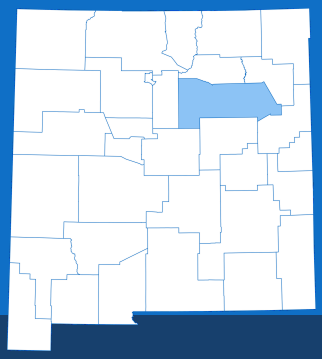


NEW MEXICO WATER FACTSHEET

San Miguel County

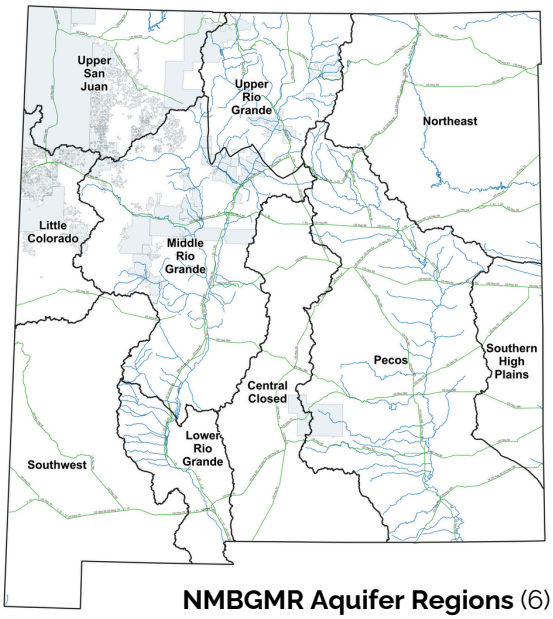
July 11th, 2024

SOUTHWEST ENVIRONMENTAL FINANCE CENTER

swefc.unm.edu/efc-bil

Water in New Mexico

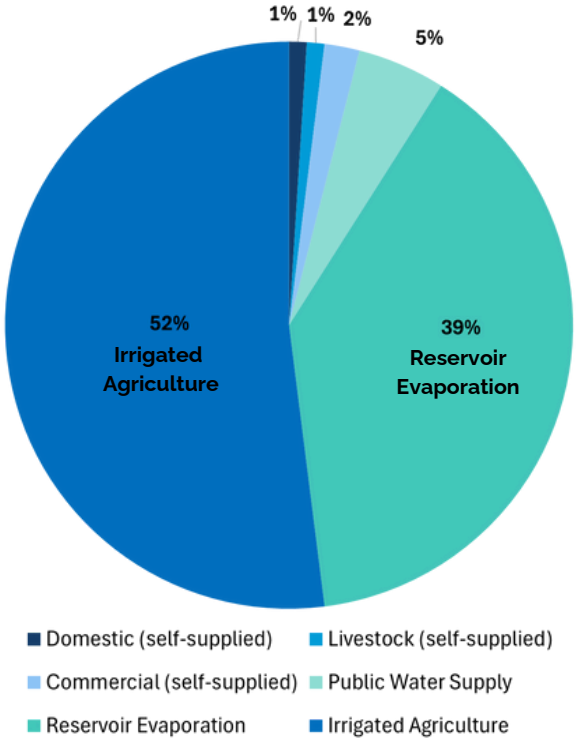
One of New Mexico's biggest challenges is water scarcity. New Mexico has the lowest water to land ratio of all 50 states (1), and climate change is only expected to intensify our water challenges. Water quality is also threatened by contaminants both artificial and natural. Arsenic, uranium, nitrate,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

Located east of Santa Fe, San Miguel County has a population of 27,201 and covers an area of 4,721.5 square miles (7). Water here is primarily supplied by the Pecos and Canadian Rivers, which both originate in the Sangre de Cristo Mountains (8). Surface water supplies almost all the water in the county, with the majority allocated to irrigated agriculture and reservoir evaporation. San Miguel County contains parts of five New Mexico Office of the State Engineer (NMOSE) declared underground water basins: the Upper Pecos, the Canadian River, and the Tucumcari water basins, with small parts of the Northern Rio Grande and Estancia water basins. Groundwater in San Miguel County supplies domestic wells and public water systems, with the remainder divided between livestock and commercial uses (8). The three major lakes in San Miguel County are Lake Isabel, Conchas Lake, and Storrie Lake. Conchas Lake and Lake Isabel supply irrigation water for nearby agriculture. Storrie Lake provides water to Las Vegas and the Las Vegas Acequia Association (8). Surface and groundwater rights in San Miguel County are managed by the NMOSE, while acequias are managed as principal local government units for the distribution and use of surface water (8).



Frequently Asked Questions

What are the water challenges faced by San Miguel County?

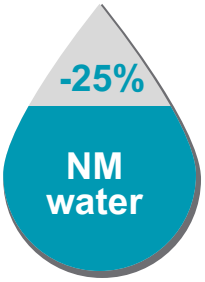
- San Miguel is vulnerable to wildfires: The 2022 Calf Canyon/Hermits Peak Fire, the most destructive and largest fire in New Mexico history, heavily impacted the Gallinas watershed and the water quality of Las Vegas supply. Subsequent monsoon rains introduced debris and sediments to the Gallinas River. In addition, wildfires increase chances of flooding (9).
- Groundwater levels are dropping in the western part of the county where most groundwater resource development is occuring. USGS recommended more mapping, monitoring, and seepage studies for better groundwater management in the county (8).
- There is need for adequate funding and resources for infrastructure projects, as well as protection of source water quality and health (10).

How is San Miguel moving towards sustainable water management?

The following strategies are proposed in OSE's Mora-San Miguel Guadalupe Regional Water Plan 2016 (10):

- Development of a regional water plan (RWP) implementation team to coordinate projects.
- Watershed restoration and fire protection: Mitigation measures include thinning, prescribed burns, riparian and floodplain restoration, and other site-specific management practices.
- Education on watershed best management practices.
- Economic development planning linked with water / watershed issues.
- Water disaster recovery (flood preparation and mitigation).
- Rehabilitate highest-priority dams based on risk / loss-of-life potential.
- Enhance and development of geohydrology database, aquifer mapping and groundwater exploration (drilling).

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 (9). 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) San Miguel County
3) Hydrologic Resources of San Miguel County (2011)

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 San Miguel County, NM **(8)** Hydrologic Resources of San Miguel County (2011) - USGS **(9)** Hermit's Peak Fire - Circle of Blue **(10)** Mora-San Miguel-Guadalupe Regional Water Plan 2016 - OSE **(11)** 50-year Water Action Plan