

## Sole Source Application and Determination Form

A sole source determination is not effective until the sole source application for determination has been posted on the Purchasing website for thirty (30) calendar days without protest and is subsequently approved in writing by the Vice President of Administration and Finance.

1. Name of Department: Bureau of Geology  
Contact Name: Stacy Timmons  
Phone: 575-835-6951  
Email: [stacy.timmons@nmt.edu](mailto:stacy.timmons@nmt.edu)
2. Name of Prospective Vendor: Board of Trustees of the Leland Stanford Junior University  
Contact Name: Dr. Rosemary Knight  
Phone: (650) 736-1487 (office)  
Email: [rknight@stanford.edu](mailto:rknight@stanford.edu)  
Estimated Cost: \$297,000  
Duration (for Services or Professional Services – limited to four years): up to 2 years from start
3. Purpose/need for purchase and detailed list of items of tangible property, services, or professional services:

The NM Bureau of Geology is tasked with mapping the state's aquifers in detail and as efficiently and quickly as possible due to continued drought and declining groundwater conditions. With new data collection and geophysical surveys underway, the primary purpose of this purchase/arrangement is to provide highly specialized geophysics expertise and guidance on projects, different types of data collection, specific regional hydrogeology-based project planning, data interpretation, geophysical research and ultimately mapping of aquifers using a variety of geophysical tools, applications and interpretations. The team at NMBGMR working on this expanded aquifer characterization effort needs highly specialized geophysics expertise, which is unavailable for hiring as research staff for a term project. Our goal is to work with Dr. Rosemary Knight and her well established research program to augment resources available currently.

4. Detailed explanation of criteria developed for this purchase:

Criteria developed includes reviewing peer review journals and the peer-reviewed science community resources to evaluate the different approaches to mapping aquifers using geophysics. Additionally, criteria are based on NMBGMR's past year of experience working with different consultants and vendors on airborne electromagnetic surveys in New Mexico. Some of the most important criteria for this vendor selection, especially for an advisory research role of guidance and project planning includes having many years of previous experience, having no vendor/system/technique preference (being unbiased, hypothesis and science driven), able to evaluate different techniques and approaches that will best suit the hydrogeology of a region, and have deep knowledge of hydrogeology applications of geophysics. Being from the academic/ research realm provides not only a depth of understanding and subject matter expertise, but also the ability to teach and guide our team toward improved understanding of the technical geophysics interpretation processes.

5. Provide a detailed, sufficient explanation of the reasons, qualifications or unique capabilities of the prospective vendor that make that prospective vendor the one source for providing the items of tangible property, services, or professional services:

Dr. Rosemary Knight at Stanford University has worked over her career developing deep insights, experience, numerous collaborators, and a long list of publications and presentations (see attached CV). Her research group has worked on similar projects to what we're doing in New Mexico, with years of previous experience. She is internationally recognized as a leader in the field of near-surface geophysics, with specific expertise in groundwater geophysics. Most notable, and the subject of numerous awards and media coverage, is her combination of academic excellence, which brings with it an outstanding record of cutting-edge research, and her tireless advocacy for advancing the adoption of geophysical methods to support sustainable groundwater management.

6. Provide a detailed, sufficient explanation of how the items of tangible property, services, or professional services is/are unique and how this uniqueness is substantially related to the intended purpose of the department/grant:

The research services and geophysics interpretation, planning and guidance available at Stanford University under guidance of Dr. Rosemary Knight is highly unique in its role working on large state aquifer mapping and airborne electromagnetic survey projects. Dr. Knight's leadership led to the use the helicopter-deployed airborne electromagnetic (AEM) method in California to acquire data along 25,000 kilometers of flight lines over the groundwater basins of the state. This 3-year, \$13 million state-funded AEM project helped to demonstrate the technology and provide a whitepaper that became the basis continued state funding, Since the time of data acquisition, Dr. Knight and her research team have developed the data pipelines that analyze the AEM data to reveal the structure and types of sediments in groundwater basins of the state and, most recently, to map the location of sites suitable for groundwater recharge. Her work in CA is very similar to the type of work we are doing in New Mexico, making her a unique service we can leverage for New Mexico projects.

7. Please provide a narrative description department's due diligence in determining a basis for the procurement. Include:

- a. method used to research and review other available sources (i.e. list of potential vendors from Purchasing, internet, state pricing agreements, purchasing cooperatives)

Going through the peer review research material on this topic shows that Dr. Rosemary Knight's research on near surface geophysics toward mapping aquifers, and her collaboration with numerous other projects related to groundwater studies is highly unique. It is an especially unique opportunity to work with Stanford University to collaborate on advanced hydrogeophysics projects to learned from CA, and apply those lessons learned in New Mexico.

- b. list of vendors contacted, the date and method of contact (i.e. email, phone call)

We have a list of vendors currently on RFP (hydrogeological services from 2025) who have excellent skills in their domains, but do not match the qualifications / requirements of Dr. Rosemary Knight and her research group - especially at a research university, with prior state-level collaboration and coordination. The *researcher role* is especially important to provide unbiased, scientific evaluation of data without a vendor, application, or system type preference.

- c. documentation explaining why:
  - i. those vendors cannot provide the required items of tangible property, services, or professional services
  - ii. other similar items of tangible property, services, or professional services cannot meet the intended purpose of department/grant:

Vendors available have limited state-scale bandwidth for a multiyear survey, where a wide range of geophysical applications may be required. We need provide unbiased, scientific evaluation of the tools and options, addressing specific research questions toward mapping aquifers, without a vendor, application, or system type preference.

I certify I have performed thorough and diligent research and analysis to determine that [Board of Trustees of the Leland Stanford Junior University, Dr. Rosemary Knight, is the only source capable of providing the required hydrogeophysics research and project planning. I understand that violations of the New Mexico Procurement Code (Chapter 13, Article 1 NMSA 1978) can carry severe penalties. I affirm that the information provided in this Sole Source Determination is true and accurate to the best of my knowledge and belief.

Name, Title:

Stacy Timmons, Associate Director for hydrogeology

NM Bureau of Geology



5/27/26

Review: Purchasing Services: Lisa Majkowski

*Lisa Majkowski* 05.27.2026

Website Posting Date: 05/28/2026

Posting Expiration Date: 06/27/2026

Protested (Yes/No):

Approval: Delilah A. Walsh

Vice President of Administration and Finance



28-May-2026

Version: July 2025






# Stanford University\_Sole Source Application\_N MBGMR\_05.27.2026

Final Audit Report

2026-05-28

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