



Navajo-Gallup Water Supply Project Newsletter

2nd Quarter, January 2020

San Juan Generating Station Water Infrastructure Use Analysis

By James Sterling Acree and Dex L. Lewis, Bureau of Reclamation

The Bureau of Reclamation has begun working collaboratively with both the Public Service Company of New Mexico and the City of Farmington Electrical Utility System to conduct an in-depth analysis to determine the feasibility of using the San Juan Generating Station existing water infrastructure facilities for the raw water intake for the NGWSP San Juan Lateral. The water supply facilities, including a diversion dam and water intake structure at the San Juan River, two pumping plants, supply pipeline, and a raw water storage reservoir, are currently owned by PNM and are used to supply cooling water for the SJGS. While PNM is planning to close the power plant in 2022, the City of Farmington is exploring an opportunity to keep the plant open; in which case joint use of the facilities may be possible and will be part



Existing San Juan Generating Station Raw Water Storage Reservoir

of the analysis. Reclamation had previously identified the Hogback Diversion as the location for the San Juan Lateral intake. Key benefits of the SJGS Diversion over the Hogback Diversion include potential construction cost savings, a decrease in long-term operational costs, and a significant improvement in overall Project operability with the reservoir that would enable the river intake to be shut down – while the water treatment plant is kept operating – in the event of a substantial storm runoff event that muddies the river or an upstream contamination incident, such as a mine spill.

The analysis will include assessments of the individual facility features, design and cost estimates of necessary facility modifications, reservoir water quality and sediment analysis, and a review of environmental compliance requirements, cultural resource sensitivities, rights-of-way considerations, and schedule impacts.

The analysis is scheduled to be completed by the end of 2020, at which point a decision will be made whether to use the SJGS facilities or stay with the Hogback intake location.



Faces of NGWSP

Hello, my name is Barry Longwell. I am the Project Construction Engineer for the Navajo-Gallup Water Supply Project and manage the Bureau of Reclamation's Four Corners Construction Office.

I have been involved in the Navajo-Gallup Water Supply Project since it was authorized by Congress in 2009. We have worked hard to manage the project in partnership with our sponsors. Reclamation has awarded contracts or entered into agreements for the construction of one water treatment plant, 7 pumping plants, and over 230 miles of pipeline. A lot has been completed, but a lot remains to do.

As I write this introduction, I am on the eve of my retirement from the Bureau of Reclamation. I have worked on many projects during my career, but the one that brings me the most pride is the Navajo-Gallup Water Supply Project. It has been an honor to work with all those involved with the Project. I wish to thank everyone that I have met and worked with for their friendship and their efforts in helping to ensure the completion of this project for the Navajo people, the Jicarilla Apache Nation, and the City of Gallup.

If you would like to learn more about the Navajo-Gallup Water Supply Project, you can visit our website at <https://www.usbr.gov/uc/rm/navajo/nav-gallup/>.



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Upcoming Meetings

Jan.

22

Cutter Lateral OM&R Transfer Contract Negotiation Meeting will meet Wednesday, Jan. 22 at 10 a.m. at NTUA Headquarters in Fort Defiance, AZ

Feb.

5

Project Operations Committee will meet Wednesday, Feb. 5 at 10 a.m. at the El Morro Events Center in Gallup

March

18

BBN9 Cutter Lateral Group will meet Wednesday March 18 at 10 a.m. at Lake Valley Chapter House

Jan.

30

NGWSP Project Construction Committee will meet Thursday Jan. 30 at 9 a.m. at the El Morro Events Center in Gallup

March

10

491 Chapters Group will meet Tuesday, March 10 at 10 a.m. at Twin Lakes Chapter House

Electrical Power for NGWSP

By Paul Denetclaw P.E., Bureau of Reclamation

An important requirement to delivering drinking water to the Navajo Communities and the city of Gallup is the electricity to run the water treatment plants and pumping plants, including pipeline corrosion protection.

As part of the authorizing legislation for the NGWSP, Congress reserved up to 26,000 kilowatts of electrical power for use on NGWSP facilities. The power comes from hydroelectric power plants within Reclamation's Colorado River Storage Project Act projects – NGWSP is a “participating project” of CRSP.

U.S. Dept. of Energy's Western Area Power Administration has the statutory authority to sell electricity from Reclamation hydroelectric power plants and will enter into an agreement with the Navajo Tribal Utility Authority and Reclamation to provide electricity for the NGWSP at a discounted rate to market wholesale electrical rates.

NTUA's transmission lines will supply power to the water treatment plants and pumping plants on the San Juan Lateral. NGWSP will have capacity in NTUA's new 115 kilovolt power transmission line that will soon be under construction along the Highway 491 corridor. Gallup utilities will provide power to the Gallup Regional System facilities that will provide water to the city and Navajo communities surrounding Gallup. Some facilities along the Highway 264 corridor between Ya-tah-hey and Tse Bonito will require power to be delivered from Continental Divide Electric Cooperative as well. On the Cutter Lateral facilities, Farmington Electric Utility System and Jemez Mountain Electric Cooperative will provide power to those facilities.

The water treatment and pumping plants will require a large amount of electricity to pump water from lower elevations along the San Juan River to higher elevations along both U.S. Highways 550 and 491 and to produce drinking water that meets regulatory requirements. It is very important that the electrical service is highly reliable with few outages.



Generators at Glen Canyon Dam, near Page, Arizona.

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