

NEW MEXICO
2023-2026

Drinking Water Capacity Development Strategy



Drinking Water Bureau
Water Protection Division
New Mexico Environment Department

12/20/2022

Version 1.0

Contents

| | | |
|-------|---|----|
| I. | Introduction | 1 |
| A. | Background | 1 |
| B. | New in 2022 | 1 |
| II. | NM Capacity Development Strategy Goals & Objectives | 2 |
| III. | Capacity Development Strategy Implementation | 3 |
| IV. | Public Water Systems in New Mexico – Overview | 4 |
| V. | New System Capacity Development Strategy | 6 |
| A. | Assessing Capacity of New Systems | 7 |
| B. | Assisting New Systems | 8 |
| VI. | Existing System Capacity Development and Maintenance | 8 |
| A. | Infrastructure Support | 8 |
| B. | Capacity Assistance | 9 |
| C. | Needs and Risk Assessment | 9 |
| D. | Regional Resiliency | 10 |
| E. | Source Water Protection | 10 |
| F. | Utility Operator Certification | 10 |
| G. | Partnerships and Coordination | 11 |
| VII. | Drinking Water State Revolving Fund | 11 |
| VIII. | Asset Management | 11 |
| A. | AWIA Section 2012 – Five Core Question Framework | 12 |
| B. | Training and Asset Management Assistance | 13 |
| | APPENDIX A | 14 |

Appendices:

Appendix A: Stakeholder meeting notes & comments

I. Introduction

A. Background

The federal Safe Drinking Water Act (SDWA) and the New Mexico Drinking Water Regulations exist to ensure that safe water is delivered to the customers of Public Water Systems (PWS) throughout the state. Safe means that it meets the drinking water requirements defined in SDWA.

In 1996, SDWA was amended to include, among many other provisions, a requirement for states to implement a capacity development program and strategy to develop and maintain the capacity of PWS.

Water system capacity refers to a water system's ability to plan for, achieve, and maintain compliance with all applicable drinking water standards through technical, managerial, and financial capability. Developing and increasing the capacity of new or existing systems to achieve compliance with regulations is an integral and fundamental component of the 1996 provision and protection of public health. New Mexico Administrative Code (NMAC) 20.7.10.201 requires new system to meet technical, managerial, and financial capacity.

The New Mexico Drinking Water Bureau (DWB) developed a capacity development strategy to help drinking water systems improve their finances, management, infrastructure, and operations so they can provide safe drinking water consistently, reliably, and cost-effectively. Programmatic elements of the capacity development strategy are interwoven with existing bureau programs and activities carried out by the multiple teams within the Sustainable Water Infrastructure Group (SWIG) and the Public Water System Supervision (PWSS) Group.

B. New in 2022

The DWB approach to capacity development was evaluated and reorganized in 2022 to meet changing programmatic and water system needs. The capacity development strategy takes a broad approach to provide additional options and support to water systems not meeting capacity. This document is a revision of the previous 2014 strategy and reflects the current program and capacity development goals. This version also addresses America's Water Infrastructure Act of 2018 (AWIA) requirement for states to revise their capacity development strategies by December 31, 2021 to "include a description of how asset management will be promoted through addressing the five-core-question framework of asset management". This deadline was later extended to December 31, 2022.

The bureau will evaluate and revise the capacity development strategy every 3 years or sooner as necessary.

II. NM Capacity Development Strategy Goals & Objectives

Communities in New Mexico are facing an increase in emergencies due to climate change, including drought, precipitation events, and wildfires that require a new approach to future planning and capacity building. There are also impacts from a decline in certified operators, increased requirements, decrease in board volunteers and other factors that are also driving the need for additional planning and assistance. The changing conditions requires flexibility and support beyond traditional technical, managerial, and financial assistance. New Mexico has responded by revising assistance strategies that build capacity and meet the changing needs of water systems across the state. NMED has identified the following goals and objectives for capacity of New Mexico water systems:

Goals for NM Capacity Development:

- Water systems meet compliance with SDWA and state regulations.
- Water systems have effective, sustainable, resilient capacity.

Objectives for NM Capacity Development:

- Identify and prioritize non-compliant systems for assistance.
- Offer coordinated, comprehensive capacity assistance to all non-compliant systems and upon request.
- Offer training and optimization opportunities for increased capacity.
- Assess capacity of new and existing systems at multiple control points
 - New systems
 - Existing systems for Drinking Water State Revolving Fund (DWSRF) application
 - Existing systems for risk & needs assessment
- Assess system risk and needs (new program)
- Support regionalization strategies for system viability, resiliency, and sustainability

III. Capacity Development Strategy Implementation

The Sustainable Water Infrastructure Group provides a number of programmatic activities to support the sustainable capacity of new and existing water systems:

Infrastructure Support provides:

- Engineering reviews for water infrastructure design plans for new and existing PWS to ensure that they follow the SDWA, America's Water Infrastructure Act (AWIA), and the National Primary Drinking Water Regulations
- Funding assistance with DWSRF applications and eligibility which is co-managed with the New Mexico Finance Authority

Capacity Assistance provides:

- Assistance to develop and maintain technical, managerial, and financial capacity.
- Assistance with development of emergency response and risk/resilience plans and assistance for PWS emergency situations
- Oversight of the Area Wide Optimization Program

Assessment and Policy provides:

- Capacity assessments for new and existing systems;
- New data driven risk and needs assessment program to better document and analyze water system capacity, address infrastructure needs, and review and analyze trends to ensure water systems receive the support needed from the capacity assistance.
- Review and guidance of policy changes that can support public water systems such as the Sanitary Projects Act (SPA); revision and regulation development; MDWCA board training.
- Surveys of infrastructure needs and rates to help with policy decision.

Regional Resiliency provides:

- Support and promotion of regionalization projects, collaboration, shared resources, and resource hubs
- Collaboration with stakeholders to review policy and build support for regionalization.
- Host regional meetings to explore creative solutions and alternatives to adapt to the changing conditions.
- Assistance to community water systems with resiliency strategies for dealing with the impacts of climate change and developing long-term plans.
- address customer complaints that cannot be resolved with traditional technical, financial, and managerial capacity assistance and may require alternative solutions.

Source Water Protection provides:

- Assistance to water systems for development of source water assessments and

protection plans including hydrogeologically-based capture zones and surface water areas

- Special studies of potential or existing contaminants including emerging contaminants like PFAS and PFOA's; assistance to PWS to implement plans and accomplish source water protection and development objectives
- review assessments and protection plans already in place and targeting assistance to water systems that are out of compliance with maximum contaminant levels.
- Assistance and guidance with climate change resiliency planning

Utility Operator Certification Program provides:

- Oversight and administration of water and wastewater sampling and operator certifications, exams, equivalency, and renewals
- Technical training for operators
- Collaboration on projects to bring more operators into the industry's workforce through special training and intern programs.

IV. Public Water Systems in New Mexico – Overview

The status of public water systems and how they change over time is significant in both determining the most effective capacity development strategies and in understanding how capacity assistance may be impacting water systems over time. For example, regionalization has been a productive method of addressing capacity concerns for multiple neighboring, very small community water systems that would benefit from consolidation or shared resources to help them meet compliance.

System Type:

As of fall 2022 New Mexico has 1067 public water systems identified in the bureau's Safe Drinking Water Information System (SDWIS).

| Water System Types | # in New Mexico 1,067 | Percent of Type |
|---|-----------------------|-----------------|
| Very Small Serve 25-500 people | 850 | 80% |
| Small Serve 501-3,300 people | 151 | 13% |
| Medium Serve 3,301-10,000 people | 35 | 3% |
| Large Serve 10,001-100,000 people | 30 | 3% |
| Very Large Serve 100,001+ people | 1 | <1% |

| Number of NM PWS by Ownership Type Summary (August 2022) | | | | |
|--|-----------|--------------------------------|--|-------|
| | Community | Transient Non- Community | Non- Transient Non- Community | Total |
| Federal Government | 6 | 51 | 12 | 69 |
| Local Government | 352 | 19 | 34 | 405 |
| State Government | 4 | 60 | 8 | 72 |
| Private | 209 | 231 | 80 | 520 |
| Mixed public/private | 0 | 1 | 0 | 1 |
| | | | | |
| | | | TOTAL PWS | 1067 |

Source Type:

There are 958 water systems that rely on groundwater. Of those 494 are community water systems with the remainder being non-community or transient water systems. Changes in climate and periods of drought it is important to note that roughly 30% of those 494 groundwater community systems only have one well as their source of water. The need for regionalization, emergency connections, source water protection and back up sources are an important consideration for the capacity development program. Similarly, additional planning will include assessing changes in climate, resilient strategies, and sustainable practices to ensure a safe reliable supply of water.

It is important to note that 94% of water system in New Mexico rely on groundwater, while 5% of the PWSs have surface water sources and 1% are GWUDI. There are 42 communities that rely on surface water and serve a large portion of the state's population. As the climate changes it is predicted that surface water supplies may decrease between 33-55% over the next 20 years. As water resources in the state become more limited, large water systems are diversifying their water supplies and will need additional tools and resources to plan for changes in supply.

V. New System Capacity Development Strategy

The NM Drinking Water Regulations (20.7.10.201.C NMAC) require any new public water system, defined as a newly constructed public water system or an existing water system that is converted to a public water system, to submit documents that demonstrate sufficient technical, managerial, and financial capacity in their application to the Department. The process requires that a new water system must submit an Application for Construction or Modification of a Public Water Supply System.

A new PWS is a system that transitioned from not being regulated under the SDWA to being regulated under the SDWA. There are 4 different types of new PWS:

1. Systems that are new developments or businesses that did not previously exist or are installing new distributed water system infrastructure into an existing community previously not served by a community water system.
2. Systems where the population or the number of connections served increased to the point where the system met the definition of a PWS. Such a system may or may not have been previously regulated (i.e. changes from inactive to active).
3. PWS that the DWB recently became aware of that had been previously operating without regulatory oversight.
4. A system that is formed from the merging of 2 or more PWS.

A new water system, regardless of the type, has a high probability of having capacity and regulatory deficiencies at the time they are declared a PWS. For example, such systems may not be aware of the state and federal regulatory requirements that are imposed on regulated systems or local governments; they may not be properly organized into a legitimate legal structure; the administrators of the water system may not have had adequate formal training in running a water system; they may not have a certified operator; they may not have a rate structure that will cover the costs of being a regulated system; if there is existing infrastructure, it may not meet state standards. The list of potential capacity deficiencies is long and substantial.

The DWB's general approach to capacity development for new PWS is to:

1. assess the capacity of the system as part of the construction application.
2. direct training/assistance to the system to address the deficiencies identified in the assessment prior to approval.
3. conduct a Sanitary Survey of the system as soon as is practical.

A control point is a point in a new system's development at which time the State can exercise its authority to ensure that a new system has adequate technical, managerial, and financial capacity. States are required to identify at least one control point to meet the requirements of SDWA. The

application process will serve as that control point and will include a capacity demonstration and minimum capacity criteria that must be met prior to approval.

A. Assessing Capacity of New Systems

The regulations define a public water system project as “construction of a new public water system, modification to an existing public water system, or conversion of a non-public water system to a public water system”. The approach for community and non-transient non-community water systems requires a construction modification application. DWB SWIG teams will collect the required documents and coordinate to conduct a capacity assessment on the system. The assessment will determine if the system meets minimum capacity criteria. Any system that does not meet the criteria are required to address any capacity deficiencies prior to approval of the application. The new system will be offered training and/or assistance to address any deficiencies. In addition to a capacity assessment, compliance staff will complete a sanitary survey. The survey is generally conducted after the system’s application is approved.

The New Mexico Drinking Water Regulations, 20.7.10.201 NMAC, currently state that:

201.A. Any person proposing to undertake a public water system project for which an application is required under Section 200 of this part shall complete, sign and submit an application to the department as described in this section.

201.C. For a project involving the construction of a new public water system or conversion of an existing water system to a public water system, an applicant proposing to undertake a public water system project shall submit documents demonstrating that the public water system has sufficient technical, managerial and financial capacity, such as a certified operator, testing equipment required to meet regulatory treatment techniques, ownership accountability, staffing and organization, revenue sufficiency, and credit worthiness and fiscal management.

201.K. Incomplete applications will not be reviewed. The applicant will be notified within 15 days of the need to submit a complete application. The department shall either approve an application, approve an application subject to conditions, or deny an application, and shall notify the applicant of such determination. The department shall not condition or in any manner require as part of an approval that the applicant use a specific process or type of equipment.

201.M. The department may deny an application for a public water system project, in whole or in part, if the department determines that:

(5) the public water system does not demonstrate sufficient technical, managerial or financial capacity;

B. Assisting New Systems

There are three possibilities for application approval, as spelled out in 20.7.10.201.K NMAC above:

1. the new system application may be approved with no conditions,
2. the new system application may be approved with conditions, or
3. the new system application may be denied.

The conditions for denial are given in 20.7.10.201.M NMAC. The basis for an approval with conditions is not described in the regulations, and therefore the DWB has determined that it can make that decision based on any factors that may prevent a system from meeting the requirements of the SDWA in the present or future. This can include any combination of technical, managerial or financial capacity deficiencies.

For new systems that are already in existence and serving water, but have significant capacity deficiencies, it is not considered useful to deny an application to become a PWS. Therefore, the approach for such systems is to approve the application with conditions. These conditions may include requirements for board training and assistance. In the case of managerial or financial capacity deficiencies, the DWB may impose conditions to address the deficiencies, including training and assistance. If training or assistance is required, the capacity development staff will assist the system to address any deficiencies identified. DWB may also request the assistance of external TA providers depending on the need and availability of DWB staff.

VI. Existing System Capacity Development and Maintenance

The DWB's Sustainable Water Infrastructure Group (SWIG) administers a number of programs that support capacity building and maintenance efforts for water systems.

A. Infrastructure Support

- Funding and Drinking Water State Revolving Fund (DWSRF) –
 - Staff specialists provide guidance to water systems on potential and best-fit funding sources for capacity and infrastructure needs.
 - The DWB assists systems with applications to the DWSRF Loan Program co-administered by DWB and the New Mexico Finance Authority.
- Engineering –
 - Staff engineers review infrastructure construction plans and designs for alignment with regulations and guidance.
 - Starting in 2023 contractors will be used to assist small systems with planning and design work through funding from NMED's DWSRF set asides and from Water Infrastructure Improvements for the Nation Act (WIIN) Small, Underserved, Disadvantaged Communities Grant

B. Capacity Assistance

- Capacity Development and Maintenance –
 - Staff specialists provide traditional technical, financial, and managerial (TMF) capacity.
 - Technical Assistance Provider contractors are also used extensively to provide capacity assistance
- Area Wide Optimization Program (AWOP) –
 - Assists water systems with optimization and process control as a way increasing the system's capacity. Water treatment plant optimization is the process of improving the performance of water treatment beyond regulatory requirements without making major capital expenditures.
 - System needs are identified through various avenues including other SWIG teams and compliance staff. The team may also identify needs based on emergency response or complaints from customers. The team can identify capacity needs and coordinate with other teams to offer specialized assistance and options.
- Trainings -
 - Staff develop and conduct trainings including asset management, water audits, system mapping, board training, financial management and other aspects that increase a systems capacity.

C. Needs and Risk Assessment

The needs of New Mexico water systems have changed over the years and the need for better data and analysis is clear. The assessment and policy team will look holistically at system data and gather information to assist DWB make better decisions for the capacity development program. The team will conduct the EPA Drinking Water Infrastructure Needs Survey and Assessment to estimate the infrastructure needs across the state. This information will be valuable for the DWSRF program and provide insight into future funding for water systems. The team will also complete the yearly rate survey to gather information on the current rates of water and sewer systems. This information can be used to look at the affordability of water and wastewater and will be utilized for funding applications. The team will also conduct the technical, managerial, and financial capacity assessments and identify deficiencies. They will provide a baseline of information and data that can assist the various SWIG programs. The team will also review various laws, rules, and regulations and make recommendations to strengthen and support water systems' needs. They will also track board training credits required through the Sanitary Projects Act.

D. Regional Resiliency

Water system requirements have increased over the years and volunteer boards are struggling to keep up with the demands. The regionalization team will assist with various aspects of regionalization including consolidation, sharing, and partnership agreements to assist systems with various technical, managerial, and financial needs. The team will explore various options including community hubs that could help with expertise or services to ensure systems have the resources they need to be successful. Regional planning meetings have shown to be successful in promoting cooperation between neighboring water systems, especially when problem solving and trouble-shooting urgent issues. The program is holding Water Commons meetings to lay the foundation for various partnerships to work together. The team will also assist with complaints that may need creative options in order to be resolved.

E. Source Water Protection

The conditions of New Mexico are such that public water systems need to look at planning for the future with a sense of urgency. Limited water resources, aging infrastructure, changing climate conditions including more severe drought and erratic weather, will drive the need for source water protection and planning. The source water protection program is a voluntary program to help develop or update source water assessments and protection plans. This is an efficient and cost-effective way to protect water resources from contamination while increasing a systems overall capacity. They work to identify actual and potential sources of contamination and develop source water risk assessments. The team can assist with source water management strategies and utilize GIS for analysis and development of protection zones. The team also works with internal and external partners on special studies to determine threats to source water including sampling for PFAS and other contaminants and drought related issues.

F. Utility Operator Certification

To protect public health and the environment, it is critical that water and wastewater utility operators are well trained and certified to appropriate standards. The utility operator certification program administers water and wastewater operator certifications for all utilities in New Mexico. The team has oversight over the certification exams, renewals, and equivalencies. To become certified, operators must meet certification requirements and pass the New Mexico certification exams, administered through computer-based testing at Workforce Connections Centers around the state. Certifications are renewed every 3 years and training material is reviewed and approved for credits. The utility operator certification program works in collaboration with the New Mexico Water Quality Control Commission and the advisory board to assist and accommodate the operator community.

G. Partnerships and Coordination

The capacity development program and programs within SWIG will be supplemented with contract work by third party technical assistance providers and other contract partners. We will also engage with entities and organizations who work to assist water systems around the state. In 2023 we will explore opportunities for such engagement such as partner trainings on regulations and statutes and the formation of a working group to share information and ideas on various system challenge topics and current projects.

VII. Drinking Water State Revolving Fund

DWSRF is managed by both the Drinking Water Bureau and by the New Mexico Finance Authority. A PWS is eligible for DWSRF project assistance if it is a privately or publicly owned community water system or a non-profit non-community PWS (40 CFR 35.3520).

The SDWA requires that a PWS applying for a DWSRF loan must demonstrate that it has the technical, managerial, and financial capacity to undertake the project. The team will work with the assessment and policy team to conduct capacity assessments for entities seeking funding. If a system does not have adequate capacity the deficiencies will be identified, and assistance will be provided through the capacity support team. Assistance is used to support viable systems with long-term sustainability and should not be directed toward non-viable systems.

From 2022-2027 the Bipartisan Infrastructure Law (BIL) funds allocated to states for drinking water infrastructure will flow through the existing DWSRF program to support eligible water system projects.

The intended use plan is updated annually with each DWSRF capitalization grant application. The documents details states how the program is implemented along with eligible projects. Additional information on the program including the IUP and application process can be found at:

https://www.env.nm.gov/drinking_water/infrastructure-projects-and-funding/

VIII. Asset Management

Asset management is a process to determine that maintenance is conducted, and assets can be repaired, replaced, or upgraded as needed and the system has planned sufficient revenue to pay for it. Public water systems can determine the level of customer service required while considering aging water infrastructure and replacing assets at the lowest life cycle cost to better maximize limited financial resources. With a proper plan for asset management, a PWS can improve service and reliability, reduce risk and unexpected costs, and enhance communication with customers and stakeholders.

The Safe Drinking Water Act's capacity development provisions provide a strategy framework for states and PWSs to work together to build capacity and encourage systems to implement asset management planning. The AWIA amends Section 1420(c)(2) of the SDWA to require states to include a description of how the state will encourage the development of asset management plans which include best practices, technical assistance, and training to implement an asset management plan.

A. AWIA Section 2012 – Five Core Question Framework

1 - What is the current state of the utility's assets?

When developing an asset management plan the system must first consider the current state of their assets. This should consist of an asset inventory that details what they own, where is it, what is the condition, the useful life, and the assets value. It is good practice to map the inventory to better identify the asset and its location. As the system determines the condition of the asset, they should consider developing a rating system to ensure consistency. An asset management plan should determine the useful life of an asset using projected useful life tables. These tables will help determine how long an asset should last under normal conditions and decide a plan for replacement.

2 - What is the utility's required "sustainable" level-of-service?

When conducting an asset management plan good communication is key to determine what is a sustainable level of service. The communication should involve customers and stakeholders to help determine what the level of service and performance goals should be. Gather information related to quality, quantity, reliability, and environmental standards to address short-term and long-term goals. A good plan will ask: "What level of service do my customers demand, what do the regulators require, what is actual performance, and what are the capabilities of my asset?". A plan should consider growth and customer satisfaction as well as current and potential future regulations. A good asset management plan can provide the guidance needed to write a customer service agreement and create a system to track performance over time.

3 - Which assets are critical to sustained performance?

It is important to know which assets are critical to the system performance and the level of risk. A failing asset can have varying degrees of importance and the plan should define critical assets. Critical assets are those that have a high risk of failing and major consequence if they do fail. Not every asset has the same failure risk and or failure may not be critical to system operations. When considering the consequences of failure what would be the cost to repair or replace the asset and what other cost like social or environmental would be associated if that asset failed. When assessing an asset and determining it critically a failure analysis can assist in analyzing the risk and consequences and compare with other vulnerability assessments.

4 - What are the utility's best "minimum life-cycle cost" capital improvement plan and operations and maintenance strategies?

Water system expenses are mainly from operation and maintenance, personnel, and capital improvements and can add up to 85% of a water systems' total expenses. A good asset management plan will allow you to determine the lowest cost options for the highest level of service. When looking at the minimum life cycle cost the plan should consider the cost of rehabilitation, repair, and replacement of critical assets. When determining a systems' needs a water system should look at the operations and maintenance of the system along with personnel and capital accounts. When implementing an asset management plan consider the condition the asset is in, the potential for failure, and be proactive to avoid costly and unexpected expenses.

5 - What is the utility's best long-term financing strategy?

Knowing the full economic costs of services provided is critical for making sound financial decisions and devising a long-term financing strategy. That knowledge will help ensure a cost-effective strategy and sufficient planning is done to pursue funding opportunities. Having this information in an asset management plan will help decide what the system needs are and communicate information to decision makers and customers. PWSs need to consider their budget for capital expenditures, infrastructure improvements, as well as operating expenses. Water systems should also review their rates and rate structure to ensure they are charging customers appropriately and make adjustments as necessary to reach their goals.

B. Training and Asset Management Assistance

New Mexico is committed to helping water systems develop an asset management plan to ensure sustainability and proper planning. Water systems are offered a variety of asset management training that includes asset inventory, system mapping, asset management software, best practices, and an overview of the asset management requirements. Systems are encouraged to have their operators help develop and implement an asset management plan. The state will utilize contracts with TA providers to deliver training and assist systems with various aspects of asset management. Systems with asset management plan will be tracked by the assessment and policy team and they will prioritize systems that would benefit from additional assistance. The capacity development team and the regionalization and resiliency team will offer direct assistance and support as requested. New Mexico requires water systems seeking grant funds to complete an Infrastructure Capital Improvement Plan. This is an extensive planning tool that helps systems prioritize their projects and plan for future improvements. Information from the ICIP can be utilized along with the Operations and Maintenance plan to create an asset management plan that meets the systems' needs.

APPENDIX A

Capacity Development Strategy Stakeholder Meetings

Facilitated by Southwest EFC

NM Capacity Development Asset Management Strategy Notes

November 30, 2022

New Mexico Capacity Development / Asset Management Strategy Stakeholder Input Session

Southwest Environmental Finance Center (SW EFC)

Facilitator: Heather Himmelberger, Director, SW EFC

Notetaking: Frank Roth, Hayley Hajic, SWEFC

Technical Assist: Francine Stinziano, SW EFC

Participants:

- Mary Finney – NM Finance Authority, DW SRF
- Lauren Rust – UNM Sol Utton Center
- Priscilla Lucero – SWNM Council of Governments
- Lilla Reid - Souder Miller Associates
- Cally Carswell – New Mexico Legislative Finance Committee
- Aaron Lee – Lee Hammond Water Users Cooperative Association Inc.
- James Chiasson – City of Rio Rancho, Utilities Department
- Scott Sanchez – NM Legislative Finance Committee
- Richard Campbell – Freese & Nichols
- Chris Callahan – Freese & Nichols
- Krista Schultz – NMED Drinking Water Bureau
- Antonio Romero – NMED Drinking Water Bureau
- Jill Turner – NMED Drinking Water Bureau

Meeting Contents:

Heather: *Brief Overview of Capacity Development Strategy*

Krista: *Brief Discussion of revised Cap Dev Strategy*

Drinking water Bureau is revising asset management strategy – last revisions in 2014. Best way for water systems to meet their needs and their customers' need.

Jill: *Brief Description of Organization of NMED into six capacity type areas.*

The six areas have dedicated groups and list of activities assigned to these groups.

Discussion Questions:

The attendees were asked to comment on a series of questions related to the capacity development strategy. The questions and discussion around the questions is contained below.

1. Infrastructure Support

What infrastructure support is most needed by systems (small, medium, large)?

- Small systems don't have the financials and audits ready. Capital improvement plans are needed and small systems don't understand it. ICIPs (Infrastructure Capital Improvement Plans) are not done until there is an emergency. NMED portals are not helpful or updated. Board meeting, by-laws, and auditing requirements training is needed. Don't have capacity to complete applications. More focus on the front-end. Life-cycle of system are not being realized. Instead of 20 years, it's 10 years because systems are not practicing asset management principles; they may have an Asset Management Plan (AMP) but not using or implementing the AMP or ICIP. Board approval and open meeting requirements need to be done and there is no assistance on how to conduct notification process. Systems don't know how to meet the requirements of RFPs (Request for Proposals).
- The most difficult part of regionalization with entities is bringing up their comfort level with the regionalization process because they feel that they are going to lose their system and water rights, which is not necessarily the case.
- There has been so much turnover which has impacted institutional knowledge transfer especially for small/medium systems. Water sector workforce has been impacted significantly since 2021. The experience that is needed is missing. Some 300 less operators than in 2019. Needs are greater.

What type of application assistance is most needed?

- Local Government Planning Grant Fund allows for two grants within a 24-month period available to local governments up to \$50,000 each. Applicant's financial standing and affordability factors determine the percent of grant which ranges from 25 to 100 percent. More information on the program is available through the NMFA [website](#).
- BIL/SRF (Bipartisan Infrastructure Law/State Revolving Fund) will provide for more grant forgiveness/subsidy percentage starting in 2023. Severely disadvantaged communities can get up to 75% principal forgiveness. (NMED Comment: Capacity Development funding is not related to the BIL funds and the BIL will not fund the state's CD Strategy. Emphasize that these are separate as Strategy will be long-term beyond BIL five-year period.)
- A Water Trust Board member sees the need for PER (preliminary engineering report) development as it is required for construction funding. If communities don't get 100% grant funding, they usually don't pursue funding and look for capital outlay funding.
- NMED: The Strategy focus is on over-arching goals with a broader approach with more flexibility in this plan.
- NMED has also found issues with regionalization and is having discussions with systems to educate them on all the different aspects of regionalization/consolidation.

In 2023, contractors will be used to assist systems. What is the best way to use these contractors to support systems with infrastructure development?

- NMED can provide a list of contractors for small systems to perform planning and design. Agree that there is a need for better training. Also looking at regionalization to help with issues. NMED can hire a contractor to help facilitate regionalization process.
- NMED suggested front-end training would be good for the contractor assistance.
- Contractors can include the COGs in NM.
- There are WIIN Act grant funds provided directly from EPA to states to help with training.

- RCAC and other TA providers, such as NMRWA and SW EFC can help with funding assistance training.

2. Capacity Assistance

What kinds of trainings are most of need by small water systems to improve technical, managerial, or financial capacity?

- More ICIP, debt capacity, capital outlay requests, budgets, and rate setting. And once funded, how to comply with funding requirements and reporting requirements. Also, must meet auditing requirements and financial capacity. Liability concern is a major barrier.

What ways can you suggest to identify system capacity needs?

- Leadership training is needed to help keep board members in their positions so institutional knowledge is not lost and system can keep continuity in completing projects. This training could also help leaders understand their roles and responsibilities.
- NMED: RCAC is working on this type of training.
- Sanitary Projects Act will be updated in 2023 for potential introduction to the Legislature in 2024.

3. Needs and Risk Assessment

One aspect of this component is for NMED to review laws, rules, and regulations to strengthen and support system needs. Do you have any suggestions of particular laws, rules, or regulations that are especially burdensome for systems? Any recommendations for changes?

- Executive Order on finances: what it means and how to comply.
- When there is a regulatory change, systems and technical assistance providers are not properly notified. Sanitary survey is minimal compared to 20 years ago and systems get extra points when applying for funding if there is a deficiency. Surveys used to help justify a need when more things were listed as issues or concerns. Now the surveys are not as useful for this purpose. It is harder to refer communities to USDA because many communities cannot meet the grant requirements. It is hard to show that there is a need in terms of health and safety because the survey didn't show proof of health and safety issues. Can NMED provide the type of report that can be included in a PER.
- The BIL is confusing. Also changes to lead-copper rule. Can these rules be better explained.
- The Strategy needs to include a working group of technical assistance providers including those that NMED does not work directly with. Some suggested meeting twice a year to have those discussions.
- NMED: One team will focus on Risk and Resilience Assessments. NMED does not have sufficient staff to conduct all the sanitary surveys and do them in the same manner as before. There is a 1.5 year backlog and a contractor has been hired to get caught up. NMED wants to collect more data through all types of surveys. Example in California ([SAFER](#)) of a "needs

assessment” program and NMED wants to model it. This program will help systems with providing information needed to develop capital programs.

Do you have any suggestions on how the state could assist water systems with affordability? Are there barriers the state could remove? Are there incentives for setting up programs that could be implemented? Would systems be able to implement affordability programs?

- No comments.

4. Regional Resiliency

The state is interested in helping with regionalization of all types. What types of regionalization are you familiar with in NM? Have they been successful? In what ways?

- NMED is interested in promoting regionalization of small systems.
- There is a regionalization project currently occurring with five local governments and five mutual domestics. The types of concerns that have come up include: no primary or secondary water sources. loss of water rights or competition for water rights, and source water protection. Public-private partnerships can help with dedicated water sources. Regionalization makes sense considering fewer operators are available to operate systems. Mutual domestics don’t receive sufficient funding through capital outlays to make a difference or deal with emergencies. Some federal agencies are asking for resiliency plans. There are a lot of issues with debt capacity so they cannot take on loans. Could there be a crisis fund when disasters (fire, flooding) happen?
- Fires are impacting source water. Crops that are being grown are not best crop based on source water availability.
- Regionalization has tremendous benefits for the community. Also sharing of equipment or resources is helpful such as backhoe assistance/work. Technical assistance sharing is helpful, but more help is needed from the State.
- NMED wants to look at what it can do to improve resiliency and help systems with risk and resiliency plans. Would like to get more communities talking to each other.

Resiliency is a very important topic for water systems in NM and can include resiliency to all types of events (climate change, water scarcity, fires, power outages, etc.) What could the state do to help with resiliency?

- Formal partnerships/agreements are good way to improve resilience in case operators are not available to make repairs. Assistance from NMED on developing a standard template for agreements would be helpful and it could be made available on the NMED website or through a contractor’s website.
- NMED: Systems over 3,300 population are required to conduct Risk and Resilience Assessments (RRA). Also developing cybersecurity assistance should be a focal point in the Strategy.
- SWEFC noted that EPA has a voluntary program to provide RRA template and assistance for systems under 3,300 population.

- Wildfire impacts are not part of RRA now but these need to be updated to deal with climate change impacts such as drought and wildfires. These needs are not a part of the funding source availability so the State needs to change application funding options to include long-range climate change planning. Additional points on scoring are needed for resiliency factors.
- NMED ranks applications for the SRF. NMED noted there are additional points for resiliency, but the criteria will be updated in 2023.

The topics of Source Water Protection and Utility Operation Certification were postponed till the Meeting on December 7th due to the meeting time expiring. These will be the first discussion points for the next meeting.

Cap Dev Stakeholder Meeting Notes – SSP December 7, 2022

New Mexico Capacity Development / Asset Management Strategy Stakeholder Input Session Southwest Environmental Finance Center (SW EFC)

Facilitator: Heather Himmelberger, Director, SW EFC

Notetaking: Shannon Pepper, James Markham, SWEFC

Technical Assist: Jerry Gunasegaram, SW EFC

Participants:

- Krista Schultz – NMED Drinking Water Bureau
- Antonio Romero – NMED Drinking Water Bureau
- Jill Turner – NMED Drinking Water Bureau
- Jonas Armstrong – NMED Office of Strategic Initiatives
- Rebecca Fink – Smith Engineering, consulting engineer representative
- Mary Finney – NM Finance Authority, DW SRF
- Karen Perez – Frees and Nichols, engineering consultant.
- Corina Gomez – UNM water resources student
- Allan Oliver – Thornburg Foundation; executive director
- Jim Chiasson – City of Rio Rancho, Utilities Director (formerly with NMED)
- Heather Himmelberger, SW EFC
- Shannon Pepper, SW EFC
- James Markham, SW EFC
- Jerry Gunasegaram, SW EFC

Meeting Contents:

Heather: *Asset Management Overview* (15 mins)

Krista: *Brief Discussion of revised Cap Dev Strategy*

Drinking water Bureau is revising asset management strategy – last revisions in 2014. Best way for water systems to meet their needs and their customers' need.

Discussion Questions:

The attendees were asked to comment on a series of questions related to the capacity development strategy. The questions and discussion around the questions is contained below.

1. Source Water Protection

Source Water Protection (SWP) is a voluntary program on the part of systems. Have you ever been successful in getting systems to do SWP? How did you encourage them?

- No one answered initially – Heather mentioned that there is CW funding available but not on DW side. Not much you can do when the program is voluntary and there's no funding available.

What might the state do to help encourage systems to do SWP?

- No Responses

What benefits can SWP provide that the state can use to encourage activity in this area?

- No Responses

2. Utility Operators

Having operators requires both recruitment and retention. What support could the state provide to help systems with operator recruitment?

- Mid-sized systems with good funding can handle getting operators. Small systems, especially rural, have difficulty attracting people to operator jobs because of low pay and benefits.
- NMED did try to accommodate operators by making training online and on-demand to make it easier. Moved away from large testing sessions; now have web-based testing at 14 locations throughout the state and the testing is on demand). Pass rates have increased with this change. (Anecdotal evidence suggests attendees are more relaxed than in the big room setting. Could be something to study more carefully.) One aspect of Increasing resilience of small systems is potentially sharing operators. Also various types of regionalization may increase ability to pay competitive wages. There is an NMED regional resiliency team now which should help.

3. Asset Management

Describe the services your organization offers that address AM, in whole or in part.

- **Smith Engineering** – Doing AM Plans for clients, as well as a lot of the components. The biggest challenge is the data; clients don't have the necessary data (no as-builts, no maps, not tracking conditions & event locations). The lack of data can be frustrating. Most larger systems are interested in AM for its own sake, while smaller communities are usually only interested in AM when it helps them get funding. Most systems Smith has worked with have self-funded AM. The smaller ones are willing to do this because it leads to more funding. However, once developed, they don't keep it current.
- **Freese and Nichols** – Similar experience to Smith; Freese takes a "train the client" approach to help enable the client to do their own activities. They use publicly available tools such as TWDB or RCAC. Spend a lot of time with systems looking at what they already have. They keep it simple, starting with an inventory and turning that into a plan at a scale that make sense for the system. Focus on pro-active approach. Experience is a mixed bag with smaller utilities; mutual domestics don't have the same response that regional systems do. Scale helps – which is a plug for regionalization. Push for as-builts – small systems tend to have lousy records.

The AM plan approach – start with the big stuff, making annual plan and 5-year iterative planning as things break. Systems want to do everything at once or they think they don't have a viable plan. It is important to tell systems they can do a few things this year, a few things next year and build slowly. Educating the systems is worth it because it helps them in the long run.

- **Thornburg Foundation** – *Question directed at Thornburg: Is the Foundation directing any of its funding to systems to develop AM?* Response: Have to look into this. Thornburg is currently funding NM Tech to take steps related to Water Data Act. This effort is attempting to get information regarding ground water resources.

Some activities are not specific to water. During Covid, Thornburg did capacity building for any non-profit; Straight financial help via a 501.3.c. accountant to make sure grantees who are going after federal funding are ready. Also funding Pivotal NM to apply for federal dollars which turned into the Pursuing Federal Grants program. Modest level grants to tribal and local govt/agencies to pursue federal dollars (used for grant writing, matching funds, compliance assistance). Looking at identifying large grants and figuring out how to get multiple entities to get the funding (vs Platte River approach – mile wide and a foot deep).

- **NMFA** – Local govt planning fund will pay for AM Plans.
- **SWEFC** – Community Block Grants at one point could be used for AM – not sure if that's still the case. SWEFC does all aspects of AM work, including full programs and the sub-activities.

What barriers do you see related to asset management in the following categories:

- Barriers to providing assistance to systems in asset management.*
- Barriers in systems' understanding of asset management.*
- Barriers for systems to implement asset management*
- Are there particular system types that are hard to reach?*

e. Other barriers?

- Rio Rancho had the data already in place, mostly, so pulling it all together in an AM plan was easy. Also there was more funding and higher debt capacity. Made a bit easier by having a full-time contract operator who had been working with the system for 20 years. They had most of the data, the effort was pulling it together. Theirs still is a working plan and is used.
- If you're a smaller system that isn't going to use the plan, they won't put much effort into it. It should be straightforward to assess and keep it up if you're very small. Additional complexity makes it a lot harder if the system isn't flush with cash.
- Barriers haven't changed in years – chicken/egg problem: can't fix without \$, can't get \$ without ability or debt capacity.
- Small systems: plus side is that it's straightforward when you only have a few assets
- Addressing data management should be top priority.
 - Clients are always asking for copies of as-builts
 - Need to be independent from engineers; engineers should not be doing asset management for systems; they should be focused on the basic services (design, construction, etc.)
- Systems need to understand what is an appropriate way to store information.
 - Showing systems how to set up a very simple data collection system is important.
 - Typical records, outlines, water rights info need to be organized.
 - Tech assist: how to wean yourself off the engineers for your data management needs
- Currently there is a data effort to get more info about GW wells, levels, etc. throughout the state. Thornburg is funding some of this work. Do we need an expanded statewide effort for management of this info? Allan, does this seem worthwhile?
 - First question that comes to mind: what's the home for that info, and how to maintain it?
 - Examples that worked: health—state epidemiologist
 - State law that required people to keep it updated.
 - Trusted central repository to house that data?
 - I do think it's a good idea, and there could be funding available at the state and federal levels.
- It might be useful to do something at a state level similar to what EPA did re: lead and copper rule guidelines.
 - Having a basic tool for small systems to collect and maintain data.
 - There could be a bioterrorism/cybersecurity issue with collecting data and having a single accessible storage point.

- Would Have to have a secure way to deal with that data.
- NMED has been using Survey 123 – app to map individual meters and wells.
 - Data is stored with NMED.
 - Have done some training, used for fires and had trouble getting it to work, but it is out there.

How do you think the addition of Asset Management to the State's existing capacity development strategy will help improve the capacity of systems?

- AM shows the community what their assets are and what kind of shape they're in
- Gives them the big picture of the whole system.
- Helps systems make a plan for funding and fixing based on criticality of their issues.
- Question to NMFA: We were wondering about AM funding through Local Govt Planning Fund? Are you getting buy-in from systems? Are they using it?
 - They do have to pass a resolution at the end of the funding to say that they will use the AM plan going forward.
 - But we don't know what happens afterwards.
 - Some people are genuine and really using it; others are just making an AM plan to get to the next stage of whatever funding they're going for.
 - We are getting interest in AM funding, either way
 - AM contributes the most by showing the community what they have, what shape it's in, and how critical it all is. Gives them the big picture of the system in a document so that they can put things on ICIPs (Infrastructure Capital Improvement Plans), etc. to get funding because it makes everything transparent. Let systems make a plan. Can't plan without the data being organized.
- NMED: It would be great to have more follow-up with our NMFA programs at the Drinking Water Bureau, but we just don't have the staff capacity right now.
- Water trust board fund grantees have to have an AM Plan at least started and have 3 years to complete it. It might be worthwhile to ask about how things progress to see whether different kinds of plans or system sizes impact the ability to keep the AM Plan implemented.
- Question to NMFA: Have you ever done any follow-up with systems re: their AM plan?
 - It's a good idea and we could definitely ask the systems we've assisted about their continued use of the AM plan. I can mention it to our director of programs.
- AM helps communities prioritize – they thought they knew what they needed to start with, but AM helps systems identify what actually is their most critical, highest-risk problem.
 - Yes, that's really common for systems. Not just what's on your mind or is "a pain"
 - Or in response to a customer that is being a squeaky wheel. AM can help systems have a more informed/systematic response.

Which of the 5 components of AM do you think is/are currently the weakest in New Mexico? Why?

- Longterm funding is the biggest problem.
- Longterm planning: NM running out of water.
- Level of Service is poorly understood.
- Level of Service – everyone wants brand new everything; poor understanding of what customer wants and system needs.
- Often in NM people want new assets rather than rehabilitating assets because they don't fully understand the life cycle of assets.
- Life Cycle Costing is an aspect that people don't put much thought into. Don't understand the age or value of most of the assets, so when it's put in the inventory there's a lot of missing information. Don't understand how much things are currently costing them and don't understand incremental funding approach. What is it? Why do I have to do it? How much do I need?
- Don't know the age or useful life of many of their assets. This gets to the importance of incremental funding. If you're funding things a little bit at a time, not every once in a while in very large chunks it is easier for a system overall. It can be hard to come up with large pots of money all at once.
- Systems struggle with this.
- Level of service is usually the hardest sell, across the country.
- LOS was hard – got lots of different opinions from different people inside and outside the organization; some based on rank and opinion. Funding always an issue – have to decide where to spend what you have.
- LCC and Criticality – some stuff is obvious, but once you get into the weeds there get to be heated discussions; subjectivity in condition assessment is an issue as well.

Do you have any suggestions regarding how to improve on the weaknesses identified in Q4?

- No responses