

AQUIFER MAPPING AND MONITORING INTEGRATED WATER FINANCING PLAN

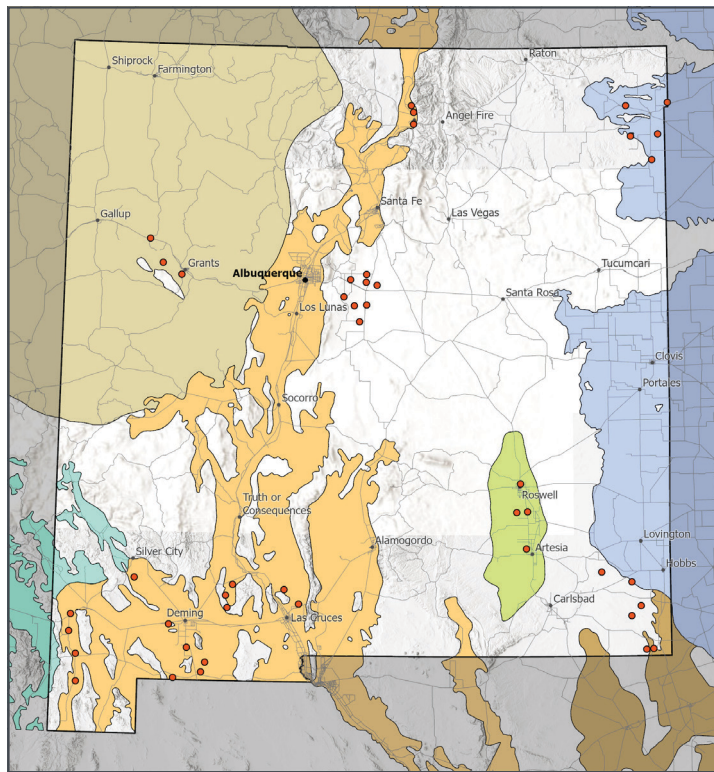
THE NEED...

Nearly 92% of New Mexico's community water systems rely on groundwater as a source of drinking water. It's also vital for agricultural production, commercial and industrial uses, such as mining, manufacturing, energy generation, and private wells for drinking water.

Currently, groundwater level monitoring coverage of the state is insufficient and the need to understand and manage New Mexico's groundwater is essential.

AQUIFER CHARACTERIZATION IS NEEDED FOR:

- Inform water supply decision making
- Identify aquifer recharge potential
- Drought and climate hazard mitigation
- Protection of groundwater quality



Major Aquifers*

- Basin And Range Basin-fill Aquifers
- Colorado Plateaus Aquifers
- Ogallala Aquifer
- Pecos River Basin Alluvial Aquifer
- Rio Grande Aquifer System
- Roswell Basin Aquifer System
- Potential new monitoring well locations (Pine, et al. 2023)

NAD 1983 UTM Zone 13N
34.1969°N 106.0602°W

Scale Map: ESRI ArcGIS Online, accessed September 2024
Updated: 9/17/2024
Project No. 83700
Survey: 83700_ProjctRegions_Overview
App: 83700_NEM001P

1:4,000,000

SWCA
ENVIRONMENTAL CONSULTANTS

* United States Geological Survey, Principal Aquifers of the United States. <https://www.usgs.gov/mission-areas/water-resources/science/principal-aquifers-united-states/overview>

PROMISING FINANCING OPPORTUNITIES

Funding Program	Applicability	Potential Funding Amount
WaterSMART (USBR)	Aquifers that serve communities experiencing water stress or scarcity	Variable
HMGP (FEMA)		\$1,000,000+
Infrastructure as a Service (Sustainability Partners)	Well infrastructure - statewide	\$100 million + (depending on state need)
Planning Assistance to States (USACE)	Planning - statewide	Planning - statewide
Upper Colorado River Basin System Conservation and Efficiency Program (USBR)	Aquifers in the Upper Colorado River Basin	Multiple millions
NIDIS Drought Toolbox	Aquifers that serve communities experiencing water stress or scarcity	In-kind
NAWI (DOE)	Candidate aquifers for desalination water supply	\$1,000,000+
Sentinel Landscapes (DOD, DOI, USDA)	Ogallala Aquifer	TBD

FUNDING NEEDS

**\$1,250,000
PER YEAR**

ONGOING FUNDS SUPPORT:
Data Acquisition Systems, Long-Term Monitoring Well Maintenance, Sample Analyses, FTEs, Database, and Software Licenses.

**\$175 MILLION
OVER 12 YEARS**

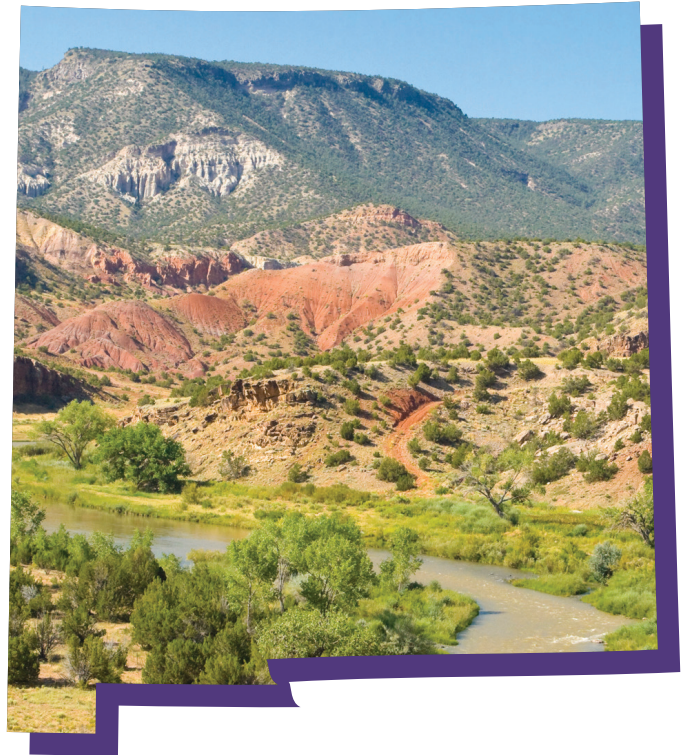
NON-RECURRING FUNDS SUPPORT:
Drilling Wells, Mapping, Surveys, and Aquifer Characterization.

IMMEDIATE FUNDING NEXT STEPS

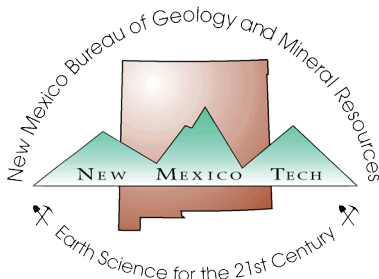
- 1
 Apply for FEMA funding to support statewide planning and targeted pilot project.
Lead: NMBGMR. Target Date: February 2025
- 2
 Secure legislative funds that can provide non-federal match.
Lead entity: NMBGMR. Target Date: 2025 Legislative General Session
- 3
 Develop private financing plan with Sustainability Partners that integrates state and federal funding.
Lead entity: NMBGMR. Target Date: Spring 2025
- 4
 Submit request letter to USACE for Planning Assistance for States support.
Lead entity: NMBGMR. Target Date: Summer 2025

PLANNING AND POLICY ACTIONS

- Discuss best funding program for planning and scoping study with FEMA and DHSEM.
Target date: Fall 2024
- Establish Steering Committee to guide Aquifer Mapping and Monitoring program progress.
Target date: Spring 2025
- Apply for membership to the National Alliance for Water Innovation (DOE) to enable future eligibility for programs. Lead: NMBGMR.
Target date: Spring 2025
- Complete statewide aquifer characterization planning and scoping study. Lead: NMBGMR.
Target date: Fall 2025



KEY PARTNERS



STATE

- New Mexico Bureau of Geology and Mineral Resources
- New Mexico Environment Department
- New Mexico Interstate Stream Commission and Office of the State Engineer
- New Mexico Department of Emergency Management and Homeland Security
- New Mexico Tech

OTHER PARTNERS

- Sustainability partners

FEDERAL

- Federal Emergency Management Agency
- US Army Corps of Engineers
- US Geological Survey
- Bureau of Reclamation
- Environmental Protection Agency
- National Integrated Drought Information System (NOAA)
- Department of Energy
- Sentinel Landscapes

FUTURE STEPS

- 1. Design data management system and integrate with existing datasets. Target date: Fall 2025.
- 2. Continue to evaluate other federal funding programs that could support the project following completion of planning and scoping study.