Fiscal impact reports (FIRs) are prepared by the Legislative Finance Committee (LFC) for standing finance committees of the Legislature. LFC does not assume responsibility for the accuracy of these reports if they are used for other purposes.

FISCAL IMPACT REPORT

	House Agriculture, Acequias and Water	LAST UPDATED	2/21/2025
SPONSOR	Resources Committee	ORIGINAL DATE	1/26/25
		BILL	CS/House Bill
SHORT TIT	TLE Strategic Water Supply Act	NUMBER	137/HAAWCS
			Davidson/Graeser/
		ANALYST	Torres

APPROPRIATION*

(dollars in thousands)

FY25	FY26	Recurring or Nonrecurring	Fund Affected
	\$75,000.0	Nonrecurring	General Fund
	\$28,750.0	Nonrecurring	General Fund
	\$4,000.0	Nonrecurring	General Fund

Parentheses () indicate expenditure decreases.

*Amounts reflect most recent analysis of this legislation.

REVENUE*

(dollars in thousands)

Туре	FY25	FY26	FY27	FY28	FY29	Recurring or Nonrecurring	Fund Affected
Produced Water Tax		\$20,400 to \$48,300	\$40,800 to \$47,900	+ - ,	¥ -,	Recurring	Strategic Water Supply Fund

Parentheses () indicate expenditure decreases.

*Amounts reflect most recent analysis of this legislation.

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT* (dollars in thousands)

Agency/Program	FY25	FY26	FY27	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
NMED	No fiscal impact	Up to \$420.0	Up to \$420.0	Up to \$840.0	Recurring	Strategic Water Supply Program Fund
EMNRD	No fiscal impact	Up to \$153.0	Up to \$153.0	Up to \$306.0		Strategic Water Supply Program Fund

Parentheses () indicate expenditure decreases.

*Amounts reflect most recent analysis of this legislation.

Relates to Senate Bill 178 Relates to an appropriation in the General Appropriations Act

Sources of Information

LFC Files

Agency Analysis Received From State Treasurer Office (STO) Office of the State Engineer (OSE) New Mexico Environment Department (NMED) Energy, Minerals and Natural Resources Department (EMNRD)

CS/House Bill 137/HAAWCS - Page 2

Department of Finance Administration (DFA) Tax and Revenue Department (TRD)

SUMMARY

Synopsis of House Agriculture, Acequias and Water Resources Substitute for House Bill 137

House Bill 137 (HB137) proposes to enact the Strategic Water Supply Act, creates the Strategic Water Supply Program, authorizes the Office of the State Engineer (OSE), the New Mexico Environment Department (NMED), and the Energy, Minerals and Natural Resources Department (EMNRD) to award grants and loans to projects from the newly created strategic water supply program fund (SWSPF), impose a new 3-cent-per-barrel tax on produced water resulting from oil and gas production, and impose new regulation on drilling notices. The bill directs the revenue from the proposed 3-cent-per-barrel of produced water tax be deposited in the SWSF. The bill creates carve outs for when the new fee will apply and when it does not, stating the fee will not apply if the produced water is:

- (1) Used for enhanced or secondary oil;
- (2) Recycled or reused at a well or facility that is permitted by the Oil Conservation Division of the Energy, Minerals and Natural Resources Department; or
- (3) Used in a way regulated by the Water Quality Control Commission pursuant to the Water Quality Act and for which a permit from the Department of Environment is required.

HB137 also increases the reporting requirements of the Oil Conservation Division (OCD), requiring the division to track which barrels of produced water are subject to the proposed produced water barrel fee.

HB137 requires any entity who is receiving funding from the strategic water supply program fund must provide:

(1) a list of any oil or gas wells and the locations of the oil or gas wells;

(2) a description of the oil or gas activity generating the produced water, if applicable;

(3) each chemical ingredient and additive used in any prior hydraulic fracturing or other downhole operation of the well, including the trade name and a brief description of the intended use of or function of each chemical ingredient or additive;

(4) the chemical abstracts service number of each chemical used pursuant to Paragraph 3 of this subsection, if applicable; and

(5) any other data on the constituents of the produced water that the awarding agency determines is relevant to protect public health and the environment or that is required to be disclosed to any state regulatory authority under another applicable provision of law.

HB137 appropriates \$75 million from the general fund to the strategic water supply program fund for the purpose of funding water projects, stipulating the funds of the appropriation shall only be for eligible projects for deep brackish water. The bill also appropriates \$28.8 million to the board of regents of the New Mexico Institute of Mining and Technology to use for aquifer

CS/House Bill 137/HAAWCS - Page 3

mapping and groundwater characterization, and appropriates \$4 million from the general fund to the board of regents of New Mexico State University for the purpose of researching potential projects for the strategic water supply program.

This bill does not contain an effective date and, as a result, would go into effect 90 days after the Legislature adjourns if enacted, or June 20, 2025.

FISCAL IMPLICATIONS

Estimates for revenue generation are derived from the state's Oil and Natural Gas Administration and Revenue Database (ONGARD), the consensus revenue estimating group (CREG) forecast for oil production, Oil Conservation Division data on volumes, and data on production by well. The data were used to determine the amount of water produced per barrel of oil produced and forecast future ratios of water to oil based on current trends. The resulting ratio starts at 3.34 barrels of produced water per barrel of oil in FY25 to 3.14 barrels of water per barrel of oil in FY29.

Analysis then estimates exemption of water from fees due to use for enhanced or secondary oil recovery, recycled or reused water, and permitted use. Based on 2023 data showing 2.3 billion barrels of produced water, and about 27.1 percent of produced water reinjected or reused, about 72.9 percent of produced water could have a fee imposed. Finally, the program is expected to increase treatment of water over time and is assumed to increase the fraction of treated and reused water from 10 percent to 20 percent.

The table on page 1 reflects the resulting estimate for revenue collections based on the CREG estimate for oil production, the estimated water produced to oil production ratio, the exempted water amount, and the 3-cents-per-barrel fee.

	Total Produced Water (million bbls)	Non-Exempted Produced Water (million bbls)	\$.03/bbl (rounded)
FY22	1,861.3		
FY23	2,245.5		
FY24	2,386.1		
FY25	2,490.5		
FY26	2,568.5	1,609.8	\$48,300.0
FY27	2,610.6	1,598.0	\$47,900.0
FY28	2,618.2	1,564.6	\$46,900.0
FY29	2,561.5	1,493.4	\$44,800.0

The revenues estimated above are the high-end estimate included on table 1 of this analysis. Agency estimates for revenues are based on 1.36 billion barrels of nonexempted water produced, with half of that amount in the first taxable year. These estimates represent the low end of the estimated revenues on page 1.

The appropriation of \$32.8 million (\$28.8 to New Mexico Institute of Mining and Technology and \$4 million to New Mexico State University) contained in this bill is a nonrecurring expense

CS/House Bill 137/HAAWCS – Page 4

to the general fund. Any unexpended or unencumbered balance remaining at the end of FY28 shall revert to the general fund. The \$75 million appropriated to the proposed strategic water supply program fund is non-reverting.

The appropriation of \$32.8 million (\$28.8 to New Mexico Institute of Mining and Technology and \$4 million to New Mexico State University) contained in this bill is a nonrecurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY28 shall revert to the general fund. The \$75 million appropriated to the proposed strategic water supply program fund is nonreverting.

NMED analysis notes the department could need an additional three personnel to implement and support strategic water supply work. Due to the bill stipulating participating agencies that are implementing the SWS Program can use funds from the strategic water supply program fund (SWSPF) to cover costs associated with implementation, NMED projected no general fund impact for implementation. Analysis from EMNRD also estimates increased personnel for implementation would be covered by the SWSF. EMNRD estimates it would need an additional petroleum specialist and would have IT-related costs, estimating recurring use of the SWSF could be \$153 thousand. The Office of the State Engineer (OSE) did not project any implementation costs.

The ability for NMED, EMNRD, and OSE to draw down the proposed fund balance for administrative costs, in addition to issuing grants for treated brackish projects, could result in spending down fund balance to the point where agencies would need to request increased recurring revenue to fund the personnel tied to the fund.

SIGNIFICANT ISSUES

Produced Water. Produced water is a byproduct of hydraulic fracking and is unique to the area it is drilled from, resulting in each barrel of produced water having a unique dissolved solids structure. Produced water, depending on the area it is created from, has been <u>found</u> to have varying levels of toxic and radioactive substances in it.¹ New Mexico produces roughly 2 billion barrels of produced water a year. Portions of this produced water are recycled and reused in oil production, with the industry getting to 60 percent reuse in recent years.

In addition to amendments to the Produced Water Act, HB137 proposes to create the strategic water supply fund to fund projects related to treating produced and brackish water. Current New Mexico statute allows for entities to attain a reuse permit of brackish water, depending on depth and total dissolved solids level. Portions of the proposed fund would be set aside for projects, related to produced water reuse, which is currently illegal. The state's Produced Water Act requires any use of produced water unrelated to oil and gas production would need to be brought before the Water Quality Control Commission (WQCC). Currently, no reuse permit has been issued. The WQCC in fall 2024 announced it would rule on the proposed amendments to the rules surrounding produced water in April 2025.

Projects to clean produced water for industrial use, a standard varying dependent on use, have not been achieved at a large scale and would require infrastructure the state does not have.

¹ https://www.epa.gov/radiation/tenorm-oil-and-gas-production-wastes

CS/House Bill 137/HAAWCS – Page 5

Cleaning produced water, removing the total dissolved solids (TDS) so that it can be used beyond the oil field requires the removal of radioactive and toxic dissolved solids, a level of water purification requiring substantial infrastructure. Currently, there are no plans to clean produced water to drinking water level, which would require produced water to be clean to the drinking water requirement of TDS level of less than 500 parts per million.

A study done by the U. S Environmental Protection Agency notes²:

Based on information provided in this study, this is primarily due to the availability of other wastewater management options that are lower cost, such as reuse within the oil and gas field or disposal in Class II UIC wells, as well as the cost associated with treating produced waters to a level suitable for discharge. Industry indicated that unless the produced water has total dissolved solids concentrations generally of less than a few thousand milligrams per liter, treatment using membranes (e.g., reverse osmosis) or distillation would be necessary to generate water that is suitable for agricultural uses or for discharge to surface waters. The cost of such treatment is not currently competitive where other wastewater management options are available.

<u>Research</u> from the New Mexico Produced Water Consortium out of New Mexico State University found a range of TDS in produced water from the Permian Basin between 100,800 to 201,500 TDS mg/L.³

OSE noted HB137 has the potential to provide a new water source for the state that would not tap the state's fragile freshwater supply.

The New Mexico Environment Department (NMED) notes:

The ability to manage and dispose of produced water is one of the primary constraints on oil and gas production in Permian basin in Southeastern New Mexico.... The bill proposes to authorize contracts (not grants) for produced water projects that will treat water for uses off the oilfield, as authorized by NMED. While it's unlikely that the fund itself can sponsor enough projects to make a significant dent in the produced water takeaway issue in the Permian, it has great value as a proof of concept that can kickstart a broader produced water treatment and deployment industry.

NMED analysis also points to the possible benefits the fee could induce on industry, with the fee possibly incentivizing industry to increase its recycled water use and possibly push the market to invest in water reuse infrastructure.

HB137 requires entities to provide detailed accounting of each chemical ingredient that exists within the produced water it intends to treat. This detailed accounting is in conflict with the state's Uniform Trade Secrets Act (UTSA), an act that provides specific protections and cause of action for trade of secret information. HB137 requires disclosure of chemicals without addressing its possible conflict with the UTSA, a conflict which will impact implementation of the bill.

² https://www.env.nm.gov/opf/wp-content/uploads/sites/13/2024/05/108-110.pdf

³ https://nmpwrc.nmsu.edu/resources/documents/2022-JHM-Characterization-of-PW-and-Pecos-River-quality.pdf

Brackish Water. The U.S. Geologic Survey (USGS) defines brackish water as water that has a total dissolved solids (TDS) level of 1,000 to 10,000. Further, OSE characterizes water that has a TDS level above 1,000 and is located deeper than 2,500 feet below the surface as deep non-potable water. This characterization is due to the water that is shallower than the deep non-potable water being "righted," meaning it has potential for beneficial use, regardless of its level of salinity.

Deeper reserves of groundwater typically have TDS levels of 35 to 200 thousand and are, therefore, currently not used or characterized as righted water sources for beneficial use. If an entity plans to drill into these deeper aquifers, it must notify OSE, which does not technically own the water right of the entity but is the arbiter of the water.

<u>Analysis</u> from the New Mexico Bureau of Geology and Minerals Resources notes brackish water in deep, confined aquifers is typically not a renewable resource.⁴ Bureau analysis further notes these reservoirs of groundwater cannot be replaced due to the common collapse of the aquifer pore spaces which held the water. Regarding the pumping of shallower brackish water reservoirs, sufficient hydrologic studies are necessary prior to extraction. Analysis from the bureau notes recovery of usable brackish water is between 40 to 90 percent, based on the source salinity and treatment technique.

Additionally, disposal of the remaining brine concentrate requires specialized technical handling. Typical disposal of brine solutions in inland areas is done with specialized Class 1 or Class V wells, similar to ones deployed at El Paso's Kay Bailey Hutchinson Brackish Water Desalination Facility. Disposal of brine concentrate there is done in a Class 1 well connected to a shallow formation found and utilized through extensive hydrologic studies to determine capacity and safety. Currently, research is underway to develop techniques to separate useful salts as salable products, but it remains prohibitively costly and is not widely used.

Currently, the state has one desalination plant in Alamogordo (see Attachment 1 for graphic of desalination plant), which is also home to the Brackish Groundwater National Desalination Research Facility.

CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

HB137 relates to Senate Bill 178, which would impose a fee of 5 cents per barrel but would restrict the use of produced water off the oilfield to research purposes only and creating an abandoned wells remediation fund.

House Bill 137 also conflicts with Senate Bill 342 due to House Bill 137 creating the strategic water supply program fund, which has language that closely mirrors the language used in Senate Bill 342 related to brackish water projects.

The current General Appropriation Act contains \$40 million specified for the strategic water supply program, contingent on passage of the bill, not the \$75 million requested in HB137.

⁴ https://geoinfo.nmt.edu/publications/periodicals/earthmatters/15/n2/em_v15_n2.pdf

CS/House Bill 137/HAAWCS - Page 7

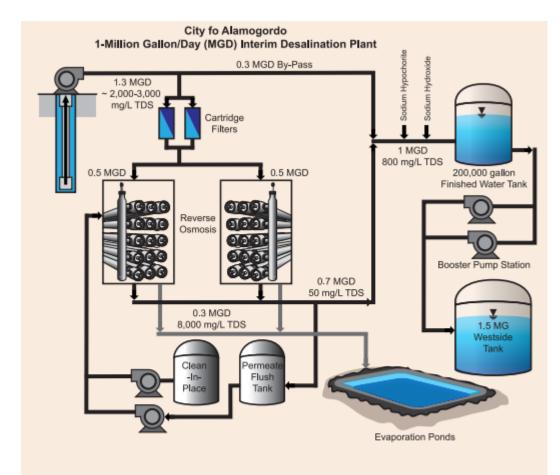
House Bill 137 contains an appropriation to the New Mexico Institute of Mining and Technology for \$28.5 million for aquifer characterization. The current General Appropriation Act contains \$19 million for the same program.

TECHNICAL ISSUES

NMED notes Section 2, A, 2, of the bill defines brackish water as containing less than 1,000 mg/l total dissolved solids (TDS). Current WQCC statute states water less than 10,000 mg/L TDS is protectable water, falling under the jurisdiction of NMED. OSE apportions the water resource for water less than 10,000 mg/L but excludes water greater than 2500 feet below the ground surface. NMED recommends Section 2, A, 2 be modified to say 10,000 mg/L, not 1,000.

AD/LG/IT/hj/hg/sgs/hg

Attachments



Schematic diagram for the interim desalination plant under construction for the City of Alamogordo. The source well field depicted in the upper left corner of the diagram is intended to pump 1.3 million gallons per day (MGD) for approximately 4 months per year. As shown in this schematic, some brackish water will be blended with fresh water to meet the volume needs for the community. Evaporation ponds will be used for waste concentrate waste disposal, depicted in lower right. Diagram modified from CDM Smith.

Source: New Mexico Bureau of Geology and Mineral Resources Earth Matters