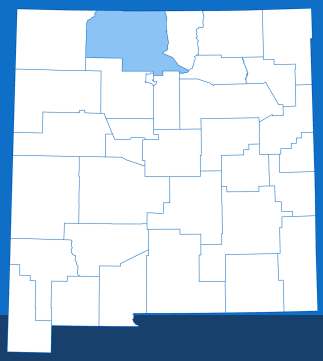


NEW MEXICO WATER FACTSHEET

Rio Arriba County

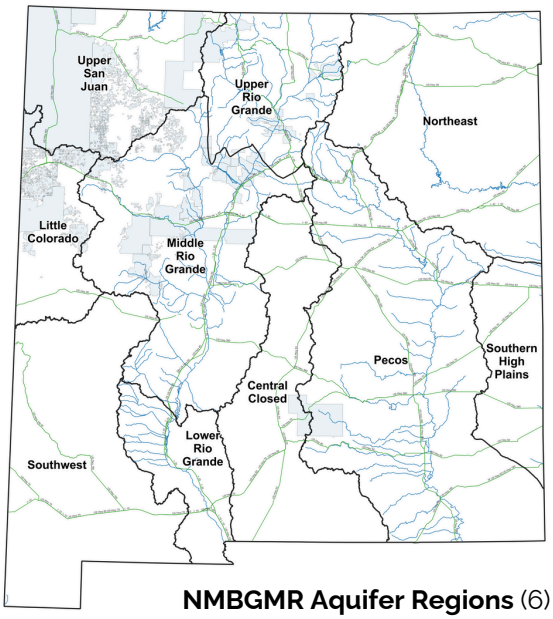
July 2nd, 2024

SOUTHWEST ENVIRONMENTAL FINANCE CENTER

swefc.unm.edu/efc-bil

Water in New Mexico

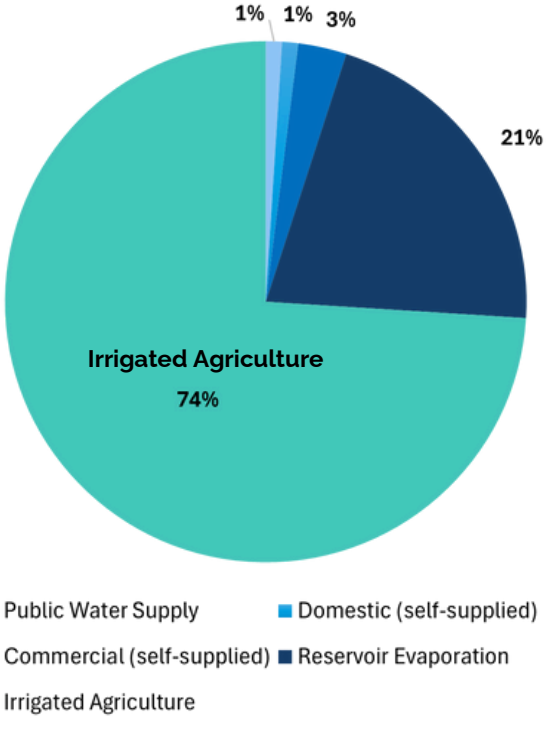
One of New Mexico's biggest challenges is water scarcity. New Mexico has the lowest water to land ratio of all 50 states (1), and climate change is only expected to intensify our water challenges. Water quality is also threatened by contaminants both artificial and natural. Arsenic, uranium, nitrate, 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).



NMBGMR Aquifer Regions (6)

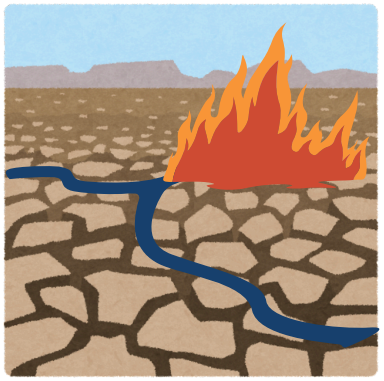
Water in Rio Arriba County

Located in Northern New Mexico, Rio Arriba County (population of 40,363) has a land area of 5,860 square miles, making it the 5th largest county in the state (7). Surface water sources in the Rio Chama Water Region primarily stem from the Rio Chama and its tributaries. The San Juan-Chama Project also diverts water from the upper reaches of the San Juan River in Colorado into the Rio Grande Basin for storage in Heron Reservoir on Willow Creek, just above its confluence with the Rio Chama (8). Groundwater resources in the Rio Chama watershed are less explored, due to historical reliance on surface water, the absence of major urban areas within the planning region, the long-standing reliance on the acequia system, and the comparative abundance of surface water resources (8). Despite the only declared underground water basin by the NM Office of the State Engineer in the region being predominantly shared with the Taos and Jemez Y Sangre regions, all drinking water supplies in Rio Arriba utilize groundwater, save for the Village of Chama. (8). Rio Arriba County comprises 44 water systems (9). Within Rio Arriba County, 94% of water usage is sourced from surface water, with irrigated agriculture being the primary consumer (3).



Frequently Asked Questions

What are the water challenges faced by Rio Arriba County?



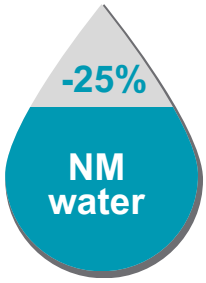
- Drought is a major concern due to the region's heavy dependence on surface water.
- It is challenging to fund repair and maintenance of acequia systems.
- Due to the large amount of forested land in the region, coupled with the recent drought conditions, the threat of wildfire and subsequent sedimentation impacts on streams and reservoirs remains a key planning issue.
- Small systems face challenges financing infrastructure maintenance, upgrades, as well as complying with water quality monitoring and training standards.
- Village of Chama has historically had problems with bacteria and other organisms in its surface water supply due to inadequate treatment capacity.
- The 2006 water plan identified nitrate and other potential contamination of shallow groundwater and domestic wells due to septic tanks as a potential water quality concern (8).

How is Rio Arriba moving towards sustainable water management?

Strategies to Meet Future Water Demand (8):

- Rio Arriba County 40-Year Water Plan: identify threats and opportunities for protecting water rights, infrastructure, and supply as demands increase.
- Flood and Hazard Mitigation Planning and Outreach Effort
- Water Resources Monitoring Network: tracks groundwater quality and quantity, with emphasis on data quality.
- Conducting outreach to acequia domestic water users on existing rules/policy allowing water banking.
- Implementing alternative reservoir release management and river maintenance.

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 (10). 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
5) New Mexico Water Data
6) New Mexico Environment Department
7) Climate Change in NM Over the Next 50 Years: Impacts on Water Resources

Regional

1) Regional Water Planning
2) North Central New Mexico Economic Development District

Countywide

1) County Economic Summaries & Data Profiles
2) Rio Arriba County

References: (1) Drought in New Mexico **(2)** Water Resources & Management – NMED **(3)** New Mexico Water Use By Categories 2015 **(4)** Water Planning in New Mexico – OSE **(5)** Interstate Stream Comission **(6)** NM Bureau of Geology and Mineral Resources **(7)** Census Profile Rio Arriba County, NM **(8)** Rio Chama Regional Water Plan 2016 **(9)** Water Systems in Rio Arriba County, NM– NY Times **(10)** 50-year Water Action Plan