

NEW MEXICO WATER FACTSHEET

San Juan County

August 13th, 2024

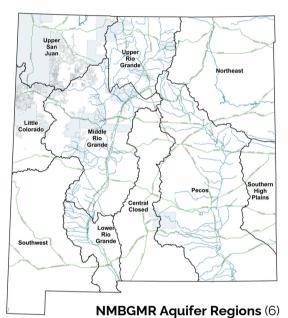


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Water in New Mexico

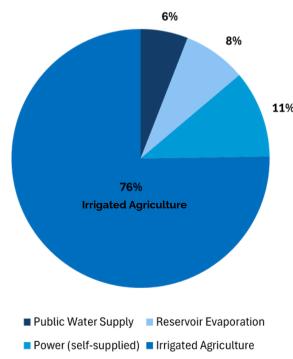
One of New Mexico's biggest challenges is water scarcity. New Mexico has the lowest water to land ratio of all 50 states (1), and climate change is only expected to intensify our water challenges. Water quality is also threatened by contaminants both artificial and natural. Arsenic, uranium, nitrate, fluoride, and bacteria are among the most problematic contaminants in the state (2). New Mexico surface water sources consist of six major river basins:



Arkansas-White-Red, Lower Colorado, Pecos, Rio Grande, Texas Gulf, and Upper Colorado (3). Despite the presence of numerous river basins. 78% of New Mexicans rely on groundwater for their drinking water (3). The New Mexico Environment Department (NMED) is responsible for managing water infrastructure systems and addressing water quality issues throughout the state (except on tribal lands), including the implementation and enforcement of the federal Safe Drinking Water Act (2). The Office of the State Engineer has authority over the supervision, measurement, appropriation, and distribution of all surface water and groundwater in New Mexico, including streams and rivers that cross state lines (4). The New Mexico Interstate Stream Commission investigates, protects, conserves, and develops New Mexico's waters including both interstate and intrastate stream systems (5). The New Mexico Bureau of Geology and Mineral Recourses Hydrology Programs (6) provide independent geologic mapping collaborative hydrologic research statewide, including the aquifer mapping program (left).

Water in San Juan County

Located in the northwest corner of New Mexico, San Juan County consists of 5,517 square miles of land area and a population of 121,661 (7). Located in the Upper Colorado River basin, San Juan county is 63.4% Navajo Nation, and 2.93% Ute Mountain Ute Tribal land by area (8). 99% of water used in the county is withdrawn from surface water sources (3). The San Juan River is the primary surface water source in the county (9). Groundwater resources in the San Juan Basin are minimal and shallow, with limited aguifers in the Triassic and Cretaceous sandstone beds in the San Juan Basin. (10). Multiple US Bureau of Reclamation water projects impact San Juan County. For example, the San Juan-Chama Project diverts about 100,000 acre-feet per year to the Rio Grande Basin (11). The Navajo Indian Irrigation Project (NIIP) is authorized to divert 508,000 acre-ft per year from Navajo Lake to Navajo Nation to irrigate 110,630 acres of farmland (12). The Animas-La Plata Project, which created Lake Nighthorse on the Animas River in Colorado, has a total storage capacity of 123,500 acre-feet (10). Finally, the Navajo-Gallup Water Supply Project, currently under construction, aims to convey water 280 miles (450 km) south from Navajo Lake (13).

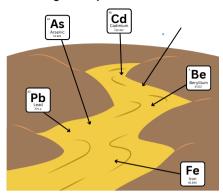


Frequently Asked Questions

What are the water challenges faced by San Juan County?

- Even though the San Juan Basin planning region has ample reservoir storage, the county's heavy reliance in surface water makes it highly vulnerable to droughts. Additionally, a major impact of ongoing climate change on water supply and availability is the timing of peak snowmelt runoff each year (10).
- Surface water is vulnerable to contamination, as seen in the impacts on the Animas and San Juan Rivers in the San Juan Basin from the 2015 Gold King Mine spill. Also, high levels were of E. coli have been detected in the San Juan and Animas rivers due to human and wildlife waste products (10).
- Maintaining, improving, and managing small municipal water systems and agricultural infrastructure is one of the greatest funding challenges in New Mexico, including San Juan County (10).

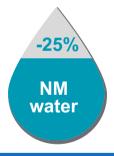
Heavy Metal Contaminants from the Gold King Mine Spill - Animas River



How is San Juan moving towards sustainable water management?

Since 2001, the <u>San Juan Watershed Group (SJWG)</u> has been a collaborative community partnership focused on protecting and restoring water quality in the San Juan River Watershed in New Mexico. In 2016, they created the Lower Animas Watershed Based Plan, which outlined projects to address pollution in the watershed. The SJWG has implemented dozens of these projects and outreach initiatives to address bacteria, nutrient, and sediment pollution, improve watershed health, and empower the community (10). Additionally, the group has collaborated with partners to conduct several water quality studies in the Animas and San Juan Watersheds, identifying hotspots of phosphorus, nitrogen, and E. coli. These studies identified sources of pollution, including agriculture, grazing land use, and urban stormwater flow (10). Building on the success and lessons learned from the LAWBP, the SJWG is developing a watershed plan for the San Juan Watershed in New Mexico (10).

What is the 50-Year Water Action Plan?



The New Mexico Office of the Governor has developed a 50-year water action plan to address the state's water challenges now and in the future. Over the next 50 years, it is predicted that New Mexico will have about 25% less water available in rivers and aquifers (13). Additionally, it is expected that Climate Change will make the state hotter and dryer, change precipitation patterns, and increase occurrence of fires, flooding, and drought. The plan proposes a series of actions to secure New Mexico's water supply through water conservation, new water supplies, and water and watershed protection.

Additional Resources

Statewide

- 1) NM 50-year water plan
- 2) 2018 New Mexico State Water Plan Policies
- 3) 2018 New Mexico State Water Plan Technical Report
- 4) 2018 New Mexico State Water Plan Legal Landmarks

Regional

- 1) Regional Water Planning
- 2) <u>North Central New Mexico Economic Development</u> District

- 5) New Mexico Water Data
- 6) New Mexico Environment Department
- 7) <u>Climate Change in NM Over the Next 50 Years:</u> <u>Impacts on Water Resources</u>

Countywide

- 1) County Economic Summaries & Data Profiles
- 2) San Juan County
- 3) San Juan Watershed Group

References: (1) <u>Drought in New Mexico</u> (2) <u>Water Resources & Management – NMED</u> (3) <u>New Mexico Water Use By Categories 2015</u> (4) <u>Water Planning in New Mexico – OSE</u> (5) <u>Interstate Stream Comission</u> (6) <u>NM Bureau of Geology and Mineral Resources</u> (7) <u>Census Profile San Juan County, NM</u> (8) <u>San Juan County</u> (9) <u>San Juan Watershed – EPA</u> (10) <u>2023-2026 Strategic Plan – SJWG</u> (11) <u>Rio Chama Basin – OSE</u> (12) <u>Navajo Indian Irrigation Project</u> (13) <u>Navajo Gallup Water Supply Project</u> (13) <u>50-year Water Action Plan</u>