



— BUREAU OF —
RECLAMATION

Spring 2023
Issue 259

Water Operations and Maintenance Bulletin

Infrastructure Programs and Projects



U.S. Department of the Interior

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Mission Statement

This *Water Operations and Maintenance Bulletin* is published quarterly through the Asset Management Division of the Dam Safety and Infrastructure Directorate. It serves as a medium to connect personnel who operate and maintain Bureau of Reclamation water supply systems.

History

The *Water Operations and Maintenance Bulletin* has been published quarterly since 1952. Past issues may be read and downloaded at [Water Operations and Maintenance Bulletins](#), where you can also search the entire bulletin database by subject.

Contact

We welcome suggestions for future issue topics, contributing authors, and comments on the *Bulletin*. Please direct all inquiries to drowateroandm@usbr.gov.

Cover photo: Construction in October 2022 on the B.F. Sisk Dam Safety of Dams project.

Editor's Note

The Bipartisan Infrastructure Law (Infrastructure Law) and Inflation Reduction Act have allocated unprecedented appropriations to the Bureau of Reclamation (Reclamation) to help support existing and develop new infrastructure projects across the West. In this issue of the *Water Operations and Maintenance Bulletin*, we are excited to highlight programs that will benefit from these robust funding opportunities and projects that are in planning stages or already turning dirt.

We owe many thanks to the programs, supervisors, and authors who coordinated with us on this effort. The Reclamation Law Administration Division of the Policy and Programs Directorate took the lead on developing the Authorized Rural Water Projects, Water Storage Projects, and Aging Infrastructure Account articles. The Dam Safety Office, Dam Safety and Infrastructure, wrote about how Infrastructure Law funding is being used for the B.F. Sisk Dam Safety of Dams Project, and the Lower Colorado Basin Region's Public Affairs Office contributed the article on the Lower Colorado River Basin System Conservation and Efficiency Program and Salton Sea agreement. We would also like to thank the Operations and Maintenance Branch's Ginger Dill for contributing information about last month's Water Management Workshop and the upcoming Review of Operations and Maintenance Workshop scheduled for April 11-13, 2023, in Seattle, WA.

For our Q&A, we met with Ryan Stewart, Operations Manager for the Silt Water Conservancy District in western Colorado. Ryan spoke to us about everyday maintenance, seasonal shifts in his responsibilities, and making sure water customers receive their allocated shares. Thanks for reading!

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Around O&M

The Water Management Workshop (WMW) is a three-day workshop held annually since 1961 and sponsored by Reclamation's Asset Management Division (AMD). It is tailored for supervisors, managers, water masters, and others responsible for the operations and maintenance (O&M) of water systems. The 2023 WMW was held February 14-16 at the Denver Federal Center and had about 70 registered participants.

This year's WMW included classroom training, networking, laboratory tours, and Technical Service Center-sponsored hands-on training. The post-workshop evaluation survey results highlighted the benefits of the following presentations:

- New York Canal Risk Analysis
- Reservoir Sedimentation
- Networking
- Enterprise Asset Registry
- Prize Competition
- Funding Opportunities
- Performance Monitoring



Hands-on training at the 2023 Water Management Workshop.

AMD takes these survey responses seriously and will attempt to address all suggestions. Some recommendations were:

- Organized networking on a variety of topics
- Information geared towards powerplants and water diversion
- O&M focus with pointers and techniques that can be shared back in area office
- Panel discussions that incorporate a participant activity followed by a discussion
- Transferred works breakout session for introductions and collaboration

Thank you to all who provided feedback for future workshops!



Delta-Mendota Canal, Central Valley Project, California.

Bipartisan Infrastructure Law: Section 40901 – Aging Infrastructure Account

Owen Walker

Contracts and Repayment Team Lead, Reclamation Law Administration Division,
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Authorization and Funding

Section 40901 of the Bipartisan Infrastructure Law (Infrastructure Law) (Public Law 117-58) appropriated \$8.3 billion for western water infrastructure projects and programs. Of that funding, the Infrastructure Law made \$3.2 billion available over a 5-year period for aging infrastructure-related maintenance projects across the 17 Western States. This is the Infrastructure Law's largest program allocation, demonstrating Congress' awareness of the increasing frequency of major maintenance costs on America's vital western water infrastructure as it ages.

The Infrastructure Law places the funding in the Aging Infrastructure Account (AIA), which is a special Treasury account that Congress created in Public Law 116-260 for the purpose of increasing funding available for "extraordinary operation and maintenance" (XM). This sizable appropriation allows Reclamation to put the AIA into action to address a long list of high-cost, crucial

maintenance needs across the West at a pivotal time for the management of western water and the associated infrastructure.

The Infrastructure Law directs the \$3.2 billion to three uses. Most of it – \$3 billion – is available generally for eligible XM projects through an application and selection process described below. The Infrastructure Law makes \$100 million available for "extraordinary maintenance for critical failures" on Reclamation project works that occurred within the two years prior to the Infrastructure Law's enactment and that prevented delivery of water for irrigation. Reclamation has allocated \$85 million of this funding for the St. Mary Canal diversion and headworks replacement project in Montana's Milk River Project. The Infrastructure Law directs another \$100 million to extraordinary maintenance on non-Reclamation dams developed under the authority of the Carey Act after 1905. Reclamation is processing a request for some of this funding from the State of Wyoming for repairs to its LaPrele Dam.

Program and Process

The AIA Application Review Team (Review Team) – a joint effort among Reclamation’s Policy and Programs, Dam Safety and Infrastructure, and Program and Budget directorates – has developed a program to implement the AIA authority and put the Infrastructure Law funding to work. AIA funding is allocated to projects across the agency through an application process, as required by Public Law 116-260, which sets various specific requirements for application content and review. This process has several steps, including initial collaboration between Reclamation’s regions and project operators and beneficiaries to develop their applications; the Review Team’s determination of eligibility, scope, and funding needs for each proposal; the Review Team’s submission of its evaluations and recommendations to the Commissioner for decision; and a report to Congress on intended funding allocations. Reclamation’s funding determinations factor President Biden’s emphases on climate change, environmental justice, and investment in underserved communities, as reflected in the Infrastructure Law, as well as risks and benefits.

To be eligible for AIA funding, work must be major, non-recurring maintenance on Reclamation facilities that is intended to continue the delivery of project benefits and meet certain cost thresholds. Potential applicants include transferred works operators and project beneficiaries on reserved works who are

responsible for a share of reimbursable costs on the relevant facility. Reclamation’s regional offices may also propose funding through the same process for non-reimbursable XM. Funding from the AIA that is used for reimbursable purposes is repaid back into it and is then available without further appropriation for future XM needs.

Funding of XM Projects Resulting from the Infrastructure Law

Reclamation conducted its first application cycle in 2021. It received 136 applications requesting a total of \$1.081 billion. Following the Review Team’s review process and presentation, the Commissioner announced \$240.4 million in Infrastructure Law funding awards from the AIA in May 2022. The funding was allocated across 46 projects in 12 states, with funding reaching projects in every major river basin and region where Reclamation operates.

Projects include significant repairs on canal linings, dam spillways, and water pipeline replacements. Among them are large canal repairs in Arizona, California, Idaho, Nebraska, Nevada, and Wyoming; dam spillway repairs in Kansas; pipeline repairs in Utah; and investments in a pumping plant in Montana. Projects in Colorado, Oregon, and Washington are also being funded. The 46 projects to be funded can be viewed in the [Fiscal Year \(FY\) 2022 Aging Infrastructure Extraordinary Maintenance Report Table](#).



St. Mary Diversion Dam, Milk River Project, Montana.

Attending the commencement event for one funded project – the Truckee Canal Extraordinary Maintenance Project, which received \$35 million in FY 2022 for its Phase 1 – Commissioner Touton stated that the project “reaffirms our commitment to making the investments necessary to safeguard community water supplies and revitalize water delivery systems,” and that the Infrastructure Law (along with the more recent Inflation Reduction Act) provides “transformational funding to invest in our nation’s western water and power infrastructure – all while rebuilding our existing projects to withstand a changing hydrology.”

Reclamation has completed the application period and review for the FY 2023 application cycle, which produced 87 applications requesting a total of \$2.3 billion against the \$649 million Reclamation anticipated for the fiscal year in its annual Infrastructure Law spend plan. The Commissioner intends to announce the FY 2023 funding selections this spring once she has made her final determinations and Reclamation has completed its reporting requirements.



Truckee Canal at the Derby Diversion Dam, Newlands Project, Nevada.

Bipartisan Infrastructure Law: Section 40901(3) – Authorized Rural Water Projects

Carrie Diroll

Program Analyst, Reclamation Law Administration Division, Policy and Programs

The Bipartisan Infrastructure Law (Infrastructure Law) provided unprecedented support for the Bureau of Reclamation’s (Reclamation) authorized rural water projects in the form of \$1 billion from fiscal years (FY) 2022 to 2026. These projects provide potable water to rural and tribal communities across six states: Iowa, Minnesota, Montana, New Mexico, North Dakota, and South Dakota.

“Rural water projects get to the heart of President Biden’s Bipartisan Infrastructure Law by building resiliency and supporting local economies. Providing this project-specific funding underscores the Administration’s commitment to help rural and Tribal communities access safe drinking

water and the water treatment infrastructure they deserve...the Bipartisan Infrastructure Law ensures that rural and Tribal communities receive adequate assistance and support,” said Secretary of the Interior Deb Haaland.

“Under the Biden-Harris administration, the Department is committed to bringing clean, reliable drinking water to rural communities to help strengthen resilience to climate change,” said Assistant Secretary for Water and Science Tanya Trujillo. “The significant amount of funding for rural water construction from the Bipartisan Infrastructure Law will help us expedite project completion.”



Before and after picture sent in by a mother of two, a new rural customer of Fort Peck Reservation – Dry Prairie Rural Water System, who received water in October 2022 as part of the Scobey-Flaxville Ph2 Branchline Project.

In FY 2022 alone, Reclamation announced \$420 million in investments in the authorized projects, including for work related to pipeline connections, construction of water treatment plants and intakes, pump systems, and reservoir construction. Allocations for funding under the Infrastructure Law are driven by construction capabilities, prioritization criteria, and stakeholder needs.

Bipartisan Infrastructure Law FY 2022 Allocation:

- \$160 million for the Eastern New Mexico Rural Water System in New Mexico for the construction of a transmission pipeline that will provide critical water supplies to approximately 70,000 people.
- \$75.5 million for the Lewis and Clark Rural Water System in South Dakota, Iowa, and Minnesota to support treated water pipeline segments on Iowa 4 and 5, the Sibley Service Line, and associated meter buildings, booster pumps, and storage reservoirs.
- \$57.5 million for the Rocky Boys / North Central Montana Rural Water System in Montana for core pipeline construction on Segments 6 and 7 and continued efforts on the water treatment plant, as well as construction for segments associated with Tiber, Big Sandy, Loma, and Havre service areas.
- \$51 million for the Garrison-Diversion Unit of the Pick-Sloan Missouri Basin Program in North Dakota to support efforts associated with the Fort

Berthold User Expansion, as well as construction efforts to support service in Northeast Segment Areas 3 and 4, the Spirit Lake West Service Area, and the Bear Soldier Service Area.

- \$37 million for the recently authorized Musselshell-Judith Rural Water System in Montana for phase 2 of rural water construction activities.
- \$7 million for the Fort Peck Reservation – Dry Prairie Rural Water System in Montana to support the Tribal components of Fort Peck West Phases 3 and 4.

Of the FY 2022 Infrastructure Law allocation, \$32 million was held in reserve to be distributed throughout the fiscal year to address potential increases in construction capability for the projects listed above, ensuring a dynamic and strategic response to advance completion on these projects.

As Reclamation continues to allocate funding to these authorized projects in FY 2023 and beyond, this will also include funding for Jicarilla Apache Rural Water System. The Infrastructure Law has provided a unique opportunity to reengage with the Tribe to validate reimbursement to the Tribe for work already completed and evaluate project needs.



Fifth graders from the Assiniboine Sioux Tribe collected water samples judged on appearance, odor, and total mineral content, verified by a parent as coming from a household tap.

A flock of birds fly over Lake Pueblo, from which the Arkansas Valley Conduit will draw water (Reclamation).



Bipartisan Infrastructure Law: Section 40903 – Small Storage Program Section 40902 – Water Storage, Groundwater Storage, and Conveyance Projects

Hannah Taub

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Small Storage Program

In 2022, under the Bipartisan Infrastructure Law (Infrastructure Law) section 40903, the Bureau of Reclamation (Reclamation) received \$100 million to establish and fund a new grant program for small surface water and groundwater storage projects. The program, called the Small Surface and Groundwater Storage Program (Small Storage Program), is administered by the Reclamation Law Administration Division in Policy and Programs. \$20 million of the total funds for the program were made available in fiscal year (FY) 2023 for the first funding opportunity. Eligible projects include small (defined in the Infrastructure Law as between 200 and 30,000 acre-feet) storage projects that increase surface water or groundwater storage or convey water directly or indirectly, and which use the funds for planning, design, and construction.

There is a cost-share requirement of 75% or more for applicants. Applicants must also have a feasibility study approved by Reclamation to apply to the funding opportunity.

Once a feasibility study is approved, and a complete application is submitted via [grants.gov](https://www.grants.gov), a project is considered eligible to compete for funding. Award decisions are made by an Application Review Committee. The FY 2023 award recipients are expected to be announced in Spring 2023. Under the first round of funding, applications have been received from cities and water districts across Reclamation's six regions that are planning to store water using various technologies and approaches to meet the needs of their communities, such as addressing increasing populations, replacing or supplementing outdated or inadequate infrastructure, and building resilience in the face of

environmental conditions, such as climate change and drought, that are impacting lives and livelihoods across the West. The Small Storage Program is a crucial and timely funding opportunity, helping better meet the water needs of the American West today.

Water Storage and Conveyance

Section 40902 of the Infrastructure Law provides funding for water storage projects on a larger scale. Unlike the Small Storage Program, the funding authorized in this section is for a noncompetitive program and is allocated through an internal process. Section 40902 replaces a similar program established under section 4007 of the Water Infrastructure Improvements for the Nation Act. Under section 40902, \$1.05 billion of funding is provided between FYs 2022 and 2026 for water storage, groundwater storage, and conveyance projects. To receive construction funding under section 40902, projects must be recommended for construction by the Secretary of the Interior after being found technically and financially feasible, being in the public interest, and providing Federal benefits.



Pueblo Dam, part of the Fryingpan-Arkansas Project, is in the background, while a buck poses in the snow in the foreground.

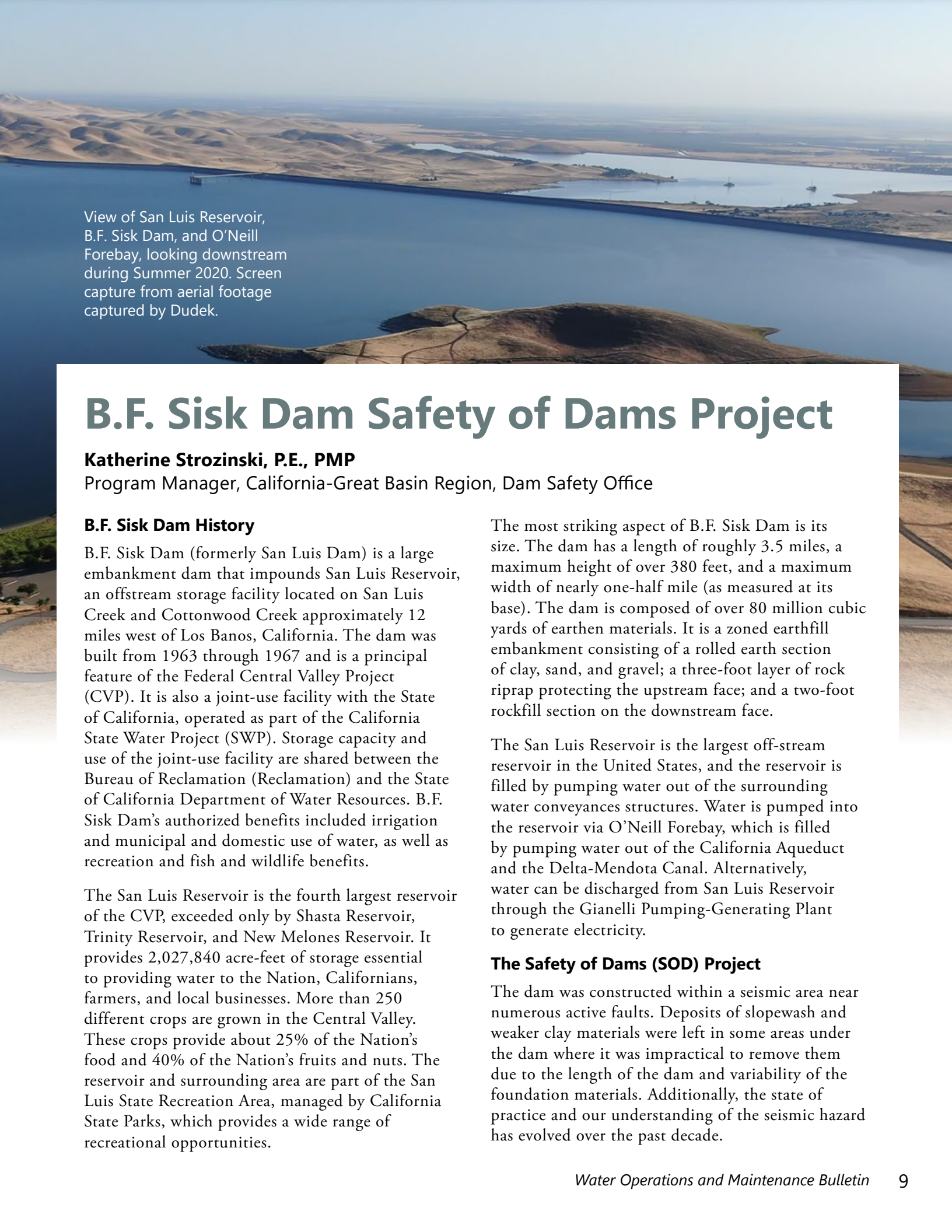
One project that is benefiting from section 40902 funding is the Arkansas Valley Conduit (AVC). The AVC is a federally owned project in southeastern Colorado, within Reclamation's Missouri Basin Region. Originally authorized under President John F. Kennedy in the Fryingpan-Arkansas Project Act, construction of the AVC stalled for decades due to prohibitive costs, which the communities set to receive benefits from the AVC were burdened

with. That roadblock on the project was eliminated in 2009 with the passage of Public Law 111-11, which provided a 65% Federal cost-share for the AVC, to be repaid by beneficiaries over 50 years. The project sponsor, the Southeastern Colorado Water Conservancy District, is responsible for the rest of the costs. Reclamation has to date provided \$60 million in funding under section 40902 of the Infrastructure Law.



A wildflower grows near the Pueblo Dam, the water source for the Arkansas Valley Conduit (Reclamation).

The AVC will provide a safe, long-term water supply for irrigation and domestic use to an estimated 50,000 people in 40 rural communities along the Arkansas River, transporting water eastward from the Pueblo Reservoir to communities in Bent, Crowley, Kiowa, Otero, Prowers, and Pueblo counties. Water from the AVC replaces current groundwater and surface water sources, which are contaminated with radionuclides and pollutants, respectively, and helps communities comply with EPA drinking water regulations and avoid more costly alternatives for obtaining safe drinking water. The AVC involves between 100-200+ miles of pipeline designed to deliver up to around 7,500 acre-feet of water, which will flow largely by gravity, with the exception of one pumping station. The water will travel from Pueblo to Lamar, Colorado, delivering water to many points along the route as well. A contract was awarded in September 2022 to begin construction on the Boone Reach trunk line section of the AVC, marking a new beginning for an important project over six decades in the making.



View of San Luis Reservoir, B.F. Sisk Dam, and O'Neill Forebay, looking downstream during Summer 2020. Screen capture from aerial footage captured by Dudek.

B.F. Sisk Dam Safety of Dams Project

Katherine Strozinski, P.E., PMP

Program Manager, California-Great Basin Region, Dam Safety Office

B.F. Sisk Dam History

B.F. Sisk Dam (formerly San Luis Dam) is a large embankment dam that impounds San Luis Reservoir, an offstream storage facility located on San Luis Creek and Cottonwood Creek approximately 12 miles west of Los Banos, California. The dam was built from 1963 through 1967 and is a principal feature of the Federal Central Valley Project (CVP). It is also a joint-use facility with the State of California, operated as part of the California State Water Project (SWP). Storage capacity and use of the joint-use facility are shared between the Bureau of Reclamation (Reclamation) and the State of California Department of Water Resources. B.F. Sisk Dam's authorized benefits included irrigation and municipal and domestic use of water, as well as recreation and fish and wildlife benefits.

The San Luis Reservoir is the fourth largest reservoir of the CVP, exceeded only by Shasta Reservoir, Trinity Reservoir, and New Melones Reservoir. It provides 2,027,840 acre-feet of storage essential to providing water to the Nation, Californians, farmers, and local businesses. More than 250 different crops are grown in the Central Valley. These crops provide about 25% of the Nation's food and 40% of the Nation's fruits and nuts. The reservoir and surrounding area are part of the San Luis State Recreation Area, managed by California State Parks, which provides a wide range of recreational opportunities.

The most striking aspect of B.F. Sisk Dam is its size. The dam has a length of roughly 3.5 miles, a maximum height of over 380 feet, and a maximum width of nearly one-half mile (as measured at its base). The dam is composed of over 80 million cubic yards of earthen materials. It is a zoned earthfill embankment consisting of a rolled earth section of clay, sand, and gravel; a three-foot layer of rock riprap protecting the upstream face; and a two-foot rockfill section on the downstream face.

The San Luis Reservoir is the largest off-stream reservoir in the United States, and the reservoir is filled by pumping water out of the surrounding water conveyances structures. Water is pumped into the reservoir via O'Neill Forebay, which is filled by pumping water out of the California Aqueduct and the Delta-Mendota Canal. Alternatively, water can be discharged from San Luis Reservoir through the Gianelli Pumping-Generating Plant to generate electricity.

The Safety of Dams (SOD) Project

The dam was constructed within a seismic area near numerous active faults. Deposits of slopewash and weaker clay materials were left in some areas under the dam where it was impractical to remove them due to the length of the dam and variability of the foundation materials. Additionally, the state of practice and our understanding of the seismic hazard has evolved over the past decade.



B.F. Sisk Dam, spillway (center), and bridge to outlet works intake structures. Screen capture from aerial footage captured by Dudek in Summer 2020.



Construction of shear keys, part of the first contract scope.



Basalt Hill Quarry – material processing.

These factors lead to the potential for the dam to experience significant damage if a remote earthquake were to occur. Such an event would have devastating impacts to the regional and national economy. Even more significant, the resulting flood wave would impact thousands of people downstream of the dam.

The San Luis Reservoir is an important CVP and SWP facility and a key component of California's water supply system. Proper functioning of the reservoir is critical to maintaining water distribution for Federal, state, and local uses. An intensive engineering evaluation of the seismic performance of the dam from 2007-2018 led to the selection of a preferred alternative and a decision to proceed with dam modifications to mitigate the seismic risks. Although failure was determined to be very unlikely in any particular year, the consequences could be severe.

The project scope for the preferred alternative includes constructing stability berms and shear keys at several sections along the downstream face of the dam and raising the dam crest 10 feet. The project scope also includes modifications to the spillway conduit to reduce static risk. Final designs for B.F. Sisk Dam began in fiscal year (FY) 2018 and will continue through FY 2026. An Environmental Impact Statement/Environmental Impact Report was completed in 2019. Congressional authorization to construct the project was obtained in FY 2020.

The construction of the modifications at B.F. Sisk Dam will be completed in three phases. The first contract scope includes constructing shear keys and stability berms at three slopewash sections (SW36, SW145, and SW180) and modifications to the spillway. The second contract will include shear key and/or stability berms at three additional dam sections (SW165, NVS, and SVS). The third contract will include constructing a 10-foot crest raise and downstream filters along the dam and completing the overall site restoration.

In FY 2022, the first construction contract was awarded using \$100 million of Bipartisan Infrastructure Law (Infrastructure Law) funding. In the fall of 2022, work on the first shear key at SW36 and the spillway was initiated and is planned to be completed in February 2023. The work under the first contract scope will continue into 2025. The second contract is planned to be awarded in FY 2025 and is expected to obligate the remaining Infrastructure Law funding allocated to the Dam Safety Program.

The B.F. Sisk Dam SOD project is planned to be completed by 2032. Project costs have been estimated to be approximately \$1 billion, which makes it the largest SOD project in Reclamation's history.



Spillway demolition and foundation preparation.



Unprecedented Challenges Met with Historic Investments

Public Affairs Office

Lower Colorado Basin Region

As the Colorado River Basin faces challenges created by two decades of unprecedented drought conditions, recent investments by the Biden-Harris administration have given the Department of the Interior (Department) and Bureau of Reclamation (Reclamation) the resources to take action to protect the Colorado River reservoir storage volumes.

Together, the Inflation Reduction Act and Bipartisan Infrastructure Law (Infrastructure Law) are the most significant pieces of legislation in U.S. history to tackle the climate crisis. The Inflation Reduction Act includes \$4 billion in funding specifically for water management and conservation efforts in the Colorado River Basin and other areas experiencing similar levels of drought, and the Infrastructure Law appropriated \$8.3 billion to Reclamation for 12 programs across the West.

In the Lower Colorado Basin Region, the Conservation and Efficiency Program and a landmark agreement to accelerate California's Salton Sea restoration, both funded by the Inflation Reduction Act, are providing Reclamation water managers, Lower Basin States, Tribes, and

stakeholders the resources needed to implement actions to manage drought mitigation and conserve precious water.

Lower Colorado River Basin System Conservation and Efficiency Program

Over the last two decades, Department and Reclamation leaders have engaged with Basin partners on various drought response operations. Still, water levels are projected to continue to decline, and additional action is needed to protect the Colorado River System.

The [Lower Colorado River Basin System Conservation and Efficiency Program](#), announced in October 2022, focuses on finding new opportunities for system conservation in the lower Colorado River Basin that also lead to additional conservation and bridge the immediate need while moving toward improved system efficiency and more durable long-term solutions for the System.

“Reclamation is using the best available science and actively collaborating with water users across the Basin to determine how to meet this increased

conservation need,” said Jaci Gould, Regional Director, Lower Colorado Basin Region. “The new conservation and efficiency program allows us to collaboratively address the drought crisis with prompt and responsive actions and investments to ensure the entire Basin can function and continue to support all who rely on it.”

The voluntary program funding opportunity has three components:

- Proposals for system conservation resulting in water remaining in Lake Mead at a set price.
- Proposals describing lower Colorado River Basin water conservation plans that can be implemented, resulting in reductions in consumptive use of lower Colorado River water.
- Proposals for long-term system efficiency improvements that will result in multi-year system conservation.

Water managers received and are evaluating more than 30 proposals from Basin stakeholders under the first two components of the program. The third component allows for proposals to be submitted in the coming months.

Landmark Salton Sea Agreement

In November 2022, Deputy Secretary Tommy Beaudreau and leaders from the California Natural Resources Agency, Imperial Irrigation District (IID), and Coachella Valley Water District (CVWD) announced an [agreement](#) that will expedite implementation of California’s 10-year Salton Sea management plan and enable urgent water conservation needed to protect Colorado River reservoir storage volumes amid persistent climate change-driven drought conditions.

The Salton Sea, California’s largest lake, is receding due to the drought crisis gripping the West and the necessary conservation actions in the Imperial Valley that have reduced inflows to the Sea.



Images of lakes Mead (pictured here) and Powell in the Colorado River Basin show the stark evidence of climate change and 23 years of drought in the southwestern United States.

Exposed lakebed is contributing to harmful dust emissions to the surrounding environment and reducing important environmental habitat for wildlife.

“Reclamation has been involved with efforts to restore the Salton Sea for nearly 40 years,” said Gould. “Colorado River conditions have reached a tipping point, threatening water supply security for millions of people who depend on this vital resource. This agreement represents a key step in our collective efforts to bring the basin into balance, helping to protect critical elevations at lakes Mead and Powell and supporting essential efforts at the Salton Sea.”

Under the agreement, Reclamation will provide \$22 million in new funding through the Inflation Reduction Act in fiscal year 2023 to implement projects at the Sea and support staffing at the Torres Martinez Desert Cahuilla Indian Tribe.

In addition, the California Natural Resources Agency agreed to accelerate project delivery through permit streamlining and use of its full contracting authority.

It also commits to continue pursuing additional funding for projects to build on state funding already committed to Salton Sea Management Program implementation.

Subject to the implementation of voluntary conservation actions proposed by IID and CVWD, Reclamation will also provide an additional \$228 million over the next four years to expedite existing projects and bolster staffing capacity at the water agencies to help deliver new projects. This supports California’s commitment to voluntarily conserve 400,000 acre-feet annually, starting in 2023. The \$250 million investment from the Inflation Reduction Act will complement the \$583 million in state funding committed to date.

More about the Lower Colorado River Basin System Conservation and Efficiency Program and the Salton Sea agreement is available on Reclamation’s [Inflation Reduction Act webpage](#).



Established by Department of the Interior Deputy Secretary Tommy Beaudreau and leaders from the California Natural Resources Agency, Imperial Irrigation District, and Coachella Valley Water District, the landmark [Salton Sea agreement](#) will accelerate implementation of dust suppression and aquatic restoration efforts at the Salton Sea in Southern California.



Ryan Stewart fishing, his favorite activity when he's off work.

Q&A

Ryan Stewart

Operations Manager, Silt Water Conservancy District

Ryan Stewart is Operations Manager for the Silt Water Conservancy District on Colorado's Western Slope. He is also dam tender for Reclamation's Rifle Gap Dam and the privately owned Harvey Gap Dam. He spoke with us about everyday maintenance, how his responsibilities shift with each new season, and helping to ensure all water users receive their allocated share.

When did you get interested in water management?

Growing up, my dad worked in water management for 30 plus years for Northern Water.

What brought you to the Silt Water Conservancy District?

I was in the construction and trucking industry. I have always thought that water management is fascinating. I was looking for this kind of opportunity. Coming here, I didn't expect to take on quite what I have, but I'm glad I did. I've been here for two years now.

Can you provide a high-level summary of your roles and responsibilities as Operations Manager?

I manage the daily operations of our 6,597-acre district, including the Farmers Irrigation Company district. This includes Harvey Gap Dam, Rifle Gap

Dam, 38 miles of canals and laterals, Rifle Falls diversion, and the pump house along the Colorado River. We deliver Silt Project water and Farmers Irrigation water to over 500 users in the district.

In what ways does your work intersect with the Bureau of Reclamation? With the Western Colorado Area Office (WCAO) specifically?

The Silt Project is a Bureau project, so our policies and operating guidelines are on par with the Bureau of Reclamation. I stay in touch with the WCAO regularly. They're always available to lend a hand with projects, inspections, and advice. Our district here is pretty small, but we've got a lot to do. When it comes to Rifle Dam, we stay in touch with annual safety inspections and monthly piezometer readings just to name a couple directives. But day-to-day operations, like water delivery season, that's handled directly from our water users and our office in Silt.

You're the dam tender for Rifle Gap Dam and Harvey Gap Dam. What does a dam tender do?

We monitor water elevations, releases for deliveries, piezometer well reading, weed control, and normal maintenance on the dam. A dam tender is also part of the annual dam safety inspections, ongoing monthly visual inspections, and comprehensive and mechanical inspections.

How frequently are you on site at these dams?

During the water season, or summer months, we're at the dams four to five times a week. I adjust the water going out depending on how much water has been ordered. In the winter, I'm there at least once a week for recordkeeping and monitoring.

How does your work change with the seasons?

Spring brings extra maintenance as we get ready for delivery season. Canal maintenance, weed control, and finishing any projects worked on during the winter like headgate or head wall replacement. Summer is busy with customer service and making sure deliveries are met.



Rifle Gap Dam, part of the Silt Project, in Rifle, Colorado.



Harvey Gap Reservoir.

What are the primary uses for the water delivered by the Silt Water Conservancy District?

AG only. Irrigation for farms, ranches, livestock.

Have you ever encountered emergency situations?

The only emergency I've encountered was last spring when we fired up the pump house along the Colorado River. We had a siphon plug, and there was about 20 CFS that had nowhere to go. We had to open as many head gates as we could to keep the ditch from breaching. Getting that siphon unplugged was the bigger challenge, as it was plugged with

Russian olive tree branches that were 30 ft. into a 26-inch siphon. After a long day of running 2-inch drill pipe and a big hook through the siphon, we were able to clear the plug.

Can you describe the most challenging part of being Operations Manager? What best practices do you use?

Learning and fully understanding the Colorado water laws and bylaws covering the district and learning how the project is funded and supported are the greatest challenges.

As for being successful, it's about asking for help when I need it. We have two boards of directors, the Silt Water Board and the Farmer's Irrigation Board, and all those guys live in the district. If I'm getting overwhelmed, they are a stream of knowledge.

What advice can you share for those looking to begin or advance a career in water management?

Remember that as the West grows and develops, the way we manage our water resources will be changing and more challenging.

What do you like to do when you're off from work?

Fish, Fish, Fish, Hunt, Fish.



Stewart (right) at the August 18, 2022, site visit for the Rifle Gap Comprehensive Review.

Updates & Due Dates

2023 Review of Operations and Maintenance (RO&M) Workshop

The RO&M Workshop is a three-day seminar tailored to Bureau of Reclamation (Reclamation) operations and maintenance personnel and inspectors. The Workshop focuses on how to inspect and review high- and significant-hazard dams and associated facilities such as low-hazard dams, canals, pumping plants, levees, bridges, roads, etc. Program updates and recent case studies will also be provided. Participants will bolster the skills and knowledge used to operate and assess Reclamation infrastructure.

Registration

The 2023 RO&M Workshop will be held at the Sheraton Grand Seattle in Seattle, Washington, from Tuesday, April 11, through Thursday, April 13, 2023. There will be two days of classroom training and one day consisting of a field site visit to Cle Elum Dam. There is no cost for this training. Reclamation employees must register in DOI Talent.

2023 Reclamation Land Resources Training

The 2023 Reclamation Land Resources Training covers Land and Realty, Recreation Management, and Wildland Fire Management. Training components include general land resource program sessions, the introduction of a formalized Land and Realty Curriculum, a one-day field review exercise, and program-specific break-out sessions. This training also provides an opportunity to network and collaborate with peers from across Reclamation. Participants will gain tools, knowledge, and examples to assist in identifying, managing, and developing successful land resource programs that meet Reclamation Manual Policy and Directives and Standards.

Registration

The Land Resources Training will be held at the Boise Centre in Boise, Idaho, from Monday, May 8, through Friday, May 12, 2023. There is no cost for this training. Reclamation employees must register in DOI Talent.

Cle Elum Dam, on the Cle Elum River 10 miles northwest of Cle Elum, Washington.

