Water Infrastructure & Drought Mitigation Elizabeth K. Anderson, P.E., State Engineer Economic and Rural Development and Policy Committee July 7, 2025



New Mexico Office of the State Engineer & Interstate Stream Commission (OSE/ISC)



Economic and Rural Development requires water security

- The 50-Year Water Action Plan ensures New Mexicans have clean water now and into the future so that our economies can continue to thrive
- OSE/ISC work creatively with other State, Federal, Tribal and local partners to ensure water needs are considered when identifying opportunities for growth:
 - Conserve existing water resources
 - Develop new water resources
 - Protect water quality and watersheds
- Water storage reservoirs, pipelines, wells, stormwater conveyance systems and maintaining river channel corridors are examples of infrastructure projects that must be developed and maintained to protect water supplies

50-Year Water Action Plan Elements

Water Conservation

- A1 Develop a water education program
- A2 Incentivize agricultural water conservation
- A3 Reduce leaks in drinking water infrastructure/ increase municipal conservation
- A4 Improve water storage and delivery systems

New Water Supplies

- B1 Develop treated brackish water initial appropriation of \$40M
- B2 Adopt policies to expand potable and non-potable water reuse
- B3 Improve groundwater mapping and monitoring

Water and Watershed Protection

- C1 Clean up contaminated groundwater sites
- C2 Develop a surface water discharge permitting program
- C3 Modernize wastewater treatment plants and stormwater infrastructure
- C4 Protect and restore watersheds

Drought Persists in New Mexico

- Governor's May 22 executive order on drought requires state agencies to coordinate drought relief efforts
- Trending toward a hotter, drier future with up to 25% less water
- Working with other agencies and local communities on emergency responses for fires, post-fire runoff/relief

US Drought Monitor July 3, 2025

Intensity

D0 (Abnormally Dry)
D1 (Moderate Drought)
D2 (Severe Drought)
D3 (Extreme Drought)
D4 (Exceptional Drought)
No Data



Governor's Executive Order

Executive Order 2025-210

- Issued May 22, 2025
- Confirmed drought and wildfire risks

Drought Task Force

- Convened May 28, 2025
- Meeting June 27 to review available drought response resources
- Goal to <u>complement</u> and <u>support</u> ongoing measures to manage water and address drought for our communities



State of New Mexico

DECLARING A DROUGHT AND SEVERE FIRE CONDITIONS THROUGHOUT THE STATE AND UDGING MUNICIDAL AND COUNTY COVEDNMENTS TO IMPOSE EXECUTIVE ORDER 2025-210 DECLARING A DROUGHT AND SEVERE FIRE CONDITIONS THROUGHOUT THE STATE AND URGING MUNICIPAL AND COUNTY GOVERNMENTS TO IMPOSE WATED FOR DECEMBETIONS AND EIDEWORK BANK WHEREAS, New Mexico is currently experiencing some of the worst drought conditions ever recorded and climate predictions indicate future conditions could result in a loss of up to 25 percent of available water supply over the next 50 years;

Michelle Lujan Grisham

WHEREAS, New Mexico's 50-Year Water Action Plan calls on all New Mexicans to take action to help address the reality of a reduced water supply now and in the future; WHEREAS, according to the United States Drought Monitor, 96.21 percent of New Mexico is abnormally dry, 86.55 percent is experiencing drought conditions and approximately

half of the State is in the extreme to exceptional drought classification status; WHEREAS, New Mexico's river basins have received below average levels of

precipitation during 2025, and current water storage in New Mexico's reservoirs reflect some of the lowest levels on record, which will lead to reduced water supplies for New Mexico's communities and reduced flows in New Mexico's rivers and streams;

WHEREAS, current and projected drought conditions will continue to negatively affect soil moisture in furmiands, rangelands, and forests;

WHEREAS, New Mexico is susceptible to numerous natural disasters associated with drought, including agricultural loss, severe wildfires, and flooding after severe wildfires; State Capitol • Room 400 • Santa Fe, New Mexico 87501 • 505-476-2200

Current and future climate impacts to NM

- Lower streamflow and recharge because of increased aridity
- Greater interannual variability in precipitation
- More extreme precipitation events
- Hotter, more severe droughts
- Decreasing snowpack → earlier and diminishing snowmelt runoff
- Greater demands on groundwater
- Vegetation stress
- Increasing catastrophic forest fires
- Increasing flooding and sedimentation in rivers
- Irreversible damage to soils through loss of vegetation and erosion
- Degraded quality of surface waters

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Climate Change in New Mexico Over the Next 50 Years: Impacts on Water Resources

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Protecting our Water Future Protects All Aspects of our Lives

1. Modernize Water Management

Utilize 21st century management tools to provide significantly improved services for New Mexicans

2. Invest in the Rio Grande

Focus on holistic management of the Rio Grande Basin to address urgent challenges

3. Plan for our Water Future

Implement the Water Security Planning Act to develop regional water plans and secure water rights settlements for New Mexico's Pueblos, Tribes and Nations



Modernize Water Management

- Retain and recruit critical staff and ensure competitive salaries.
- Implement 21st century technology including IT staff; data management; hydrologic skills, models and tools; and updated data and permit interfaces on website
- Ensure water storage, conveyance and distribution infrastructure is maintained
- Develop current enforcement mechanisms

Invest in the Rio Grande

- Meet the existing legal requirements of the Rio Grande Compact and the new requirements outlined in the upcoming settlement in TX v NM settlement. The settlement resolves 12+ years of costly litigation and provides certainty for stakeholders in the Lower Rio Grande
- Keep water flowing to Elephant Butte Reservoir
- Expand measurement and metering





Plan for Our Water Future

- Continue to implement and track progress on the Water Security Planning Act and the 50-Year Water Action Plan:
 - Renew regional water planning efforts
 - Develop a water education campaign
 - Concentrate on water workforce development
 - Improve river conveyance systems for long term efficiency
- Prioritize further progress on Indian Water Rights Settlements, including implementation of existing settlements and advancing additional settlements.







2022 Water Policy and Infrastructure Task Force

- 17 Recommendations
- 106 strategies
- Multi-year phased implementation

2023 State Water Plan Review

- Provides updates since 2018 Plan
- Recommends investing in revitalized regional water planning

2024 Governor Lujan Grisham's 50-Year Water Action Plan

- Water conservation
- New water supplies
- Water and watershed protection

Collaboration with state, Tribal, local and federal partners

Examples of ongoing infrastructure projects to respond to drought and build economic and rural development opportunities

- Elephant Butte Reservoir Rio Grande conveyance improvements
- Lower Rio Grande
- Navajo-Gallup Water Supply Pipeline
- Eastern NM Rural Water Pipeline

Additional ongoing programs contribute to water security

- Negotiating and implementing Indian Water Rights Settlements
- Addressing dam safety needs throughout the state
- Expanding the Acequia programs



