



New Mexico Environment Department

REQUEST FOR INFORMATION

for

Strategic Water Supply

Issued: Friday, January 19, 2024

Responses Due: Sunday, March 31, 2024, by 5:00 pm Mountain Time

I. Introduction

Governor Michelle Lujan Grisham is seeking a \$500 million investment from the New Mexico legislature through capital funding over two years to create the Strategic Water Supply (SWS). This first-of-its-kind initiative will support New Mexico and the nation's transition to renewable energy by providing resources for water-intensive processes, such as creating clean hydrogen, storing energy produced by wind and solar, and manufacturing electric vehicles, microchips, solar panels, wind turbines, and other equipment critical to the energy transition. The SWS will offset freshwater consumption by these water-intensive industries in favor of treated brackish water and treated oil and gas produced water. By prioritizing freshwater resources for communities while utilizing treated brackish and produced water for industry, New Mexico can sustain communities and our economy.

As envisioned, the State of New Mexico will purchase treated brackish water and treated produced water under a contract agreement with individual vendors. Initially, the State of New Mexico will utilize the contract agreements with individual vendors to facilitate expanded industrial uses of the treated water. The State of New Mexico, in cooperation with the private sector, will ensure the demand for treated brackish water and treated produced water meets or exceeds the supply side of the treated brackish water and treated produced water to minimize water storage requirements. Over time, the State of New Mexico may seek to increase the number of contracts or treatment volume with individual vendors to increase the supply of treated brackish water and treated produced water as science, technology, and regulation allow for greater application and uses of those treated waters.

While the New Mexico Environment Department (NMED) is leading this Request for Information (RFI) for the SWS, multiple state agencies are collaborating on this effort. These agencies include: the Department of Finance and Administration (DFA) on capital funding management; the General Services Department (GSD) on procurement/contracts; the Office of State Engineer (OSE) on water quantity/brackish water; the Economic Development Department (EDD) on economic incentives; and the Energy, Minerals, and Natural Resources Department (EMNRD) on produced water. Finally, to assist with the development of the SWS, NMED has selected Eastern Research Group, Inc. (ERG) to provide professional services.

NMED is soliciting general technical and economic information from individuals and organizations through this RFI, which closes March 31, 2024. Following the RFI, NMED will use the RFI responses to develop a request for proposals and project-specific concept papers from individuals and organizations interested in pursuing the development of the SWS. NMED anticipates announcing the request for concept papers to open in the Summer of 2024. The State of New Mexico intends to utilize the funding set aside for the SWS to enter into contracts for the procurement of treated brackish water or treated produced water that meets certain standards for quantity and quality. Those SWS funds will not be provided to fund engineering

studies, capital expenditures (CapEx), or operational expenditures (OpEx). That said, the State of New Mexico is open to discussing other sources of public funding that might support individuals or organizations for these costs. Such funding opportunities may complement the dedicated SWS funding and be used to complement the resources necessary to develop the specific supplies developed under SWS.

The ERG project lead for the SWS is Janet Carpenter. Questions related to the SWS RFI may be directed to Ms. Carpenter via email at Janet.Carpenter@erg.com or you may contact her by phone at: (202) 491-6504. NMED has developed the following online resources:

- SWS website for additional information:
<https://www.env.nm.gov/strategic-water-supply/>
- Register for SWS updates via email or text:
https://public.govdelivery.com/accounts/NMED/subscriber/new?topic_id=NMED_201

II. Roadmap

- **January 19, 2024** – RFI opens.
- **February 15, 2024** – New Mexico Legislative Session ends.
- **February 27, 2024** – Virtual Meeting 1, 5:00 pm – 7:00 pm Mountain Time
- **March 1, 2024** – Virtual Meeting 2, 10:00 am – 12:00 pm Mountain Time
- **March 31, 2024** – RFI closes.
- **Summer 2024** – Request for Proposal and project-specific concept papers opens.
- **Fall 2024** – Request for Proposal and project-specific concept papers closes.
- **Fall/Winter 2024** – Anticipated awards.

III. Purpose and Effect of This Request for Information

An RFI is a solicitation used to obtain general information about products, services, or suppliers. It is an information request and not binding on any party. The purpose of an RFI is to gain familiarity with the current market for a particular supply or service and to gather information in a formal, structured, and comparable way. RFI responses may be used to develop a request for proposal and concept papers.

This RFI offers the opportunity for interested individuals and organizations to provide technical and economic information to assist the State of New Mexico understand market potential, price, delivery, industry capabilities, etc. related to the development the SWS.

NMED welcomes responses to this RFI from independent companies, corporations, academia, government agencies, consortia or partnerships that have a potential interest in acting as lead

developers, water suppliers, water treatment facilities, potential end users, investors, insurers, etc. This RFI is not limited to potential respondents to future solicitations, nor is a response to this RFI required to participate in any future solicitation.

Individuals and organizations are strongly encouraged to submit detailed responses with supporting data or information when possible.

IV. Submissions

Individuals or organizations may submit a response via email no later than **5:00 pm Mountain Time on March 31, 2024** to NMED's contractor, Janet Carpenter, at Janet.Carpenter@erg.com. Responses must be provided as email attachments. It is recommended that email attachments with file sizes exceeding 25 MB be compressed (i.e., zipped) to ensure message delivery. Responses to this RFI must be provided as a Microsoft Word (.docx) and no more than 25 pages in length total, 12-point font, 1-inch margins. Only electronic responses will be accepted.

Your response to the RFI, including supporting data and information, may be made public. You should refrain from providing confidential business information or proprietary information to the RFI in your response. If you would like to share information or data that may be confidential or proprietary, please request a meeting with ERG per Section VI of this document.

For questions related to the RFI, please contact Ms. Carpenter via email or by phone at (202) 491-6504.

V. Virtual Meetings

ERG will hold two virtual group meetings for individuals and organizations to participate in and share information related to RFI. The meetings will be identical in format and content presented. These meetings will be held virtually at the following times:

- Virtual Meeting 1:
Friday, February 27, 2024, 5 pm – 7 pm MST
- Virtual Meeting 2:
Tuesday, March 1, 2024, 10 am – 12 pm MST

Please register for these meetings at the following link:

<https://www.zoomgov.com/meeting/register/vJlscO2ppjktHe4Qn13z28eOv0leQMhHJco#/registration>

Details for accessing the virtual meetings will be sent directly to those who register for the meetings.

VI. Individual and Organization Meetings

In addition to providing a written response to the RFI, individuals or organizations may request a meeting with ERG to discuss additional information related to the development of the SWS by contacting Janet Carpenter via email at Janet.Carpenter@erg.com. Please indicate in your meeting request the names and titles of all participants, include a proposed agenda, and provide three proposed dates/times for the meeting.

VII. Information Requested

Instructions: In responding to the RFI, please read Section IV for information related to the format of your response. While Category A is required for all submissions, you may answer as many or as few questions from other Categories B, C, and D as you wish. Please use the category and number below to identify which topic or questions each of the answers in your response addresses.

Definitions: The following definitions are provided for the purpose of the RFI.

- 1) *Brackish Water* means water that has a dissolved solids concentration between 1,000 and 10,000 milligrams per liter (mg/L). For the purposes of the SWS, brackish water refers to water sourced from brackish water aquifers.
- 2) *Produced Water* means a wastewater that is an incidental byproduct from drilling for or the production of oil and gas, and includes formation water, flowback water, and any chemicals added downhole during drilling, production, or maintenance processes during the life cycle of an oil or gas well.
- 3) *Treated Brackish Water* means brackish water (as defined above) that has undergone a process in which the water has been reconditioned by mechanical or chemical processes to remove or eliminate contaminants, creating an effluent that can be returned to the water cycle either through discharge, transference, or reuse.
- 4) *Treated Produced Water* means produced water (as defined above) that has undergone a process in which the water has been reconditioned by mechanical or chemical processes to remove or eliminate contaminants for the purpose of reuse.

Category A: General Information

- 1) For each individual or organization that is responding to the RFI, please identify the name, title, affiliation, email address, and phone number.
- 2) Please identify a primary contact if you are replying on behalf of multiple individuals or organizations.
- 3) Please describe your experience as it relates to the sourcing, treatment, delivery, storage, and/or use of treated brackish or produced water.
- 4) Please summarize any proposed strategies or conceptual projects for sourcing, treatment, delivery, storage, and/or use of treated brackish or treated produced water (if applicable).

Category B: Technical and Feasibility Information

- 1) Given your technological approach, what scale of throughput is achievable, and what associated post-treatment water quality is possible?
- 2) What level of technical detail (e.g., technical specification) is needed to produce water of sufficient quality and quantity for water-intensive, non-discharging processes or industries?
- 3) Please specifically identify New Mexico city/county locations where components of such a project (i.e., source, treatment, use) are most technically viable.
- 4) What are the energy requirements, energy sources, or other energy-related considerations needed for sourcing, treatment, delivery, storage, and/or use of brackish or produced water?
- 5) What approaches and development procedures would be employed to protect existing fresh water sources within aquifers that are likely to overlay deeper brackish aquifers?
- 6) Describe other product streams (e.g., critical minerals) and waste streams (e.g., salt) and how these products and waste streams could be developed and/or managed, including how any wastes would be disposed or repurposed.
- 7) Please describe the nature and extent of any impediments to the development and utilization of treated brackish and/or produced water resources related to insufficient

information, data availability, and monitoring capabilities.

- 8) What are the key technical challenges, if any, associated with sourcing, treating, delivery, storing, and/or using brackish or produced water and what potential solutions could there be that would facilitate the development of brackish and produced water resources? To the extent possible, please identify any New Mexico specific technical challenges.

Category C: Economic Information

- 1) The State of New Mexico is interested in purchasing treated brackish water or treated produced water for specific end uses. Please explain how you would determine what a reasonable price for treated brackish or treated produced water would be. Pricing information should account for final water quality and quantity.
- 2) How should the State of New Mexico structure contract terms (e.g. duration) to facilitate private sector investment and access to capital to build and operate the infrastructure to source, treat, deliver, store, and/or use brackish water or produced water?
- 3) In addition to the treated water, what other opportunities exist to create revenue streams from resources recovered from the treatment of brackish water or treated produced water?
- 4) When considering whether a project is economically feasible, what criteria do you use to determine if a project is viable?
- 5) What industries or processes would be appropriate end users of treated brackish water and/or treated produced water to ensure adequate demand?
- 6) What are the key economic challenges associated with sourcing, treating, delivering, storing, and/or using treated brackish or produced water in those industries or process and what potential solutions would reduce the costs of the development of brackish and produced water resources? For any solutions, what is holding back their implementation?

Category D: Regulatory and Policy Issues

- 1) What types of State policies, State laws, or State regulations could be employed to overcome key challenge(s) you previously identified?
- 2) What other types of public/private economic development partnerships could be forged to incentivize first-movers to invest in the development of treated brackish and produced water resources?

- 3) How should the State prioritize SWS funding to support investment for sustainable and responsible economic development across New Mexico? What areas show the most promise for such investments based on available resources?
- 4) What else should we know or consider in developing the request for proposal and project-specific concept papers?