Great Salt Lake Aquifer Restoration

Natural Resources, Agriculture, and Environmental Quality

Requester Information

Legislator Name: Musselman, Calvin R.

Created Date: January 30th 2026 **Submitted Date:** January 30th 2026

Section 1: Requester Details

Description:

The Great Salt Lake Aquifer Restoration Project addresses Utah's urgent water crisis through an innovative approach: extracting saline water from deep aquifers, recovering valuable minerals, and reinjecting purified water to replenish flows to augment flows to the Great Salt Lake. Funds appropriated to the Utah Department of Natural Resources, the Great Salt Lake Commissioner's Office, and the Institute of Land, Water, and Air will be administered to establish university research partnerships, conduct geological and hydrological surveys, initiate permitting with state and federal agencies, and complete engineering feasibility studies. This accelerated 12-month program enables parallel execution of critical workstreams, positioning Utah to move rapidly from feasibility to pilot implementation. The project transforms a water restoration challenge into an economic opportunity through mineral extraction revenue while creating high-quality jobs and protecting the $1.3 billion lake-dependent economy.

Legislative designee contact information:

Name: Dan Packer

Organization: Bear Pack Resources

Position: Chief Executive Officer

Section 2: Funding Information

How will the appropriation be used?

Category	One-time		Ongoing
Personnel Services	2026: 2027:	$0.00 $250,000.00	$0.00

Category	One-time		Ongoing
In-State Travel	2026: 2027:	$0.00 $50,000.00	$0.00
Out-of-State Travel	2026: 2027:	$0.00 $0.00	$0.00
Supplies and Equipment	2026: 2027:	$0.00 $100,000.00	$0.00
Technology Purchases	2026: 2027:	$0.00 $50,000.00	$0.00
Infrastructure/Capital Investments	2026: 2027:	$0.00 $0.00	$0.00
Other Charges/Pass Thru	2026: 2027:	$0.00 $2,050,000.00	$0.00

Expenditure Total

One-time 2026	One-time 2027	Ongoing 2027
$0.00	**$2,500,000.00**	**$0.00**

Funding Sources:

General Fund

Amount Requested:

2026 (One-time)	$0.00
2027 (One-time)	$2,500,000.00
2027 (Ongoing)	$0.00

Revenue Total

One-time 2026	One-time 2027	Ongoing 2027
$0.00	$2,500,000.00	$0.00

Is this a multi-year project?

No

Is this project scalable if the Legislature does not fund the full requested amount?

Yes

A short explanation describing how the project might be scaled?

The project is designed with modular workstreams that can scale based on funding levels. At the requested $2.5 million, all Phase 1 workstreams execute in parallel, compressing the timeline from 18 months to 12 months and enabling rapid progression to pilot implementation. If funding is reduced, workstreams would be prioritized sequentially, focusing first on university research partnerships and geological assessment, then adding permitting and engineering studies as resources allow. This flexibility ensures meaningful progress at any funding level while maximizing impact at full funding.

Section 3: Agency Information

Subjects:

01533

Land and Environment

Agency:

560 / Natural Resources

Type of entity to receive pass-through funding:

State Government

Grant recipient

No

Requested Direct Award Grant Recipient

Section 4: Performance Outcome Measurement

Who would benefit the most from this request (who is the target audience)?

The 2.5 million residents of the Wasatch Front who face public health risks from toxic dust exposure as the Great Salt Lake lakebed becomes increasingly exposed. Utah's mineral extraction and brine shrimp industries, which support a $1.3 billion annual economy dependent on the lake's ecosystem. Future generations of Utahns who will benefit from restored water levels and protected environmental resources. Utah's broader economy through job creation in engineering, research, and natural resource management.

What is this project or program intended to accomplish?

Phase 1 will determine the technical and economic feasibility of deep saline aquifer extraction as a water restoration strategy for the Great Salt Lake. Specifically, the project will: establish research partnerships with Utah universities to conduct foundational geological and hydrological studies; complete comprehensive surveys to identify optimal extraction and re-injection locations; initiate permitting processes with state and federal agencies; deliver engineering feasibility studies with cost projections for full-scale implementation; and produce environmental impact assessments with mitigation strategies.

How will the Legislature know whether the project or program achieved its intended purpose?

Success will be measured through concrete deliverables within 12 months: executed research agreements with at least two Utah universities with published preliminary findings; completed geological surveys identifying at least three viable extraction sites; permit applications submitted to Utah Division of Water Rights and EPA; delivery of comprehensive engineering feasibility study with go/no-go recommendation for Phase 2; and quarterly progress reports to DNR, the Great Salt Lake Commissioner's Office, the Institute of Land, Water, and Air, and the Legislature documenting milestones achieved and funds expended.

Section 5: Other Supporting Documents

Intent Language Documents

Previous Funding Documents

Full Time Employees

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