

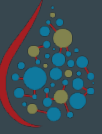
Updates on the 2019 New Mexico Water Data Act



October 2023 Interim WNRC
Stacy Timmons

Associate Director, Hydrogeology
New Mexico Bureau of Geology and Mineral Resources

newmexicowaterdata.org



21st-century digital expectations require modern data

Increasing dependence
on fast, frictionless
access to our data!

- Texting
- Banking
- Web searches
- Navigation
- Online shopping
- Apps for everything!



It all runs on
machine-readable,
accessible data



Water data has to catch up so we can better plan our water



An extraordinary amount of time is spent compiling data in order to address our state's basic water questions

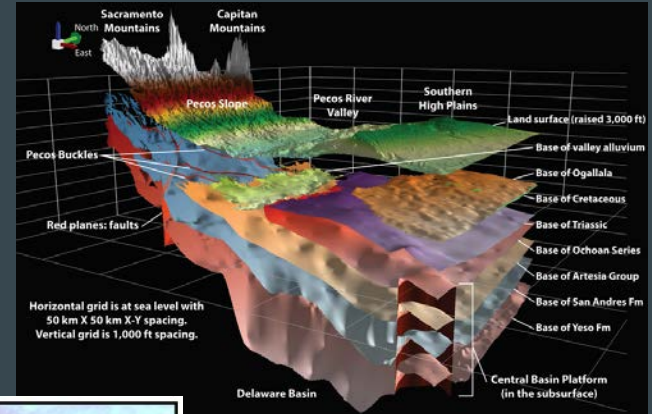
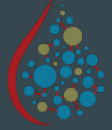


TABLE 1.—Chemical analyses of saline ground water in New Mexico—Continued
(Analysis in parts per million, except as indicated)

Well No.	COUNTY	Static (ft. b.g.)	Flow (gpm)	Calc. (ppm)	Magn. (ppm)	Sodium (ppm)	Potassium (ppm)	Iron (ppm)	Sulfate (ppm)	Chloride (ppm)	Fluoride (ppm)	Mercury (ppm)	Cadmium (ppm)	Lead (ppm)	Specific conductance (microhm/cm at 25° C)
Scale for unrounded values 88—Continued															
2-11-38-25a	TERRAS	28	294	174	211	228	300	306	302	0.2			2.80	1,256	8,600
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2019 Water Data Act becomes statute (NMSA 1978, §72-4B)

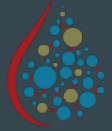


State agencies will collaborate with regional and national efforts to improve how we MANAGE, SHARE, and INTEGRATE our water data.

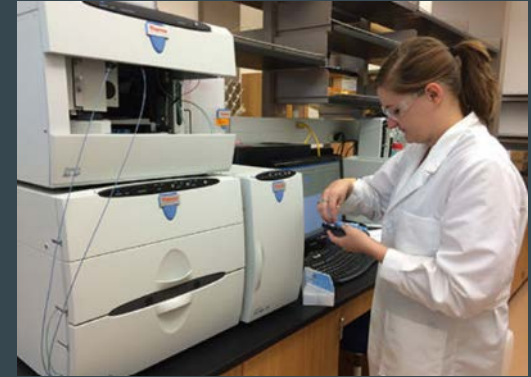
- *Convener*: Bureau of Geology and Mineral Resources
- Office of State Engineer
- Interstate Stream Commission
- Environment Department
- Energy, Minerals and Natural Resources Department



WaterData Act includes a wide range of water data & sources

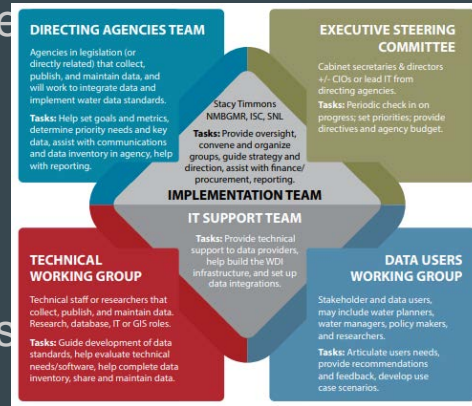
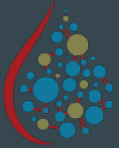
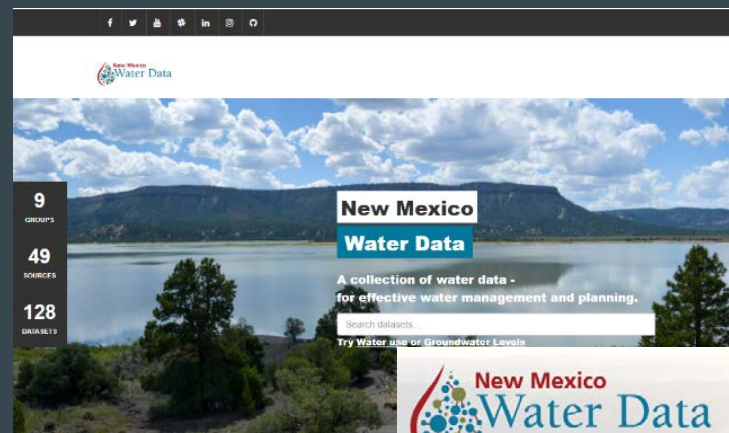


- Streamflow data
- Precipitation
- Reservoir and irrigation system operations
- Groundwater use and levels
- Municipal and industrial water and land uses
- Water rights
- Water diversions
- Water quality
- Fish, aquatic and riparian systems data
- Ecological data



What we've done so far...

- ✓ Established governance, work groups, and agency points of contact to help with inter- and intra-agency communications
- ✓ Built and continue to maintain data catalog to make finding data simple
- ✓ Developed a federated data infrastructure plan and data standards, which we are working to implement
- ✓ Annual reports are completed every September!
- ✓ Several regional and statewide data projects underway
- ✓ Increased funding to improve progress

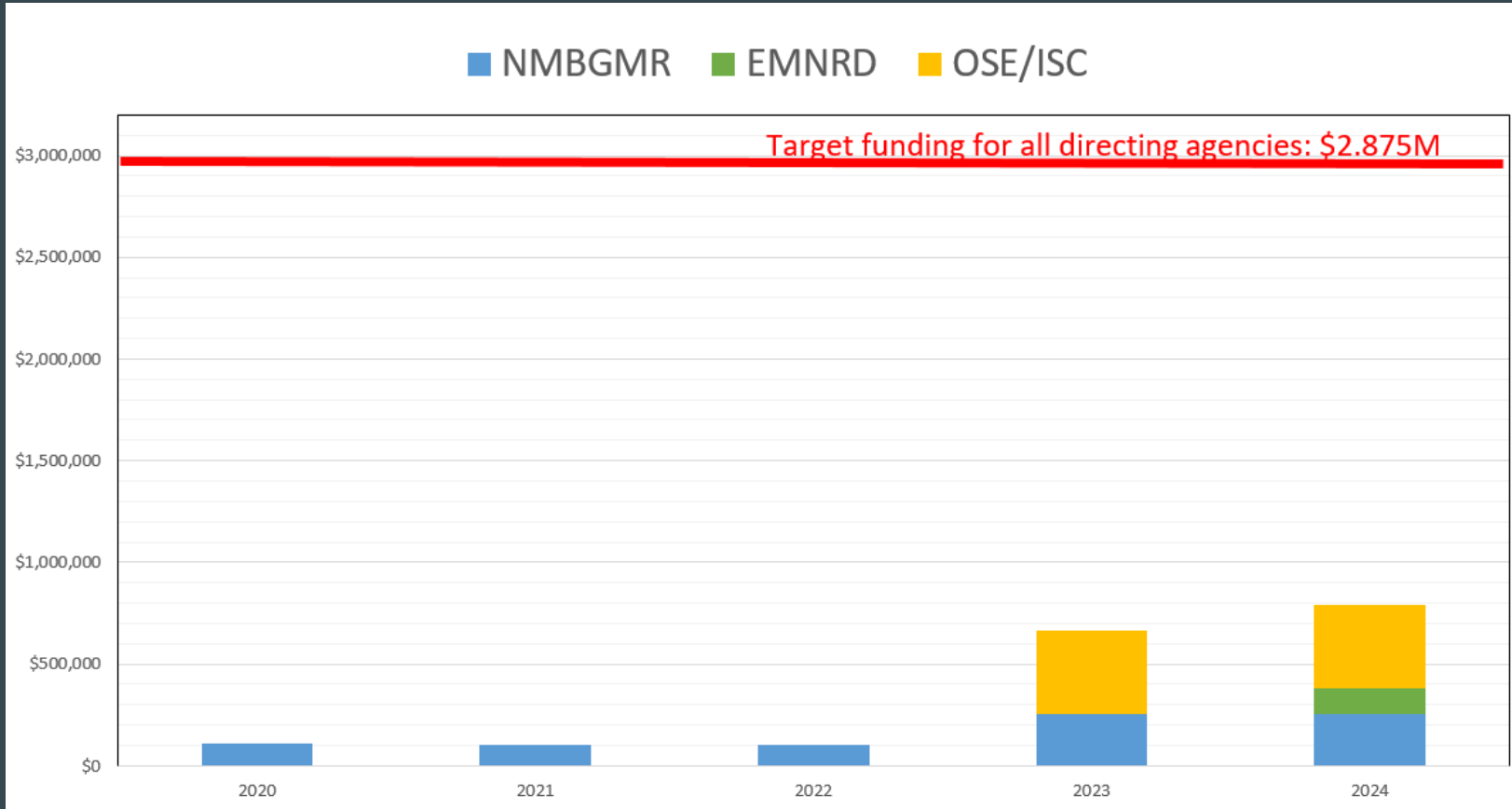


2023 Plan: New Mexico Water Data Initiative

SEPTEMBER 2023
Plan for continued implementation of the Water Data Act

This plan was prepared by the New Mexico Bureau of Geology and Mineral Resources in partnership with the New Mexico Environment Department, New Mexico Energy, Minerals and Natural Resources Department, New Mexico Office of the State Engineer, and New Mexico Interstate Stream Commission.

Annually recurring funding to state agencies for Water Data

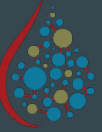


Funding goals identified in the 2023 Water Data Plan



State Agency	Annual Recurring Funding Acquired	Annual Recurring Funding Still Needed	Nonrecurring Funding Needed (FY2025)	Staffing Needs
NMED	None	\$975,000	\$575,000	5 FTEs <i>2 FTEs in IT section</i> <i>2 FTEs in Water Protection Division</i> <i>1 FTE in Resource Protection Division</i>
EMNRD	\$125,000	\$125,000	\$900,000	2 FTEs <i>Funding for 1 FTE in IT section acquired in FY2024</i> <i>1 FTE needed in IT section</i>
OSE/ISC	\$410,000	\$1,275,000	\$1,100,000	10 FTEs <i>Funding for 3 FTEs in IT section acquired in FY2023</i> <i>7 FTEs needed in IT and management divisions</i>
NMBGMR (convening agency)	\$250,000	\$500,000	\$300,000	6 FTEs <i>Funding for 2 FTEs acquired in FY2023</i> <i>4 FTEs needed in IT services, support, and management positions</i>
GRAND TOTAL	\$785,000	\$2,875,000	\$2,875,000	23 NEW state jobs total 6 already funded

FTE = Full-time equivalent



We have statute, but there are sharing limitations

Challenges

- Paper data persists, in a variety of unstructured formats
- Some water data are still collected in very manual processes
- Data providers include many more entities than just state agencies named in statute
- Divisions under one agency are not all at the same level of data management or ability to share
- Agencies need funding for staff to improve data workflow and process



Water Data Act as part of the New Mexico Bureau of Geology



Aquifer Mapping and Monitoring Program

- Regional short and long term hydrogeology studies and mapping water quantity and quality
- Groundwater level monitoring (currently funded by philanthropic funds from Healy Foundation)
- \$295K annual state funding – plus grants and philanthropic funds

Water Data Initiative

- Began in 2019, after the Water Data Act passed
- Convening the work with multiple state agencies
- Working to make NM water data more accessible and usable
- \$250K annually, plus grants and philanthropic funds

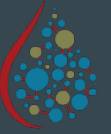


New! Water Education Program

- Starting now!
- For legislators, staff and state leaders
- Developed following the model of previous Decision Makers Conferences
- Focusing on increasing awareness and education on critical water issues in NM
- \$325K– FY24, one year state funding

Working to address New Mexico's CRITICAL water issues

Accomplishments toward annual goals at NMBGMR this year



1. Maintained communications on water data

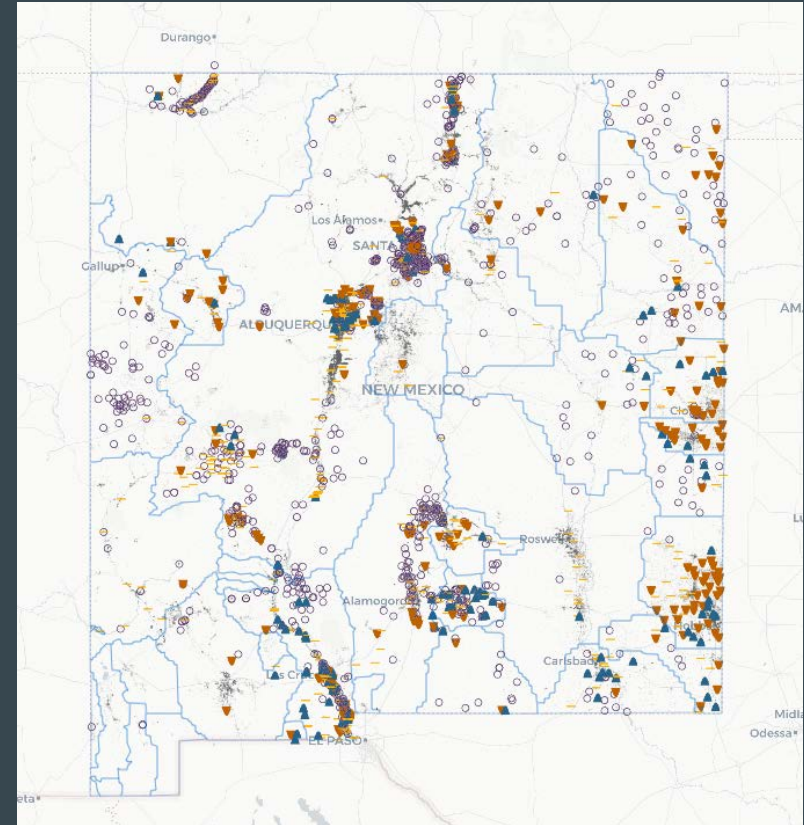
- Water Data Workshop May 4th 2023
- Convene Technical Working Group meetings and WDI Technical team meetings
- Regular meetings with other directing agencies

2. Implementing the engagement plan

- Publishing Water Data Plan annually
- Hired Water Data Program Manager, Rachel Hobbs

3. Build data availability and integration

- Built several automated data delivery points via API
- Built Groundwater Monitoring Dashboard
- Collaborative project with PVACD to help manage groundwater level data and meter data



Next steps on water data work at NMBCO

- Working to hire 3 term positions
- Improving the internal data ecosystem by upgrading to new web forms for data entry and data access
- Continuing to build automated data services using APIs, working on water quality data
- Continue to maintain and support Water Data Initiative for collaborating New Mexico agencies
- Continue to improve and maintain data catalog
- Water Data Workshop in May 2024



NMBGMR budget expansion request submitted (NMT under)

Current funding for FY24

\$250K Recurring + \$325K Nonrecurring state funding (special appropriations) + \$150K grant funding (federal and philanthropic)

FUNDING REQUEST SUBMITTED

Additional \$500K recurring

- 4 New FTEs (software developers, data liaison/integrator, admin support)
- Supporting water data work at NMBGMR and for the state Water Data Initiative

This program has been developed in response to the NM Water Data Act, according to statute to be led by the NM Bureau of Geology (NMSA 1978, 72-4B)

Thank you

For more information, please visit
newmexicowaterdata.org
or contact us at
NewMexicoWaterData@nmt.edu