

FACING NEW MEXICO'S 21ST CENTURY

WATER

CHALLENGES

EXECUTIVE SUMMARY OF THE NEW MEXICO WATER POLICY AND INFRASTRUCTURE TASK FORCE

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EXECUTIVE SUMMARY

Crisis and Opportunity

New Mexico enters 2023 in a water crisis. But with unprecedented peril comes unprecedented opportunity.

To address that challenge, and those opportunities, a diverse task force of stakeholders from across New Mexico came together from June to November 2022, studying the problems and coming to broad, shared conclusions: our challenges are dire, but there are things we can do *if we act now*.

New Mexico is the driest it has been in over 1,000 years. Warming and related aridification from climate change are exacerbating water shortages. Consequently, many of New Mexico's reservoirs are nearly empty, many of our aquifers are declining, rivers are drying, irrigation ditches are running dry when crops most need water, and our forests spent the summer of 2022 burning. Driven by drought and climate change, New Mexico's water crisis has laid bare water policies and processes that users, practitioners, and lawmakers agree are not meeting the 21st

century needs of New Mexicans under the stress of drought, aging infrastructure, and climate change.¹

Beyond that, many small communities lack the resources to manage the systems they have. State agencies lack the resources to carry out the jobs they already have been given, with little capacity to address the new challenges.

That is the peril.

But we also enter 2023 with focused attention from state leaders, and an influx of state and federal funding. Those are the opportunities - the convergence of urgent need, growing political will, and unprecedented levels of state and federal funding to address needed water management reform and infrastructure investments.

A window of opportunity is open before us.

1 Dunbar et al., 2022, Climate change in New Mexico over the next 50 years: Impacts on water resources: New Mexico Bureau of Geology and Mineral Resources, Bulletin 164.

The Water Policy and Infrastructure Task Force

To help address these issues, Governor Michelle Lujan Grisham authorized the State Engineer to form a Water Policy and Infrastructure Task Force of water and natural resources experts, senior state agency staff, and stakeholders from around New Mexico to study the problems and recommend actions the state can take.

Working together, the 29 Water Task Force members, representing diverse expertise, geographies, and community interests, examined New Mexico water management and governance challenges.

They identified core problems in four areas:

Water Supply	State Government Capacity	Community Capacity	Watersheds and Aquifers at Risk
Coping with the reality of climate change impacts on our already overallocated rivers and aquifers.	State water agencies lack programs, technology, and resources to protect the public welfare of the state, thus helping New Mexico's communities improve our resilience, and equitably adapt to substantially less water.	Massive wildfires, deep and lasting drought, and warming; hammering communities that lack the resources to adapt.	Jeopardizes the health of our beloved forests, rivers, aquifers, and those of us who depend on their services.

The Task Force came to a shared consensus on a set of hopeful opportunities – steps that can be taken now. New Mexico can advance policies and programs to address entrenched inequities in communities across the state that do not have the necessary resources and capacity to take full advantage of funding opportunities.

The notion of *equity* underpins much of what follows. In using the word, the Task Force adopted the definition of the U.S. Water Alliance:

Water equity occurs when all communities:

Have access to safe, clean, affordable drinking water and wastewater services.	Share in the economic, social, and environmental benefits of water systems.	Are resilient in the face of floods, drought, and other climate risks. ²
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This Report provides a path to modernize our 20th century water management systems to confront the 21st Century problems they face – most importantly, a projected 25 percent decline in surface water and groundwater recharge over the next 50 years.³ Put simply, we must meet our needs with less water, and protect the quality of the water that we have.

But our governments’ currently available tools to do that – to exercise equitable and sustainable stewardship over our state’s reduced water supply – are inadequate for the size of the job. The problems are complex, and proposed solutions run the gamut from tweaks of existing systems to major initiatives. The proposed solutions cluster in five key areas:

Definitions of The Five Key Areas that Need Solutions

Capacity	<i>The ability of existing state and local entities to cope with the growing scale and complexity of the problems.</i>
Funding	<i>The lack of resources to fix the problems we know we have, including the resources needed to effectively spend the bounty of federal and state money now available.</i>
Science, Data, and Planning	<i>Major gaps in our scientific understanding of New Mexico's water resources should be filled by hydrogeologic investigations and aquifer research.</i>
Community Engagement	<i>Solutions cannot be imposed from above, they must draw on knowledge and values of those closest to the problems and potential solutions.</i>
Water Conservation	<i>We all will need to use less water.</i>

³ Dunbar et al., op. cit.

Money alone will not solve these problems. New Mexicans face hard choices about tradeoffs in a water-constrained future. But there are ways in which money can help, with targeted investments that build capacity and improve upon existing programs and tools within our current legal system. **The Task Force members, supported by experts from within and outside state and local governments, broke into three expert workgroups to focus their attention on three areas:**

Community drinking water, wastewater, and stormwater infrastructure capacity and finance.

Water resources management and planning.

River, aquifer, and watershed health.

Lack of Capacity

Time and again in its deliberations, Task Force members identified a lack of capacity, the people needed at all levels of government - Tribal, state, and local – as well as the private sector and non-governmental organizations, to do the work needed to move New Mexico forward toward an equitable and more sustainable water future.

We need more boots on the ground to:

- Measure and manage how our water is being used today.
- Plan, design and construct the water and wastewater systems our communities need and maintain them as they age.
- Protect watersheds and groundwater supplies from pollution, and clean up contamination where it already exists.
- Help our smallest communities with water management tasks that they are not equipped to complete on their own.
- Allocate and distribute streamflow and groundwater to users in accordance with the law, approved plans, and the public welfare of the state.
- Protect and restore our forests.
- Respond to the climate change-driven emergencies that are increasingly sweeping across our state.
- Help communities across the state access funds for critical water projects, oversee those investments, and ensure that all New Mexicans have access to clean, safe, and affordable drinking water.



KEY RECOMMENDATIONS

Here are the key recommendations from the three Water Task Force Workgroups. More detail can be found in the appendices detailing the Task Force's recommendations.

In Brief:

Community Drinking Water, Wastewater and Stormwater Capacity, Infrastructure and Finance

*Many of New Mexico's aging water, wastewater, and stormwater systems have been left behind. This leaves communities' health and well-being at risk. **Key recommendations:***

1. Create a Water Infrastructure Projects Authority (WIPA) with a dedicated funding stream to provide communities with the resources and support they need to help them meet current needs and adapt to climate change.
2. Promote and incentivize regional collaboration – from informal to formal arrangements – by drinking water and wastewater systems through administration of existing funding programs, prioritization of technical assistance investments, and clear laws and processes that preserve local flexibility.
3. Tackle local capacity challenges through predictable state investments in expanded technical assistance and strategic actions to grow the water workforce of the future.
4. Close the gap for drinking water and wastewater systems that need targeted funding to address emergency needs, such as short-term water outages brought on by wildfires and extreme drought.

Water Resources Management and Planning

New Mexico's climate has changed. The state is experiencing higher temperatures resulting in greater aridity and less available water. New Mexico lacks numbers of agency professional staff, programs, policies, accountability, and in some cases, the authorities suited to the magnitude of the response needed.

*New Mexico's reservoirs, rivers, and aquifers are at or near record lows, and scientists project an additional 25% decrease in streamflow and aquifer recharge over the next half century, even as New Mexico's population and economy change and grow. This threatens human and environmental uses of water. Watershed degradation compromises streamflow and groundwater supplies, exacerbating the gaps between water supplies and water demands and the overuse of aquifers, accelerating their decline.*⁴ **Key recommendations:**

1. Equip state agencies, especially the Office of the State Engineer (OSE), the Interstate Stream Commission (ISC), and the New Mexico Environment Department (NMED), to effectively address New Mexico's 21st Century emerging water security challenges and help New Mexicans across the state improve their water resilience and adaption to reduced water supplies. Set targets and ensure accountability through regular reporting by agencies.
2. Elevate water planning, through statutory clarification of its purpose, and proper funding of its work, and through empowerment of regional and local water agencies, to set clearly identified goals for permanent and escalating reductions in water use over the coming decades.
3. Support the resilience of the state's diverse agricultural communities with effective water rights administration by the Office of the State Engineer (OSE), inclusion of agricultural stakeholders in water management, and consideration of equity, conservation, and sustainability.
4. Advance our scientific understanding of groundwater through measuring, monitoring, and models to protect the quantity and quality of groundwater resources.
5. Capitalize a new state fund needed to capture and leverage the bounty of federal funding currently available for needed state and local water infrastructure.

⁴ Dunbar et al., op. cit.

River, Aquifer, and Watershed Health

*New Mexico's rivers, aquifers, and watersheds are experiencing unprecedented stress, depletion, and degradation as we navigate a warming and drying climate. Increasing incidences of drought conditions, intense precipitation events, catastrophic wildfires, and associated destructive erosion and sedimentation threaten our forest and watershed health, and surface and groundwater resources. **Key recommendations:***

1. Fully fund and staff the Strategic Water Reserve and River Stewardship Program.
2. Fund New Mexico Environment Department to take over surface water quality regulation from the federal government.
3. Review modifications to New Mexico groundwater law to enable New Mexico to increase the resilience of the state's groundwater supplies and groundwater-dependent users.
4. Modernize forest management programs, both preventative and post-fire response.
5. Fund programs that help educate decision-makers and the public on water issues.

Conclusion

Many of these recommendations focus on strategies that involve working with natural systems (such as natural and green infrastructure*) to build New Mexico's water resilience and provide communities with equitable and sustainable access to water resources. Strategies that use natural and green infrastructure are well positioned to access federal funding.

The Task Force developed an extensive list of actions that, taken now, can help. Some of the steps can be taken through executive action, some require legislation, many require funding. The table, below, provides an overview of the recommendations developed by the Task Force. For a full list of recommendations and strategies to carry them out, as voted on by the Task Force, please see Appendices A, B, and C.

There are immediate actions to be addressed during the 2023 legislative session, but this report is designed for the long view, to be implemented over the next several years to best position New Mexicans for the known and unknown challenges ahead.

All the proposed efforts require engagement with the communities themselves who are at the heart of New Mexico's water future.



* Green infrastructure is an approach to water management that protects, restores, or mimics the natural water cycle. Green infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide variety of benefits to people and wildlife.

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