LFC Requester:	Austin Davidson
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## **AGENCY BILL ANALYSIS - 2025 REGULAR SESSION**

## WITHIN 24 HOURS OF BILL POSTING, UPLOAD ANALYSIS TO

AgencyAnalysis.nmlegis.gov and email to billanalysis@dfa.nm.gov

(Analysis must be uploaded as a PDF)

SECTION I: GENERAL INFORMA	ATION
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{Indicate if analysis is on an original bill, amendment, substitute or a correction of a previous bill}

**Date Prepared**: February 13, 2025 Check all that apply: **Bill Number:** SB 342 Original X Correction

**Agency Name** 

**Person Writing** 

Sens. George K. Muñoz and

and Code

University of New Mexico-952

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Number:

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Amendment Substitute

**Brackish Water Projects** Short Funding

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## **SECTION II: FISCAL IMPACT**

Title:

## **APPROPRIATION (dollars in thousands)**

Appropi	riation	Recurring	Fund	
FY25	FY26	or Nonrecurring	Affected	
	\$50,000.0	Nonrecurring	General Fund	
	\$16,000.0	Nonrecurring	General Fund	
	\$4,000.0	Nonrecurring	General Fund	

(Parenthesis ( ) indicate expenditure decreases)

#### **REVENUE** (dollars in thousands)

Estimated Revenue			Recurring	Fund
FY25	FY26	FY27	or Nonrecurring	Affected

(Parenthesis ( ) indicate revenue decreases)

## **ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)**

FY25	FY26	FY27	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
No fiscal impact	\$500.0	\$500.0	\$1000.0	Recurring	Department of Environment

	No fiscal impact	\$600.0	\$600.0	\$1200.0	Recurring	Office of the State Engineer
	No fiscal impact	\$245.0	\$245.0	\$490.0	Recurring	New Mexico Institute of Mining and Technology
	No fiscal impact	\$245.0	\$245.0	\$490.0	Recurring	New Mexico State University
Total	No Fiscal Impact	\$1590.0	\$1590.0	\$3180.0	Recurring	

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates/Conflicts with/Companion to/Relates to: Duplicates/Relates to Appropriation in the General Appropriation Act

## **SECTION III: NARRATIVE**

#### **BILL SUMMARY**

#### Synopsis:

SB 342 requires the Department of Environment (NMED) to promulgate rules by December 31, 2026 for the use of naturally occurring brackish water for the water projects specified in Section 2 of this bill. Further, the bill provides a definition of "brackish water". Section 2 of the bill appropriates \$50 million in funding for the State Engineer (OSE) for expenditure in fiscal years 2026 through 2030 for planning, design, administration and matching federal, private and public water utility funds for brackish water use exploration, treatment and aquifer characterization water projects to benefit the lower Rio Grande, middle Rio Grande, Permian basin and northwest quadrant of the state.

Additionally, \$16 million in funding is appropriated to the New Mexico Institute of Mining and Technology (NM Tech), and \$4 million in funding to New Mexico State University (NMSU) to support innovation, research, monitoring, support and development of technology associated with naturally occurring brakish water projects, and specifically excludes produced water.

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

#### FISCAL IMPLICATIONS

This bill would provide \$50 million in funding for the OSE, \$16 million in funding for the NM Tech, and \$4 million in funding for NMSU. The appropriations of \$70 million in this bill are a nonrecurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY30 shall revert to the general fund. Although this bill does not specify future appropriations, multiyear appropriations, particularly if used to fund services, create an expectation that the program will continue in future fiscal years; therefore, this cost could become recurring after the funding period.

#### SIGNIFICANT ISSUES

This bill supports foundational work that is needed to demonstrate the usefulness and long-term sustainability of the potentially massive natural brakish water resources in the State of New Mexico. Uncertainty about our water resources is one of the top concerns for industries seeking to locate operations in New Mexico, and the proposed funding would answer many of those questions.

The funding in this bill directly aligns with goals of the submitted NSF Engine: San Juan-Rio Grande Energized Watershed Engine (Energized Watershed)<sup>1</sup> grant application for \$15 million over 2 years and up to \$160 million over ten years. The Energized Watershed proposal is one of only two in New Mexico to be invited to apply for the \$160 million opportunity, and it is focused on water security, including innovations that can better understand and utilize brackish water. Therefore, all three of the requested items appear to contain projects that would directly advance goals of the submitted proposal. The Energized Watershed is a regional coalition led by the University of New Mexico. It includes the entire State of New Mexico with direct funding for 12 organizations, including the University of New Mexico, NMSU, NM Tech, Navajo Technical University, Sandia National Labs, and Los Alamos National Lab. It is also supported by dozens of public and private collaborating organizations who have committed tens of millions of dollars in expected investments and economic growth in New Mexico.

Although it is not specified precisely, if the \$16 million to the New Mexico Insitute of Mining and Technology is used to characterize brackish aquifers in the State of New Mexico, then it will provide parital funding needed to generate foundational data for the Energized Watershed effort relating to the sustainability of our brakish resources. Importantly, the Energized Watershed proposal does not contain funding for this work because the amount needed vastly exceeds the available NSF funds. However, the NSF funds would help translate the work into real economic impact in the State of New Mexico.

The projects to be supported by the \$4 million for NMSU and the \$50 million for the OSE are not specified beyond general terms in the bill, and it is not clear if any of the proposed funding will be used to support collabrations with other experts in the State. However, the topic areas to be supported by the bill align very closely with specific state-wide, multi-institution projects described in the Energized Watershed proposal. Those projects describe the potential for innovation that can lead to creation of new start-ups, attract investment by exising companies, and train New Mexican workforces. However, the current funding in the Energized Watershed proposal is primarily for coordination of efforts, small pilot project work, developing start-ups, and training workforces. So it is essential for additional funding, like what is described in the bill, to support the majority of the necessary work on brackish waters. The stated goal of the NSF Engine program is to use Engine funds to attract more funding to meet regional goals. Demonstrating success in aquiring additional funding is an evaluation criterion that needs to be met to receive funding in years 3-10 of the award.

Additionally, SB 342 would significantly aid the OSE's efforts to develop brackish water treatment and desalination. In 2023, the OSE was involved in two projects, including applying for a Water Smart Desalination research and planning initiative and negotiating a cooperative agreement with the United States Bureau of Reclamation on desalination projects in the lower Rio Grande. SB342 will provide substantial support for these and other future projects. First, it will provide financial support for the engineering planning of the infrastructure necessary for the desalination facility, and second, it will demonstrate to federal partners the commitment the State of New Mexico has to advancing desalination projects.

The bill states that the NMED's timeline for promulgating the brackish water reuse rules is December 31, 2026. However, once the draft is developed and ready for presentation and public comment required by the existing regulations, it typically takes 10 to 12 months to fully develop, receive public input, prepare for rulemaking in front of the Water Quality Control Commission,

<sup>&</sup>lt;sup>1</sup> Information about this project is attached below.

and implement a complex rule package like reuse.

## PERFORMANCE IMPLICATIONS

Reporting of activities supported by the requested funding has not been presented. It is important for the activities, outcomes, and data generated be publicly available, easily accessible, and updated at least annually.

NMSU is well positioned to support SB 342 with extensive expertise in water research, innovative technology development and deployment, and the ability to align technologies with fit-for-purpose applications and uses. As an academic partner in the National Alliance for Water Innovation (NAWI), supported by the U.S. Department of Energy and headquartered at Lawrence Berkeley National Laboratory, NMSU has active research collaborations with the national laboratory system and other leading academic institutions in advanced water research. Through engagement in NAWI, NMSU can leverage contributions to developing a national Master Roadmap on water technology that begins to identify high-priority research needs for innovative and emerging water treatment and reuse technologies, as well as existing uses of desalination and advanced water technologies.

The New Mexico Bureau of Geology and Mineral Resources—the state geologic survey—is a research and service division of the NM Tech and has expertise in innovation, research, monitoring, support, and development of technology related to naturally occurring brackish water, aquifer monitoring, and improved ground water characterization.

#### **ADMINISTRATIVE IMPLICATIONS**

The requested \$50 million in funding for OSE will require significant administrative support to administer as will the \$16 million for the NM Tech. The \$4 million for NMSU is well within common award sizes, so it is anticipated that there would be little extra administrative burden with this funding.

The NMED would need to promulgate the rules relating to brackish water reuse under applicable standards for water quality established pursuant to the Water Quality Act by the Water Quality Control Commission. There is no additional appropriation in SB 342 for NMED.

## CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

HB137 proposes creating the strategic water supply fund to fund projects related to treating produced and brackish water. Current New Mexico statute allows entities to attain a reuse permit for brackish water, depending on its depth and total dissolved solids level.

Under HB 137 Section 4. Strategic Water Supply Program Subsection A. The "strategic water supply program" is created. Subject to the availability of funds and a project that meets all eligibility requirements, the NMED the Energy, Minerals and Natural Resources Department and the OSE may each enter into contracts or award grants for eligible projects involving treated brackish water or treated produced water for the purposes of reducing the state's reliance on fresh water resources or expanding water reuse opportunities. Under HB 137, four million dollars (\$4,000,000) is appropriated from the general fund to the board of regents of NMSU for expenditure in fiscal years 2026 through 2028 for innovation, research, monitoring, support and development of technology associated with potential projects for a strategic water supply program grant or contract. Any unexpended or unencumbered balance remaining at the end of

fiscal year 2028 shall revert to the general fund.

Similarly, in SB 342 SECTION 4. APPROPRIATION.--Four million dollars (\$4,000,000) is appropriated from the general fund to the board of regents of New Mexico State University for expenditure in fiscal years 2026 through 2030 for the innovation, research, monitoring, support, and development of technology associated with water projects pursuant to Section 2 of this act. Any unexpended or unencumbered balance remaining at the end of fiscal year 2030 shall revert to the general fund. SECTION 2. APPROPRIATION.--Fifty million dollars (\$50,000,000) is appropriated from the general fund to the office of the state engineer for expenditure in fiscal years 2026 through 2030 for planning, design, administration and matching federal, private and public water utility funds for brackish water use exploration, treatment and aquifer characterization water projects to benefit the lower Rio Grande, middle Rio Grande, Permian basin and northwest quadrant of the state. Any unexpended or unencumbered balance remaining at the end of fiscal year 2030 shall revert to the general fund.

#### **TECHNICAL ISSUES**

Section 1 of the bill defines brackish water sourced from an aquifer, the top of which is at least two thousand five hundred feet or more below the ground's surface and contains not less than one thousand parts per million of dissolved solids and is not produced water. There is no definition of what produced water is in this bill. Under the Produced Water Act, "Produced water" means a fluid that is an incidental byproduct from drilling for or the production of oil and gas.

Section 1 of the bill defines brackish water as containing less than 1,000 mg/l total dissolved solids (TDS). The current WQCC statute states that water with less than 10,000 mg/L TDS is protectable water, falling under the jurisdiction of NMED and the Oil Conservation Division. OSE apportions the water resource for water with less than 10,000 mg/L but excludes water greater than 2500 feet below the ground surface.

#### OTHER SUBSTANTIVE ISSUES

New Mexico has the opportunity to develop and demonstrate new technologies or studying and using brackish water that could lead to new start-ups and to New Mexico being a world leader in these areas.

#### **ALTERNATIVES**

## WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

Not enacting this bill will reduce the chance of success of the NSF Engine: San Juan-Rio Grande Energized Watershed Engine (Energized Watershed) grant application for \$15 million over 2 years and up to \$160 million over ten years. The first round of NSF Engine awardees had secured over twice the awarded funding in commitments to their ecosystem. These commitments represent investments in activities that directly advance the goals of the submitted proposal in the region. The Energized Watershed proposal is one of only two in New Mexico to be invited to apply for the \$160 million opportunity, and it is focused on water security, including innovations that can better understand and utilize brackish water. Therefore, all three of the requested items appear to contain projects that would directly advance goals of the submitted proposal.

#### **AMENDMENTS**



An ecosystem for watershed security in New Mexico, the Navajo Nation, and bordering counties, that relies on integrated innovations in energy. The Engine will combine strengths and assets of Tribal, industrial, academic, national laboratory, and entrepreneurial partners to drive rural and urban economic growth.

## ALWAYS SEEKING PARTNERS

- Community
- Industry
- Workforce
- Research
- Entrepreneurs
- Foundations
- Government
- and Others!

Contact us by completing this form





## Want to learn more?

info@energizedwatershed.org https://energizedwatershed.org

- still growing partners!
  - Technology Enhancement Fund supported!

# 1 of 71 INVITED to apply for \$160 million!

- first round winners averaged \$35 million in support
  - support can be investments in aligned efforts

# **EXAMPLES OF MAJOR FOCUS AREAS**



# Water Access, Cleaning, & Security

- Watershed scale planning and solutions
- Need State funding to map, monitor, and model brackish aquifers
- Cleaning contaminated wells in Navajo Nation
- Closed loop re-use for industry
- Potable remote & municipal re-use



# **Water - Energy Nexus Solutions**

- Agrivoltaics
- Mineral recovery from brines for "waste to wealth"
- Novel energy storage solutions
- Nested, self-healing microgrids



# Innovation, Entrepreneurship, & Workforce

- Commercialize hundreds of technologies from National Labs and regional universities
- Large focus on Tribal partnerships through Indigenous leadership and ways of knowing
- DeepTEK Venture Studio
- Regional coordination of workforce training
  - Water operators, electrical line workers, & more!



# **CURRENT ENERGIZED WATERSHED PARTNERS Your Organization Can Join Too!**

#### **TRIBAL NATION** UNIVERSITIES













# LOCAL, STATE, AND FEDERAL GOVERNMENT



















# **COLLEGES AND OTHER HIGHER ED INSTITUTIONS**













# **INDUSTRY and NON-PROFIT**





































































