

# Navajo-Gallup Water Supply Project Newsletter

3rd Quarter, April 2023

## Construction Continues at Sanostee and Hogback Chapters

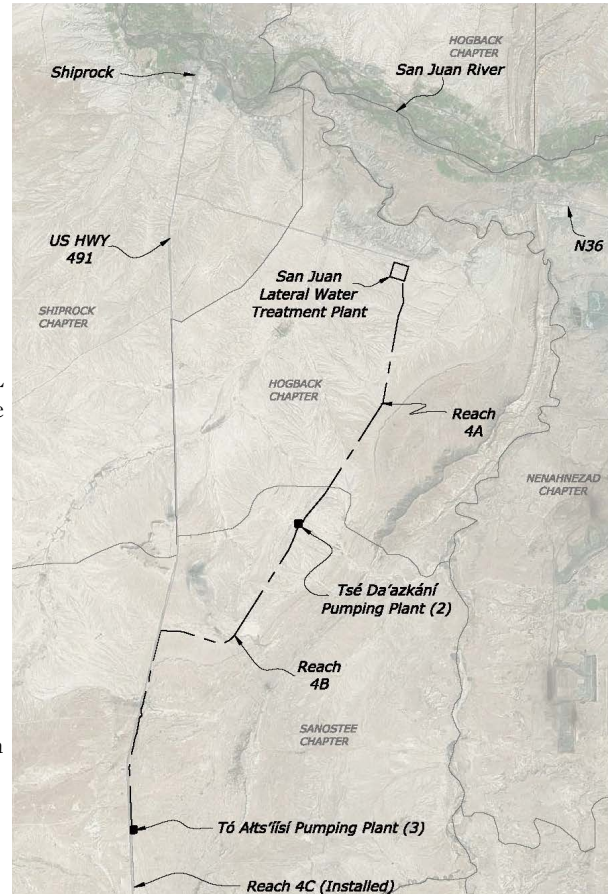
By Ryan Royer, Civil Engineer, Bureau of Reclamation

Construction continues to progress on the San Juan Lateral on the Navajo-Gallup Water Supply Project with new projects planned by Reclamation, the Navajo Nation, Indian Health Service, and the city of Gallup. Currently, Reclamation’s construction contractor, Archer Western, has two pumping plants located in the Twin Lakes and Sheep Springs chapters under construction. Additionally, there is a stretch of 30- and 24-inch pipe being installed from Yah-tah-hey Junction by Reclamation’s contractor, SJJL Construction, west through the Rock Springs and Tsayatoh chapters to the Arizona/New Mexico state line.

Beginning this spring, even more of the project will move into the construction phase, including two more pumping plants: the Tse Da’azkani Pumping Plant (2) and To Alts’iisi Pumping Plant (3); as well as roughly 18 miles of 42-inch pipe for the Block 4A-4B pipeline. Much of this construction will take place in the Tse anaozt’ii (Sanostee) Chapter, except for Reach 4A construction in the Tse Daa’ K’aan (Hogback) Chapter.

One of the pumping plants will be easy to see, as it is located along highway 491 around ISR 5016. There, the pumping plant (To Alts’iisi) will connect to pipe already in the ground on the south end, which is Reach 4C. Inside of the pumping plant, a bank of four, 1,000 horsepower motors will be installed to move the water south when construction of the entire project is complete. The Reach 4B pipeline will supply water to the To Alts’iisi pumping plant through an 11-mile long, 42-inch diameter pipe. There, an additional pumping plant (Tse Da’azkani) will be constructed. This pumping plant will have four smaller, 600 horsepower motors to assist with moving the water to communities in the south. From this pumping plant continuing farther north still, the Reach 4A pipeline, which is 7 miles of 42-inch diameter pipe, will be laid into the earth.

The location where Reach 4A begins is of particular importance, as it will connect directly to the San Juan Lateral Water Treatment Plant which will provide a clean, reliable source of water from the San Juan River to the Diné people for generations to come. Once Block 4A-4B is completed in 2025, continuous pipe will stretch from Highway N36 in the north, all the way to the south of Gallup for a total distance of about 100 miles.



Map of the upcoming construction area of the pumping plants and waterline located within the Sanostee and Hogback Chapters

## Faces of NGWSP



Marc A. DePauli is a licensed civil engineer and land surveyor from Gallup, New Mexico. Marc attended Gallup High School and received a Bachelor’s in Civil Engineering from the University of Arizona and has always worked in the Colorado River Basin. Marc is the owner of DePauli Engineering & Surveying, LLC, and is responsible for the oversight of all the planning, design, surveying, and construction management of the firm,

which is contracted with the city of Gallup. The firm provides engineering and construction management services and has represented the city’s interests on the NGWSP since 2000. Marc’s long-time resident knowledge and understanding of the project has been immensely helpful to help us meet the demands for the future water supply of the city of Gallup and surrounding areas because of the rapidly declining groundwater levels.



— BUREAU OF — RECLAMATION

If you would like to learn more, visit our website at: <https://www.usbr.gov/uc/progact/navajo-gallup/>.



## Hilda Castillo-Smith Named Reclamation's 2023 Regional Engineer of the Year



This year, the honor of the Regional Offices' Engineer of the Year went to the Upper Colorado Region's Hilda Castillo-Smith from the Four Corners Construction Office for her impressive work on the important Navajo-Gallup Water Supply Project.

Working as a civil engineer for Reclamation, Hilda employs a unique and diverse skillset to design, develop, implement, and manage construction of several of the nation's most challenging and critically needed engineering projects. She serves as a lead resident engineer responsible for delivering reliable drinking water to the Navajo Nation.

"She's an engineer who performs at an exceptional level, including on some aspects outside of her typical engineering duties such as public outreach," said her supervisor, Field Engineering Division Manager Emma Manzanares.

Castillo-Smith manages construction on contracts worth a total value of \$175 million. In the past three years, she has served as the resident engineer on the high-profile projects critical to fulfilling our nation's treaty obligations to the Navajo Nation.

"We're grateful for Hilda's exceptional professionalism and going the extra mile in supporting Reclamation's mission," said Upper Colorado Basin Regional Director Wayne Pullan. "Her considerable engineering contributions have enhanced Tribal relationships and improved water supplies throughout the Four Corners region."

## Water Source for the Navajo-Gallup Water Supply Project

By Dex Lewis, Civil Engineer, Bureau of Reclamation

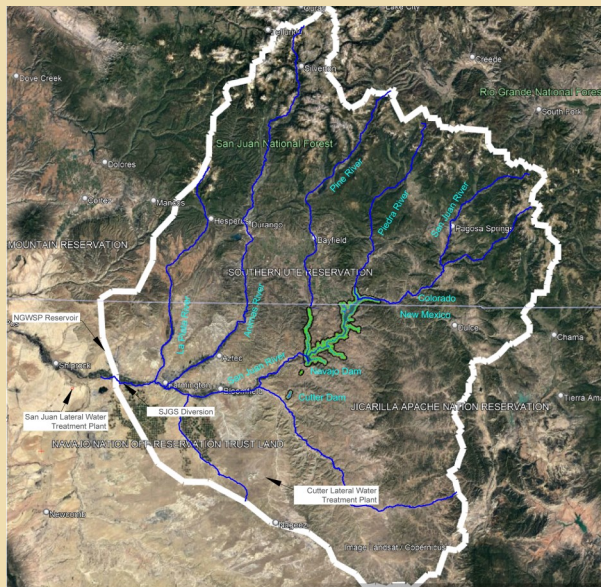
Did you know that the Navajo-Gallup Water Supply raw water comes from one main source, the San Juan River and its tributaries? The San Juan River is the inflow and outflow of the Navajo Dam, which is the upstream impoundment of storage water for the river. The NGWSP consists of two laterals, the Cutter Lateral and the San Juan Lateral, which service potable water for the eastern and western Navajo communities in New Mexico, respectively. So how do these laterals get their water?

### CUTTER RESERVOIR AND LATERAL

The Cutter Dam was constructed under the Navajo Indian Irrigation Project (NIIP) and is operated and maintained by the Navajo Agricultural Products Industry through a contract with the Bureau of Indian Affairs as the irrigation source water for the NIIP farm system. Its source water is Navajo Dam via a series of canals and tunnels. Cutter Reservoir was chosen as the source water for the Cutter Lateral for multiple reasons, including its location, storage capacity and ability to settle sediments from the water. Cutter Reservoir is approximately 64 acres in surface area and offers approximately 900 acre-feet of active storage. Downstream of the reservoir, two pumping plants lift the raw water to the Cutter Lateral Water Treatment Plant through approximately 20 miles of 20-inch and 24-inch pipeline. The CLWTP currently has a maximum peak treatment flow of 3.5 million gallons per day with the ability to be expanded to produce 5.4 MGD at full buildout and has been in operation since October 2020.

### SAN JUAN LATERAL AND SAN JUAN GENERATING STATION RESERVOIR

The San Juan Lateral source water will be the San Juan River via the San Juan Generating Station Intake Pumping Plant that diverts and pumps water to the SJGS Reservoir. The Bureau of Reclamation is acquiring the SJGS Reservoir and river intake pumping plant for use on the San Juan Lateral. The reservoir has a surface area of approximately 130 acres and 2,740 acre-feet of active storage. As of March 2023, Reclamation is in the initial design phase of a new Pumping Plant #1 located near the river. This pumping plant will pump raw water from the SJGS reservoir to the San Juan Lateral Water Treatment Plant, which is located approximately 10 miles southwest. The treatment plant will be designed in phases to meet startup and initial demand flows and have the capability to expand to meet future 40-year population demand growths: It will produce a peak supply of 18.8 MGD to meet initial demands with the deferred expansion to produce 37.6 MGD at full build-out. Reclamation is currently soliciting a design-build contract anticipated to be awarded in the spring of 2024 with a completion date of 2029, with initial deliveries of clean, reliable and more sustainable drinking water to Navajo communities and the city of Gallup in 2028.



Navajo-Gallup Water Supply Project water source for the Cutter Lateral and San Juan Lateral



— BUREAU OF —  
RECLAMATION

If you would like to learn more, visit our website at:  
<https://www.usbr.gov/uc/progact/navajo-gallup/>.

