

Subject: Request for response: New Mexico Drinking Water Survey

Dear New Mexico Tribal drinking water system affiliate,

Likely one of the most important aspects of sustainably managing your water system is the ability to fund asset rehabilitations or replacements when needed. There are many state and federal funding sources available, but these programs may or may not be adequately meeting your needs. The University of New Mexico, with funding support from the Water Foundation, are conducting this study to better understand Tribal communities' needs and concerns about drinking water funding – including what is working and more importantly, what is not. Our findings will be shared with the New Mexico state legislature so that your answers can help inform necessary revisions to the overall funding programs within the State of New Mexico. You were selected to participate in this study because you are listed as a contact for a Tribal public drinking water system in New Mexico. You may not directly benefit from this research, but the knowledge gained will help us better understand drinking water needs and funding, and your input will be presented during drinking water policy discussions in New Mexico.

If you agree to take part in this study, please complete the survey below. The questions will take approximately 20 to 30 minutes to complete. **Your participation in this study is completely voluntary and you can withdraw at any time. You are free to skip any question you choose.**

Your survey responses will remain anonymous. Your name and the name of the public water system you manage will remain anonymous in any report resulting from this study. Please answer questions to the best of your knowledge and as truthfully as possible. Your responses are very important to us and any individual response will not be associated with you or your water system in any information shared.

By proceeding to the survey questions, you are indicating that you have read and understand this project background and agree to participate in this research study. Please keep this email or cover letter with our contact information for your records. If you would like to request a paper version of the survey, please e-mail us at [swefc@unm.edu](mailto:swefc@unm.edu).

Sincerely,

The research team at the Southwest Environmental Finance Center at UNM and its affiliates

If you have any questions regarding this survey, please contact:

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## Part I: Management

In this section of the survey, we will ask you questions about the management of your public drinking water system. If you are involved in the management of multiple systems, please answer these questions for only one system. However, if you manage multiple systems, you are welcome to fill out the survey for each system you manage.

1. What is the name of the public drinking water system you are affiliated with?

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2. What is the Public Water System Identification Number (PWSID#) of the public drinking water system you are affiliated with?

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3. What is your title within your public drinking water system?

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4. Approximately how many hours per week do you spend working for your public drinking water system?

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5. Is your primary residence within the service area of the public drinking water system you are affiliated with?

Yes

No

6. Please rank the top five challenges to your public drinking water system in order of severity (1 is your biggest challenge)

\_\_\_\_\_ Old or deteriorating infrastructure

\_\_\_\_\_ Insufficient revenue

\_\_\_\_\_ Declining population/rate base

\_\_\_\_\_ Difficulty securing grants/loans

\_\_\_\_\_ Difficulty finding or retaining board members

\_\_\_\_\_ Difficulty finding or retaining a certified operator

\_\_\_\_\_ Complying with water quality regulations

\_\_\_\_\_ Complying with other regulations

\_\_\_\_\_ Drought/diminishing water supply

\_\_\_\_\_ Water supply contamination

- \_\_\_\_\_ Other environmental concerns (wildfire, flood, contamination, etc.)
- \_\_\_\_\_ Maintaining relationships with water users/other community members
- \_\_\_\_\_ Water rights
- \_\_\_\_\_ New development/increased water demand
- \_\_\_\_\_ Computer or technology challenges (e.g., lack of a computer, internet, challenges navigating websites, data management)
- \_\_\_\_\_ Other; please specify: \_\_\_\_\_

7. If you are concerned with the impacts of drought on your public drinking water system, which of the following actions have you taken, or would you like to take?

Taken	Would like to take	Do not plan to take	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Purchase additional water rights
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Repair leaking infrastructure
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Promote water saving fixtures among users
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement graduated rate scheme to encourage conservation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement water conservation program
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mandatory water restrictions in severe drought
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other; please specify _____

I am not concerned with the impacts of drought

8. If the public drinking water system you are affiliated with has a board of directors, how many vacancies do you currently have on the board?

- 0       1       2       3       4 or more       Not applicable

9. If you have vacancies on your board of directors, what is/are the main reasons for the vacancies? (select all that apply)

- Aging community members
- Lack of interest in serving on the board
- Lack of expertise in community members
- Declining community population
- The significant work or commitment of being a board member
- Other; please specify \_\_\_\_\_
- Not applicable

10. How involved is the board in the management of your public drinking water system?

- Not involved       Somewhat involved       Involved       Very involved       Not applicable

**Please indicate how strongly you agree or disagree with the following statement.**

11. We have difficulty finding or retaining a certified operator.

- Strongly disagree       Disagree       Neutral       Agree       Strongly agree

12. If you have difficulty finding or retaining a certified operator, what is/are the main reasons for the difficulty? (select all that apply)

- High cost of hiring certified operators  
 Lack of certified operators in community or surrounding area  
 Competition for certified operators with other systems driven by high demand  
 Inability to pass certification test  
 Inability to raise salary over time  
 Other; please specify \_\_\_\_\_  
 We have no difficulty finding a certified operator

13. Public water systems may receive a Notice of Violation (NOV) from EPA for violating certain aspects of public drinking water regulations. Which of the following best represents your perspective on these violations? (select all that apply)

- Violations are useful for communicating deficiencies to managers  
 Violations are **not** useful for communicating deficiencies to managers  
 Violations are fairly issued by EPA  
 Violations are unfairly issued by EPA  
 Violations are useful, but they create too much extra work for managers  
 Violations are **not** useful, and they create too much extra work for managers  
 Other; please specify \_\_\_\_\_  
 I have no perspective on violations

**Please indicate how strongly you agree or disagree with the following statement.**

14. The revenue generated by water/utility bills (user charges) sufficiently funds the operation of our public drinking water system?

- Strongly disagree       Disagree       Neutral       Agree       Strongly agree       We do not charge for water

## Part II: Funding

In this section, we will be asking you questions about external funding for your public drinking water system. External funding includes all funding sources (e.g., loans and grants) that are not revenue from rate payers including any funding received from the New Mexico Legislature.

15. Are you involved with external funding for your public drinking water system? (e.g., researching funding sources, applying for funding, spending grant or loan money)

- Yes                       No – please skip to section III

16. For which of the following reasons has your public drinking water system sought external funding? (Check all that apply)

- Replace aging tanks, pipes, pumps, or facilities
- Expand existing tanks, pipes, pumps, or facilities
- Develop new sources of water
- Rehabilitation of components of the system
- Install water efficiency/green projects such automated meter infrastructure
- To meet regulatory requirements (e.g., additional treatment)
- Expand treatment capacity and/or technology (e.g., improved SCADA system)
- Purchase water rights
- Other; please specify: \_\_\_\_\_

17. Rate the level of difficulty of applying for grants and loans:

- Extremely difficult     Somewhat difficult     Neutral     Somewhat easy     Extremely easy

18. If your public drinking water system has applied for external funding, which of the following funding sources has your water system applied to and/or received funding from? (Check all that apply)

Funding Source	Applied for	Received	Received full amount that was requested	In the last 5 years	How easy was it to apply? (easy, medium, hard)
New Mexico Finance Authority					

Funding Source	Applied for	Received	Received full amount that was requested	In the last 5 years	How easy was it to apply? (easy, medium, hard)
NMFA Drinking Water State Revolving Loan Fund					
NMFA Public Project Revolving Loan Fund					
NMFA Water Project Fund/Water Trust Board					
Local Government Planning Fund					
<b>Indian Health Service</b>					
Sanitation Deficiency System (SDS)					
<b>New Mexico Environment Department</b>					
Rural Infrastructure Program					
<b>USDA Rural Development</b>					
Water and Waste Disposal Direct Loans and Grants					
Water and Waste Disposal Guaranteed Loan					
Water and Waste Disposal Predevelopment Planning Grants					
Emergency Community Water Assistance Grants					
Business and Industry Guaranteed Loan					
Water and Waste Disposal Revolving Fund					
Individual Water and Wastewater Grants					

Funding Source	Applied for	Received	Received full amount that was requested	In the last 5 years	How easy was it to apply? (easy, medium, hard)
New Mexico Department of Finance and Administration					
	Community Development Block Grant				
	Community Development Block Grant Colonias Set-Aside				
	Community Development Block Grant (Planning)				
	Board of Finance Emergency Loan or Grant				
Economic Development Administration, Department of Commerce					
	Public Works Program				
	Economic Adjustment Program				
National Rural Water Association					
	Revolving Loan Fund				
Rural Community Assistance Corporation					
	Environmental Infrastructure Loans				
CoBank					
	Rural Water and Wastewater Lending				
New Mexico Indian Affairs Department					
	Tribal Infrastructure Fund				
US EPA					

Funding Source	Applied for	Received	Received full amount that was requested	In the last 5 years	How easy was it to apply? (easy, medium, hard)
Water Infrastructure Finance and Innovative Act (WIFIA)					
Drinking Water Infrastructure Grants Tribal Set-Aside (DWIG-TSA) Program					
US Department of the Interior – Bureau of Reclamation					
WaterSMART Grants: Small Scale Efficiency Projects					
WaterSMART Grants: Water Marketing					
Title XVI Water Reclamation & Reuse Programs					
Drought Response Program: Drought Resiliency Projects					
New Mexico State Legislature					
Capital Outlay Funding					
North American Development Bank (NAD Bank)					
Project Development Assistance Program					
Army Corps of Engineers					
Section 219: Environmental Infrastructure					
Small Business Administration					
504 Fixed Asset Program (Certified Development Company)					



Funding Source	Applied for	Received	Received full amount that was requested	In the last 5 years	How easy was it to apply? (easy, medium, hard)
7(a) Loan Guarantee					
Community Advantage Pilot					
Microloan Program					
Live Oak Bank					
Water and Environmental Program					
Private Bank; specify below					
Other; specify below					

19. The table above lists the funding sources in New Mexico. Were you aware that there were this many funding sources for public water system?

- Yes     
  Some but not all     
  Only a few were familiar     
  No

20. For the most recent grant or loan you received, how sufficient were the funds for the project you were trying to complete?

- Completely sufficient     
  Partially sufficient     
  Not sufficient     
  Not applicable

21. What are the factors that you use to determine what funding source to apply for? Please rank all that apply in order of importance, 1 being the most important, maximum of 5.

- \_\_\_\_\_ Recommendation from EPA, NMED, or other government agency
- \_\_\_\_\_ Recommendation from non-government organization (e.g., NMRWA, RCAC, universities)
- \_\_\_\_\_ Recommendation from private consultants (e.g., engineering or accounting firm)

- \_\_\_\_\_ Recommendation from community leader (e.g., mayor, congressperson, community board member, etc.)
- \_\_\_\_\_ Recommendation from neighboring water system
- \_\_\_\_\_ Familiarity with funding agency
- \_\_\_\_\_ Internet search
- \_\_\_\_\_ Ease of application process
- \_\_\_\_\_ Known success rate of receiving funds from an organization
- \_\_\_\_\_ Trust in funding agency
- \_\_\_\_\_ Other; please elaborate: \_\_\_\_\_

22. When you have applied for grants or loans, did an outside organization or individual assist you?

- Yes
  No
  Not applicable

If yes, what organization or individual assisted you? (select all that apply)

- New Mexico Environment Department Drinking Water Bureau
- New Mexico Finance Authority
- USDA Rural Development
- US Environmental Protection Agency
- NM Department of Finance and Administration
- Other State Agency; which agency? \_\_\_\_\_
- Other Federal Agency; which agency? \_\_\_\_\_
- New Mexico Rural Water Association
- New Mexico - Rural Community Assistance Corporation - RCAC
- Southwest Environmental Finance Center
- Private accounting or engineering firm; which firm? \_\_\_\_\_
- A friend or family member
- A manager of another drinking water system
- A state senator, representative, or local elected official (e.g., county commissioner)
- Other; please specify: \_\_\_\_\_

23. Which statement best represents your perspective on loans.

- We will only accept grants (or principal forgiveness) and will not do a project if it requires a loan component.
- We prefer grant funds but will take a loan to supplement grant funding, if necessary and if we qualify.
- We prefer grant funds but are willing to accept funding that is only loan, with no grant component, if necessary and if we qualify.
- Other; please specify: \_\_\_\_\_

**Please indicate how strongly you agree or disagree with the following statements.**

24. Our public drinking water system has the knowledge and skillset needed to apply for loans and grants in New Mexico.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

25. It is easy for us to identify possible funding sources.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

26. After a grant or loan is received, it is easy to access and use the money.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

27. Technological challenges (e.g., websites, internet connection, computer, etc.) prevent me from applying for or accessing funds.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

28. Compiling the required documentation (project, management, technical, financial information) is a significant challenge in applying for and accessing funds.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

29. Obtaining or paying for the required preliminary engineering and environmental reports for infrastructure projects is a significant challenge in applying for and accessing funds.

- Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

30. Compliance issues with audits, certification, or budgets is a significant challenge in applying for and accessing funds.

Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

31. The timing or frequency of funding cycles is a significant challenge in applying for and accessing funds.

Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

32. Communication with funding agencies or challenges in transportation to attend a public hearing are significant challenges in applying for and accessing funds.

Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

## **PART III: Management Alternatives for NM Systems**

In this section, we will ask questions about proposed policy changes in public drinking water management in New Mexico. These propositions are not advocated for by the authors of this survey. Rather, we seek your input to better inform ongoing policy discussions in New Mexico.

**Please indicate how strongly you agree or disagree with the following statements.**

33. An increased number of connections in my water system (e.g., more customers) would make our water system more sustainable.

Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

34. Combining my drinking water system with other systems in the area (through physical connections or by consolidating operations and management) would be good for my community.

Strongly disagree     Disagree     Neutral     Agree     Strongly Agree

35. If asked to consolidate your drinking water system with others in the area, what would be your primary concerns? (please rank all that apply in order of severity, 1 being your biggest concern)

\_\_\_\_\_ Loss of decision-making authority about water

\_\_\_\_\_ Lack of trust in outsiders to make best decisions for community

- \_\_\_\_\_ Loss of community identity
- \_\_\_\_\_ Loss of community jobs
- \_\_\_\_\_ Potential for rate increases
- \_\_\_\_\_ Sharing financial burdens
- \_\_\_\_\_ Potential loss of water rights
- \_\_\_\_\_ Insufficient source water supply
- \_\_\_\_\_ Other; please specify: \_\_\_\_\_

I have no concerns about consolidation

36. What would be the biggest benefits of consolidating your drinking water system with others in the area? (please rank all that apply in order of benefit, 1 being the biggest benefit)

- \_\_\_\_\_ Increased revenue stability
- \_\_\_\_\_ Decreased managerial burden for community members
- \_\_\_\_\_ Having additional personnel with professional skills and experience
- \_\_\_\_\_ Increased operating efficiency
- \_\_\_\_\_ Potential diversification of drinking water sources
- \_\_\_\_\_ Potential increased access to financing at lower costs
- \_\_\_\_\_ Improved planning and risk management
- \_\_\_\_\_ Other; please specify: \_\_\_\_\_

There are no benefits of consolidation

37. If asked to consolidate your drinking water system with others in the area, which of the following strategies would you prefer? (select all that apply)

- Sharing management authority with another system or entity
- Assuming all management authority for both systems
- Relinquishing all management authority to another system or entity
- Sharing some administrative tasks (e.g., bookkeeping, regulatory reporting, etc.) but retaining management authority
- Pooling water rights
- Other; please specify: \_\_\_\_\_

I will not consider consolidation

## Part IV: Thank you and final thoughts

38. Thank you so much for your time and for participating in this research. Is there anything else related to drinking water in New Mexico that you think is important for us to know? If so, please use the space to write below to provide your thoughts.

Survey Consent form

## **New Mexico Drinking Water Finance and Management Study**

### **Consent to Participate in Research**

**Purpose of the research:** You are being asked to participate in a research project that is being done by Dr. Benjamin Warner and Tucker Colvin, from the Department of Geography and Environmental Studies at UNM. The purpose of this research is to understand risks to drinking water systems across New Mexico. You are being asked to join because you play a managerial role in your community drinking water system that has been selected to be part of this research.

This consent form contains important information about this project and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. Your participation in this research is voluntary.

#### **Key information for you to consider:**

- This project will attempt to determine how the organizational structure of a water system may best enable communities to manage risks to their drinking water.
- For this research you will be asked to partake in an online survey. This survey will be anonymous.
- There are no foreseen risks in partaking in this research. There are also no immediate benefits. The only benefit will be to help further the study of governance of natural resources.
- The survey will take time out of your day and is expected to take around 20 minutes to complete.

**What you will do in the project:** For this project, you will take a survey using the website Esurvey. There will be a number of specific questions that deal with the organizational structure of your system, the source water, how you protect source water, and what your perceived vulnerabilities are. You can decide to not answer any question and can stop the survey at any time.

**Risks:** The only risk for your participation in this study is the inconvenience of taking time out of your day to participate.

**Benefits:** There will be no immediate benefits to you. The overall research will hopefully help decrease risks to drinking water systems in general.

**Confidentiality of your information:** All survey responses will be anonymous, and we will take steps to ensure your confidentiality and privacy. The surveys will be de-identified from your personal information and stored on a password protected hard drive. Only the research team will have access to the data. Any works published using this research will be anonymous and not contain any identifiable information.

We will take measures to protect the security of all your personal information, but we cannot guarantee confidentiality of all research data. The University of New Mexico Institutional Review Board (IRB) that oversees human research may be permitted to access your records. Your name will not be used in any published reports about this research.

**Use of your information for future research:** Your information collected for this project will NOT be used or shared for future research, even if we remove the identifiable information like your name or date of birth.

**Payment:** You will not be paid for participating in this project.

**Right to withdraw from the research:** Your participation in this research is completely voluntary. You have the right to choose not to participate or to withdraw your participation at any time without penalty. If you decide to withdraw from participation, all data obtained from the survey will be destroyed.

If you have any questions, concerns, or complaints about the research, please contact:

Tucker Colvin, Southwest Environmental Finance Center, [tcolvin@unm.edu](mailto:tcolvin@unm.edu), 505-333-9667

If you have questions regarding your rights as a research participant, or about what you should do in case of any research-related harm to you, or if you want to obtain information or offer input, please contact the IRB. The IRB is a group of people from UNM and the community who provide independent oversight of safety and ethical issues related to research involving people:

UNM Office of the IRB, (505) 277-2644, [irbmaincampus@unm.edu](mailto:irbmaincampus@unm.edu). Website: <http://irb.unm.edu/>

## **CONSENT**

You are making a decision whether to participate in this research. By proceeding to the questionnaire, you are indicating that you have read and understood this project background and agree to participate in this research study.