



San Juan Watershed Monitoring Program

PROGRAM OVERVIEW

Water resources in the San Juan watershed, which encompasses the San Juan and Animas Rivers and Lake Powell, are essential for recreational, agricultural, cultural, and residential uses. Potential contamination sources within the watershed include historic mining activities that disturbed the land and exacerbated naturally occurring mineralization. In 2016, under the Water Infrastructure Improvements for the Nation (WIIN) Act, the U.S. Congress authorized appropriations of \$4 million per year in 2017–2021 for a long-term water quality monitoring program for the San Juan watershed.

EPA and the states and tribes adjoining the watershed—Arizona, Colorado, New Mexico, Utah, the Navajo Nation, the Ute Mountain Ute Tribe, and the Southern Ute Indian Tribe—are working together to develop and implement the long-term water quality monitoring program. They will:



Conduct collaborative annual water quality and sediment monitoring and determine the need for additional monitoring.



Communicate information about the condition of the watershed to the public.

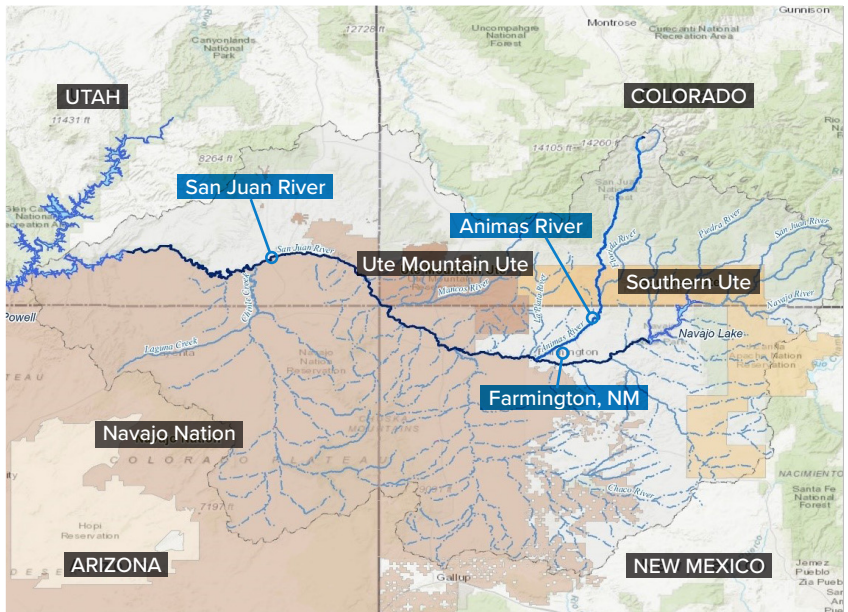


Carry out targeted monitoring and research activities to inform state and tribe-specific decision-making for the watershed.

SAN JUAN WATERSHED AND ENCOMPASSING RIVERS

The San Juan River is approximately 355 miles long,¹ and originates in the San Juan Mountains in southwestern Colorado. It flows westerly into New Mexico and is detained in the Navajo Reservoir. The river continues into southern Utah and ultimately terminates in Lake Powell in Utah. Lake Powell lies on the Colorado River, along the Utah-Arizona border. At 186 miles long and with 1,960 miles of shoreline when full, it is the second largest manmade reservoir in the country.²

The 126-mile long³ Animas River originates in the mountain peaks northeast of Silverton, Colorado. It flows southward and into the San Juan River in Farmington, New Mexico.



INITIAL LONG-TERM MONITORING PROGRAM ACTIVITIES

EPA and the states and tribes in the watershed have worked together to identify watershed-wide and state and tribe-specific priorities that will supplement previous and ongoing monitoring and assessment activities, enhance understanding of the condition of the San Juan watershed, and identify future opportunities for improving watershed protection. The 2017 WIIN Act appropriation is funding critical activities, including:

- Evaluating existing water quality information and conducting targeted sampling throughout the watershed through surface water, sediment, and biological monitoring.
- Maintaining sondes (electronic probes) throughout the watershed to provide real-time data that can inform management decisions, including closure of drinking water intakes if necessary.
- Initiating core sampling in Lake Powell to better understand historical and ongoing deposits in the lake.
- Assessing the direct and indirect exposure of humans and livestock to metals in the San Juan and Animas Rivers and reviewing existing water quality standards for livestock and agricultural irrigation.
- Evaluating connectivity between surface water and groundwater along the Animas River.
- Identifying and delineating the extent of cultural uses of Animas River waters to understand how contaminants may affect tribal uses.
- Conducting outreach, assessments, and collaborative activities to communicate the current condition of the watershed.



Field crew records fish community information and processes whole fish tissue samples on the Animas River.

FUTURE ACTIVITIES

While funded activities may vary each year, EPA and states and tribes will use any additional appropriations to:

- Continue to assess additional monitoring needs.
- Expand public communication and outreach efforts to capture the additional data collected during each subsequent year of monitoring.
- Support additional state- and tribe-specific activities that inform state and tribal watershed management decisions.



Steve Austin, Navajo Nation EPA, collects a water sample along the San Juan River during peak spring flow in June 2016.

Photo, page 1: Field crew collects Brown Trout (*Salmo trutta*) tissue samples at the confluence of Cascade Creek and the Animas River.

1. Holden, P.B. (Ed.). 1999. Flow recommendations for the San Juan River. San Juan River Basin Recovery Implementation Program, USFWS, Albuquerque, NM.

2. U.S. Bureau of Reclamation. Upper Colorado Region, Colorado River Storage Project, Glen Canyon Unit. "Lake Powell." Accessed March 14, 2018.

3. Colorado Department of Public Health and Environment, Water Quality Control Division. 2016. Animas River – Spring Runoff 2016.