



NEW MEXICO WATER DIALOGUE 30TH STATEWIDE MEETING

ENGAGING NEW MEXICANS IN THE WATER PLANNING PROCESS

STRATEGIZING FOR ACTION

May 15, 2025

NM WATER DIALOGUE

GROUP COLLABORATION & RECORDED INSIGHTS

GROUP #1

ABQ Metro: Groundwater, Rio Grande, DIVERSION (Chama, San Juan River), Colorado River

USE: 80% AG, domestic, industrial/oil & gas production, endangered, commercial

TRENDS: less water, RG drying, quality compromised, aging infrastructure, hopelessness, increased knowledge, and wisdom from indigenous /local communities

RIGHTS: ABQWA, Private landowners, MRGCD, communities

GROUP #2

People should know that groundwater is a finite resource!

Water is limited and precious

Neighbors need to conserve water

Understanding of fire frequency/regimes/severity

More rain gardens and get rid of grass

Policymakers should be more educated

GROUP #3

Visioning Through Constraints

Adapting to 25% less water availability: irrigated acres + riparian areas

- Dig deeper int ground H2O
 - NM-95M acre feet of percy.
 - Sectors limited H2O – different crops (drought tolerant); service industry; tech
1. Conserve more
 2. Collection
 3. Developing technology

Developing untapped H2O

1. Produced H2O – DevelopingTech.
2. Pipeline

Innovative practices: acequias

NM WATER DIALOGUE

GROUP COLLABORATION & RECORDED INSIGHTS

GROUP #4

Sandias

- ground and rain water collection
- grey water?

MRGCD

- aquifer
- river
- acequia
- wastewater treatment facility

Rio Chama

- acequias
- small streams/Rio Chama
- mutual domestic
- wells
- rainwater collection

Upper Rio

- Community system off a well
- Santa Clara Creek/Rio Grande

QUANTIFY

- well metering
- aquifer mapping
- surface water gauges
- snowpack – gauges

USERS

NM WATER DIALOGUE GROUP COLLABORATION & RECORDED INSIGHTS

- ag
- municipal – landscaping – evaporation
- domestic
- MRGCD-D Riparian
- aging infrastructure
- declining surface/groundwater
- population growth
- less & loss water data collected
- Federal priorities – USDA
- lack of planning and upkeep

UNKNOWNNS

- lack of comprehensive plan for future water infrastructure
- long-range planning
- future weather patterns
- political priorities
- food security
- technology

FOLLOW-UP

- I wish neighbors/politicians knew how to use water efficiently
- Politicians understanding of the importance of education in conserving H2O

GROUP #5

	<i>LRG</i>	<i>Placitas</i>	<i>Las Vegas</i>
1. SRC:	Rio Grande Project	– springs	Rio Gallinas
	Wells	- Las Huertas Creek	Backup Groundwater reserves
		- Groundwater	

NM WATER DIALOGUE GROUP COLLABORATION & RECORDED INSIGHTS

2. To quantify	- Complex, not measured - Flowthrough	Groundwater reserves
3. Irrigated Ag	Domestic users Acequias	Acequia Domestic
4. Known trends/Infrast.	Aging pipes Declining snowpack, Impacts springs, creeks	Increasing evaporation Old dams, pipelines
5. Unknown	Human nature State agency actions Legislative actions Groundwater controls Precipitation/temps	

GROUP #6

Stop growing communities – development

Less irrigation

Stop water lawns

Movie industry - timber

Hospitality

Conservation

Limiting growth

Identifying alternative sources

Brackish water

Awareness

Education

Water use + conservation can give a negative opinion and the county can approve the sub diversion anyway, correct?

Sample Strategies to Consider – Not Comprehensive, Just a Start

Supply Augmentation & Diversification

- Rainwater harvesting (residential, commercial, ag-based)
- Stormwater capture & treatment
- Indirect potable reuse (IPR) – treating wastewater for groundwater recharge or blending
- Direct potable reuse (DPR) – treating wastewater to drinking water standards
- Effluent reuse expansion – for irrigation, industrial, or environmental flows
- Aquifer storage and recovery (ASR) – storing excess water underground
- Greywater systems – decentralized reuse of sinks, showers, and laundry water
- Brackish groundwater treatment – desalinating low-quality groundwater for municipal or industrial use

Demand Reduction & Conservation

- Xeriscaping – drought-tolerant, native landscaping
- Soil moisture sensors and smart irrigation systems
- High-efficiency plumbing retrofits (toilets, fixtures)
- Tiered pricing or water budgeting to incentivize conservation
- Behavior change campaigns (e.g., youth education, appliance rebates)

Agricultural Water Management

- Transition to dryland farming or rotational fallowing
- Switching to less water-intensive crops
- Subsurface drip irrigation (SDI)
- Deficit irrigation strategies (irrigating below full water needs)
- On-farm water storage ponds for stormwater or treated effluent

Collaborative and Governance-Based Approaches

- Regional water banking or leasing arrangements
- Watershed-scale management plans
- Conservation easements focused on water
- Multi-benefit land repurposing
- Tribal/state/local water sharing agreements

Our Top 2–3 Ideas for Action:

- _____
- _____
- _____

NM WATER DIALOGUE: SUMMARY OF EIGHT (8) THEMES

THEME	CHALLENGES/INSIGHTS
Indigenous Leadership and Sacred Water Stewardship	4
Systems Thinking – Water, Energy, and Financial Limits	4
Legislative Engagement + Polycentric Governance	4
Sustainable Funding for Adaptive Water Management	4
Closed Basin Protection and Groundwater Safeguards	5
Water Law and Beneficial Use Reform	3
Equitable Water Budgeting and Rural-Urban Integration	2
Water Measurement and Enforcement	4

30 Total Challenges

NEW MEXICO WATER DIALOGUE IN ACTION: 8 IDENTIFIED THEMES

Challenge/Insight	Theme #1: Indigenous Leadership and Sacred Water Stewardship
1.1	Indigenous knowledge and values around water are often excluded from formal decision-making.
1.2	Stories and teachings about water are not being shared widely across generations or communities.
1.3	There are no standard protocols for Indigenous consultation or consent in water planning.
1.4	Indigenous-led restoration and conservation efforts lack equitable access to funding.
Challenge/Insight	Theme #2: Systems Thinking Water, Energy, and Financial Limits
2.1	Water policy often fails to account for the interdependent limits of energy and money in water development and delivery.
2.2	Elected officials across all levels—not just state legislators—must be involved in decision-making that respects the limits of natural and financial resources.
2.3	Innovative water technologies (e.g., ASR, desalination, potable reuse) can be resource-intensive and may not be sustainable without full cost and energy analysis.
2.4	Many agencies operate in silos, leading to underinformed decisions that ignore trade-offs between water, energy, and financial resources.
Challenge/Insight	Theme #3: Legislative Engagement + Polycentric Government
3.1	State-level water planning often lacks input from local governments, scientific experts, and community-driven conservation models.
3.2	Legislators are not consistently informed by hydrologists, geologists, engineers, or successful regional conservation initiatives.
3.3	There is no unified framework for defining roles (who), responsibilities (what), methods (how), and timelines (when) to adapt to 25–35% less water by 2070.
3.4	Current market-based retreat and policy models undervalue regionally effective strategies, such as landowner-led groundwater conservation, voluntary well retirement, regenerative dryland transition, and long-term land repurposing, which offer scalable, cost-effective solutions but are often bypassed in favor of theoretical models or one-size-fits-all strategies that don't match local hydrology, economics, or community trust dynamics.

NEW MEXICO WATER DIALOGUE IN ACTION: 8 IDENTIFIED THEMES

Challenge/Insight	Theme #4: Sustainable Funding for Adaptive Water Management
4.1	Water management is ongoing and requires adaptive approaches as conditions shift—yet funding is often one-time or episodic.
4.2	Lack of recurring funding undermines infrastructure maintenance, data collection, enforcement, conservation, and governance capacity.
4.3	Communities and local governments cannot build resilient systems without reliable state or federal co-investment.
4.4	Without a permanent funding stream, New Mexico risks falling behind in addressing compacts, aquifer declines, and water equity.
Challenge/Insight	Theme #5: Closed Basin Protection and Groundwater Safeguards
5.1	Closed basins like the Ogallala Aquifer have no surface water inflows and are highly susceptible to permanent groundwater depletion.
5.2	Current state policy does not distinguish between closed and open basins, applying uniform rules that overlook critical differences in recharge potential.
5.3	Over pumping in closed basins risks aquifer collapse, land subsidence, and loss of water for future generations and military or municipal needs.
5.4	Without explicit protection, closed basins continue to be over-appropriated and managed under outdated assumptions of water availability.
5.5	Closed basins face increasing political pressure to export water to other regions despite having no natural recharge, threatening their survival.
Challenge/Insight	Theme #6: Water Law and Beneficial Use Reform
6.1	Current water law incentivizes 'use it or lose it' rather than conserving water through temporary nonuse or alternative uses.
6.2	Farmers and ranchers risk forfeiting their water rights—even when choosing to preserve water for future generations—if continuous beneficial use is not demonstrated under current law.
6.3	Economic growth continues without transparent alignment to actual water availability or downstream compact commitments.

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Challenge/Insight	Theme #7: Equitable Water Budgeting and Rural-Urban Integration
7.1	Urban water budgets (e.g., Albuquerque) often exclude or inadequately consider the surrounding rural and unincorporated communities that are functionally connected to the city's water system.
7.2	The discrepancy between legally permitted water rights ('paper water') and physically available water ('wet water') distorts planning and enables over-allocation.
Challenge/Insight	Theme #8: Water Measurement and Enforcement
8.1	Many wells—agricultural, domestic, and livestock—are not metered, undermining enforcement of water law and masking overuse.
8.2	Replacement wells are often installed without decommissioning the original well, resulting in unauthorized supplemental use.
8.3	Irrigation wells converted to domestic use are often not reclassified, leading to continued withdrawals at higher allocation rates (3 AF instead of 1.29 AF).
8.4	Lack of real-time data and enforcement mechanisms hampers accurate planning, compliance, and equitable water use.

NM WATER DIALOGUE IN ACTION - WATER POLICY ANALYSIS

Analytical Theme	Description / Insight
OpenET and Evapotranspiration Tracking	OpenET enables transparent measurement of evapotranspiration, essential for tracking irrigation use, setting conservation baselines, and validating water savings.
Water Repurposing Requires Full Valuation	Repurposing water from agriculture or other uses must include ecological, cultural, and economic considerations—not just financial return.
Quantification of Water Portfolio Components	Effective water planning requires a detailed breakdown of all sources (groundwater, surface water, reuse, etc.) and demands (municipal, ag, industrial).
Alignment of Societal Values Across Scales	Stakeholders across rural, urban, tribal, and state levels must reconcile differing values (economic growth, ecological integrity, cultural traditions) to design coherent strategies.
Mismanagement Leading to Resource Collapse and Conflict	Current systems of allocation and enforcement are failing; water is overused, under-regulated, and heading toward irreversible depletion in several basins.
Rural Equity in Water Amenities and Access	Rural communities express frustration that urban centers like Albuquerque have more water options, greater conservation funding, and recreational amenities not available in their regions.

Resource Limitations in Rural Communities	Planning, infrastructure, and personnel constraints in rural areas limit ability to engage in or benefit from state-level conservation and funding programs.
Use It or Lose It' Mentality Undermining Conservation	New Mexico's legal framework pressures users to consume water or risk losing rights, disincentivizing voluntary conservation and long-term stewardship.

NM WATER DIALOGUE IN ACTION: IDENTIFIED WATER SUPPLY SOURCES FULL REFERENCE

Category	Water Supply Source	Use Cases / Risks / Considerations	Governing Entities / Legal Constraints
Groundwater	Shallow Alluvial Aquifers (e.g., Rio Grande Basin)	Irrigation, municipal supply near river valleys; risk of contamination from surface interaction.	OSE, ISC; subject to surface-groundwater interaction management.
Groundwater	Confined and Unconfined Aquifers	Major source for domestic, ag, and municipal use; susceptible to over-pumping and drawdown.	OSE; governed under state water code, water rights adjudicated by use.
Groundwater	High Plains (Ogallala) Aquifer	Primary ag and rural supply in Eastern NM; non-renewable, critically overdrafted.	OSE; groundwater mining recognized, REPI & NRCS involved in conservation.
Groundwater	Paleochannels and Fossil Aquifers	Important for long-term conservation; fossil water, extremely limited recharge.	OSE, OLWC, ISC; highly regulated under conservation easement and lease programs.
Groundwater	Fractured Rock Aquifers	Low yield but critical in mountainous terrain; hard to map, often shallow.	OSE, ISC; often unregulated due to fractured flow paths, hard to meter.
Groundwater	Springs and Seep-fed Discharge Zones	Localized water source for ecosystems and rural use; vulnerable to drying due to aquifer decline.	OSE, USFS, tribal authorities; springs often on federal or tribal land.
Groundwater	Artesian Aquifers	Stable pressures for irrigation/domestic; overuse risks land subsidence or depletion.	OSE; monitored under artesian basin regulations, high depletion concern.
Groundwater	Brackish Groundwater Aquifers	Potential supply for treatment; expensive desalination, high energy cost.	OSE, NM Environment Dept; requires desal permits, high TDS regulation.
Groundwater	Geothermal Groundwater	Potential geothermal energy use; limited availability and quality.	OSE, EMNRD; geothermal classified under separate statutes, limited use.
Surface Water	Rio Grande River	Primary surface water source in NM; over-allocated and heavily managed under compacts.	OSE, ISC, Bureau of Reclamation; compact obligations and irrigation districts.

Surface Water	Pecos River	Agricultural, municipal supply; impacted by drought and overuse.	OSE, ISC, compact-driven with Texas; Pecos River Master oversees flows.
Surface Water	Canadian River	Supports northeastern NM; impacted by upstream diversions and evaporation.	OSE; Canadian River Compact, limited infrastructure in NM.
Surface Water	San Juan River	Major compact-managed river; supports tribal, ag, and urban use.	Compact-driven; Bureau of Reclamation, tribal water settlements.
Surface Water	Gila River	Supports Gila Basin ecology/ag; prone to conflict over diversion proposals.	OSE; Gila River Indian Water Rights Settlement Act; major planning conflicts.
Surface Water	Animas River	Tributary of San Juan; small-scale use, snowmelt dependent.	OSE; local watershed groups and tribal rights apply.
Surface Water	Santa Fe River	Seasonal flow; used for recharge, cultural connection, and flood flows.	City, county flood districts; managed under local conservation codes.
Surface Water	Mimbres River	Seasonal/ephemeral; flash flood prone; local ag and stormwater recharge.	OSE; surface water rights managed under prior appropriation.
Surface Water	Rio Hondo / Rio Puerco	Limited seasonal flow; rural and wildlife use; sometimes unreliable.	County water boards; minimal regulation but local importance.
Surface Water	Reservoirs (e.g., Elephant Butte, Heron, El Vado, Abiquiu, Ute, Sumner, Caballo, Cochiti, Conchas)	Surface storage; supports water supply, recreation, irrigation; impacted by evaporation.	Bureau of Reclamation, ISC, local irrigation districts.
Surface Water	Natural Lakes and Playas	Short-term water storage; minimal recharge; habitat support.	OSE; limited use, monitored by local entities for wildlife impacts.
Surface Water	Ephemeral / Intermittent Streams	Seasonal flows critical for recharge and wildlife corridors; sensitive to erosion.	County, ISC; streamflow intermittency complicates administration.
Surface Water	Rainwater Harvesting	Residential, irrigation, non-potable indoor use; volume limited to catchment size.	OSE, local government; regulated rainwater harvesting standards in some counties.
Surface Water	Stormwater Runoff Capture	Urban capture for landscape irrigation, recharge; contaminated if unmanaged.	OSE, EPA (MS4 permit); stormwater often unmanaged in rural areas.
Precipitation-Based	Snowmelt	Supports snow-fed rivers and aquifers; declining with climate change.	OSE, ISC, NRCS; snowpack data vital for annual forecasts.
Precipitation-Based	Treated Municipal Wastewater	Irrigation, landscaping, industrial; public perception and salinity challenges.	OSE, NM Environment Dept, city utilities; reuse laws evolving.

Precipitation-Based	Greywater Systems	Non-potable reuse; toilets, landscaping, requires local systems.	OSE; allowed under NM greywater reuse rule (14.8.2 NMAC).
Reuse / Reclamation	Constructed Wetlands	Water quality buffer; habitat benefit; limited direct reuse volume.	OSE, NM Env. Dept.; typically part of pilot or nature-based systems.
Reuse / Reclamation	Aquifer Storage and Recovery (ASR)	Storage and backup supply; complex regulation and cost.	OSE; regulated under ASR guidelines, few approved projects.
Reuse / Reclamation	Direct Potable Reuse (DPR)	Emerging use in drought-stressed cities; requires advanced treatment.	OSE, NM Environment Dept.; requires special permits and monitoring.
Reuse / Reclamation	Indirect Potable Reuse (IPR)	Used for groundwater recharge and blending; regulatory approvals required.	OSE; indirect reuse overseen by environment department, complex rules.
Reuse / Reclamation	Produced Water from Oil & Gas	Oilfield byproduct; only viable with major treatment and regulation.	OSE, EMNRD; treated as industrial byproduct, disposal rules strict.
Reuse / Reclamation	Desalinated Brackish Water	Potential future supply; energy intensive, cost-prohibitive for many uses.	OSE, NM Tech; desal programs in pilot stages, funding limited.
Industrial / Alternative	Import Pipelines / Water Transfers (e.g., Ute Pipeline)	Transfers from reservoir projects; politically and ecologically controversial.	OSE, ISC, federal project oversight (e.g., Ute pipeline), ENMWUA.