been done in the Missouri River basin that the Corps would be able to leverage in expediting the study before rebuilding and upgrading the system.

Senator Joni Ernst (R-IA) pushed for flood control as the “unquestioned, number one purpose of this system” to reduce damage from repeated flooding. James acknowledged the multiple purposes of Corps projects as authorized by Congress: “There’s got to be everything—environmental restoration, flood control, navigation, water supply, recreation, and so forth, particularly in reservoirs. But if you don’t assess and take care of the flood control first, the rest of it doesn’t matter because sooner or later you’re going to get wiped out, just like this year.”⁶²

Budd talked about the importance of partnerships in addressing floods. Streamgage data and SNOTEL monitoring are critical for forecasting and decision-making. “The network provides great information but is a mosaic of federal, state, and local contributors. Funding for maintaining the existing network is vital along with the expansion of the existing capabilities to include a more robust watershed assessment. Stream gauge funding at the federal level needs to be rethought. A clearer funding mission and expedited implementation would aid all users of this critical data.”

She pointed to the success of the Forecast Informed Reservoir Operations (FIRO) demonstration project at the Lake Mendocino reservoir in California, and supported the use of FIRO for the Glendo reservoir in Wyoming. “FIRO is a novel approach...where data from watershed

⁶²*E&E News*, May 9.

monitoring and modern weather and water forecasting are used to help water managers selectively retain or release water...in a manner that reflects current and forecasted conditions. With varying snow accumulations from year to year, use of FIRO will allow for more flexibility of storage and control of the reservoir water release. This allows for the holding of water when the downstream tributaries are already at capacity, and the conservation of water to extend the irrigation season for agricultural purposes and recreation with a constant focus on life safety priorities.”

Budd also talked about the importance of a sedimentation plan for Big Horn reservoir. “Recognizing sediment is having an impact on the capacity of this and other reservoirs, the removal of sediment ensures the restoration of active water capacity as originally designed. As reservoirs fill with sediment, the ability to successfully manage regular inflows as well as spring run-off is impaired, creating impacts to life-safety, agriculture production and recreational opportunities.”

Kline said: “Together the Corps and Louisiana’s Coastal Program can accomplish great things and be a model for the nation in terms of state and federal cooperation and in terms of a holistic, systems approach to coastal resilience. But both partners must be up to the task and given the resources to carry their part of the load. Congress and the Corps have got to find a way to fund flood protection projects before disaster strikes.” He noted several projects that were authorized for years, sometimes decades, before being fully funded. Additionally, the state’s share of state-federal costs to upgrade the hurricane protection system increased by 62% due to eight years of construction delays by the Corps. Louisiana is a flood-prone state, but it is also proactively approaching coastal protection and restoration in a way that accounts for the ecosystem, flood protection, and a sustained economy, “...and we need the federal government to be the best partner it can be in this mission.”

Kline said one of the fundamental causes of coastal land loss is a lack of sediment in wetlands. “Historically, natural flooding from the Mississippi and its [tributaries] provided regular influxes of new sediments to maintain wetland systems.” Projects to re-connect the river to the wetlands has helped build and sustain those lands and improve ecosystems.

He also pointed out that the Corps’ authorizations can be “too narrow and inflexible to meet the changing needs of an ecosystem... The Corps needs to be able to recognize [and more accurately calculate] the multiple benefits a project can deliver.” He also said that “...perhaps Congress should consider bringing back earmarks specific for hurricane protection, flood protection, and coastal restoration projects, so that proactive investments in flood risk mitigation can preempt the need for vastly larger investments in emergency response and disaster recovery.”

Revolutionize Corps Initiative and Objectives

On May 15, the Corps held a national level partner session in Washington, D.C. on progress towards implementing the Revolutionize Corps initiative and its objectives to: (1) accelerate project delivery; (2) transform financing and budgeting; and (3) improve permitting and regulation reform. The WSWC and about 30 other organizations representing a variety of interests participated in the session.

Attendees were generally supportive of the Corps' objectives and acknowledged efforts toward change at the top levels of the Corps, but noted that effective and consistent implementation at the local level – particularly for decisions delegated down to the lowest level – would require a deeper culture change across the agency. Attendees emphasized the need for two-way communication, better coordination with states and tribes, and a more transparent and involved process for developing and issuing Water Resource Development Act (WRDA) implementation guidance.

With respect to budgeting and financing, many organizations were supportive of a Corps WIFIA program, which has been authorized but not funded by Congress. They expressed interest and support for the Corps' five-year action plan and the transparency that would provide, but questioned the effectiveness of the plan when Congress only provides funding on an annual basis. Several organizations discussed concerns over current budget metrics that do not incentivize efficiency, a slow process for accepting contributed funds from non-Federal partners, and a cost-benefit analysis that does not consider benefits in a holistic way.

Regarding permitting and regulatory reform, some organizations noted that the One Federal Decision process was initially difficult and frustrating, but they believe there will be significant benefits going forward. A discussion on recent efforts in Arizona and Florida to assume CWA §404 authority prompted the observation that it would be helpful for other states if the Corps shared lessons learned and best practices. Attendees recommended improvements to tracking systems, including the addition of a system to track state §401 certifications and any other causes for project delays.

The Corps encouraged the organizations to continue the dialogue, to provide feedback and project-specific examples of successes or continuing issues under the Revolutionize initiative. Webinars were held on June 20 and June 28 to provide a similar overview of progress on the Revolutionize initiative and offer a forum for additional partners to join the conversation.⁶³

Clean Water Act - Section 401

On August 7, the Corps released its guidance on “Timeframes for Clean Water Act Section 401 Water Quality Certifications and Clarification of Waiver Responsibility.” The guidance applies to general and individual permits under CWA §404, Rivers and Harbors Act §9 and §10, and the Marine Protect, Research, and Sanctuaries Act §103.

The guidance notes that, although the CWA provides a maximum time of one year for a state agency to make a §401 certification, the default period of time under the Corps' regulations is 60 days, unless a shorter or longer time is deemed appropriate on a case by case basis. Any additional time granted for a §401 certification “should be the minimum amount of time necessary for the certifying agency to act.... If the certifying agency's request for additional time to act is not received

⁶³<https://www.usace.army.mil/Missions/Civil-Works/Infrastructure/revolutionize/>

before the 60-day period (or other reasonable time period established for the action) ends...” the §401 certification is waived.

District engineers are directed to re-evaluate any agreements with state agencies to establish new agreements consistent with this guidance, particularly where the certifying agency’s processing time frame exceeds 60 days. However, the guidance also allows for some flexibility for districts to develop agreements with alternative timeframes for issuing or waiving §401 certifications where the state agencies have their own regulations in place establishing application review timelines. Discretionary extensions may be granted for complex or atypical projects, large magnitude discharges, and public hearing requirements. However, extensions should not be granted for backlogs, under staffing, or public notice requirements.

The guidance establishes formal communication procedures between the Corps, the applicant, and the state agency, clarifying that the applicant needs to be in contact with the state agency. It also clarifies that the lead federal agency determines the timeframe for when a §401 certification waiver occurs.

Water Supply Rule

On August 22, the WGA sent a coalition letter to OMB Director Mick Mulvaney, regarding the review and finalization of the Corps’ proposed rulemaking, “Policy for Domestic, Municipal, and Industrial Water Supply Uses of Reservoir Projects” (Water Supply Rule). Other members of the coalition included the Conference of Western Attorneys General (CWAG), the National Water Supply Alliance (NWSA), and the WSWC.

The coalition notes continued concerns with the Corps’ proposed Water Supply Rule, including: (1) the federalism implications that trigger expanded state consultation requirements under Executive Order 13132, despite the Corps’ unsupported assertion to the contrary; (2) the preemptive effects on and interference with state laws and regulations governing the management, allocation, and protection of water resources; and (3) natural flows – waters that would have existed within the state without the Corps reservoirs – must be excluded from any Corps definition of “surplus water,” as such waters remain under the states’ authority.

The letter concludes: “We urge you to consider our substantive and procedural concerns as you analyze the Proposed Rule before its finalization.... We are ready to assist the Administration to ensure that all Corps reservoirs are operated in compliance with federal and state law.”

Also on August 22, members of the CWAG sent a letter to President Trump and OMB Director Mick Mulvaney, requesting them to direct the Corps to: “(1) withdraw its proposed ‘Water Supply Rule’; and (2) comply with federal statutes that expressly require the Corps to abide by state law in allocating water from Corps reservoirs for consumptive uses.” The Water Supply Rule is the Corps’ 2016 proposed rule, “Use of U.S. Army Corps of Engineers, Reservoir Projects for Domestic,

Municipal and Industrial Water Supply.”⁶⁴ The Water Supply Rule has not been finalized, but is on the regulatory agenda, currently anticipated to be completed at the beginning of 2020.

Signatories to the letter included attorneys general (AGs) from Alaska, Arizona, Colorado, Idaho, Montana, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. Although the proposed rule purports to update its policies pursuant to the Flood Control Act (FCA) and Water Supply Act (WSA), the AGs noted that the policies in the rule are directly contrary to express congressional policy declarations in those statutes. “If allowed to take effect, the Rule would effectively override these express congressional declarations, usurp the States’ exclusive authority to guide their water allocation and development, and eviscerate cooperative federalism principles that Congress has expressly and repeatedly affirmed.”

The AGs describe various provisions of the two statutes and subsequent court cases, noting that states have the right to appropriate their waters, and the United States may not question such appropriation unless it disturbs the navigability – and even then, the navigation servitude west of the 98th Meridian may not conflict with any beneficial consumptive use, present or future, of waters for domestic, municipal, stock water, irrigation, or mining purposes. The AGs noted that these principles are acknowledged to some degree in the supplementary information provided with the proposed rule – but this information would not be controlling. “The language of the Rule itself is what matters.”

The letter provides six illustrative examples of ways the proposed rule exceeds the Corps’ authority and seeks to usurp state power to control the allocation and distribution of their waters: (1) the Corps “unilaterally” declares that domestic, municipal, and industrial uses of water include any beneficial use and all uses of water, other than irrigation. The Corps’ reasoning is that states have different definitions for these uses of water, and the AGs point out that this is precisely the reason Congress has consistently required federal agencies to defer to state water law, to avoid the legal confusion of having state and federal water laws side by side; (2) the Corps’ limited definition of water rights to already-existing rights would impermissibly allow the Corps to preclude future water development or uses of water resources pursuant to state law; (3) the Corps’ blanket provision that the Corps may not become a party to any water rights dispute by virtue of a FCA or WSA contract is contrary to the provisions of the McCarran Amendment, which waives sovereign immunity for the adjudication or administration of rights on a river system. “The Rule cannot override the unambiguous language and intent of the McCarran Amendment, and the Corps cannot unilaterally immunize itself from a McCarran lawsuit;” (4) under the water laws of most western states, reservoir operators must usually obtain water rights even if they do not actually use the stored water but allocate or contract to those who do. The Rule’s declaration that the Corps shall not obtain water rights would unilaterally excuse the Corps from complying with any state law requirements. The AGs noted that non-consumptive flood control, hydropower, and navigation operations are not the same things as storing water in Corps reservoirs for consumptive beneficial uses; (5) the Rule’s accounting of inflows and losses for water supply storage are contrary to state laws defining how available water supply is to be distributed according to state water rights; and (6) the distinction

⁶⁴81 Fed Reg 91556

between “natural flows” and “stored water” is often crucial to distributing water under state water rights and state law. By ignoring this distinction, the Rule presumes the Corps has legal authority to allocate and distribute all the water that happens to flow through a Corps reservoir. This disregards private property rights and downstream senior water rights duly established under state law, and would result in a “taking” of those rights. “All the above conflicts, and more, are documented in attached comments submitted by the Western Governors’ Association and the Western States Water Council, on behalf of the governors of the 18 western states.”

The AGs noted that they are willing to engage with the Corps in a collaborative government-to-government discussion on how to address respective state and federal interests.

On September 16, a bipartisan group of 19 Western Senators sent a letter to the OMB to express strong opposition to the Corps’ proposed rulemaking regarding the use of Corps reservoir projects for domestic, municipal, and industrial water supply.⁶⁵ They urged respect for state and tribal authority, and reiterated the shared concerns recently expressed by the WGA, the CWAG, the NSW, the WSWC, and the National Water Resources Association (NWRA).

The Senators wrote: “As it relates to the arid Western states, Congress and the Courts have given clear and consistent deference to states for water allocation from statehood through the 1944 Flood Control Act (FCA) and the Water Supply Act (WSA) of 1958. In the Corps’ proposed regulation, it assumes water appropriation authority for all the waters surrounded by Corps property. In fact, this has been the practice since 2010 with the implementation of Real Estate Policy Letter 26 requiring water supply agreements. Prior to the 2010 policy and the current proposed rulemaking, all that was required in making a water withdrawal across Corps property was obtaining a real estate easement.”

The letter continues: “The Corps’ preferred alternative ignores both precedent and statute that the natural flows of the river remain squarely under the State’s jurisdiction, despite construction of Corps dams and reservoirs. Using the Missouri River as an example, as long as its flows continue to be greater than the overall use granted by the states, water users are not benefitting from storage in Corps reservoirs. Therefore, water users should not be required to obtain water supply agreements with the Corps or pay any fees. If flows are less than appropriated, the states take measures accordingly to reduce water use. Ultimately, the states are responsible and will take the appropriate action. It was never the intention of Congress to federalize all the water in our country’s major rivers. That should not change.” The Senators requested that the rule be withdrawn or at least revised to accommodate state and tribal input.

On September 24, Senator Kevin Cramer (R-ND), Chair, Fisheries, Water, and Wildlife Subcommittee, Environment and Public Works Committee, announced that R.D. James, Assistant Secretary of the Army (Civil Works) had ordered a halt on issuing a final Water Supply Rule (Use of Corps Reservoir Projects for Domestic, Municipal & Industrial Water Supply), to better integrate input from stakeholders. James’ September 23 memorandum directed the Commanding General,

⁶⁵81 Fed Reg 91556

Corps, to “...continue the ongoing consultation and coordination with the appropriate States, Tribes, stakeholders, etc. Following a minimum six-month delay for further coordination, I require a brief to include a summary of the comments received and the responses to comments.”

Senator Cramer said: “This is a major victory. The Corps’ preferred rule ignores both precedent and statute. It was never the intention of Congress to federalize the water in our country’s major rivers, and the final rule should reflect that. Now that the Corps has reluctantly given this reprieve and expanded the process, it is critical every stakeholder express their concerns and stand up for their rights in order to make the Corps better understand this issue and give us a better product.”

On September 16, Cramer and 18 other western senators sent a letter to OMB requesting the rule be delayed or withdrawn. The bipartisan letter was signed by Senators Martha McSally (R-AZ), Kyrsten Sinema (D-AZ), Michael Bennet (D-CO), Cory Gardner (R-CO), Mike Crapo (R-ID), James Rish (R-ID), Steve Daines (R-MT), John Hoeven (R-ND), John Thune (R-ND), James Inhofe (R-OK), James Lankford (R-OK), Jeff Merkley (D-OR), Ron Wyden (D-OR), Michael Rounds (R-SD), Ted Cruz (R-TX), John Cornyn (R-TX), John Barrasso (R-WY) and Michael Enzi (R-WY).

On October 31, James Dalton, Director of Civil Works, Corps, sent a letter to the CWAG regarding the proposed rulemaking on Use of Corps Reservoir Projects for Domestic, Municipal & Industrial Water Supply (Water Supply Rule). The letter acknowledges CWAG’s request for withdrawal of the proposed rule, and notes that the Office of the Assistant Secretary of the Army for Civil Works has halted the issuance of a final rule “...until the consultation process and coordination with interested States, Tribes and partners is complete.”

The letter also acknowledges CWAG’s request to ensure that the Corps complies with applicable requirements of state water laws, the Water Supply Act, and the Flood Control Act. “The proposed rule is intended to enhance the Corps’ ability to make its reservoirs available for water supply uses in a manner that is consistent with the authorized purposes of those reservoirs, and State and Tribal water rights. The rule is not intended to establish or define water rights, or interfere with State or Tribal prerogatives to allocate water.”

The letter continued: “In proposing this rule, the Corps seeks to explain and bring certainty to its practices under both statutes, and to respond to issues that have arisen in exercising these authorities, in order to take into account court decisions, legislative provisions, and other developments. The Corps does not, and would not under the proposed rule, issue, sell, adjudicate, or allocate water rights. We are interested in discussing further with States and Tribes how we could clarify or improve the proposed rule.”

Dalton notes that the Corps is reviewing public comments on the proposed rule and will be contacting CWAG for further opportunities to discuss concerns. The Corps will consider revisions to the proposed rule for submission of a final draft rule in 2020. The WSWC opposes any and all efforts that would diminish the primary and exclusive authority of states over the allocation of surface water.

Drought

National Integrated Drought Information System Reauthorization Act

On January 7, the President signed S.2200 into law, the National Integrated Drought Information System (NIDIS) Reauthorization Act.⁶⁶ The Senate passed the bipartisan legislation unanimously on December 18, and the House passed the bill on December 20 by a vote of 379-9. The WGA sent a letter supporting the bill last August.⁶⁷

The bill reauthorizes the NIDIS program,⁶⁸ and authorizes a gradual increase in appropriations, from \$13.5 million for FY2019 up to \$14.5 million in FY2023. The bill authorizes partnerships with the private sector to improve drought monitoring, forecasting, and communications. It directs the NOAA to develop a strategy for a national coordinated soil moisture monitoring network. It also expands the NIDIS program to include partnerships to improve seasonal to subseasonal precipitation and temperature forecasts, and low flow water predictions.

The bill reauthorizes the Weather Research and Forecasting Innovation Act. The bill authorizes gradual increases in appropriations, from \$26.5 million in FY2019 to \$28.5 million in FY2023 for the agriculture weather and climate information provisions.⁶⁹ For the Office of Oceanic and Atmospheric Research (OAR),⁷⁰ appropriations are authorized to gradually increase from \$136 million for FY2019 up to \$154 million in FY2023.

OAR is directed to expand the forecasting program by removing barriers and improving collaboration on numerical weather prediction, and creating a publicly accessible global weather research modeling system. NOAA is authorized to enter agreements to upgrade its computing capabilities, and to create pilot programs to assess new technology to improve processing speed, cybersecurity, and reliability. NOAA is also directed to analyze, test, plan, and evaluate the value and benefits of future data sources, including cost-effective or disaggregated satellite architectures and corresponding ground system elements, identified in NOAA's Satellite Observing System Architecture Study.

The bill authorizes the integration of ocean and coastal sensor data, with infrastructure necessary to share and analyze the data in real-time for predictive early warning systems. The NWS is directed to improve the Cooperative Observer Program—which includes observations of drought conditions, snow, and hazardous weather events—in coordination with states, the USFS, USDA, and USGS, to support existing programs and increase participation, to leverage opportunities to grow the network, and effective use of infrastructure and weather stations.

⁶⁶Pub. L. 115-423

⁶⁷*Western States Water*, #2311, August 31, 2018.

⁶⁸15 U.S.C. §313d

⁶⁹15 U.S.C. §8521

⁷⁰15 U.S.C. §8519

Funding for the National Harmful Algal Bloom (HAB) and Hypoxia Program, and the comprehensive research plan and action strategy, is authorized to continue at \$20.5 million a year through FY2023. The interagency task force is expanded to include the Corps. The bill also provides authority for the EPA or NOAA to declare, on their own initiative or at the request of a governor, that a HAB is an event of national significance. Considerations include toxicity, severity, relative size, geographic scope, economic impact, and potential to spread or cross municipal, state, or international boundaries. Once a declaration has been made, the federal agency is authorized to contribute funds up to a 50% cost share “for the purposes of assessing and mitigating the detrimental environmental, economic, subsistence use, and public health effects of the event of national significance.” Senator John Thune (R-SD), Chairman of the Senate Committee on Commerce, Science, and Transportation and sponsor of the bill, said: “I introduced this bill a little over a year ago as South Dakota farmers and ranchers were recovering from a significantly dry year, which resulted in drought conditions that affected large areas of the state. It was a good reminder that Congress must do everything it can to update and modernize drought tools like NIDIS, which our farmers and ranchers depend on to stay up-to-date and fully informed on drought conditions in their area.”

Drought/Irrigation/Water Use

“Water Wars That Defined The West Are Heading East,” was the title of an article on the front page of the Wall Street Journal on December 3. It observed, “Water stress, a hallmark of the American West, is spreading east.... Increasing competition for water is playing out across the Eastern U.S., a region more commonly associated with floods and hurricanes and one that was mostly a stranger, until recently, to the type of bitter interstate water disputes long seen in the West.... Eastern farmers’ rising thirst for water, together with urban growth and climate change, now is taxing water supplies and fueling legal fights that pit states against each other. The shift has exposed the region to changes in water supply occurring globally as swelling populations, surging industrial demand and warmer temperatures turn a resource seen as a natural right into a contested one....”

The article cites USGS sources indicating water use for irrigation from 1960 to 2015 increased the most in Arkansas, followed by Missouri, Mississippi and Florida. Every state east of the 100th Meridian experienced an increase in water use for irrigation, except Louisiana where it is unchanged. Irrigated acres in the East rose from zero in 1960 to over 15 million acres by 2015. Over the same time, irrigated acres in the West peaked before reaching 50 million acres about 1980, then declined before fluctuating somewhere above 45 million acres since the 1990s. Water use for irrigation in the West increased between 1960 and 2015 in Kansas, Nebraska, Montana, Oklahoma and Wyoming, but declined significantly in Texas, California, Washington and other western states. It was unchanged in New Mexico.

USGS estimated consumptive use of water withdrawn for irrigation nationwide for 2015, after dropping such estimates after 1995. All irrigation withdrawals were considered freshwater, and included irrigation of golf courses, parks, nurseries, turf farms, cemeteries, and other self-supplied

landscape-watering uses. Irrigation water use includes self-supplied withdrawals and deliveries from irrigation companies or districts, cooperatives, or governmental entities.

For 2015, total irrigation withdrawals were 118,000 million gallons per day (Mgal/d), which accounted for 42% of total freshwater withdrawals. Withdrawals from surface-water sources were 60,900 Mgal/d, which accounted for 52% of the total irrigation withdrawals. Groundwater withdrawals were 57,200 Mgal/d. About 63.5 million acres were irrigated in 2015, 34.7 million acres (55%) with sprinkler systems, 23.3 million acres with surface water flood systems, and 5.49 million acres with micro-irrigation systems. The national average application rate for 2015 was 2.09 acre-feet per acre.⁷¹

Sources of data for irrigation withdrawals and irrigated acres included state and federal crop reporting programs, irrigation districts, canal companies, incorporated management areas, satellite data depicting cropland landscapes, and evapotranspiration estimates. Withdrawals were estimated using information on irrigated crop acreages by crop type and specific crop water-consumption coefficients, or irrigation-system application rates, as well as soil-moisture balance models. Estimation methods varied from one state to the next and sometimes between geographic areas within a state. Estimation methods ideally included adjustments for climate, system efficiencies, conveyance losses, and other irrigation practices, such as pre-growing season irrigation, salt leaching, or frost protection. Other methods for estimating irrigation withdrawals included extrapolation of sample data on crop water-application rates or power-consumption coefficients.⁷²

Hydraulic Fracturing

California v. BLM

On June 3, the State of California filed a Motion for Summary Judgment in *California v. BLM et al.* (U.S. District Court in the Northern District of California, #18-521), regarding BLM's 2015 Fracking Rule rescinded by the Trump Administration. The State argued 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, asserting States do not have BLM's stewardship standards and trust responsibilities over federal lands.

In its decision to rescind the 2015 rule, BLM found that the rule would be duplicative of state and tribal rules, and would impose a costly and unnecessary burden on the industry. California's motion asserts that the BLM ignored the requirements of the Administrative Procedures Act (APA) and the NEPA. California argues 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. BLM must consider alternatives to completely repealing

⁷¹<https://doi.org/10.3133/cir1441>

⁷²https://www.usgs.gov/mission-areas/water-resources/science/irrigation-water-use?qt-science_center_objects=0#qt-science_center_objects

the rule, California argued, such as mitigating the parts of the rule that were duplicative and costly while keeping important environmental protections in place. California also pointed to the Obama Administration's assertions that the costs of compliance with the rule were minimal relative to both the expected revenues and the overall costs of construction and operation.

Although States and some tribes have laws and regulations addressing hydraulic fracturing, California argued that they fall short of BLM's 2015 rule. "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."

Indian Water Rights

Reclamation Water Settlement Fund/Funding Extension

On January 28, the NARF and WSWC wrote Senate Indian Affairs, Senate Energy and Natural Resources, and House Natural Resources Committee leaders declaring: "[W]e are writing to express our strong support for legislation securing future funding for tribal water rights settlements through a permanent extension of the transfer of dedicated revenues from the Reclamation Fund. Representing States and Tribes, we have a long history of working together to support the settlement of disputes that could otherwise lead to lengthy and unproductive litigation. Settlement of tribal water right claims is in the long-term interest of tribal and neighboring non-tribal communities, as well as the American taxpayers."

"Water in the West is often contentious, and competing claims to a limited resource create uncertainty that stands in the way of economic development in both tribal and non-tribal communities. 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 assist in resolving such conflicts. The settlement of Native American water and land claims is a federal trust obligation of vital importance, which can bring lasting 'peace to the valley.'"

"The Reclamation Fund is one authorized source of money to finance negotiated agreements through which Tribes waive water right claims and tribal breach of trust claims that otherwise could result in court-ordered judgments against the United States. Funding settlements is an obligation of the United States analogous to paying judgments rendered against it, and failure to fund settlements could lead to new or renewed litigation and increased costs for American taxpayers."

"We strongly support negotiated settlements of disputed Indian reserved water rights claims as the best solution to a critical problem that affects almost all Western States. We encourage you

to support a strong fiscal commitment to these settlements. We also urge you to support extending the current authorization to use revenues accruing to the Reclamation Fund for the Bureau of Reclamation to undertake project construction related to settlements. Thank you for your consideration.”

Indian Water Rights Settlement Extension Act

On March 28, House Natural Resources Committee Chair Raúl Grijalva (D-AZ) and Senator Tom Udall (D-NM), the Vice Chairman of the Senate Committee on Indian Affairs, introduced the Indian Water Rights Settlement Extension Act to fund water infrastructure projects in tribal communities. “In the West and in Indian Country, these settlements play a critical role in communities’ long-term economic sustainability. This legislation will provide predictable and reliable funding for current and future Indian water rights settlements, curtailing the use of securing water rights through costly litigation, while protecting the Bureau of Reclamation’s budget...the importance of providing certainty to our communities cannot be overstated,” said Udall. “Water is a basic necessity, and tribes shouldn’t have to fight for access to basic necessities,” Grijalva said. “This bill gives tribes the resources they need to build and improve their water systems, sustain cultural practices, improve health, welfare and agriculture, and help their economies grow.”

Tribal water settlements involve negotiations between tribes, the federal government, states, water districts, and private water users, among others, to determine specific terms of water allocation and use. Negotiated settlements are the preferred course for many tribes because they are often less lengthy and costly than litigation, are more flexible, and result in real “wet” water. However, tribes often cannot immediately get water delivered to their homelands without additional steps being taken to secure federal funding for water infrastructure. The Grijalva-Udall bill offers funding necessary to implement finalized settlements. Many tribes lack up-to-date water infrastructure, and some tribal members live without running water in their homes. This lack of infrastructure harms tribal health, educational outcomes, and overall economic development.

Congress created the Reclamation Water Settlement Fund (RWSF) in 2009 and directed deposits of \$120 million per year from 2020 through 2029. Most of that funding has already been committed to certain water rights settlements. The Act will extend funding so that additional tribal water settlements can be implemented. Support for extending the RWSF are: the National Congress of American Indians; NARF; Navajo Nation; the 20 Governors of the Sovereign Pueblo Nations of New Mexico and Texas; the Confederated Salish and Kootenai Tribes of the Flathead Nation; Fort Belknap Indian Community; Hualapai Tribe of Arizona; Tohono O’odham Nation; Ute Indian Tribe; WSWC; Association of California Water Agencies; California Association of Sanitation Agencies; Metropolitan Water District of Southern California; Salt River Project; Family Farm Alliance; and Truckee-Carson Irrigation District.

On April 4, the House Natural Resources Committee held a hearing on H.R. 1904, (Committee Chair Raúl Grijalva (D-AZ) introduced the bill on March 27) a bill to amend the Omnibus Public Land Management Act of 2009 (P.L. 111-11) to make the Reclamation Water Settlements Fund permanent. Beginning in FY2020, \$120 million a year for 10 years will be

transferred from the Reclamation Fund to the Reclamation Water Settlements Fund, with priorities set for certain tribes in New Mexico, Montana, and Arizona. The proposed legislation would remove the end date and enable funding of infrastructure for further authorized settlements. Senator Udall introduced a companion bill (S. 886) in the Senate.

Witnesses at the hearing included: Alan Mikkelsen, Senior Advisor to the Secretary, Water and Western Resource Issues, DOI; John Echohawk, Executive Director, NARF; Michelle Bushman, Legal Counsel, WSWC;⁷³ Dave Roberts, Associate General Manager for Water Resources, Salt River Project; and Edward D. Manuel, Chairman, Tohono O’odham Nation. The witnesses testified on the critical role that funding plays in implementing authorized Indian water rights settlements, providing greater water security for both Indian and non-Indian communities.

Echohawk reviewed the circumstances leading to the *Winters v. United States* decision and the federal reserved water rights doctrine. He said: “Our experience is that in most instances, tribal, state and federal water users are able to negotiate settlements which fairly allocate the available water.... We have learned that the most difficult part of achieving a settlement is getting the federal government to pay its fair share of the settlement cost.”

Mikkelsen emphasized the Administration’s support for settlements, adding that tribes need “...clean, reliable drinking water; repairs to dilapidated irrigation projects; and the development of other water infrastructure to bring economic development to reservations. States increasingly seek settlement of Indian water rights to provide certainty for holders of State-based water rights, clarify authority to manage water resources, and plan for the future.” He pointed out that settlements can be costly, and that costs have increased over the years. “Each of these settlements contain deadlines by which funding must be completed or the settlement fails and long standing, expensive, and disruptive litigation resumes. In addition to the statutory requirements to fund these settlements within prescribed timeframes, the availability of funding has implications for economic development in Indian and non-Indian communities and raises other human considerations and equity concerns.”

Manuel noted that “...the substantial difficulty in identifying and committing federal resources necessary to fully and fairly resolve water rights claims has led to uncertainty for tribes and non-Indians alike. This uncertainty is badly compounded by chronic under-funding of already enacted tribal water settlements. Given these realities, long-term, stable funding sources for water settlements are critical not only for tribes seeking water settlements, but also those facing implementation challenges with existing water settlements.”

On October 4, the Congressional Budget Office (CBO) issued its cost estimate for the Indian Water Rights Settlement Extension Act (S. 886), assuming that the bill is enacted near the end of 2019. The Senate Indian Affairs Committee approved an amended version of the bill on July 17. Rather than permanently extend the RWSF in 43 U.S.C. 407 as introduced, the amended version extends transfers from the Reclamation Fund to the RSFW an additional ten years, through FY2039.

⁷³See Michelle Bushman, WSWC Legal Counsel testimony on pg. 51.

The bill would transfer \$120 million each fiscal year from 2029-2039 from the Reclamation Fund (\$1.2 billion) to the RWSF for future Indian water settlements. CBO's report noted that, "As of 2019, 36 Indian water settlements have been federally approved, with total estimated costs – mostly for construction of new distribution facilities – in excess of \$5.8 billion." The report also indicated that the increases to on-budget deficits in any of the four consecutive 10-year periods beginning in 2030 will be less than \$5 billion.

Section 2 limits the amount that the Secretary of the Interior may spend on any one settlement to \$90 million 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 USBR 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 no longer be reserved in the RWSF. Those funds will be deposited instead into the Lower Colorado River Basin Development Fund (LCRBDF), with 65% of the funds deposited into the Future Indian Water Settlement Sub-account of the LCRBDF.

Section 3 of the amended bill modifies the Aamodt Litigation Settlement Act to accommodate unanticipated increases in construction costs and delays in completing the regional water system and the Pueblo water facilities. The modification requires the water distribution facilities to be substantially complete by 2028. The Aamodt Water Settlement is a priority project under 43 U.S.C. 407(c)(3)(B)(ii). CBO noted that the bill would increase the maximum authorized amount available to implement the Aamodt Water Settlement by \$137 million plus expected inflation (for a total of \$157 million).

Section 4 directs the Secretaries of Agriculture and the Interior to commence a study of the multipurpose dam described in the Upper Delaware and Tributaries Watershed Plan, developed in 1994 by the Kickapoo Tribe, certain watershed and conservation districts in Kansas, the Kansas Department of Wildlife and Parks, and the NRCS. The study is intended to result in recommendations to Congress on what changes to the Plan would effectuate the relevant portion of the 2016 Kickapoo Tribe Water Rights Settlement Agreement between Kansas and the tribe, which is still pending authorization by Congress.

Consolidated Appropriations Act

House R. 31, the final Fiscal Year 2019 (FY2019) appropriations package, was signed by the President on February 15, now Public Law 116-6.⁷⁴ The legislation provided funding for the DOI,

⁷⁴*Western States Water*, #2335, February 15, 2019.

including Indian Land and Water Claims Settlements and miscellaneous payments totaling just over \$50 million, ensuring that statutory deadlines for all authorized settlement agreements to date will be met. This includes \$21.7 million for the Navajo-Gallup Water Supply Project; \$14.4 million for the Blackfeet Water Rights Settlement; \$9.2 million for the Pechanga Band of Luiseno Mission Indians Water Rights Settlement; just over \$4 million for the Navajo Water Resources Development Trust Fund; and \$142,000 for the Pyramid Lake Water Rights Settlement.

Navajo Utah Water Rights Settlement Act

On April 11, Senator Mitt Romney (R-UT) introduced Navajo Utah Water Rights Settlement Act of 2019 (S. 1207), a bill to approve the Navajo-Utah water rights settlement. Senators Kyrsten Sinema (D-AZ) and Martha McSally (R-AZ) co-sponsored the bill. The settlement quantifies 81,500 acre-feet of water per year for the Navajo Nation from Utah's Colorado River Basin apportionment. The bill would authorize \$210 million in federal funding for infrastructure for the Utah portion of the Navajo Nation to access water. Utah has already approved its \$8 million contribution toward the settlement.

Romney noted the longstanding conflict over who has the right to water that flows through Utah and the northern Navajo Nation. "This conflict could have been resolved through a lengthy court process that would have cost millions of dollars and accomplished very little. Instead, we have come together to introduce legislation that will resolve this conflict by providing additional water for the Navajo Nation and for the people of Utah in a way that is good for everybody. At the same time it will provide needed infrastructure to the Navajo Nation for nearly half of the 5,000 citizens there that don't have running water. I'm proud to be joined by Senators McSally and Sinema, and I hope the Senate will take this up and pass it without delay so that we can keep the longstanding promise by the federal government to the Navajo Nation in Utah."

Navajo Nation President Jonathan Nez said, "Once approved, this will bring much needed water infrastructure into the communities of the Navajo Nation, within the state of Utah... We thank you all for your advocacy for the Navajo Nation as well as the entire state of Utah." Navajo Nation Vice President Myron Lizer said, "We have a lot of our citizens in Southeastern Utah on the Navajo Reservation that are without water, and they are so close to the San Juan River, they're so close to all the water in the Colorado Lower Basin, and yet we are without running water and the infrastructure. Water is very important, it's one of society's basic needs, and now in 2019 some of our people are getting water for the first time." The bill was placed on the Senate Legislative Calendar, but no further action was taken.

Agua Caliente/Groundwater

On April 19, the U.S. District Court for the Central District of California issued a decision in Phase II of *Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District, et al.* The decision grants the defendants' motions for summary judgment, which argued that the tribe does not have standing to assert its claims. The court agreed, noting that although there may be injury to the groundwater in the form of overdrafts and the practice of recharge with lower-quality Colorado River

water, the tribe has not demonstrated injury to its ability to use water of a sufficient quality or quantity to fulfill the purposes of the reservation. Similarly, the court held that the tribe did not demonstrate that the defendants interfered with the tribe's right to use the aquifer's pore spaces to store its reserved water rights.

During Phase I of the trifurcated case, the court held that the tribe's reserved water right extends to the groundwater underlying the reservation, and that groundwater is a water source available to fulfill that right. Phase II addressed quantification of that right to groundwater, whether the tribe has the right to receive groundwater of a certain quality, and whether defendants could be enjoined from infringing on the use of the pore spaces underlying the reservation. Phase III will address the limited question of whether the tribe owns the pore spaces of the aquifer to store its reserved water rights.

Hualapai Tribe Water Rights Settlement Act

On May 1, the Hualapai Tribe Water Rights Settlement Act was reintroduced in the House (H.R. 2459) and the Senate (S.1277). The bills are nearly identical to the versions introduced in the 115th Congress, with the exclusion of two of the original seven parcels of new land to be conveyed into trust for the benefit of the tribe. The bills 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 USBR 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 \$2 million, with \$134 million for construction of the water project, and \$32 million for operation and maintenance.

Rep. Tom O'Halleran (R-AZ), who introduced H.R. 2459, said: "Water is the lifeblood of communities throughout Arizona and across the region, and without it, economic development and growth is stalling.... This important legislation will give the Hualapai Tribe access to water from the Colorado River. Peach Springs and Grand Canyon West will be able to drive economic growth and create good-paying jobs in the area. I am pleased to see members of our delegation coming together in both the House of Representatives and the Senate to address this issue." Senator Martha McSally (R-AZ), who introduced S. 1277, noted that Grand Canyon West brings over a million visitors a year to Arizona, and the settlement boosts economic development and self-sufficiency, and provides fundamental long-term water security for the tribe.

Hualapai Tribal Chairman Dr. Damon Clarke said: "The Hualapai Tribe has worked for years to secure its water rights, and this critical legislation will strengthen our sovereignty and self-reliance for generations. We are grateful for the continued work of Arizona's congressional delegation, especially Sen. Martha McSally, Sen. Kyrsten Sinema, Rep. Tom O'Halleran and Rep. Paul Gosar. They have all been steadfast in their support of the Hualapai Tribe. As the Senate and House move this legislation forward, we await the day when we can finally secure these rights that are essential to the future of the Hualapai people." No further action was taken in 2019.

Aamodt Litigation Settlement Completion Act

On June 14, Rep. Ben Ray Lujan (D-NM) introduced the Aamodt Litigation Settlement Completion Act (H.R. 3292). On June 18, Senator Tom Udall (D-NM) introduced the companion bill (S. 1875). The Pueblos of Nambe, Pojoaque, San Ildefonso, and Tesuque were joined by Santa Fe County, the City of Santa Fe and the State of New Mexico to reach an agreement to address the current costs and construction timeline associated with the Pojoaque Regional Water System. The proposed legislation would ensure the USBR has sufficient funding and time to implement its obligations under the 2010 Aamodt Litigation Settlement Act and the related water rights case that began in 1966. The bill would amend the Aamodt Indian water rights settlement (P.L. 111-291), increasing the amount of funding available for construction costs of the Pueblo Water Facilities from \$106.4 million to \$256.4 million, and increasing funding for the regional water system from \$50 million to \$200 million.

During the settlement negotiations, the appraisal-level study of the project grossly underestimated costs, and the non-federal parties have agreed to contribute \$56 million to help address the shortfall, Mikkelsen testified at the Subcommittee hearing. He expressed concerns about the language of H.R. 3292, including the need to have consistent deadlines between the various governing documents, as well as a clear definition of “substantial completion” of the project.

In a press release, Governor Michelle Lujan Grisham said: “The state, the federal government and local entities are all in this together, and only by continuing to work together will we ensure the best possible result for the residents of the Pojoaque Valley.” State Engineer John D’Antonio said the legislation “...demonstrates the federal government’s commitment to provide its appropriate share of the cost for construction of the Regional Water System, a rural infrastructure project that will provide a reliable supply of potable water to both Pueblo and non-Pueblo residents in the Pojoaque Valley.” No further action was taken in 2019.

House Natural Resources Subcommittee on Water, Oceans, and Wildlife

On June 26, the House Natural Resources Subcommittee on Water, Oceans, and Wildlife held a hearing on the Navajo Utah Water Rights Settlement Act (H.R. 644), the Hualapai Tribe Water Rights Settlement Act (H.R. 2459), and the Aamodt Litigation Settlement Act (H.R. 3292). Witnesses included: Alan Mikkelsen, Senior Advisor to the Secretary of the Interior (DOI) on Water and Western Resource Issues; Chairman Damon Clarke, Hualapai Tribe; Director Thomas Buschatzke, Arizona Department of Water Resources; Norman Johnson, Natural Resources Division Chief, Utah Attorney General’s Office; and President Jonathan Nez, Navajo Nation.

Clarke provided context for the current Hualapai settlement, including the Tribe’s water shortages, water contamination, droughts affecting aquifer levels, and water supply for domestic, ranching, wildlife, and commercial uses. He reviewed the history of Phase 1 of the settlement, completed in 2014 under the Bill Williams River Water Rights Settlement Act (P.L. 113-223), and the Phase 2 agreement in 2016 that resolved all of the Tribe’s remaining water rights claims. The Tribe, the State of Arizona, the Salt River Project, the Central Arizona Water Conservation District,

and the Freeport Minerals Corporation are all signatories to the agreement. He summarized the elements of the settlement, including the federally reserved water rights claims, CAP water, groundwater, and \$134.5 million in federal funds to construct infrastructure to divert 3,414 acre-feet a year from the Colorado River through a 70-mile pipeline to the reservation. “Passage of this legislation is absolutely essential if our Tribe is to attain a secure future on our Reservation, to accommodate future growth of our population and to realize the full economic potential of our Reservation. We have done everything possible to provide jobs and income to our people in order to lift them out of poverty – but the lack of a secure and replenishable water supply on our Reservation is our major obstacle that prevents us from achieving economic self-sufficiency, a goal that Federal Indian policy has long favored.”

Mikkelsen recognized the substantial efforts of the parties to reach a settlement but called the provisions of the Hualapai settlement “untenable.” He expressed concerns about the bill: “(1) the waiver of protections for the federal reserved groundwater rights; (2) the size and cost of the project; (3) the accuracy of the cost estimate. The Department also believes there is a less costly alternative to supply water that warrants further assessment.” He said there are also concerns about the waiver of federal sovereign immunity. The settlement provisions that prohibit the Tribe from objecting to off-reservation groundwater use even if it interferes with reserved groundwater rights “...would establish a deleterious precedent in Arizona and throughout Indian Country.” The infrastructure plan includes intake, pumping and water plants “...that may not be used for 40-50 years, if ever, creating unnecessary operation, maintenance and repair costs and the need to replace facilities before they are even used.” He also noted that the DOI’s Criteria and Procedures require an analysis of whether the non-federal share of costs is proportionate to the benefits received, and that Arizona’s contribution “...is not commensurate with the benefit to the State of Arizona for a final settlement of all Hualapai water claims.”

Buschatzke addressed some of the concerns Mikkelsen raised, noting that the Tribe’s consultant estimated the costs for constructing the water supply project “...using the same methods that are used by the Bureau of Reclamation to estimate costs.” He said Arizona is opposed to a settlement that would require the Tribe to rely on groundwater, as that is contrary to the State’s policy of preserving groundwater supplies for periods of drought, and the groundwater would not be a dependable supply for the Tribe over the long-term like CAP water. He also pointed out that the non-federal contributions – including the State, Freeport, and the Tribe – amounts to 30% of the financial contributions of the settlement. The State estimates the cost of firming the 557.5 acre-feet of CAP water to be \$3.25 million.

Regarding the Navajo-Utah settlement, Nez said: “Without a negotiated settlement, conflict over these water rights could easily devolve into protracted, expensive, and divisive litigation. Choosing a more conciliatory and productive path, the State of Utah and the Navajo Nation devoted years to developing an agreement that would protect existing uses while at the same time guarantee the Navajo Nation a dedicated and perpetual supply of drinking water.” The bill authorizes \$210 million for a trust fund with two accounts, one for planning, design and construction of water development projects, and the other for operation and maintenance. The Navajo Nation Department of Water Resources produced a white paper proposing water development projects to address the

needs of Navajo communities in Utah. “[T]he Trust Fund approach in this legislation is unique and reduces fiscal impacts on the U.S. Treasury by eliminating the possibility Reclamation would need to seek funding for cost over-runs on projects authorized under the Settlement Agreement. Rather, the Trust Fund is held by Interior until the Nation seeks withdrawals from the account.... The Nation would be responsible for identifying upcoming projects and providing Interior with its management and expenditure plans.”

Johnson said: “I believe H.R. 644 is important to all Colorado River Basin states because the Navajo Nation’s water claims in the Basin are large and not fully quantified. All basin states benefit from having the Nation’s claims quantified within the allocation of the state where portions of the Nation are located. New Mexico has achieved this type of quantification in the past and Utah will do so with passage of this legislation.” He noted that the Nation’s waiver of legal claims against the United States justified the expenditure of federal funds, and that the money provided under the settlement would be used to fund drinking water projects in an area where “many Navajos lack the basic necessity of safe, clean drinking water.”

Mikkelsen said DOI supports the consensus language of S.1207 agreed to by Utah and the Nation, and H.R. 644 could be revised for consistency.

River Basins

Colorado River

Drought Contingency Plans

On February 6, DOI and the USBR published a notice in the *Federal Register*⁷⁵ requesting input from the Governors of the seven Colorado River Basin States seeking specific recommendations to reduce the risks from drought on the Colorado River System. Input was accepted for a 15-day period beginning March 4-19.

In response to declining reservoir storage, USBR and the Basin States have worked for several years across multiple administrations toward Drought Contingency Plans (DCPs), and made significant progress in 2018. “While unfinished, the Department takes particular cognizance of the fact that on January 31, 2019, the Arizona Legislature passed legislation authorizing the Arizona Department of Water Resources Director to execute the relevant interstate DCP agreements. Arizona is unique in the need for state legislative action to approve the DCPs, and this important step may indicate that finalization of the DCPs is imminent. While the Department supports the ongoing efforts of the Basin States and remains cautiously optimistic that the Basin States will successfully complete their efforts promptly in early 2019, the Department is highly concerned that continued delays regarding adoption of the DCPs inappropriately increases risk for all that rely on the waters of the Colorado River.”

⁷⁵84 Fed Reg 2244

In the absence of completed DCPs, DOI will incorporate its own actions to ensure stability of water supplies into the August 2019 determination of operations for Lakes Powell and Mead for 2020. However, further consultation and engagement with the Governors and their designated state representatives is appropriate. “The Department’s history and actions in recent decades fully reflect and underscore the importance of working closely with the Basin States in developing operational tools for management of the Colorado River.” DOI intends to share input from the Governors with tribes, interested parties, and the general public for review. In the event DOI proposes further action, it will provide an opportunity for input from tribes, interested parties, and the general public.

USBR Commissioner Brenda Burman said: “Nobody questions the growing risk and urgent need for action along the Colorado River. Completion of drought contingency plans is long overdue. Action is needed now. In the absence of consensus plans from the Basin states, the federal government must take action to protect the river and all who depend on it – farmers and cities across seven states.”

On February 19, the Arizona DCP Steering Committee held its ninth and final meeting to report on the status of the DCP, including a legislative recap, progress on the internal implementation agreements, and prospective Congressional approval. Arizona Department of Water Resources Director Tom Buschatzke provided an overview of the resolutions passed by the state legislature authorizing him to sign the Interstate DCP agreements on behalf of Arizona if: (1) federal legislation passes directing the Secretary of the Interior to execute and implement the DCP agreements; and (2) all parties other than the United States and Arizona have authorized the execution of the DCP agreements. Tom noted that most interstate parties have authorized that execution, “with perhaps the lone exception of the Imperial Irrigation District in California,” which has conditioned their authorization on Arizona and others signing first, as well as seeking federal assistance with Salton Sea concerns.

Tom also discussed legislative approval of Arizona’s intrastate implementation plan, including authorization for the Arizona Water Banking Authority to exchange existing long-term storage credits between Active Management Areas; increasing the accrual of credits and allowing them to be applied to assured water supply determinations; and also appropriating \$30 million for the Arizona System Conservation Fund and \$7 million for the Groundwater and Irrigation Efficiency Projects Fund.

Finally, Tom summarized Governor Doug Ducey’s Executive Order dissolving the Governor’s 2015 Water Augmentation Council, replacing it with the Water Augmentation, Innovation and Conservation Council. The new Council will include members from the previous Council, as well as legislative leadership. Tom noted that having members of the legislature participate on the Steering Committee has been very beneficial, and they hope to repeat that success on the new Council. Initially, the focus will be to carry forward the desalination and augmentation workgroups, look at additional conservation activities, and revisit the goals of the Active Management Areas.

Stephen Roe Lewis, Governor of the Gila River Indian Community, raised concerns about a bill introduced in the Arizona legislature on February 13 by Rep. Russell Bowers (R). HB2476 proposes to repeal forfeiture of water rights after five years of non-use. “If enacted into law, HB2476 would make Arizona the only state of the 16 that have nearly identical laws, to repeal such a fundamental principal of Western water law.” The tribe has recently sought to use the forfeiture laws in court to protect their water rights. He said the bill, “...undermines critical principles of Arizona water law, principles that have been enshrined in the state’s water code since Arizona became a state. Eliminating this core doctrine of beneficial use in time of extreme drought, solely for the purpose of protecting a small group of farmers who have sat on their rights, in some instances for decades, is the worst kind of water policy, and should be rejected by the legislature out of hand.” Governor Lewis said this proposed bill threatens the Community’s continued participation in the DCP process, although they have not yet decided to withdraw.

Rep. Bowers said: “The state of Arizona has never exercised a forfeiture action against a well owner, to my knowledge, period, until now.” He noted that he waited until after the legislature approved signing the DCP to introduce HB2467, and that he sees the two issues as separate. He added that it appears to him that the tribes will continue to pursue forfeiture actions, which cannot be exercised against tribal water rights for non-use. He said that protecting the thousands of well owners along the tributaries to the Gila River is the driver for introducing the bill, to prospectively address the use of forfeiture laws against water rights owners. He also pointed out that forfeiture laws are based on a premise of “use it or lose it,” and this does not make sense when Arizona is working toward water conservation. Rep. Bowers later put a hold on the bill, so it would not go forward.

On March 19, seven Colorado River Basin States Governors’ representatives and key water districts formally submitted DCPs to Congress for immediate consideration. Signing the letter requesting action were: Thomas Buschatzke, Director, Arizona Department of Water Resources; Peter Nelson, Chairman, Colorado River Board of California; L. James Eklund, Colorado Commissioner, Upper Colorado River Commission; John J. Entsminger, General Manager, Southern Nevada Water Authority; John D’Antonio, New Mexico State Engineer; Patrick Tyrrell, Wyoming State Engineer; and Eric Millis, Director, Utah Division of Water Resources.

The letter declared, “Over the past quarter century, the seven Basin States have worked together to better manage and share the waters of the Colorado River. Each Basin State has its own unique considerations and challenges. Historic dry conditions and the resulting decline in water supply in each of the States has contributed and will likely continue to contribute to significant economic, environmental and other impacts throughout the Basin. We support regional, state and local stakeholders in ongoing efforts to obtain federal funding through existing or future programs to help address those impacts. We appreciate your support in advancing federal legislation that would allow us to implement the DCPs upon our execution of those agreements.... We look forward to working with you in this critical effort.”

The DOI commended the Basin States and key water contractors on this important milestone. Given their successful efforts to reach consensus on the DCPs, the Department, by this statement,

terminates its request for input from the Colorado River Basin States, as the immediate completion and implementation of the DCPs demonstrates the best path forward to: a) reduce the risks the Colorado River Basin is facing, and that b) can be adopted prior to the August 2019 determinations of operations for Lake Powell and Lake Mead in 2020.⁷⁶

On March 22, the WSWC wrote the House Natural Resources Committee's Subcommittee on Water, Oceans and Wildlife and the Senate Energy and Natural Resources Committee's Subcommittee on Water and Power, expressing strong support for the DCPs and necessary legislation.

On March 28, the Subcommittee, Chaired by Rep. Jared Huffman (D-CA), held a hearing on the plan, with testimony presented by USBR Commissioner Brenda Burman, and each of the plan signatories (a March 27 hearing was held by the Senate Energy and Natural Resources Committee's Water and Power Subcommittee). Huffman noted the basin has been in drought for 19 years, leading to a decline in Lake Mead to the point it is hovering around levels (41% of capacity) that would trigger mandatory water use cuts. The river supplies water to 40 million people in major cities, as well as 29 tribes, irrigates 5.5 million acres and supports a \$25B outdoor recreation economy. "[That] is a lot riding on a river that since the turn of the century has seen an 18% decline in flows...."

Burman testified, "Collectively, these elements of drought response actions in the Upper Basin, Lower Basin and Mexico would cut the risk of Colorado River reservoirs reaching critically low elevations by approximately 50 percent. These are critically important actions and Interior believes these efforts need to be implemented this year to provide the maximum benefits in terms of water conservation opportunities and associated risk reduction."

Buschatzke stated, "The two DCPs work together to benefit the Colorado River system. The State of Arizona supports the implementation of both plans. The DCPs are the latest examples of the Seven Basin States working together with the Bureau of Reclamation to achieve agreed-upon solutions to issues facing the states regarding the Colorado River."

D'Antonio added, "The DCPs are needed and appropriate tools, developed by consensus between seven States, to reduce the negative impacts of this continuing drought on cities, farmers, Tribes, and the environment.... [T]he DCPs will be exercised within the constraints of existing environmental laws...."

Eklund declared, "Working together, we have developed a sound plan for protecting the storage in both Lake Powell and Lake Mead in the face of historic drought conditions and we have done so without infringing upon the water rights of those that rely on the Colorado River."

Entsminger observed, "The Southern Nevada Water Authority (SNWA) serves 2.2 million people in Southern Nevada – more than 70 percent of our State's total population. We are dependent

⁷⁶<https://www.usbr.gov/dcp/>

on the Colorado River for 90 percent of our municipal water supply. As the only major metropolitan city located on banks of the river, our community is highly aware that bold action is required – both inside our community and beyond the borders of our state – to respond to severe and sustained drought conditions affecting much of the American Southwest.”

Millis explained, “The Colorado River provides a significant amount of water to Utah, comprising approximately 22% of the State’s total water supply. This water is used largely by agriculture in the eastern part of the State, but is also the supply for the Central Utah Project, a trans-basin diversion which conveys water to the Wasatch Front.... Given needs, which will only increase over time, protection of this water supply for Utah water users is essential.... Involuntary curtailment is undesirable because it...would be financially devastating to businesses, individuals and communities....”

Nelson stated that implementation of the Lower Basin DCP this year would: “Provide operational certainty regarding Intentionally Created Surplus (ICS) conserved water supplies if Lake Mead declines below elevation 1,075 feet; reduce the risk of Lake Mead dropping below the critical elevation of 1,020 feet from over 40% without the DCP to about 5% with implementation of the DCP; and incentivize the conservation and storage of water in Lake Mead this year with the assurance of greater flexibility in storage and recovery of ICS supplies.”

Tyrrell concluded, “The Colorado River Basin needs the DCPs implemented now. [It] has experienced 19 years of drought. Our current operating rules cannot sufficiently address one of the worst drought cycles over the past 1,200 plus years. The entire system faces a crisis that cannot be remedied by one or two good water years. Two countries, seven states, ...an economy of \$1.4 trillion dollars per year, and all that rely on the Colorado River need a plan. They all need a plan now.”

On April 8, the House passed the Colorado River Drought Contingency Plan Authorization Act (H.R. 2030) by a voice vote, agreeing to bypass procedural hurdles to expedite passage of the bill. The same day, the Senate passed an identical bill (S. 1057). On April 9, the Senate received H.R. 2030, and following consideration, passed it by unanimous consent without amendment. On April 10, the bill was presented to the President for his signature.

House Natural Resources Committee Chair Raúl Grijalva (D-AZ) said: “This is a bipartisan, multi-state solution to a multi-state problem, and nothing should stand in the way of it becoming law as soon as possible.... The 40 million Americans of the Colorado River Basin need and expect swift action.” Ranking Member Rob Bishop (R-UT) said: “With the states’ work and today’s vote, we have passed a solution that saves a river that...irrigates vast amounts of farmland, and encourages clean, emissions-free hydropower.”

Senator Martha McSally (R-AZ) said: “By acting so quickly, the Lower Basin States will be able to immediately begin saving hundreds of thousands of acre-feet of water behind Hoover Dam, and this will dramatically reduce the risk of reaching critically low reservoir levels and ensure that Mexico’s water contribution to Lake Mead will be made beginning next year.” She noted the long,

intense period of drought over the past 19 years, and the risks to drinking water, irrigation, and hydropower as Lakes Powell and Mead reach levels where operational control of the Colorado River system could be lost. “These States put in a lot of hard work and sacrifice for the good of all who rely on the river. By doing this, they avoided having the Department of Interior directing draconian measures and cuts from the Federal Government.”

On May 20, seven Colorado River Basin state representatives gathered at Hoover Dam below Lake Mead and signed the completed DCPs for the Upper and Lower Colorado River Basins. USBR Commissioner Brenda Burman said: “This is an historic accomplishment for the Colorado River Basin. Adopting consensus-based drought contingency plans represents the best path toward safeguarding the single most important water resource in the western United States. These agreements represent tremendous collaboration, coordination and compromise from each basin state, American Indian tribes, and even the nation of Mexico.” Mexico agreed in 2017 to implement a Binational Water Scarcity Contingency Plan as part of Minute 323 to the 1944 U.S.-Mexico Water Treaty, but only if the U.S. adopted the DCPs.

Arizona Governor Doug Ducey said: “Today’s signing is victory for all Arizonans – and it should be looked to as a model for how to achieve the really big things. This historic effort brought people together from all sides – rural, urban, agriculture, industry, tribal communities, non-profits, cities, Democrats and Republicans. It involved input from multiple states, two countries and passage in both the state legislature and Congress. And we did it by putting party labels aside and putting people first. There’s a lot of credit to go around, and my thanks to everyone who worked to make this day possible. With DCP as the example, Arizona will continue to be a leader in doing the things that matter.”

Reservoir Water Levels

As of April 16, the Colorado Basin River Forecast Center in Salt Lake City, Utah projected that April-July unregulated inflows for major reservoirs in the Upper Colorado River Basin would be 102% of average for Fontenelle and Flaming Gorge, Blue Mesa 127%, McPhee 144%, and Navajo 119%. Lake Powell inflow is forecast at 9.2 million acre-feet (maf) or 128%.

On April 22, Lake Powell’s elevation was 3569 feet with live storage of 9.02 maf or 37% full. On the same date, Lake Mead in the Lower Basin was at an elevation of 1089 feet, holding 10.8 maf or 41% full. Under the 2007 Interim Guidelines, with current inflow projections, BOR anticipates normal releases from Lake Powell somewhere above 7.5 maf and as much as 9 maf. This would be a significant improvement over January 1 projections, and would likely forestall cuts in deliveries in the Lower Basin.

Tier 1 shortage conditions and reduced water deliveries from Lake Mead are triggered at an elevation of 1075 feet. Further reductions in deliveries would occur should Lake Mead drop to Tier 2 at elevation 1050 feet, or Tier 3 at elevation 1025 feet. At that level, agreed releases from Lake Powell would be 8.23 maf. Should Lake Mead fall below 1025 feet, minimum and maximum re-

leases from Lake Powell would be 7 to 9.5 maf. The DCPs legislation was signed by the President on April 16.

On August 15, the USBR released its Colorado River Basin 24-month study for August 2019, which sets the annual operations for Lakes Powell and Mead for 2020. Due to above average snowpack in the Upper Basin, Lake Powell's elevation has risen by 50 feet, and the total system storage is at 55% of its full capacity, up from 49% in August 2018. Reclamation estimates that it will release 8.23 million acre-feet of water from Lake Powell in 2020.

Lake Mead's elevation is projected to be 1089.4 feet in January 2020, about 14 feet above the shortage determination trigger of 1,075 feet. However, following the DCPs signed earlier this year, Arizona, Nevada, and Mexico will make water savings contributions to Lake Mead, at an elevation below 1,090 feet.

USBR Commissioner Brenda Burman said: "While we appreciate this year's above average snowpack, one good year doesn't mean the drought is over. We must remain vigilant. I applaud everyone who came together this year to get the drought contingency plans done. The additional actions under the contingency plans will help ensure the reliability of the Colorado River system for the 40 million people dependent upon it."⁷⁷

Colorado River Water Users Association

The Colorado River Water Users Association (CRWUA) held its annual meeting in Las Vegas on December 11-13, along with meetings of the Upper Colorado River Commission (UCRC) and the Colorado River Board of California. The first day began with a foundational primer, followed by panels on regulatory and augmentation topics with representation from the states, tribes, water districts and authorities, federal agencies, academics, and attorneys.

The second day provided an Upper and Lower Basin perspective on the DCPs. Panelists included Amy Haas, UCRC Executive Director; Rebecca Mitchell, Colorado; Steve Wolff, Wyoming; Tom Bushatzke, Arizona; Peter Nelson, Coachella Valley Water District; and Colby Pellegrino, Southern Nevada Water Authority. There were panel discussions on the 2007 interim guidelines, the science of climate change, tribal water rights, forecasting future water supplies (moderated by WSWC Chair Jeanine Jones, California), and a panel marking the 150th anniversary of the John Wesley Powell expedition down the Colorado River.

On December 13, DOI Secretary David Bernhardt praised the Upper and Lower Colorado River Basin leaders for their agreements on the DCPs for managing operations on the river in a dependable way. He said: "This year's historic agreements once again demonstrated that the best way to protect the Colorado River is collaboration and cooperation, not litigation. Looking ahead, we are eager to complete a review of our current operations by leveraging that collaborative approach

⁷⁷<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=67383>

to identify lessons learned from rules that have guided our operations since 2007.” Tom Buschatzke, Director, Arizona Department of Water Resources said building on collaborative efforts toward a more sustainable river is an “absolute necessity” and he applauded Bernhardt’s announcement “that the required review of the interim Guidelines will be expedited.”

The 2007 Interim Guidelines expire in 2026. The first step to develop new or updated guidelines is a review and report, which will be prepared by the USBR in coordination with states, tribes, other federal agencies, and non-governmental organizations. DOI expects to complete this review over the coming year, and the public will have the opportunity to provide input as the report is developed.

USBR Commissioner Brenda Burman said that in two weeks, for the first time, the river system will have voluntary water contributions from Arizona, Nevada, and Mexico, lowering the chance of crisis on the river. She also noted that renegotiating the 2007 Interim Guidelines would take patience, and that it was “not yet time to take up that task.” The states signed the DCPs in May, and they need some time to gain some operational experience as they implement those plans, she said. The parties will be looking at what has worked and what hasn’t since 2007, and considering ideas for improvements before starting the renegotiation process.

The final day also included U.S.-Mexico conversations with representatives of the International Boundary and Water Commission and Mexico’s National Water Commission (CONAGUA), as well as a panel of senior federal water officials on Improving Interagency Coordination for Water Supply Reliability that included: Dr. Tim Petty, Assistant Secretary of the Interior for Water and Science; Dr. Tim Gallaudet, Assistant Secretary for Oceans and Atmosphere, Department of Commerce; and Daniel Simmons, Assistant Secretary, Department of Energy, Office of Energy Efficiency and Renewable Energy.⁷⁸

Yakima River Basin

Water Rights Decree

On May 9, the Yakima County Superior Court entered a Final Decree in *Washington Department of Ecology v. Acquavella, et al.* (No. 77-2-01484-5). The Department of Ecology petitioned the court in 1977 to adjudicate the rights to surface water in the Yakima River Basin, which covers 31 tributary watersheds in the counties of Yakima, Kittitas, Klickitat, and Benton, and the lands of the Yakama Nation. Over the past 42 years, more than 4,000 claims were reviewed, and most of them date back to before 1917 when Washington’s first surface-water law was adopted. The Final Decree defines the relative priorities of about 2,300 water rights, including claims from individuals, irrigation districts, cities, tribes, and the USFS.

The Department of Ecology’s website said: “This has been the largest and longest water rights adjudication in the state’s history. It has long been known that water rights are

⁷⁸crwua.org

over-appropriated in the Yakima Basin, so it was important to establish who has water rights and the relative priority dates and quantities legally available to water users.” The federally reserved water rights for the Forest Service include priority dates of 1893 and 1907 for administrative buildings, fire prevention and protection, stock watering, dust abatement, road maintenance, pesticide application, power generation, and other forest reserve purposes. There are also Forest Service rights dating to 1964 for winter irrigation of over 470 acres for wildlife habitat and pasture. The Yakama Nation holds various reserved water rights for irrigation, stock, and wildlife dating to 1855, 1859, and 1905, as well as treaty water rights to maintain minimum instream flows for fish and wildlife with a priority date of time immemorial.⁷⁹

At the Yakima Adjudication Celebration on June 5, Ecology Director Maia Bellon said: “Today we celebrate the many bounties we receive from the Yakima River. Today I want to mark not just the legal aspects of adjudication, but pay our respects to the river.” She also thanked the Yakama Nation for their patience during the adjudication, noting that, “Today we are on the ancestral lands of the Yakama people.” Alan Reichman from the Washington Attorney General’s Office said that there were many reasons the case took so long, including the concerns of the leaders and citizens of the Yakama Nation over whether they would get fair treatment in a state court. “There was a lot of anxiety on both sides,” he said. “The Nation has become a partner with other stakeholders to work through the issues and figure out workable solutions.”⁸⁰

States

Alaska

Sturgeon v. Frost

On March 26, the U.S. Supreme Court issued its opinion in *Sturgeon v. Frost* (*Sturgeon II*). In 2016, the Supreme Court remanded *Sturgeon I* to consider the questions of (1) whether the Nation River qualifies as public land under the Alaska National Interest Lands Conservation Act (ANILCA), and (2) if not, does the National Park Service (NPS) have authority to regulate John Sturgeon’s hovercraft activities? The Court held that the answers to both questions is no.

Alaska, as other states, has title to and ownership of the lands beneath navigable waters, such as the Nation River, and that title brings with it regulatory authority over navigation, fishing, and other public uses of those waters. The NPS argued that the United States has a title to an interest in the Nation River under the reserved water rights doctrine, analogous to the interest in preserving water levels necessary for the survival of the pupfish at Devil’s Hole National Monument at issue in *Cappaert v. United States*. The NPS further asserted that Congress’ reservation of the park lands reserved interests in appurtenant navigable waters, with the purpose of safeguarding them against depletion and diversion. The Court disagreed, noting that reserved water rights are usufructuary in

⁷⁹<https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Adjudications/Ecology-v-Acquavella>.

⁸⁰*Yakima Herald-Republic*, 6/5/19.

nature, are not a title to the river itself, and any right to prevent depletion or diversion of the river is unrelated to the regulatory ban on hovercrafts.

Notably, the Supreme Court acknowledged: “If Sturgeon lived in any other State, his suit would not have a prayer of success.” The key issue was how to interpret the language and intended purposes of ANILCA, which made the inholdings of the NPS land in Alaska, including the navigable waters of the Nation River, the exception to the nationwide ban on hovercrafts in NPS parks.

Disaster Declaration

On August 23, Alaska Governor Michael Dunleavy issued a Disaster Declaration to free up financial assistance to address the impacts of wildfires from the McKinley, Deshka Landing, and Swan Lake Wildfires. Alaska’s National Guard, Department of Military and Veterans Affairs, Division of Forestry, Division of Homeland Security and Emergency Management, and non-governmental partners have supported the local jurisdictions in their efforts. Response to the wildfires has been hampered by drought, record dry fuels, strong winds, and low humidity. Governor Dunleavy said: “In a short amount of time, these wildfires have already cost dozens of Alaskan families everything they own. Many homes, personal belongings, and businesses are completely gone, and the disruption brought to their lives is unimaginable.”⁸¹

On August 26, the National Interagency Fire Center reported that 51 large fires have burned nearly 300,000 acres in 14 states, with three new fires reported in Texas and one in Wyoming. A high-pressure system over the Southwest is suppressing moisture and keeping conditions hot and dry. States currently reporting large fires include: Alaska (6); Arizona (8); California (5); Colorado (2); Idaho (5); Montana (4); Nevada (2); New Mexico (3); Oklahoma (1); Oregon (3); Texas (5); Utah (4); Washington (2); and Wyoming (1).⁸²

California

Wetland Definition/Water Quality Control Plan

The California State Water Resources Control Board (WRCB) is in the final stages of considering a proposed wetland definition in the forthcoming Water Quality Control Plan. The WRCB has worked on updating its policy for over ten years, noting the “...need to strengthen protection of waters of the state that are no longer protected under the Clean Water Act due to U.S. Supreme Court decisions....” The WRCB has historically relied on CWA protections in permitting discharges of dredged or fill material into waters of the state.

The proposed amendments are to provide greater consistency in requirements for wetlands and other waters of the state, as well as consistent analysis with regard to water quality certifications. They are also intended to improve protections for the quality and quantity of California wetlands.

⁸¹<https://gov.alaska.gov/newsroom/2019/08/23/governor-dunleavy-issues-disaster-declaration-for-wildfires/>

⁸²<https://www.nifc.gov/fireInfo/nfn.htm>

The amendments include: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the state; (3) wetland delineation procedures; and (4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The WRCB is scheduled to consider adoption of the definition and procedures at a meeting on March 5.

Oroville Dam

On April 2, the CalDWR released flows from the Oroville main spillway for the first time since it was reconstructed. The water released will make room for flood storage in the reservoir for additional forecasted storms and growing snowpack. After federal and state regulators determined that the spillway was performing as designed, CalDWR increased the releases later in the week. The spillway was damaged in 2017 after a series of winter storms and major atmospheric river events produced precipitation that exceeded Lake Oroville's storage capacity for the first time in its 50-year history.

CalDWR State Water Project Deputy Director Joel Ledesma said: "DWR has restored full functionality to the Oroville main spillway and is operating the reservoir to ensure public safety of those downstream. The Oroville main spillway was designed and constructed using 21st century engineering practices and under the oversight and guidance from state and federal regulators and independent experts." CalDWR Director Karla Nemeth said, "Protecting communities from flooding is a vital part of the Department's mission. Today we inaugurate the reconstructed spillway to serve that essential purpose and to prepare us for the future."

On May 6, Oroville reservoir was at 94% of capacity, and with above average precipitation and snowpack in the Sierras above the Feather River, the CalDWR is now managing reservoir levels in anticipation of spring inflow. The reservoir is approaching 890 feet in elevation, with full capacity at an elevation of about 900 feet. CalDWR operates Oroville to provide flood protection, water supply, flows for ecosystems and water quality, recreation benefits and hydropower. Releases through the Hyatt Powerplant now provide enough capacity to safely manage reservoir levels. CalDWR may need to use the newly reconstructed main spillway this spring to manage snowmelt runoff).⁸³

CalDWR's Division of Flood Management works with short-term and long-term forecasts issued daily by the NWS and the California-Nevada River Forecast Center. CalDWR managers then adjust their short-term and long-term reservoir plans real-time as forecasted conditions change. Reservoir levels are managed in coordination with other local, private, and federal reservoir operators including the Yuba Water Agency and the USBR. CalDWR operational adjustments are based on expected run off, releases from upstream facilities, weather forecasts, and downstream flow and water quality requirements.⁸⁴

⁸³*Western States Water*, #2231, February 17, 2017.

⁸⁴*CDWR Updates, A Reservoir Rising*, May 16.

Water Action Plan

On April 29, California Governor Gavin Newsom ordered California agencies to develop a new portfolio approach on water to protect the future health of communities and the environment. “California’s water challenges are daunting, from severely depleted groundwater basins to vulnerable infrastructure to unsafe drinking water in far too many communities. Climate change magnifies the risks,” said Newsom. “To meet these challenges, we need to harness the best in science, engineering and innovation to prepare for what’s ahead and ensure long-term water resilience and ecosystem health. We’ll need an all-of-above approach to get there.” A news release added to the range of existing challenges major flood risks threatening public safety, agricultural communities coping with uncertain water supplies and threatened native fish populations.

The Order “...declares water is a human right.” It also says, “Climate change is having a profound impact on water and other resources, making the climate warmer and more variable, which reduces mountain snowpack, intensifies drought and wildfires, and drives shorter, more intense wet seasons that worsen flooding.” With California continuing to grow and its population projected to reach 50 million in the next several decades, “...the future prosperity of our communities and the health of our environment depend on tackling pressing current water challenges while positioning California to meet broad water needs through the 21st Century.”

It continues, “Providing clean, dependable water supplies to communities, agriculture, and industry while restoring and maintaining the health of our watersheds is both necessary and possible. Achieving this goal requires a broad portfolio of collaborative strategies between government, sovereign tribes, local communities, water agencies, irrigation districts, environmental conservationists, academia, business and labor leaders, and other stakeholders.”

The order directs the Secretaries of the California Natural Resources Agency, California Environmental Protection Agency and the California Department of Food and Agriculture to reassess priorities in the 2016 California Water Action Plan, update projected climate change impacts, identify key priorities for the Newsom Administration’s water portfolio moving forward, and identify how to improve integration across state agencies to implement these priorities.

The agencies are directed to first inventory and assess: (1) existing demand for water on a statewide and regional basis and available water supply to address this demand; (2) existing water quality of our aquifers, rivers, lakes and beaches; (3) projected water needs in coming decades for communities, the economy and the environment; (4) anticipated impacts of climate change to water systems, including growing drought and flood risks, and other challenges to water supply reliability; (5) work underway to complete voluntary agreements for the Sacramento and San Joaquin river systems regarding flows and habitat; (6) current planning to modernize conveyance through the Bay Delta with a new single tunnel project; (7) expansion of the state’s drinking water program to ensure all communities have access to clean, safe and affordable drinking water; and (8) existing water policies, programs, and investments.

Any water resilience portfolio is to embody these principles: (1) prioritize multi-benefit approaches that meet multiple needs at once; (2) utilize natural infrastructure such as forests and floodplains; (3) embrace innovation and new technologies; (4) encourage regional approaches among water users sharing watersheds; (5) incorporate successful approaches from other parts of the world; (6) integrate investments, policies and programs across state government; and (7) strengthen partnerships with local, federal and tribal governments, water agencies and irrigation districts, and other stakeholders.

Water Reuse

On September 10, the WRCB authorized a program enabling a wastewater treatment plant to recycle up to 50,000 acre-feet per year of treated effluent to support agricultural lands and wildlife habitats. The Sacramento Regional County Sanitation District treats wastewater for 1.4 million residents in the region, and has used small recycled water projects for urban landscaping. The bulk of its treated wastewater is discharged to the Sacramento River. The District is constructing \$2 billion in plant upgrades to meet more stringent water quality requirements, to be completed in 2023. The District's South Sacramento Agriculture and Habitat Lands Recycled Water Program will use the treated water to replace groundwater pumping for irrigation, improve wetlands and riparian forests, create sandhill crane and vernal pool habitats, and increase flow in the Cosumes River for fall run Chinook salmon.

State Water Project/Central Valley Project

On December 14, the CalDWR and the USBR reached agreement on updating how the State Water Project (SWP) and Central Valley Water Project (CVP) are operated to meet environmental regulations. "The state and federal projects are intertwined, and we have a joint interest and responsibility to ensure our water system meets California's needs especially as conditions change," said CalDWR Director Karla Nemeth. The Coordinated Operation Agreement (COA) was originally signed in 1986 and defines how the state and federal water projects share water quality and environmental flow obligations imposed by regulatory agencies. The agreement calls for periodic review to determine whether updates are needed in light of changed conditions. After completing a joint review process, CalDWR and Reclamation agreed to an addendum to the COA to reflect water quality regulations, biological opinions and hydrology updated since the agreement was signed. The CalDWR and Reclamation also signed an agreement to formalize the cost sharing formula for projects needed to meet joint responsibilities under the ESA. The new agreement calls for costs to be shared equitably between the state and federal projects for work to meet joint responsibilities under the ESA, including monitoring and habitat restoration.

CalDWR Director Karla Nemeth said, "The operating agreement was supposed to be adjusted every five years. But in the 32 years since it was signed, no adjustments were made. In that same period, our water management challenges changed dramatically. During the record-breaking drought in 2014-2015, for example, it was evident that federal reservoirs simply did not have enough water to provide cold water for salmon in rivers upstream and freshwater flows for the Delta. The state needed to step in, and it did, releasing more water from state reservoirs to meet shared environmental

responsibilities and taking other measures. The updated agreement recognizes changed conditions since 1986, including hydrology and environmental regulations. The update also calls for more periodic reviews to reflect current conditions.”

Finally, the state and federal government agreed on how to move forward with the Delta conveyance project known as California WaterFix, an upgrade to the existing infrastructure that delivers water through the Delta that will improve environmental conditions and ensure reliable water supplies. According to Nemeth, “This agreement provides the opportunity for continued federal participation, but also describes how the project would operate if the federal government or Central Valley Project water contractors choose not to participate. California’s water management systems in the Sacramento-San Joaquin Delta watershed are complex. Agreements about how to manage them for water users and the environment take years to resolve and must be able to weather changes in state and federal administrations. That makes it essential to sustain coalitions to support this work so vital to California’s environment and economy.”⁸⁵

Colorado

Memorandum of Understanding/U.S. Forest Service

On October 23, Governor Jared Polis (D-CO) and USDA Under Secretary for Natural Resources and Environment Jim Hubbard, signed a Shared Stewardship Memorandum of Understanding. The agreement establishes a framework for collaboration for federal and state agencies to accomplish mutual goals and respond to ecological, natural resource, and recreational challenges for the 24 million acres of forest lands in Colorado. The agreement allows Colorado and the U.S. Forest Service (USFS) to “focus on priority, landscape-scale forest and grassland restoration activities that protect at-risk communities and watersheds across all lands.”

Polis said: “Our partnership with the U.S. Department of Agriculture Forest Service recognizes the need for our state, the federal government and private landowners to work together for the mutual benefit of Colorado’s ecosystems, forest health, and local communities. Together, we can work to protect and preserve the places we all love.”

Hubbard said: “We recognize that Colorado’s natural resources are threatened, and the challenges before us require a shared approach. Shared Stewardship is about setting cross-boundary priorities together to achieve landscape-scale outcomes. The Shared Stewardship Agreement reinvigorates a long-standing partnership between the USDA Forest Service and the State of Colorado.”

Dan Gibbs, Executive Director, Colorado Department of Natural Resources, said: “This agreement embodies Coloradans values towards our forests and lands by promoting healthy forests,

⁸⁵<https://water.ca.gov/News/Blog/2018/Dec-18/What-new-water-deals-mean-op-ed>

protecting our water and wildlife, and enhancing public access for all, and will establish closer coordination and cooperation with our federal partners.”⁸⁶

Other states have signed similar stewardship agreements with the Forest Service over the past year, including Idaho, New Mexico, Oregon, Utah, and Washington. Montana’s Director of the Department of Natural Resources and Conservation John Tubbs and Forestry Division Administrator Sonya Germann signed an agreement regarding shared stewardship, together with Forest Service Region One Forester Leanne Marten. Several other states have been actively working toward completion of state-Forest Service shared stewardship MOUs.

Kansas

Quivera National Wildlife Refuge

On July 30, the Kansas Department of Water Resources (KDWR) rejected a Local Enhanced Management Area (LEMA) plan to reduce water use and address declining streamflows. Groundwater pumping in the basin has impaired the water rights of the Quivera National Wildlife Refuge in central Kansas. Quivera spent decades of voluntary efforts trying to resolve its water right impairment concerns, then filed a formal complaint with KDWR in 2013. KDWR issued its impairment investigation report in 2015. Groundwater Management District 5 (GMD5) has been developing the LEMA plan since 2016, including a water augmentation project and the retirement of water rights in the high-impact area. Several technical and legal problems hinder the LEMA plan from meeting the core KDWR requirements to resolve the impairment.

David Barfield, KDWR Chief Engineer, said: “As matters currently stand, I can no longer delay action in the basin. It is now necessary for me to exercise my duties as Chief Engineer and take action to protect the senior water right owned by the U.S. Fish and Wildlife Service. Therefore, I intend to directly administer the basin by administrative orders issued on or around September 1, 2019, and to become effective on January 1, 2020. Our intention is to provide time for local irrigators to plan for the 2020 growing season.”

The water use reductions will be based on the seniority of water rights and their historic use, with older rights getting larger allocations, and average reductions will be less than 15%. KDWR will work with local water users to develop a Water Conservation Area for the flexible administration of water rights, including multi-year allocations and the ability to move allocations between water rights.

Barfield added, “While we have so far been unable to reach an agreement on how best to solve the impairment through this LEMA process, should GMD5 develop a viable LEMA plan in the future, we hope that it might be put in place and allow the administration orders to be lifted.”⁸⁷

⁸⁶<https://www.colorado.gov/governor/news/gov-polis-signs-shared-stewardship-memorandum-understanding-usda-and-dnr>

⁸⁷<http://kda-dwr-updates.org/%ef%bb%bfchief-engineers-action-on-gmd-5-lemma-plan-and-path-forward-on-quivera-impairment/>

Groundwater Conservation

On October 15, the Gove County District Court in western Kansas issued its decision in *Friesen v. Barfield* (2018-cv-000010). The Northwest Kansas Groundwater Management District No. 4 (GMD 4) adopted a Local Enhanced Management Area (LEMA) plan to aid in local conservation efforts to extend the life of the Ogallala Aquifer. Chief Engineer David Barfield, Kansas Department of Agriculture, approved the LEMA plan. Petitioner irrigators, who are required to reduce the amount of groundwater withdrawn over the next five years, appealed that decision, challenging the management plan and the constitutionality of the enabling statute.

The court reviewed the language of the applicable statutes, the authority granted to the chief engineer and the GMDs, the limitations on the scope of that authority, and the standards and procedural requirements that must be met to approve a LEMA plan. The court found that the "...GMD 4 District Wide LEMA should be upheld. The LEMA Plan restrictions do not appear to be unconstitutional on their face or as applied. There is substantial evidence backing the agency's decision and therefore it is not arbitrary or capricious."

The court found that the LEMA statute lawfully authorizes the chief engineer to place temporary limits on water right diversions under certain conditions. The GMD 4 LEMA plan restrictions are temporary, intended to decrease the amount of aquifer decline and allow the aquifer to recharge, and must be reviewed at a minimum every five years. Although irrigators are targeted for reductions unlike domestic, municipal, industrial, recreation, and power water users, the irrigators account for approximately 97% of all groundwater used in GMD 4. The court held that it was rational for the plan to diminish the amount of groundwater irrigators could withdraw, to allow other water users to make voluntary reductions, and that distinguishing between water users did not violate the right to equal protection under the law.

The court disagreed with the petitioners' argument that the LEMA statute was vague, noting that water conservation is a complex field, and the flexibility in the statute allows the chief engineer some, but not unlimited, discretion in approving LEMA plans. The court found that the public hearings, requirements to review specific criteria at the hearings, review by the Kansas Secretary of Agriculture, judicial review, and the fact that the GMD is an elected body that can be held accountable by eligible voters provides sufficient procedural safeguards against favoritism and arbitrary action.

The petitioners argued that other Kansas statutes required the application of the prior appropriation doctrine, and that the imposition of corrective controls under the LEMA plan directly conflicts with this doctrine. The defendants argued that the LEMA statute was written to authorize corrective controls that directly and unambiguously contravene that prior appropriation doctrine. Furthermore, the defendants argued that the prior appropriation doctrine only applies when there is not enough water to satisfy all appropriators. The court noted: "Currently there is enough water to satisfy all appropriators and the corrective controls are only a preemptive measure to prevent a scenario in which prior appropriation would have to be used. Whether this argument holds water is based on whether to read" the statutes individually or together.

New Mexico

MOU/USFS

On November 14, Governor Michelle Lujan Grisham (D-NM) and USFS Chief Vicki Christiansen also signed a shared stewardship agreement to collaboratively address issues of wildfires, drought, and invasive species. Lujan Grisham said: “Our tendency has been to focus on our authorities and our independence and our disagreements, which means we never solve them. We actually spent some time this morning talking about solving problems and recognizing that we’ve got lots of businesses and New Mexicans that need different access to the forests, who care about the habitat and endangered species.” She also said the agreement would provide some predictability about what funds could be spent and how they could accomplish work together. The agreement also allows cooperative management of the watershed, which is affected by the condition of the forests.⁸⁸

Oregon

Clean Water Act/Clean Air Act

Governor Kate Brown (D) proposed new state legislation to adopt past standards under the Clean Air Act and the CWA into state law, to stop the federal government from threatening Oregon’s environmental safeguards. “Since the 1970s, clean air and clean water standards have advanced to reflect the science and protect people. For the first time in history, these standards are being rolled back and we now face threats to the basic underpinnings of the Clean Air Act and Clean Water Act themselves. The Oregon Environmental Protection Act ensures that the federal environmental standards of the Clean Air and Clean Water Acts that were in place and effective as of January 19, 2017, before President Trump took office, shall remain in effect and be enforceable under state law even if the federal government rolls back these standards. Oregonians must be able to rely on the protections for clean air and clean water that they have come to expect.”

The Governor’s plan would clarify that the 2015 Clean Water Rule (Waters of the United States or WOTUS) applies in Oregon, “...protecting our treasured navigable lakes, rivers, and streams from pollution.” EPA’s Clean Water Rule is intended to clarify which water bodies (rivers, lakes, streams, and wetlands) are under federal jurisdiction and protected by the CWA, and delegated federal authority, and which waters are under state control. The proposed legislation would extend state protection to rivers and streams where federal jurisdiction was previously unclear. Exemptions for agricultural areas, including ditches and fields, would be extended under state authority.

On February 5, the Oregon House Committee on Energy and Environment held hearings on H.B. 2250, a bill to adopt into state law the federal environmental standards under the CWA and Clean Air Act as in effect on January 19, 2017, before President Trump took office. Governor Kate Brown, who proposed the bill, testified at the hearing, along with testimony from the Oregon

⁸⁸*U.S. News*; and *KRQE Media*, 11/14/19.

Department of Environmental Quality, the Oregon Health Authority, Oregon Environmental Council, Oregon Farm Bureau, and Oregon Business and Industry.

Governor Brown has noted that both federal statutes work under a model of cooperative federalism, and that the states can adopt standards more protective than the federal standards. She pointed out that businesses have already made investments to meet the stricter standards, and that states are well positioned to take a leadership role in protecting clean air and clean water, and preventing the erosion of core environmental laws.

Washington

Drought

On April 4, Washington Governor Jay Inslee declared a drought emergency for the Okanogan, Methow and Upper Yakima basins. Despite significant snow in parts of Washington, water supply shortages are projected in these basins. The Washington Department of Ecology forecasts summer water supplies using data from state and federal agencies. The Methow is projected at 72% of normal, while the Okanogan is expected to be 58% of normal, and the Upper Yakima at 74%. These areas are prime agricultural regions facing crop losses this spring and summer. “We must take steps to ensure that Washingtonians have the water they need to sustain their farms and livestock,” Inslee said. “Climate change means that we will continue to see lower water supplies all over the state and we need to plan now for the impact.”

Watching the water supplies in North Central Washington, Ecology Director Maia Bellon said, “By declaring a drought emergency, we can offer vital support to these communities. We also empower our partner state agencies and local conservation and irrigation districts to provide a range of emergency services.” The coming months are forecast to be warmer and drier than normal, and Ecology will continue to closely monitor other watersheds of concern such as the east slope of the Cascades and the Olympic Peninsula.

The Washington State Department of Agriculture has advised growers to prepare and plan for limited water supplies. Many high-value crops such as apples, berries, pears, cherries and wine grapes could be at risk. Ecology is requesting \$2 million from the state Office of Financial Management for drought response programs. This could fund projects like: installing emergency facilities; providing water leasing; and supporting operational changes to move water through tributaries and support salmon survival.

Washington expects to have more frequent droughts as the climate warms. To proactively meet the needs of the state’s rural communities, farmers and fish during droughts, Ecology has asked the Legislature to modernize the state’s decades-old drought laws.⁸⁹

⁸⁹ecology.wa.gov/drought

Water Supply Outlook

On February 14, the USDA's NRCS reported record snow in parts of Washington, and wetter-than-normal weather dominating most of the country. Reservoirs were at or above normal storage, as of February 1, in California, Idaho, Montana, Nevada, Utah, and Wyoming. Reservoirs remain below average in Arizona, Colorado, New Mexico, Oregon, and Washington. Extreme drought conditions persist in the Four Corners area of Arizona, Colorado, New Mexico, and Utah, as well as central Oregon.

On February 28, the NRCS reported record-breaking snow depths across the western mountains. Flagstaff, Arizona broke a 100-year snowfall record, measurable snow fell in Las Vegas, Nevada and Tucson, Arizona, and New Mexico experienced a "snow tornado." Heavy precipitation affected parts of northern California and Oregon, prompting Governors Gavin Newsom (D-CA) and Kate Brown (D-OR) to declare states of emergency for flooding.

Late winter storms have eased the severity of recent drought and bolstered high-elevation snowpack, improving spring and summer runoff prospects in various parts of the West. SNOTEL Network measurements indicate that much of the West is between 100%-150% of average precipitation based on a 30-year average. However, parts of Wyoming, northern Idaho, Washington, and Oregon were still experiencing below average precipitation. According to the CalDWR, the average water content of the Sierra Nevada snowpack increased from 17 inches at the beginning of February, to 30 inches by mid-February.

A historic spring storm blew across much of the West on March 11-15. By March 12, Governor Pete Ricketts had declared much of eastern Nebraska under a state of emergency, trying to cope with historic flooding. On March 13, Spencer Dam on the Niobrara River in northeast Nebraska failed, causing severe flooding downstream. The rushing water caused significant damage downstream, washing out parts of U.S. 281, other roads and bridges, as well as parts of the runway at Offutt Air Force Base. With the river raging, there were mandatory evacuations in Boyd and Knox Counties.

Governor Ricketts surveyed the historic flooding and damage with the Nebraska National Guard, and the Nebraska Emergency Management Agency to gauge the total damage from the severe weather. The Red Cross, community centers and churches helped displaced persons and families with food, water and shelter, working with local, state and federal officials to provide assistance.

Jessica Blunden, with NOAA's National Centers for Environmental Information (NCEI), reported March 14, that December 2018-February 2019 was the wettest winter on record for the contiguous U.S. as a whole. March storms continued to bring heavy snow and rain, "piling on snowpack and filling reservoirs in the West." Heavy snows fell across high elevations from California to the Rockies and beyond across the Plains States into the Upper Great Lakes, with heavy rains from Southern California to the Tennessee Valley. Some small pockets of drought persisted, primarily in northwest New Mexico. Reservoir storage as a percent of average is well below average in New Mexico for March 1, and below average in Arizona, Colorado, Oregon and Washington.

NOAA's Office of Water Prediction maps showed high elevated snow depths at 100 – nearly 200 inches across much of the Cascades and Sierra Nevada ranges and the Rockies. Northwest snows have erased severe to extreme drought across Washington and Idaho, with some moderate drought remaining in Oregon. For 2019, through March 13, the U.S. Secretary of Agriculture had recognized drought designations in 56 counties across Arizona, California, Colorado, Nevada, New Mexico and Oregon, as well as 82 contiguous counties, including some in Idaho and Texas. The Drought Monitor shows only 6% of the U.S. experiencing moderate to exceptional drought.

The NWS reported 4.2 inches of snow fell March 12 at the Ely Airport in Nevada's White Pine County breaking the old record of 4 inches set in 1898. A winter weather advisory was in effect through March 14, for much of north-central Utah and the southern Wasatch Front, with 1 to 3 inches of snow along the I-15 corridor.

On March 13, along the Front Range in Colorado, a "bomb cyclone" unleashed 80-mile per hour (mph) winds, equivalent to a Category 1 hurricane, shutting down Denver International Airport and leading to the cancellation of hundreds of flights March 14. Schools closed, accidents snarled traffic along I-25, and thousands of homes lost power. A 97-mph wind gust equivalent to a Category 2 hurricane was recorded in Colorado Springs. Such storms intensify very quickly, a process called bombogenesis, with barometric pressure falling rapidly.

The massive early spring storm stretched across Colorado, Wyoming, Montana, North and South Dakota, and Nebraska with between 1-2 feet of snow and blowing blizzard conditions. Heavy rain, snow melt, and ice jams on rivers produced widespread flooding across the Upper Midwest.

RESOLUTIONS AND POLICY POSITIONS

From time to time, the WSWC adopts policy positions and resolutions, many of which address proposed federal laws, rules and regulations or other matters affecting the planning, conservation, development, management, and protection of western water resources. Policy positions sunset after three years, and are then reconsidered, reaffirmed, revised and readopted, or allowed to expire. All WSWC positions are also vetted through the WGA.

In 2019, the WSWC adopted one new position (No. 434) and revised and re-adopted numerous sunseting positions:

Position No. 432, supports federal and state legislative and administrative actions to authorize and implement rural water supply projects and programs that enhance water supplies and promote economic development, through streamlined permitting processes and appropriate financing instruments, while protecting environmental resources and taxpayers.

Position No. 433, supports federal legislative and administrative actions to authorize and implement reasonable hydropower projects and programs that enhance our electric generation capacity and promote economic development, through efficient permitting processes, while appropriately protecting environmental resources and respecting States' 401 certification authority under the CWA.

Position No. 434, supports interagency coordination between the Federal Communications Commission (FCC), NOAA and other state and federal agencies, to preserve radio frequencies necessary for weather forecasting and water and emergency management.

Position No. 435, supports current and future needs to improve S2S forecasting and extreme events response and resiliency.

Position No. 436, states that the WSWC “opposes any and all efforts that would diminish the primary and exclusive authority of states over the allocation of water resources used in hydraulic fracturing.”

Position No. 437, urges the Administration and Congress to support water research and development programs at the Department of Energy National Laboratories.

Position No. 438, urges the Administration and NASA to enhance focus on research for water resources applications and promote long term engagement with the WSWC.

Position No. 439, continues support for implementation of the Science and Engineering to Comprehensively Understand and Responsibly Enhance (SECURE) Water Act.

Position No. 440, urges Congress to reaffirm deference to state water law in the administration and adjudication of all water rights, and pass legislation that requires the federal government to pay applicable fees for the appropriation, use, and distribution of water rights to the same extent as all other persons.



Position No. 432
(see also Position No. 390, 3/22/16 and
Position No. 350, 4/5/2013)

**POSITION STATEMENT
of the
WESTERN STATES WATER COUNCIL
in support of
RURAL WATER INFRASTRUCTURE NEEDS & PROJECTS
Chandler, Arizona
March 22, 2019**

WHEREAS, much of the West is characterized by its aridity and drought which highlights the fact that water availability is an ever present constraint defining our economic and environmental well-being and quality of life; and

WHEREAS, this is particularly true for many small rural communities struggling to meet future water supply needs and comply with present federal mandates; and

WHEREAS, the Bureau of Reclamation's rural water program seeks to identify rural water needs and evaluate rural water supply projects and the demand for new projects; and

WHEREAS, in 2014, the Bureau of Reclamation working with other federal agencies and the Western States Water Council estimated the demand for potable water supply systems in rural areas of the 17 western States to be in the range of \$5 billion to \$9 billion for non-Indian projects and approximately \$1.5 billion for specific Indian water supply projects; and

WHEREAS, Reclamation also estimated that the cost to complete currently authorized projects that are under construction rose from \$2 billion originally authorized to \$2.4 billion in 2014, and continues rising, and that given past levels of funding these priority projects will not likely be completed until well after 2065 at a cost of more than \$5.8 billion; and

WHEREAS, Reclamation has not requested funds for grants to undertake additional appraisal investigations or feasibility studies for new rural water projects, given the significant authorized backlog and lack of federal funding; and

WHEREAS, there is an important role for the States in the conduct of appraisal investigations and feasibility studies, preparation of feasibility reports, and identifying funding sources; and

WHEREAS, with respect to funding sources, we continue to strongly support the expenditure of Reclamation Fund revenues for their intended purposes, including rural water projects, as authorized by the Congress; and

WHEREAS, USDA's Rural Development is a leader in helping rural communities with populations of 10,000 or less, including native Alaskan villages, tribal lands and colonias; and

WHEREAS, Rural Development's Water & Environmental Programs (WEP) invest billions to help rural communities improve quality of life and increase economic opportunities through technical assistance and financing to develop safe drinking water, wastewater and sanitary waste disposal systems; and

WHEREAS, WEP provides water and waste disposal grants, loans, loan guarantees, predevelopment planning grants, revolving loan funds, technical assistance and training grants, emergency community water assistance grants, and a circuit rider program, as well as individual water and wastewater grants and household water well system grants; and

WHEREAS, existing federal and state rural water and wastewater programs must be coordinated to facilitate the most efficient and effective solution to meeting the water needs of non-Federal project sponsors; and

WHEREAS, upgrading and replacing inadequate rural water systems may require finding new water supplies, which will entail acquiring necessary state water rights; and

WHEREAS, continuing compliance with state water laws and interstate compacts is vital; and

WHEREAS, opportunities exist to leverage non-federal funding through federal loan guarantees and other financial instruments to ensure that water districts can access private sources of financing; and

WHEREAS, water districts and individual water users depend on federal and non-federal infrastructure for their livelihood and the risk of default is minimal.

NOW THEREFORE BE IT RESOLVED that the Western States Water Council supports federal and state legislative and administrative actions to authorize and implement rural water supply projects and programs that enhance water supplies and promote economic development, through streamlined permitting processes and appropriate financing instruments, while appropriately protecting environmental resources and taxpayers.

BE IT FURTHER RESOLVED that the Western States Water Council also supports the development and implementation of appropriate soil, water and watershed conservation programs at all levels to minimize demands placed on our natural resources and ecosystems.

BE IT FURTHER RESOLVED that rural water project development should recognize and ensure consistency with state water law and regulatory authority.



Position #433
Revised and Readopted
(see former Positions No. 391, 3/22/2016 and
No. 351, 4/5/2013)

POSITION STATEMENT
of the
WESTERN STATES WATER COUNCIL
in support of
RENEWABLE HYDROPOWER DEVELOPMENT
Chandler, Arizona
March 22, 2019

WHEREAS, the water and hydropower resources of the West have been developed through partnerships between energy and water users, and continue to be inextricably connected; and

WHEREAS, clean, efficient, inexpensive hydropower is a vital part of the energy resources needed to meet our present and future energy demands; and

WHEREAS, hydropower is the primary source of renewable electricity in the United States, representing about 48% of total renewable electricity generation, with approximately 101 gigawatts (GW) of capacity and nearly 7% of total electricity generation; and

WHEREAS, the potential exists for further public and private development of this valuable resource, including upgrading existing generators, developing small hydro and the power potential from low-head hydro on existing man-made conduits and canals, as well as hydroelectric pumped storage projects; and

WHEREAS, such development can often be undertaken with little impact on the environmental and important ecological resources, requiring minimal further environmental review; and

WHEREAS, permitting requirements may be appropriately minimized and streamlined so as to promote reasonable development while avoiding unnecessary costs; and

WHEREAS, the future development of potential hydropower resources should be appropriately undertaken in compliance with substantive and procedural state water law and interstate compacts, and consistent with the States' authority under Clean Water Act Section 401; and

WHEREAS, the rights and preference privileges of existing water and power users should be respected; and

WHEREAS, federal legislation has from time to time been introduced to further authorize and promote the wise and sustainable development of our renewable hydropower resources, also creating jobs and reducing carbon emissions; and

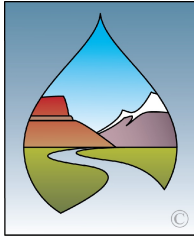
WHEREAS, hydropower is a prominent component of electricity generation in a number of western states, and important part of state renewable portfolio standards; and

WHEREAS, the potential exists to increase hydropower productions by as much as 189 GW by rehabilitating, expanding and upgrading existing facilities, powering non-powered dams, installing hydropower at existing conduits and canals, as well as developing new project sites.

NOW THEREFORE BE IT RESOLVED that the Western States Water Council supports federal legislative and administrative actions to authorize and implement reasonable hydropower projects and programs that enhance our electric generation capacity and promote economic development, through efficient permitting processes, while appropriately protecting environmental resources and respecting States' 401 certification authority under the Clean Water Act.

BE IT FURTHER RESOLVED that the Western States Water Council also supports the development and implementation of appropriate energy and water conservation programs at all levels to minimize demands placed on our natural resources and ecosystems.

BE IT FURTHER RESOLVED that past, present and future hydropower development and operational changes should recognize and ensure consistency with state law and regulatory authority and delegated authority under federal law.



**RESOLUTION
of the
WESTERN STATES WATER COUNCIL
on the
PRESERVATION OF RADIO FREQUENCIES
NECESSARY FOR WEATHER FORECASTING AND
WATER MANAGEMENT
Leavenworth, Washington
July 18, 2019**

WHEREAS, the Federal Communications Commission is engaged in an effort with an aggressive timetable to make as many frequencies of the radio spectrum as possible available for commercial broadband and wireless technologies, licensed and unlicensed; and

WHEREAS, legislation has been introduced that would require an estimation of the value of the electromagnetic spectrum assigned or otherwise allocated to federal entities, between 3 kHz and 95 GHz; and

WHEREAS, a proposed basis for estimation is “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;” and

WHEREAS, much of the nation’s data for emergency and administrative information on weather, river and streamflows, groundwater and forest fires are transmitted from remote platforms to satellites (GOES and POES) and then to “direct receive or downlink” stations on the 1675-1710 MHz range of the spectrum; and

WHEREAS, Earth-observation satellites use several radio frequency bands tied to the physical properties of the scientific measurements, including water vapor (23.8 GHz), rain and snow (36-37 GHz), atmospheric temperature (50.2 - 50.4 GHz), clouds and ice (86 - 92 GHz) and others; and

WHEREAS, sharing bandwidth, or noise from adjacent bands on the spectrum with inadequate controls, has the potential to interfere with the quality, accessibility, and utility of Earth-observation satellite data and data collected and transmitted from remote platforms on earth to satellites; and

WHEREAS, significant public and private funds have been invested to establish our satellite and ground networks, many of which would be costly to replace, and some of which are irreplaceable; and

WHEREAS, the serious, unintended consequences of data interference may include degradation in short-term weather forecasts; loss of data for streamgaging and water monitoring networks; ability of state and federal agencies to prepare for and respond to floods, fires, and extreme weather events; the

ability of western states to administer and manage their scarce water resources and water quality programs; and risks of loss to human life, health, welfare, property, and environmental and natural resources.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council supports efforts to preserve frequencies needed for weather forecasting, streamgaging, and related water and emergency management information needs.

BE IT FURTHER RESOLVED that the Council supports interagency coordination between the FCC, NOAA, USGS and other state and federal agencies, to quantify and analyze the effects of commercial broadband use on satellite observation data and transmissions.

BE IT FURTHER RESOLVED that the Council supports a meaningful evaluation of the existing government and potential alternative uses of the electromagnetic spectrum without discounting the costs of natural disasters and degradations in data needed for water management decisions, and with input from the States as appropriate.



Position No. 435
(see also Position #352, 6/26/13, and
Position #392, 7/15/16)

POSITION STATEMENT
of the
WESTERN STATES WATER COUNCIL
in support of
STRENGTHENING THE RESILIENCY OF OUR NATION
TO THE IMPACTS OF EXTREME WEATHER EVENTS
Leavenworth, Washington
July 18, 2019

WHEREAS, the West and the Nation continue to suffer the effects of increasingly extreme weather events, including tornadoes, hurricanes, extreme precipitation, flooding and drought, resulting in the loss of life and economic, social, and environmental damages; and

WHEREAS, Western States have recently experienced extreme seasonal and year-to-year weather volatility that has brought record or near-record events with floods, followed by drought and wildfires, as well as devastating tornadoes, all threatening public safety and property, and often taxing the capacity of our aging water infrastructure; and

WHEREAS, widespread flooding along many western rivers and streams, including the Arkansas, Niobrara, Missouri, Platte, and others, have demonstrated the continuing need for more flood control capacity and early warning systems, with timely and accurate forecasts; and

WHEREAS, prolonged drought increasingly afflicts the West and the Nation, and affects the performance of interstate compacts and international treaties; and

WHEREAS, extreme prolonged drought has led to the cooperative development of Drought Contingency Plans (DCPs) by the Seven Colorado River Basin States, the United States and Mexico; and

WHEREAS, flood control, drainage and other water resource issues also involve relations with Canada, including negotiations over renewing the Columbia River Treaty; and

WHEREAS, present water resources planning and sound decision-making depends on our ability to understand, monitor, predict, and adapt to droughts, floods, extreme storms, and other weather events; and

WHEREAS, in the West, sound decision-making demands accurate and timely data on precipitation, temperature, soil moisture, snow depth, snow water content, streamflow, and similar information; and

WHEREAS, investments in observations, research, forecasting, and monitoring the development of extreme weather events provide an opportunity to significantly improve real-time water rights administration, planning and project design, and operations to maximize storage, avoid or minimize the loss of life and property, as well as mitigate economic and environmental damages; and

WHEREAS, the Weather Research and Forecasting Innovation Act of 2017 was reauthorized in 2019, together with the National Integrated Drought Information System Act; and

WHEREAS, the Council continues to support NOAA's National Integrated Drought Information System implementation of the Weather Research Act, and emergency drought response authorities for the Bureau of Reclamation and other federal agencies; and

WHEREAS, a National Academy of Sciences' report suggests a pathway and 10-year research agenda for advancing our capabilities with a vision of a decade from now of using subseasonal to seasonal (S2S) forecasts as widely as we now use 5-10 day weather forecasts; and

WHEREAS, the Council is actively working with the National Oceanic and Atmospheric Administration (NOAA) on improving S2S precipitation forecasting capabilities; and

WHEREAS, NOAA's Climate Prediction Center is focusing limited resources on improving the skill of S2S forecasts (beginning with weeks 3-4); and

WHEREAS, western states' precipitation originates as storms moving over the Pacific Ocean and Gulf of Mexico, and the absence of key ocean observations constrains the ability to improve skill of precipitation forecasting at near-term weather and S2S timescales; and

WHEREAS, advances in weather forecasting and research, such as that of NOAA's Hydrometeorological Testbed program on West Coast atmospheric rivers, demonstrate the potential for improving extreme event forecasting at the operational time scale; and

WHEREAS, the Council has supported development of an improved observing system for Western extreme precipitation events, to aid in monitoring, prediction, and climate trend analysis associated with extreme storms; and

WHEREAS, there is a need for maintaining and improving existing monitoring networks that help provide early warning as well as tracking impacts of extreme events; and

WHEREAS, there is a need for developing new monitoring technologies such as remote sensing that provide more timely data availability and better spatial coverage for assessing drought impacts; and

WHEREAS, there is a continuing need for greater collaboration between and among federal agencies, state agencies, local governments, non-governmental organizations and public/private organizations and businesses; and

NOW THEREFORE BE IT RESOLVED that the Western States Water Council supports as a high priority appropriate federal appropriations and actions to plan, prepare for and avoid, minimize or mitigate the impacts of extreme weather events, including developing an expanded and enhanced research program and westwide extreme precipitation monitoring system, including expanded ocean observations.

BE IT FURTHER RESOLVED that the Western States Water Council also supports legislation advancing the goals of: (1) minimizing the loss of life and property and economic, environmental and social cost from extreme weather events; (2) improving collaboration and coordination among agencies and organizations at all levels; (3) increasing consultation with state, local and tribal governments; (4) maintaining and enhancing data gathering and monitoring, as well as communication capabilities, identifying and addressing gaps and overlap; (5) identifying and addressing federal agency responsibilities, as well as regulatory and other preparedness and response barriers, (6) recognizing and addressing regional differences; and (7) advancing research within the physical sciences, and dynamical and statistical modeling to improve our S2S forecasting capabilities.

BE IT FURTHER RESOLVED that the Western States Water Council pledges to work with the Administration and the Congress to appropriately address current and future needs to improve S2S forecasting and extreme events response and resiliency.



Position No. 436
(See also Position #353, 6/26/13; and
Position #393, 7/15/16)

RESOLUTION
of the
WESTERN STATES WATER COUNCIL
regarding
HYDRAULIC FRACTURING
Leavenworth, Washington
July 18, 2019

WHEREAS, hydraulic fracturing is a process that injects sand, water, and other fluids, including various chemical compounds, underground to aid in the extraction of oil and natural gas; and

WHEREAS, hydraulic fracturing has been used for over 60 years in oil and gas production, with over one million wells having been fractured in the United States alone; and

WHEREAS, states have primary and exclusive authority over the allocation and administration of rights to the use of water used in hydraulic fracturing operations; and

WHEREAS, states have decades of experience, knowledge, and information regulating hydraulic fracturing and other oil and gas activities, and making decisions regarding the protection of their water resources; and

WHEREAS, states are best positioned to regulate hydraulic fracturing because of their understanding of regional and local conditions and their ability to tailor regulations to fit the needs of the local environment.

NOW, THEREFORE, BE IT RESOLVED, that federal efforts involving hydraulic fracturing, including efforts to study potential adverse impacts on water quantity and quality, should leverage state knowledge, experience, policies, and regulations.

BE IT FURTHER RESOLVED, that federal efforts to study the potential impacts of hydraulic fracturing on water resources should be based upon sound science and driven by states' research and policy priorities.

BE IT FURTHER RESOLVED, that the Western States Water Council opposes any and all efforts that would diminish the primary and exclusive authority of states over the allocation of water resources used in hydraulic fracturing.



Position No. 437
(see also Positions #324, 7/23/10, #355, 6/26/13,
and Position #395, 7/15/16)

RESOLUTION
of the
WESTERN STATES WATER COUNCIL
urging the
ADMINISTRATION AND CONGRESS
TO SUPPORT WATER RESEARCH AND DEVELOPMENT PROGRAMS
at the
DEPARTMENT OF ENERGY NATIONAL LABORATORIES
Leavenworth, Washington
July 18, 2019

WHEREAS, the Western States Water Council (the Council) has long recognized the importance of protecting and wisely managing our national water resources for the benefit of our present and future generations, including our environment; and

WHEREAS, one purpose of the Council is to accomplish effective cooperation among western states in the conservation, development and management of water resources; and

WHEREAS, a second purpose of the Council is to maintain vital state prerogatives, while identifying ways to accommodate legitimate federal interests; and

WHEREAS many watersheds are already fully-appropriated, and new stresses are emerging from climate, population growth, land use changes and water needs for energy development and in-stream uses; and

WHEREAS, there is growing concern, particularly in the Arid West, over our ability to continue to supply water of adequate quality in quantities needed to sustain current and future uses, including energy and environmental uses; and

WHEREAS, the failure to provide for such needs would have significant regional and national consequences; and

WHEREAS, present water resources planning and sound future decision-making depends on our ability to understand, monitor, anticipate and adapt to changing conditions; and

WHEREAS, electricity generation and other energy development is a significant driver of present and future water demands and the expertise and research of the national labs can supplement and enhance the ability of state, local and tribal water managers to understand and develop adaptation strategies; and

WHEREAS, water-related research at the Department of Energy and National Laboratories should be guided by State needs as expressed in state planning documents and through planning processes; and

WHEREAS, in the West, States in compliance with State law have exclusive authority over the appropriation and adjudication of water rights for all uses, and the allocation of water for energy development, including the determination of whether or not there is any unappropriated water available for use.

NOW, THEREFORE, BE IT RESOLVED that the Western States Water Council urges the Administration and the Congress to recognize the primary role of the States in allocating water for energy.

BE IT FURTHER RESOLVED that the Western States Water Council urges the Administration and the Congress to recognize the value of Department of Energy hosted energy-water programs and research conducted at National Laboratories undertaken in collaboration with state water resources agencies, including but not limited to work at: the Idaho National Laboratory (INL); Lawrence Berkeley and Lawrence Livermore National Laboratories in California; Los Alamos and Sandia National Laboratories in New Mexico; the National Renewable Energy Laboratory (NREL) in Colorado; and Pacific Northwest National Laboratory (PNNL) in Washington, that collaboratively links federal energy research programs and water issues of concern to the western states.

BE IT FURTHER RESOLVED that the Western States Water Council urges the Administration and the Congress to encourage collaboration and cooperation between the National Laboratories and other federal agencies, including but not limited to the National Oceanic and Atmospheric Administration (NOAA), U.S. Bureau of Reclamation (USBR) and (USGS) to leverage federal expertise and resources (including supercomputing power; climate and precipitation site sensitivity analysis; systems analysis, integration, and security, etc.) in addressing the Nation's water related challenges.



Position No. 438
Revised and Readopted
(Originally adopted Oct 29, 2010 and revised and readopted on Oct. 3, 2013;
and on Sep 30, 2016)

**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
NASA'S APPLIED SCIENCE RESEARCH PROGRAM
Breckenridge, Colorado
October 18, 2019**

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

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

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

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

WHEREAS, the ability to use interferometric synthetic aperture radar (InSAR) to measure land subsidence due to groundwater extraction has already been demonstrated, and there are promising research approaches for using remote sensing for estimating snowpack conditions; and

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

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

WHEREAS, NASA’s demonstration project on California applications for use of remote sensing information has illustrated that the potential exists for repurposing data collected from certain present NASA missions for water management applications, and that additional potential exists for research applications with sensors planned in future Decadal Survey missions such as the NASA-ISRO Synthetic Aperture Radar (NISAR), which is designed to observe and take measurements of the planet’s crust and disturbances, including subsidence due to groundwater pumping; and

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

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

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

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

BE IT FURTHER RESOLVED, that the Council strongly supports a continuing National Land Imaging Program, including existing thermal imaging capabilities, and expresses its strong support for the expedited construction and launch of Landsat 9 - while exploring the potential for medium and longer-term advances in technology, design and future capabilities to meet existing and future uses.



**POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
DEPARTMENT OF THE INTERIOR's WATER SMART PROGRAM
Breckenridge, Colorado
October 18, 2019**

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

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

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

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

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

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

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

WHEREAS, the Act authorizes a variety of activities to enhance the Department of the Interior’s water data efforts with significant progress made on these activities, including the development

of a national groundwater monitoring program, a brackish water assessment, and the establishment of a national water availability and use assessment; and

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

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

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

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

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

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

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

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

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



Position No. 440
Revised and Readopted
(Originally adopted Nov. 17, 1995,
readopted Nov. 20, 1998 and revised and readopted
Nov. 16, 2001, Oct. 29, 2004, Nov. 16, 2007, Oct. 29, 2010, and Oct. 3, 2013)

RESOLUTION
of the
WESTERN STATES WATER COUNCIL
URGING CONGRESS TO REAFFIRM ITS DEFERENCE TO STATE WATER LAW,
PROVIDE FOR THE WAIVER OF THE UNITED STATES' IMMUNITY TO
PARTICIPATION IN STATE ADMINISTRATIVE AND JUDICIAL PROCEEDINGS,
AND PROVIDE FOR PAYMENT OF FEES REQUIRED BY STATE LAW
Breckenridge, Colorado
October 18, 2019

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Requires the federal government to participate in all state administrative and judicial proceedings with respect to water rights it acquires to the same extent as all other persons.
2. Requires the federal government (not Native American tribes) to pay filing fees as well as comply with all other state substantive and procedural water right adjudication laws to the same extent as all other persons.
3. Requires the federal government to pay applicable fees as well as comply with all other state substantive and procedural laws for the appropriation, use and distribution of water rights to the same extent as all other persons.
4. Provides for state administration of all water rights.

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

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

RULES OF ORGANIZATION

RULES OF ORGANIZATION

Preamble

The Western States Water Council is a government entity, an instrumentality of each and every participating state, established to fulfill a number of governmental purposes on behalf of those states, including advising the governors on planning, conservation, development, management and protection of their water resources. As outlined herein, Council membership is comprised of States with member representatives appointed by the Governors of each participating State. The activities of the Council are subject to the control and supervision of the Governors of member States through their appointed representatives. The Council is funded by dues from member States, set by an Executive Committee, which also controls expenditures.

Article I - Name

The name of this organization shall be “THE WESTERN STATES WATER COUNCIL.”

Article II - Purpose

The purpose of the Western States Water Council shall be to accomplish effective cooperation among western states in matters relating to the planning, conservation, development, management, and protection of their water resources, in order to ensure that the West has an adequate, sustainable supply of water of suitable quality to meet its diverse economic and environmental needs now and in the future.

Article III - Interstate Water Transfer Principles

Except as otherwise provided by existing compacts, the planning of western water resources development on a regional basis will be predicated upon the following principles for protection of states of origin:

- (1) All water-related needs of the states of origin, including but not limited to irrigation, municipal and industrial water, flood control, power, navigation, recreation, water quality control, and fish and wildlife preservation and enhancement shall be considered in formulating the plan.
- (2) The rights of states to water derived from the interbasin transfers shall be subordinate to needs within the states of origin.
- (3) The cost of water development to the states of origin shall not be greater, but may be less, than would have been the case had there never been an export from those states under any such plan.

Article IV - Functions

The functions of the Western States Water Council shall be to:

- (1) Undertake continuing review of all large-scale interstate and interbasin plans and projects for development, control or utilization of water resources in the Western States, and submit recommendations to the Governors regarding the compatibility of such projects and plans with an orderly and optimum development of water resources in the Western States.
- (2) Investigate and review water related matters of interest to the Western States, and advise Council member states and governors as appropriate.
- (3) Express policy positions regarding proposed federal laws, rules and regulations and other matters affecting the planning, conservation, development, management, and protection of water resources in Western States.
- (4) Sponsor and encourage activities to enhance exchange of ideas and information and to promote dialogue regarding optimum management of western water resources.
- (5) Authorize preparation of amicus briefs to assist western states in presenting positions on issues of common interest in cases before federal and state courts.
- (6) Encourage collaboration among federal, state, tribal and local governments, public and private water resources associations and water-related non-governmental organizations.

Article V - State Membership and Member State Representatives

- (1) The Council shall consist of the states of Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. Member states of the Western Governors' Association, which are not members of the Council, shall be added to membership if their respective Governors so request. The Executive Committee may, upon unanimous vote, confer membership upon other western states, which are not members of the Western Governors' Association, if their respective Governor so requests. The Executive Committee may also confer Associate Member status on states as described in section (4) below. Any state may withdraw from membership upon written notice by its Governor.
- (2) Member state Governors may appoint not more than three member state representatives to the Council, but may name any number of standing alternate representatives.
- (3) Member state representatives (members) and alternate representatives (alternates) so appointed may designate other individuals to represent them and participate in Council meetings and other activities provided that such designations are made in writing prior to the event by letter or email.

(4) Associate Membership may be granted for a period of up to three years, during which time a state's appointed representatives may participate as observers in Council activities and receive all information disbursed by the Council. However, Associate Member states shall have no vote in Council matters.

(5) If any state fails to pay the appropriate level of dues established by the Executive Committee of the Council, the privileges afforded by virtue of its membership to participate in Council activities and to receive all information dispersed by the Council may be withheld pending the payment of dues, beginning at the start of the fiscal year following the delinquency.

Article VI - Ex-Officio Members

The Governors of the member states shall be ex-officio members and shall be in addition to the regularly appointed members from each state.

Article VII - Officers

The officers of the Council shall be the Chair, Vice-Chair and Secretary-Treasurer. They shall be selected in the manner provided in Article VIII.

Article VIII - Selection of Officers

The Chair, Vice-Chair and Secretary-Treasurer, who shall be from different states, shall be elected from the Council by a majority vote at the annual regular summer meeting to be held each year. These officers shall serve one-year terms. However, the Chair and Vice-Chair may not be elected to serve more than two terms consecutively in any one office. In the event that a vacancy occurs in any of these offices, it shall be filled by an election to be held at the next scheduled regular Council meeting.

Article IX - Executive Committee

(1) Each Governor may designate one representative to serve on an Executive Committee which shall have such authority as may be conferred on it by these Rules of Organization, or by action of the Council. In the absence of such a designation by the Governor, representatives of each state shall designate one of their members to serve on the Executive Committee. Any Executive Committee member may designate in writing by letter or email an alternate to temporarily act on his/her behalf in his/her absence.

(2) The Executive Committee shall determine whether or not States are eligible for participation as members or associate members of the Council.

(3) The Executive Committee of the Council shall set annual dues for Council participation and may, by unanimous vote, confer the status of Associate Member of the Council upon states it deems

eligible. The Executive Committee shall, through regular Council voting procedures, establish the appropriate level of dues for Associate Member states. In addition to determinations concerning Associate Member states, the Executive Committee may, when appropriate, authorize and establish fees for participation in Council activities by non-member states and non-member state representatives (non-members).

(4) The Executive Committee shall annually adopt a budget and oversee all Council expenditures and activities.

(5) The Executive Committee may establish other committees, subcommittees and work groups which shall have such authority as may be conferred upon them by action of the Council.

Article X - Voting and Policy Development

(1) Each state shall have one vote. Since state delegations consist of more than one person, but each state has only one vote, the Executive Committee member for each state shall be responsible as an internal state matter for coordinating and communicating the official position of the state relative to voting on proposed policy positions. An email message is sufficient to meet this requirement. Whenever a person who is not a Council representative is attending on behalf of a Council representative at a regular or special meeting, either in person or via conference call, a written notification to this effect must be provided to the Council offices to assure that the person is serving in the appropriate capacity.

(2) A quorum shall consist of a majority of the member states (excluding associate member states).

(3) No recommendation may be issued or position taken by the Council except by an affirmative vote of at least two-thirds of all member states, with the exception of the following:

(a) Recommendations and external policy positions concerning out-of-basin interstate transfers require a unanimous vote of all member states; and

(b) Action may be taken by a majority vote of all member states on all internal administrative matters.

(4) In any matter put before the Council for a vote, other than election of officers, any member state may upon request obtain one automatic delay in the voting until the next regular meeting of the Council. Further delays in voting on such matters may be obtained only by majority vote.

(5) The Council shall consider external policy positions for adoption at its three regular meetings held each year. No external policy matter may be brought before the Council for a vote unless advance notice of such matter has been mailed or emailed to each member of the Council at least 30 days prior to one of the Council's regular meetings.

(6) At the discretion of the Chair, in those instances where circumstances warrant consideration of an external policy position outside of the regular meetings, the Executive Committee may adopt positions at special meetings (including by conference call) provided that proposed positions are mailed or emailed to each member of the Executive Committee at least 10 days prior to the special meeting or conference call.

(7) Any proposed external policy positions can be added to the agenda of a regular or special meeting by unanimous consent of those states represented at the meeting provided that a quorum exists.

Article XI - Policy Coordination and Deactivation

With regard to external positions adopted at special meetings or added to the agenda of a meeting by unanimous consent, such external policy positions shall be communicated to the member governors of the Western Governors' Association (WGA) and the WGA Executive Director for review. If after 10 days no objection is raised by the governors, then the policy position may be distributed to appropriate parties. In extraordinary cases, these procedures may be suspended by the WGA Executive Director, who will consult with the appropriate WGA lead governors before doing so.

Policy positions will be deactivated three years after their adoption. The Executive Committee will review prior to each regular meeting those policy statements or positions due for sunseting. If a majority of the Executive Committee members recommend that the position be readopted by the Council, then such position shall be subject to the same rules and procedures with regard to new positions that are proposed for Council adoption.

Article XII - Conduct of Meetings

Except as otherwise provided herein, meetings shall be conducted under Robert's Rules of Order, Revised. A ruling by the Chair to the effect that the matter under consideration does not concern an out-of-basin transfer is an appealable ruling, and in the event an appeal is made, such ruling to be effective must be sustained by an affirmative vote of at least 2/3 of the member states.

Article XIII - Meetings

The Council shall hold regular meetings three times each year at times and places to be decided by the Chair, upon 30 days written notice. Special meetings may be called by the Chair, upon 10 days written notice.

Article XIV - Limitations

The work of the Council shall in no way defer or delay authorization or construction of any projects now before Congress for either authorization or appropriation.

Article XV - Dissolution

In the event of the dissolution of the Council, to the extent practical the assets of the Council shall be liquidated in a timely manner and evenly divided among those member states in good standing, at the time of the dissolution.

Article XVI - Amendment

These articles may be amended at any meeting of the Council by unanimous vote of the member states represented at the meeting. The substance of the proposed amendment shall be included in the call of such meetings.

Glossary of Acronyms

BLM	Bureau of Land Management
CalDWR	California Department of Water Resources
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
Corps	Army Corps of Engineers
CWA	Clean Water Act
DCPs	Drought Contingency Plans
DOI	Department of the Interior (also known as “Interior”)
EPA	Environmental Protection Agency
EQIP	Environmental Quality Improvement Program
ESA	Endangered Species Act
FWS	Fish and Wildlife Service
HAB	Harmful Algal Bloom
NARF	Native American Rights Fund
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NDRP	National Drought Resilience Partnership
NIDIS	National Integrated Drought Information System
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service

NRCS	Natural Resources Conservation Service
NWS	National Weather Service
OMB	Office of Management and Budget
RCRA	Resource Conservation and Recovery Act
SRF	State Revolving Funds
TMDL	Total Maximum Daily Load
USBR	Bureau of Reclamation (also known as “Reclamation”)
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
WaDE	Water Data Exchange
WestFAST	Western States Federal Agency Support Team
WGA	Western Governors’ Association
WIFIA	Water Infrastructure Finance and Innovation Act
WOTUS	Waters of the United States
WQS	Water Quality Standards
WRCB	California State Water Resources Control Board
WSWC	Western States Water Council