



Creating the Mora County Water Alliance

After 30 years of traditional technical assistance, New Mexico rural community partnerships represent a paradigm shift for water management

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1.0 Executive summary

Small, rural water systems in northern New Mexico face significant challenges in providing safe drinking water services and maintaining compliance with regulations. Despite a 30-year history of various state and federal investments and assistance, these systems continue to struggle as they face aging infrastructure, lack of professional staff, and increasingly complex regulatory requirements. These challenges that Mora County's water systems face are not unique and are echoed in rural communities across the United States.

Using Mora County, New Mexico as a case study, this paper reviews the impact of technical assistance (TA) on rural water systems and identifies the strengths and weaknesses of how technical assistance is provided. Historically, for example, Rural Community Assistance Corporation (RCAC) provided technical assistance to help water systems achieve regulatory compliance and secure funding for infrastructure improvements. However, the impact of these efforts has been largely short-term as volunteers in small systems often change or need to relearn administrative and reporting requirements. Thus, they need assistance with the same or similar issues every year. Additionally, because the goal of traditional TA has been to address lack of compliance, there have been limited returns on the structural and systemic challenges that might allow systems to sustainably address compliance challenges on their own. Today, compliance issues persist across the country and in Mora County, where water systems have an average compliance rate of 50%.

This analysis elicits the need for a systems-thinking approach to address the root challenges facing these small water systems. Regional collaboration between local community water systems (CWSs) presents a new management model for water services that has been gaining momentum across the U.S. In New Mexico, the Mora County Water Alliance was created to serve Mora's water systems as a more comprehensive approach to assisting CWSs and was designed to achieve more resilient and professional water utilities. The Alliance, which is just one model of regionalization, is designed to provide robust professional support for water systems while maintaining local autonomy and decision-making. To guide the implementation of this model, RCAC strategically engaged in TA and advocacy at the local, regional and state level over the last seven years.

In part due to RCAC's help building a grassroots movement behind regionalization, there have been significant changes in the last 17 years across New Mexico's policy, legislative and institutional frameworks that govern drinking water services in the state. As a result of this advocacy, Mora and others in New Mexico were able to use the new regional management model. Data collected in this paper highlights key events that have shaped

the state's approach to rural water systems, including legislative actions, the formation of regional entities, and changes in state funding processes.

These efforts have created an environment within the state that better supports regionalization as designed and desired by its varied rural communities. An assessment of New Mexico's enabling environment reveals both major progress and remaining gaps that present opportunities for future advocacy and TA. Such an approach allows RCAC to identify actionable changes to complex issues outside of local community control and create meaningful and lasting change in support of communities.

2.0 Introduction, purpose and methods

It is a well-recognized problem that small, rural water systems across New Mexico, and the entire country, face significant challenges in their goals to provide safe drinking water services and maintain compliance. Despite increasing attention and resources dedicated to these challenges in recent years from state and federal governments, threats to communities' environmental and public health continue to persist and grow.

In many ways, the water systems in Mora County are like most rural water systems: mighty but small, woven into the rich histories and cultures of rural America, sustained by passionate community leaders, yet facing existential and ever-increasing threats related to climate change, rising costs and our changing political and regulatory environment. Yet the water systems in Mora County stand out from the tens of thousands of other small, rural water systems across the country; its neighbors around the entire county have decided to band together and use their collective power to better access state and federal resources and create a more resilient, united utility. The story of how Mora residents are seeking this more resilient future is intertwined with the story of how state officials in New Mexico have grappled with challenges these communities face and sought to make new possibilities for rural water services in their state.

In Section 3, this case study presents the 30-year story of 14 rural community water systems that have been out of compliance; returned to compliance; needed major infrastructure rehabilitation; navigated federal and state funding mechanisms; and received traditional technical assistance. The overarching vision upon the 30-year look-back shows that, while there have been state and federal resources provided to support these systems, when technical assistance or funding recedes, their struggles to maintain compliance and

technical, managerial and financial (TMF) capacity persist. This suggests that traditional TA and funding mechanisms have offered short-term solutions to the long-term challenges common to rural communities. Section 4 of this case study documents how and why the enabling environment at the state-level has seen rapid evolution in recent years to seek better and more long-term solutions for areas like Mora County. Finally, Section 5 outlines the regional collaboration efforts of the Mora County Water Alliance and the model of regionalization TA that RCAC implemented to activate such regional solutions.

This case study collected primary data from interviews of TA providers. Various databases and reports from regulatory bodies provided secondary data, including from New Mexico Environment Department (NMED), Secretary of State (SOS), Office of the State Engineer (OSE), Office of the State Auditor, Department of Finance and Administration (DFA), and Attorney General. Historical analysis of Safe Drinking Water Act (SDWA) violations in Mora County was completed using data from the Safe Drinking Water Act Information System (SDWIS).

A grant from NMED's Water Infrastructure Investments for the Nation (WIIN) fund for water TA funded this white paper.

3.0 History of Mora County MDWCAs

3.1 Description of Mora County water systems

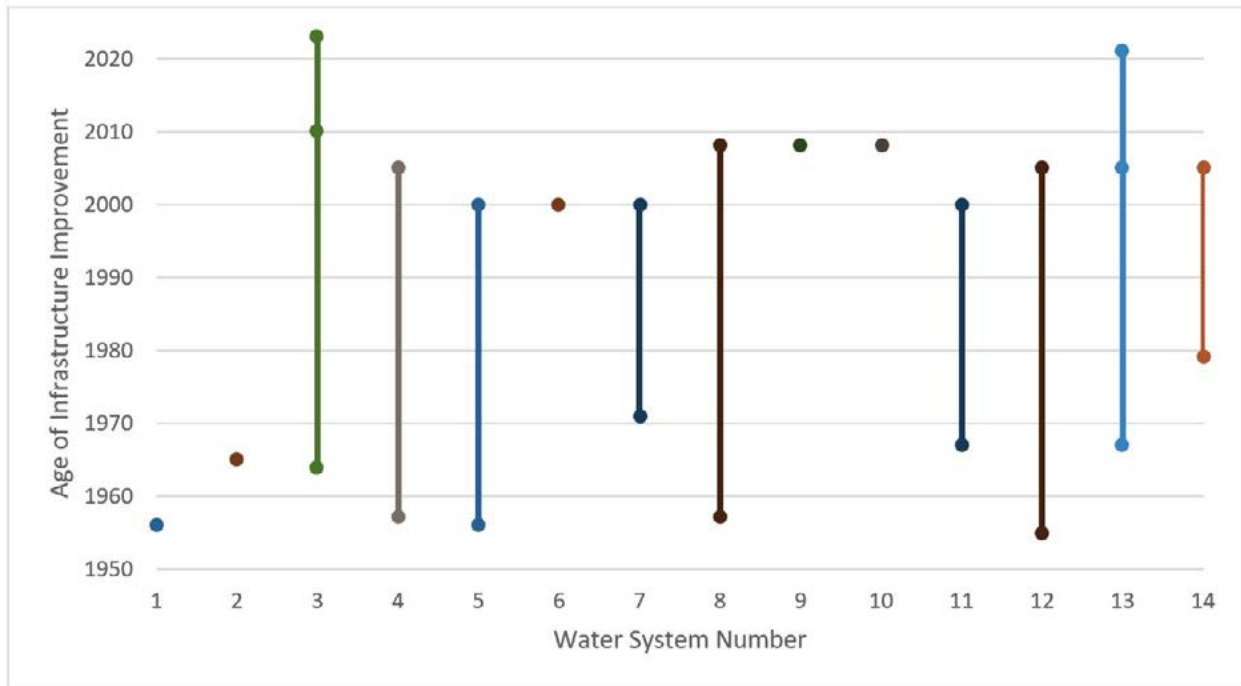
Mora County, situated in northeast New Mexico, is a rural county home to approximately 4,500 residents. There are 14 small Mutual Domestic Water Consumer Associations (MDWCAs) and one Water and Sanitation District across the county that serve between 22 to 375 connections each. Multiple state agencies regulate these political entities and they are responsible for meeting regulations of the Safe Drinking Water Act and Sanitary Projects Act (SPA).

Figure 1: The Mora Valley and 7 Community Water Systems



As found in the 2020 Master Plan done by Souder, Miller and Associates, all CWSs in Mora County are in need of infrastructure improvements and the system elements are generally 20 to 60 years or more in age. The age of each of the 14 systems is summarized below in Figure 2. Of the 14 public water systems (PWSs) in Mora County, 11 have some original infrastructure dating back to the 1970s or earlier, with only three being new after the year 2000. Nine of the systems did some infrastructure upgrades in the 2000s. Only two of the systems have made any updates in recent years. It is also of note that three systems have declared inadequate water rights.

Figure 2: System infrastructure age



Volunteer boards of local community members run Mora County's MDWCAs, and they often struggle in the face of the many complexities and expenses associated with running a community water system. The MDWCAs rely on volunteer labor from their boards or other community members to manage daily operations of the system, and struggle to meet the heavy administrative burden of reporting to various state agencies. This leaves the volunteers usually without time or energy to navigate the complex funding and technical landscape to undertake the vital task of long-term planning for their system.

water systems can be traced back to the earliest days when communities began their water systems, and they persist as the norm within small community water systems in the United States today. In New Mexico, many small water systems start as volunteer-run organizations. Typically, a community member started a water system to serve their family and neighbors, and the tradition of running the water system became a family affair, passed through the generations. Within local agricultural economies, the bartering system for exchange of goods was common and as such payment for water services was informal, if existent at all. The SPA, passed in 1947, created MDWCAs and a path for the institutionalization of these previously informal and unregulated community systems. Informal water systems became regulated political subdivisions, placing additional, complex administrative burdens on volunteer community members. Because of increased costs associated with employing staff and maintaining regulatory compliance, as well as the challenges

systems face in increasing their rates, it has become more challenging for small water systems to operate. Frequently, these systems need to rely on the older, often retired generations to volunteer their time to stay operational.

While structural challenges related to small, aging, volunteer-run water system management are present locally, another major barrier outside of local control is the ever-tightening regulatory requirements. New Mexico is a unique state regarding regulations for public water systems because the SPA, which predated the SDWA by 27 years, involves compliance requirements from seven separate state agencies. Each agency has different reporting deadlines, frequencies and requirements, which places significant administrative burden on PWSs to maintain compliance. On the federal side, SDWA regulations have increased during the period of this study, with more regulated contaminants and significantly lower Maximum Contaminant Levels (MCLs). When a new regulation is instituted, it is expected to see noncompliance rise because systems often need to institute new treatment technologies to address the new contaminant. This dynamic presents an ever-looming challenge to small, rural water systems. Maintaining regulatory compliance can feel like a moving target, such that the next major rule update usually masks any discernible progress. It is important to understand that the challenges in Mora County, and its history of TA, are not unique. Threads of the same challenges and attempts to address these challenges with ongoing TA can be felt not only around New Mexico, but across rural America. As RCAC's Blanca Surgeon, a TA provider of over 25 years in New Mexico, puts it, "[Water systems in Mora] are quite typical of rural communities in northern New Mexico... these challenges, they are not unique to Mora... it seems like almost everyone needs this kind of help."

3.2 Mora County compliance and TMF capacity

Mora County utilities' TMF challenges are summarized in Table 1. Each item of the table was reported as a challenge in the 2020 Master Plan and associated surveys completed by each CWS, a 2019 NMED Report on Mora County, or within an interview with a TA provider to Mora County systems.

Table 1: Summary of TMF challenges faced by Mora County utilities

| Technical Challenges | Managerial Challenges | Financial Challenges |
|---|--|---|
| Aging infrastructure | Lack of volunteer labor, aging board members, disinterested community members, vacancies, no succession planning | MDWCAs are not competitive to funding agencies, who are attracted to compliant systems with high TMF capacity |
| Lack of system maps and technical knowledge | Lack of institutional knowledge | Reliance on unpaid and under-qualified labor for bookkeeping and financial services |
| No long-term asset management or planning for future upgrades | Lack of time and energy to govern | Lack of understanding of complex funding application processes and funding landscape |
| Water quality issues | Lack of technology and computer skills | Limited ability to qualify for loans and to repay debt |
| Inadequate water rights | Maintaining reporting to state agencies | Lack of emergency reserves with little to no ability to save |
| Lack of ability to procure and work with professional engineer services to identify system needs | Lack of internal controls, document retention and filing | No annual process to set informed and adequate rates |
| Shortage of certified operators in the region, reliance on untrained operators for daily operations | Conducting board meetings, annual meetings and elections | Unpaid water bills due to poverty levels and traditional beliefs that water should be free |
| No emergency supply for drought, fire or well failure | Cultural distrust of government institutions and loan packages | Small and low-income population to pay system costs, lacking economies of scale |

Lack of technical, managerial and financial capacity will often result in compliance violations, such as SDWA violations regarding water quality and treatment, or reporting violations to the various New Mexico state agencies.

A historical analysis of the Safe Drinking Water Information System data is summarized below in Figures 2 and 3. Results reveal that Mora County water systems had significantly fewer violations from 2000 – 2009. In fact, the total violations between 2000 and 2010 are about a quarter of the number of violations between 2010 and 2020. Furthermore, water

systems had no health-based violations from 2000 – 2009. Violations across the country increased after a new regulation in 2013, which impacted Mora County systems as well (Figure 3). When new contaminants are regulated, the number of noncompliant systems often increases for a while as the systems adjust to the requirements. For small, lower resourced systems, complying with new regulations can take years, even with TA. In Mora specifically, small systems need assistance with the administrative tasks associated with monitoring and reporting requirements. This is exacerbated when new regulations are adopted, though the increase in violations doesn't necessarily result in the delivery of unsafe drinking water, as evidenced by the lack of MCL violations in Figure 4. The sharp decline in violations observed in 2020 is most likely due to a combination of factors, including time to adjust to and comply with new regulations, and a decline in monitoring and reporting capacity as water systems reduced nonessential operations during the COVID-19 pandemic.

As discussed in Section 2.2 later in this paper, RCAC performed heavy compliance-focused TA during the 2000's to make the communities eligible for USDA funding, which may have contributed to the relatively few violations observed during this decade. After 2009, RCAC's TA waned in Mora, although it didn't stop completely. Though causation between the decline in RCAC's TA in Mora and the increase in the number of violations after 2012 cannot be assumed, RCAC's TA work was directly focused on reducing the number of violations in the early 2000s.

Figure 3: SDWA violations per system, 2000-2020

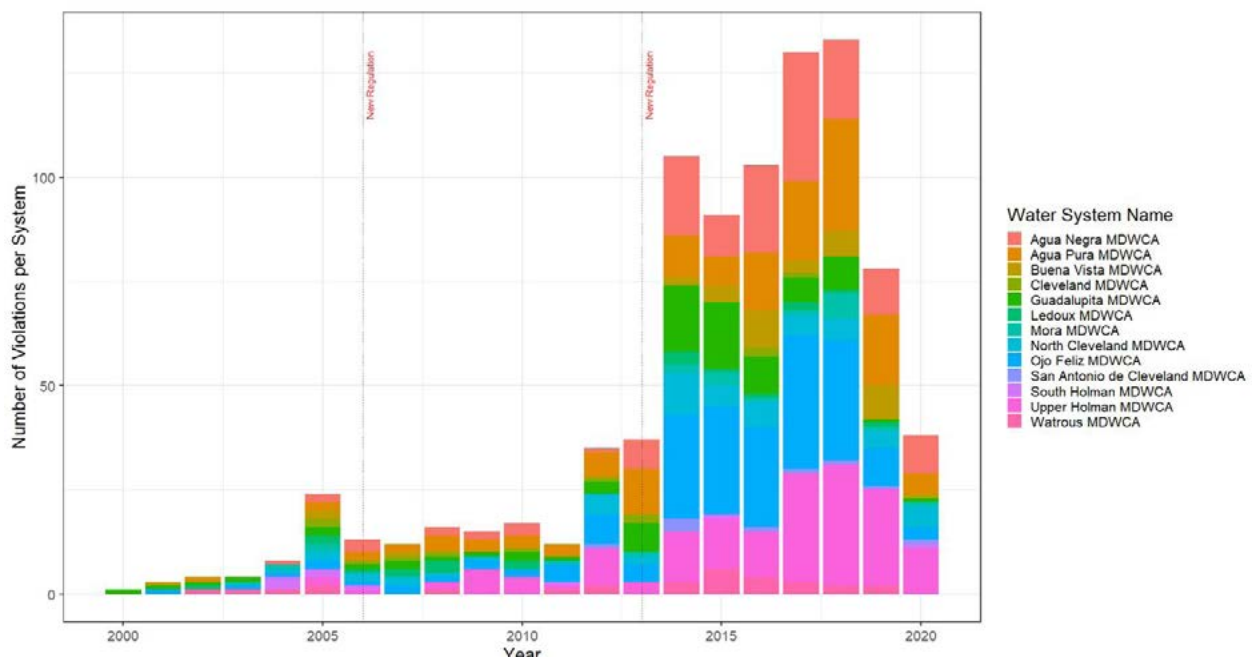


Figure 4: SDWA violations by rule, 2000-2020

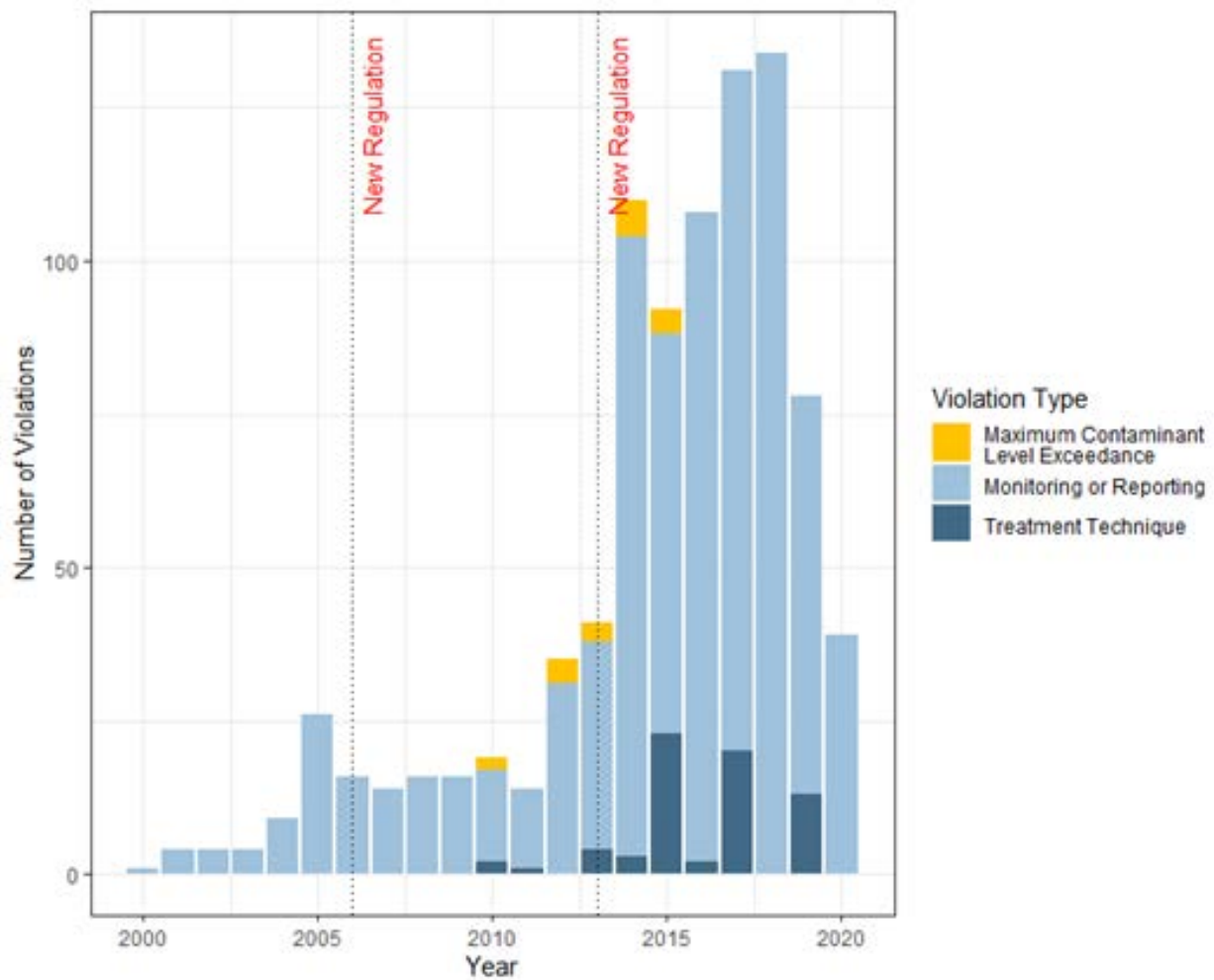


Table 2, below, shows the percentage of Mora County CWSs that are currently in compliance with various SDWA and SPA requirements, as of July 2023. Note that the table does not include all regulatory requirements, but a selection of the requirements that were feasible to be collected and aggregated for purposes of this study. Results show that compliance is largely unachieved in Mora County – compliance rates for the 10 requirements investigated that apply to most systems ranged from 0% to 93%. The average number of violations per CWS is five, representing a 50% compliance rate on average.

Table 2: Compliance rates with various SDWA and SPA requirements as of July 2023

| Requirement | Compliance rate |
|---|-----------------|
| Water Sampling/Monitoring | 36% |
| Certified Water Operator | 64% |
| Consumer Confidence Report (CCR) | 71% |
| Compliance with all deficiencies from most recent Sanitary Survey | 57% |
| Public Notices | 0% |
| Corporate Report with Secretary of State | 93% |
| Correct payment of Governmental Gross Receipt Tax of NM Tax & Revenue | 29% |
| Payment of Water Conservation Fee to NM Tax & Revenue | 67% |
| Audits or Tiered System Report accepted by the Office of the State Auditor | 50% |
| Annual Budget submitted to the Department of Finance & Administration (only applicable to one CWS that exceeds the annual revenue threshold for this requirement) | 100% |
| Submission of meter readings to the Office of the State Engineer | 27% |

Between increased regulatory requirements and the structural challenges that the traditional MDWCA management model presented, Mora County CWSs continue to have poor compliance. Analysis of current compliance violations, interviews with TA providers, and the RCAC project database where deliverables are tracked reveals that current water systems have no discernible improvement in compliance from prior decades. Present day, each Mora system has an average of five violations out of 10 regulations investigated, with the worst offender sitting at a staggering nine out of 10 regulations currently in violation.

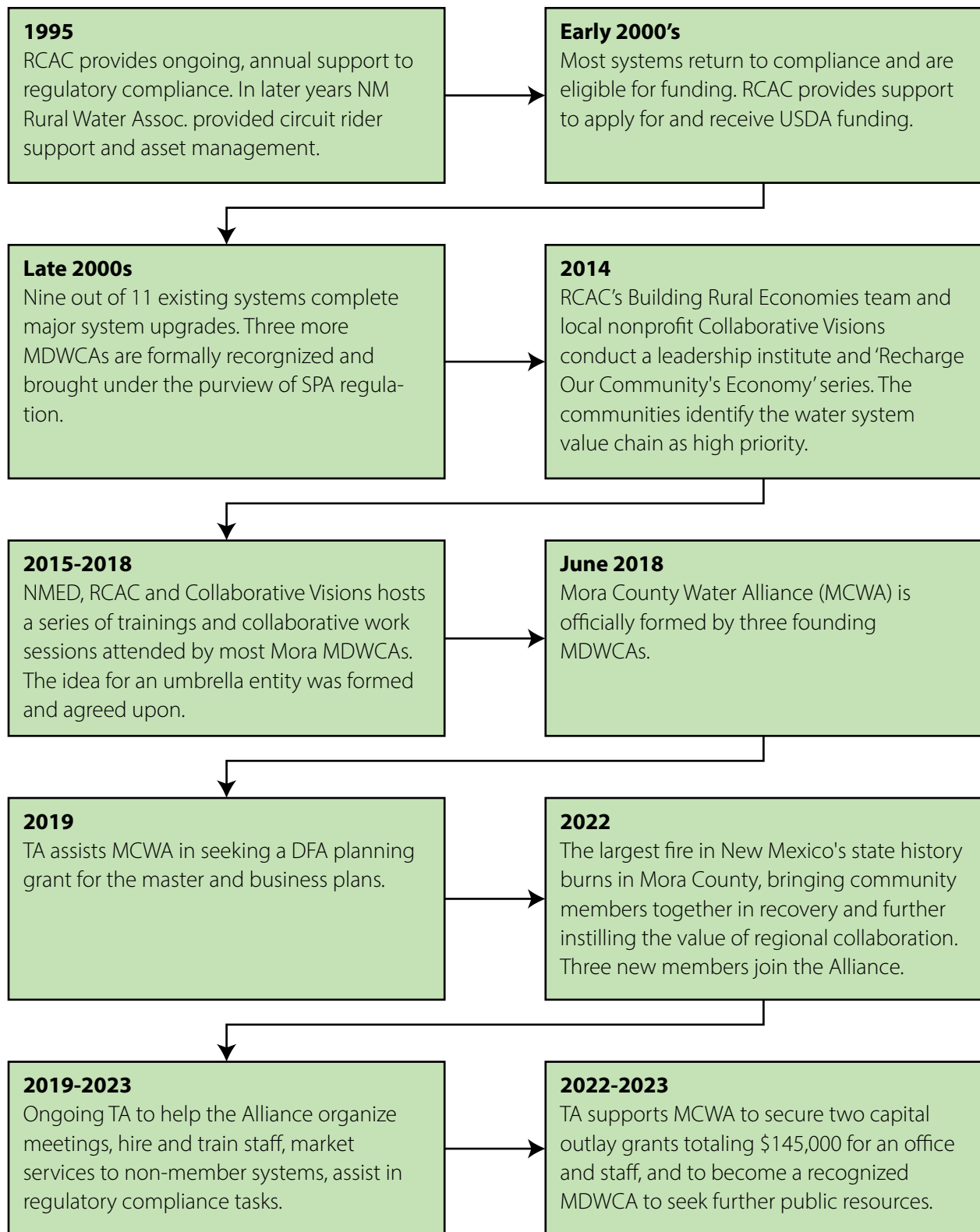
3.3 History of TA in Mora County

Traditionally, TA has focused on helping systems return to compliance or apply for and receive funding for capital improvements. Today, the largest funders of TA services (EPA, USDA and HHS) recognize that building TMF capacity is intrinsically connected to their goals of compliance and distributed funds for small systems, but historically has not

placed as much emphasis on the capacity building activities compared to the compliance. It wasn't until 1996 that the SDWA was amended to include funding for capacity development programs to which funded states for technical assistance and training to address capacity. The best example of TA that is focused on capacity building is the Water Infrastructure Improvements for the Nation (WIIN) grant funding, which didn't start until 2020. Even so, building capacity in small communities has proven challenging, and state and federal agencies typically have focused efforts on having immediate gains towards a specific challenge, such as operator certification or rate setting. These activities, while helpful to TMF-related goals on the immediate horizon, are not usually solving capacity issues in the long-term. Such a goal would require more holistic solutions, of which relatively little proof exists of what works and what does not, and what level of investment is required. Melanie Delgado, the Regional Resilience Team Lead with NMED, summarizes this reality: "This capacity development funding pays for training and direct technical assistance through staff and through contracts to TA providers. While training and assistance helps systems with compliance for a point in time, it does little to increase the capacity of these systems."

Rural Community Assistance Corporation first engaged Mora County systems with technical assistance in 1995 with traditional technical assistance funded by the various federal and state agencies funding programs described above and has supported them in small and large ways every year since. A timeline of the various TA that Mora has received since 1995 is detailed below in Figure 3.

Figure 5: Timeline of Mora County TA



Like present day, most of the Mora County systems in 1995 had aging infrastructure and needed to return to compliance to be eligible to receive federal funding for needed improvement. RCAC TA dates back to 1995, when TA providers were focused on supporting the systems to receive USDA funding. This TA was considered highly successful because nine of the existing 11 systems did receive USDA funding in the early or mid-2000's and had a 100% compliance rate in order to receive such funding. Such TA generally consisted of helping the systems organize community meetings, update bylaws and Articles of Incorporation, organize and train new boards, get in compliance with all state of New Mexico agencies, prepare their financial reports, apply for funding, complete the Letter of Conditions associated with USDA funding packages, conduct rate studies, and more. It is not a coincidence that most Mora water systems completed major capital upgrades around the same time – this is representative of the concerted level of effort of TA from RCAC and direction of USDA resources towards Mora County during 1995-2005. RCAC technical assistance providers (TAPs) approached some systems to consolidate at the time due to extremely close proximity of water lines, but the communities had no interest in partnership or consolidation and were even hostile towards the idea back in these early days before partnership was an accepted and supported idea in the state.

The level of investment in TA resources can only be quantitatively approximated after 2012, when RCAC implemented a project tracking database. Based on qualitative data, traditional TA was most significant in the early 2000s. Between 2012-2022, RCAC TAPs logged 26 different projects that cumulates 44 years of ongoing TA projects in Mora County. Note that this only represents a fraction of RCAC TA, given that the project database didn't track TA prior to 2012, and captures most but not all of RCAC's contracts post-2012. TA has also been delivered by New Mexico state agencies who help systems to meet their requirements, and by the New Mexico Rural Water Association (NMWRA), primarily in form of operations support. NMED officials report spending significant one-on-one time helping systems with their compliance and acknowledge that the vast needs for individual system compliance support far outweigh their agency resources. As reported in the New Mexico Water Task Force in 2022, "This problem is growing, even as New Mexico provides proportionately more non-federal dollars for water infrastructure problems than any other state."

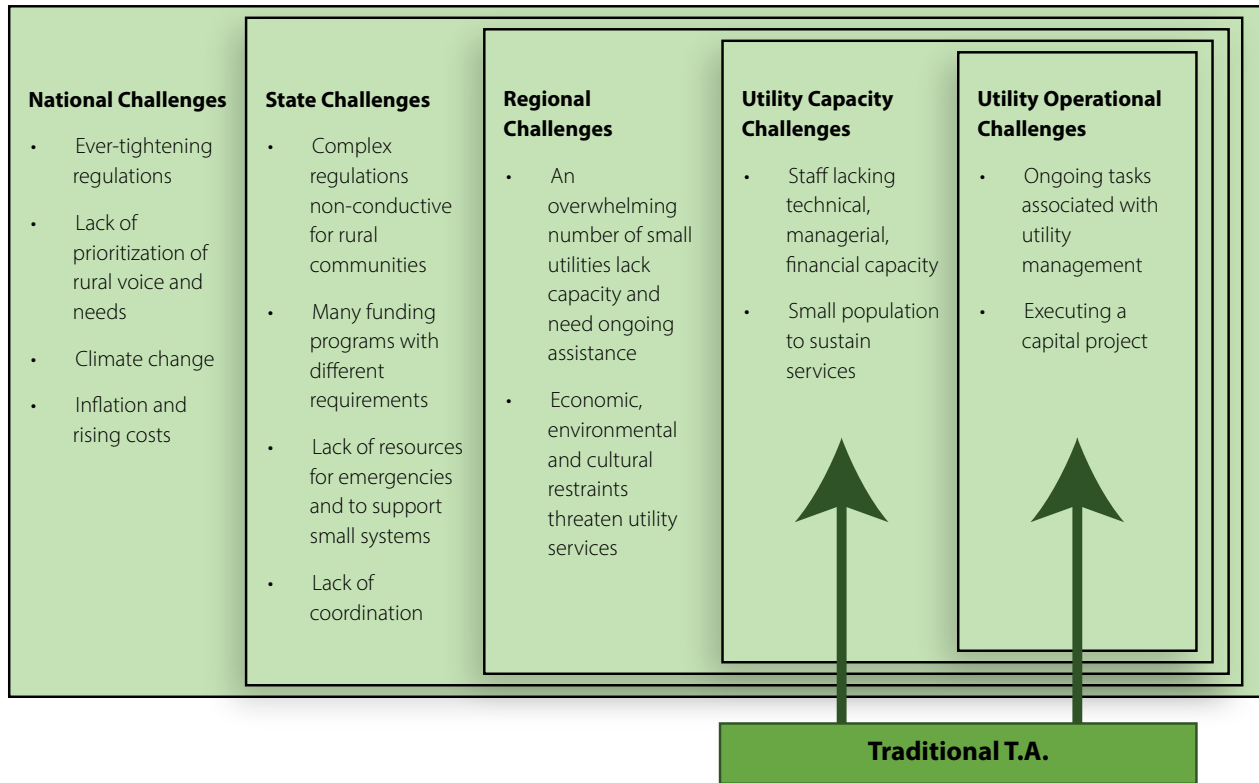
A current TA provider describes his TA as “the typical consumer confidence reports, corrective action plans, public notices.” TA providers report that by nature of these regulations and the governance structure of volunteer boards, it is challenging even with training and capacity building for volunteers to remember how and when annual administrative tasks are due and include this knowledge in succession planning for future volunteers. One telling quote from a TA provider describes this reality: RCAC Regional Field Manager and TA provider Ramon Lucero describes this reality as he explains, “It’s the same number of systems, and our TA work has never gone away. Consumer Confidence Reports, compliance reporting, sampling plans, sanitary deficiencies. We assist community water systems to get into compliance for funding applications, however compliance issues persist once the funding is secured.”

3.4 Mora County within a wider systemic framework

Stakeholders involved in addressing water access gaps in the United States do not yet widely employ the application of systems-thinking, despite it being considered common and best practice within adjacent sectors such as rural community development and international water and sanitation fields. Applying systems-thinking toward the challenges seen in Mora County and across rural CWSs is valuable because it considers the wider, dynamic and complex ecosystem in which CWSs operate and experience ongoing and recurring challenges as documented above. This means that instead of seeing specific challenges to each utility and trying to solve them in individual ways (the approach of most traditional TA), we examine how these challenges represent patterns, structures and processes within the wider ecosystem. In this way, we can understand more deep-seated problems and design our TA to address the real, underlying causes.

The below diagram, adapted from a framework for Market Systems Development¹, is a systemic representation of challenges facing small rural water utilities. Each challenge named impacts water services in Mora, but many exist beyond the control of the communities of Mora.

Figure 6: Traditional TA within the wider system



Traditional TA, as historically performed in Mora County and most other rural locations around the country, typically addresses the two innermost levels of challenges within the above diagram. Typical TA activities, such as the regulatory compliance support and staff training seen over decades in Mora County, do not address the root challenges, but rather address various symptomatic problems that arise from root challenges.

Subsequent sections of this case study will discuss recent changes within the state framework for rural water management, partially attributable to RCAC advocacy, and a new model of TA now being implemented at the regional level. This new TA model uses systems-thinking to address the root challenges CWSs face at multiple levels within the wider ecosystem.

¹ 'Making Markets Work' Market System Development Training Programme, by the The Springfield Centre

4.0 System-strengthening efforts at the state level

Regional collaboration among rural communities is increasingly being recommended as a way to help small water and wastewater systems to address water quality challenges, maintain compliance, improve aging infrastructure and become financially sustainable over time. This process, termed regionalization, comes in many forms, including partial or full consolidation of multiple systems into an existing entity, the formation of an umbrella management organization, or less formal partnerships that elevate the voice of rural communities. Forming such regional entity creates a completely new management model for delivering rural water services in a region. This new management model addresses many of the core reasons that small utilities get stuck in the vicious cycles of low capacity, and as such it has created a paradigm shift in the way New Mexico considers supporting its rural communities.

The primary objective of regionalization is to build resiliency within rural communities and protect public health using the power of collective action. These goals are best achieved within the context of a strong enabling environment created by state agencies involved in water regulation and funding.

4.1 Building a statewide movement of regional collaboration

Though every state grapples with the tensions of supporting rural communities and enforcing the Safe Drinking Water Act, the story of state-level support for building strong enabling environments for regionalization in New Mexico is unique and places the state in a leading and innovative role compared to other states across the country, every one of which grapples with the tensions of supporting their rural communities and enforcing the Safe Drinking Water Act. Seeds of change in New Mexico were planted in the mid-2000s, and by the late 2010s the movement to support regionalization had gained momentum. Today, the state has a diverse set of tools from which to draw when supporting rural water systems, and there is even more momentum to institutionalize and scale these innovative solutions for rural communities.

Mora County regionalization cannot be fully understood without examining changes that have been happening at the state level over the same time period; such changes have created an enabling environment that is allowing much needed, non-traditional support and funding to flow to Mora.

Each item below chronologically highlights a significant event that marks a change in the actors, behaviors and key factors in terms of how the state supports rural water systems.

House Joint Memorial 86 (2005). Governor Bill Richardson's administration recognized ongoing challenges for rural water systems, and House Joint Memorial 86 was passed. HJM 86 directed the State Engineer to collaborate with the Department of Environment and other agencies to develop criteria for water system planning, performance and conservation as a condition of funding. It identified key challenges such as aging infrastructure, complex regulations and reliance on volunteer labor. The administration hired Anne Watkins, who was a key champion for seeking a new direction to address root challenges and brought various stakeholders, including RCAC, to the table. At the same time, the University of New Mexico's Utton Center identified the same challenges as the memorial. This is when regionalization first came up as a solution for ongoing challenges and marks a turning point in the state's interest in solving the rural water crisis.

The Sanitary Projects Act is amended to better support regional collaboration (2006). The SPA, which regulated and created hundreds of small MDWCAs around the state that struggled with low capacity, was amended in 2006 to allow for a merger between two or more MDWCAs. This is significant because before, if two entities wanted to collaborate, the only vehicle available to them was a Joint Powers Agreement. This was key to the first regional entities serving small systems, as described below. Additionally, other beneficial SPA amendments were made at other times such as requiring board training or prohibiting new MDWCAs under 15 connections.

Independently, multiple regional water entities form around New Mexico. Several other regions of the state independently saw the benefits and started down the path of collaboration. Since 2009, various entities have been formed. Each formation was varied and unique since there is no one-size-fits-all approach to regionalization especially when different types of entities wanted to collaborate such as a MDWCA and a Water and Sanitation District. Only the Joint Powers of Agreement Act provided a legal framework, meaning there was no option for a merger or consolidation. This also meant the processes were unclear and highly resource-intensive, usually requiring the passage of special legislation. These partnerships include: El Valle Water Alliance, Eastern Water Authority, Albuquerque Bernalillo Authority, and various areas to be served by the Navajo Gallup Pipeline. Across the state, clear grassroots-level support was gaining momentum.

State funders incentivize collaboration within their funding processes

(around 2010). Community Development Block Grants was the first state funder to recognize the value of collaborative projects, and award extra points in its funding prioritization process for collaboration. One of the other major state funders, the Water Trust Board, followed suit shortly after in including regional collaboration specifically within its policies.

Formation of the first regional water entity formed by small, rural communities: the Lower Rio Grande (LRG) Public Water Works Authority (2010).

Five founding MDWCAs within New Mexico Statute created the LRG Water Authority and it was strengthened by the joining of an additional 10 water and wastewater systems, now serving 16 rural communities and growing. According to its website, the LRG Water Authority provides “economies of scale for [its] systems and a stronger voice for [its] communities.” The entity provides the following services: sampling; operator; reporting and regulatory compliance; billing and collections; customer service; assistance with funding applications; assistance with project management; long term planning; asset management; and climate resiliency. It was created with significant effort from local leaders and RCAC TA providers for many years prior to the official formation in 2010, and required multiple funding streams from state agencies, most notably seed funding from a Community Development Block Grant (CDBG).

First and second introductions of statewide legislation regarding regionalization (2016-2019).

Prior to 2016, Santa Fe County had interest in regionalization for small water systems, especially those close to the county water lines, and RCAC organized many meetings and convenings. RCAC identified the need for a legal framework to enable water systems across the state to regionalize, and the idea for creating legislation was born. In 2016, RCAC worked with state legislators to introduce legislation that mimicked some of the other special legislation that created individual entities, and it failed. In the 2019 legislative session, another draft was introduced and also failed. RCAC was primarily responsible for working with representatives and other stakeholders to draft and push these proposals forward.

Creation of the New Mexico Water Policy and Infrastructure Task Force (2022).

Governor Michelle Lujan Grisham authorized the State Engineer to form a Water Policy and Infrastructure Task Force comprises of experts, senior officials and stakeholders to develop recommendations to address the “unprecedented” water issues facing the state. The Community Drinking Water, Wastewater, Stormwater Capacity,

Infrastructure and Finance workgroup within the Task Force developed four recommendations, the second of which reads, “Promote and incentivize regional collaboration – from informal to formal arrangements – by drinking water and wastewater systems through administration of existing funding programs, prioritization of technical assistance investments, and clear laws and processes that preserve local flexibility.”

Creation of the Regional Resiliency Team within NMED Drinking Water Bureau (2023). Formerly the Community Services Program, this team within the DWB serves as the primary support to rural communities and liaison to other state programs and agencies.

Regional Water System Resiliency Act (SB1) signed into law (2023). The passage of this bill marked a major milestone for New Mexico’s rural communities. The legislation creates a framework that will enable community water systems organized under different legal frameworks to partner together to form a regional authority, an entity that the state can recognize and that can receive funding. It will streamline collaboration efforts and make it simpler for all communities to seek the support and resources they desire. RCAC was heavily involved in the development and passage of this bill.

Inclusion of regionalization support within the Water Security Planning Act (SB 337) (2023). Passage of SB 337, the Water Security Planning Act, drafted in 2023, would transform the current water resource management landscape. It is important that it would provide means for yet another important actor, the Interstate Stream Commission to support regionalization; SB 337 will authorize the Interstate Stream Commission to make loans and grants for regional water planning.

Passage of the New Mexico Match Fund (HB 177) (2024). Passage of SB 177, the New Mexico Match Fund, in 2024 creates a flexible, reliable and supportive funding source for local entities around the state taking advantage of federal funding programs. This program is well-suited to support complex and expensive regional collaborations that often require various funding sources and match dollars challenging for local communities to raise.

4.2 Assessment of the enabling environment

The ‘enabling environment’ for rural New Mexico water utilities refers to the wider system of institutions, policies and norms which impact a utility. The above timeline of events highlights major changes to the enabling environment specifically for regional water entities.

Due to the complex nature of the enabling environment for rural water systems, it is helpful to examine it using the Nine Building Blocks of Water & Sanitation Systems. IRC WASH, a Dutch organization involved in global water issues, developed this concept of the nine building blocks, which is “intended to reduce complexity to a manageable level, enabling and supporting action whilst neither oversimplifying reality nor losing sight of the entirety of the broader [water and wastewater ecosystem].”²

Figure 7: The Nine Building Blocks of Water & Sanitation Systems



RCAC in New Mexico has engaged heavily at the state level in order to positively influence and strengthen the enabling environment. Additionally, the 2022 New Mexico Water Policy & Infrastructure Task Force (later referred to as the Task Force) identified challenges to the enabling environment and issued subsequent recommendations. Drawing from the Task Force’s outputs and qualitative data from interviews with RCAC staff, a simple and informal assessment of each building block is summarized below. The summary includes current challenges (many quoted directly from the Task Force’s workgroup reporting form) along with changes that have occurred with contribution from RCAC’s state-level advocacy efforts.

2 <https://www.ircwash.org/news/building-blocks-strong-and-healthy-wash-systems>

Table 3: Summary of New Mexico’s enabling environment

| Building block | Current challenges | Influenced positive changes from RCAC advocacy |
|-------------------------------|--|---|
| Policy and legislation | <ul style="list-style-type: none"> Lack of prioritization of funding by policy-makers. | <ul style="list-style-type: none"> Ongoing partnership with state representatives to inform them and raise the priority of rural water in politicians’ minds. Passage of the Rural Water Resiliency Act, which solved a major challenge of the legal obstacles presenting a barrier to regionalization. |
| Planning | <ul style="list-style-type: none"> A shortage of private sector capacity for engineering and related services. Communities lack resources or economies of scale to perform planning, project management, and execution of water infrastructure projects. A tangle of funding programs with differing requirements and selection criteria that leaves small communities lost. Lack of planning resources for regionalization studies. | <ul style="list-style-type: none"> Advocacy to create a Water Infrastructure Projects Authority (WIPA) with a dedicated funding stream to provide communities with the resources and support they need to help them meet current needs and adapt to climate change (Recommendation 1 of the Task Force). Successfully sought planning grants for regional entities. |
| Institutions | <ul style="list-style-type: none"> Coordination across state agencies, and with the federal government. Various state agencies have responsibility for supporting communities but lack resources to respond to the scale of the challenges. | <ul style="list-style-type: none"> Advocacy to create the WIPA as a new institution, which would help communities navigate the various agencies when seeking capital upgrades. Partnership and collaboration as NMED’s Community Services Program was re-branded and re-visioned as the Regional Resiliency Team. State funding to agencies like the State Auditor’s Office to provide grants to small communities to complete their annual audit. |

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| Building block | Current challenges | Influenced positive changes from RCAC advocacy |
|-----------------------|--|---|
| Finance | <ul style="list-style-type: none"> Challenges within the current state capital outlay process, unpredictability of funding levels in any given year, and uncertainty of amount of funds available for various purposes across multiple agencies and funding sources. \$1.8B authorized by Legislature through 2022 remains unspent in the state’s capital outlay fund. In order for water systems to obtain funding they have to comply with 60 plus conditions for funding for multiple agencies that require online filing. Many small communities are a debt capacity and cannot access funding. Some small communities are losing population and can no longer pay for the existing loans or cannot afford additional loans. | <ul style="list-style-type: none"> Advocacy to expand technical assistance services for drinking water and wastewater systems by providing a consistent level of funding for technical assistance providers (Recommendation 3 of the Task Force). Partnership with COGs and Foundations to seek further permanent resources for communities to navigate funding processes. Collaboration with state actors as the state formally recognizes the need to address other systemic barriers beyond a pure shortage of funding. The WTB recently changed its policies to be more small community friendly. Thus, small communities are most likely to obtain funding with technical assistance with the application process. |
| Infrastructure | <ul style="list-style-type: none"> Added stress on infrastructure and water supply associated with increased drought, flooding and severe weather conditions, which exacerbates the scale and scope of needed infrastructure improvements. There is a workforce shortage of trained operators in the state, presenting a gap in human infrastructure requirements for water systems | <ul style="list-style-type: none"> TA at the community level is the primary way to address this challenge. At the state level, it is best addressed from the other building blocks. Regional collaborations can help alleviate size issues and can help create resilience by interconnecting systems when affordable. SRF and federal TA resources have been dedicated heavily toward operator training in New Mexico (often executed by RCAC), which has successfully trained many operators but has not necessarily addressed the shortage in numbers of operators entering the workforce. |

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| Building block | Current challenges | Influenced positive changes from RCAC advocacy |
|--------------------------------------|--|--|
| Regulation and accountability | <ul style="list-style-type: none"> Between enforcement of the SDWA and SPA, and funding requirements regulations are ever-tightening and highly complex – six different state agencies have regulatory compliance requirements. | <ul style="list-style-type: none"> Advocacy to enact legislation with requisite appropriations to grow the water workforce to meet the demands of all water and wastewater systems for certified operators, staff, and volunteers (Recommendation 5 of the Task Force). New Mexico’s structures and incentives for regionalization are flexible enough to support individual community desires to either regionalize or not, and places local goals at the forefront. RCAC has designed all state advocacy efforts to prioritize this flexibility. This nuance is the major distinction between how New Mexico is supporting and incentivizing regionalization compared to how many across the country have traditionally viewed regionalization or consolidation. |
| Monitoring | <ul style="list-style-type: none"> Lack of transparency and coordination regarding regulatory compliance data at most state agencies | <ul style="list-style-type: none"> Advocacy for NMED to use objective criteria, including data related to drought and wildfire risk and compliance data, to prepare annual list of drinking water and wastewater systems that would benefit from a regionalization feasibility study and distribute the list to all applicable infrastructure finance program managers. TA to the earliest regional entities have established proof of concept and attracted interest from statewide actors. |
| Water resources management | <ul style="list-style-type: none"> Needed infrastructure investments for reuse, aquifer storage and recovery, water conservation (e.g., leak reduction) and energy. Lack of state resources for response to water emergencies. | <ul style="list-style-type: none"> Advocacy to establish an emergency fund to be used for immediate funding support during emergency events with clear protocols and strategies to mobilize resources (Recommendation 4 of the Task Force). |

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| Building block | Current challenges | Influenced positive changes from RCAC advocacy |
|------------------------------|---|---|
| Learning and adaption | <p>Rural communities often lack a voice at the table when decisions are made that will affect their water services.</p> <p>Bureaucratic barriers make it challenging to innovate and adapt to future water needs.</p> <p>Capacity building and knowledge transfer to sustain local learning needs is an overwhelming challenge given the number of small systems and reliance on volunteers and non-professional labor.</p> | <p>Participation in the Task Force, a group which aimed to learn from New Mexico's recent water history and challenges and adapt to future needs.</p> <p>Creating direct connections between state leaders and communities to help decision-makers better understand the needs and give the opportunity for direct feedback.</p> <p>RCAC prioritized state and federal resources available for local learning and capacity building to the communities in greatest need, which is still inadequate to meet the vast sum of local capacity building needs and issues with volunteer board turnover.</p> <p>RCAC's regionalization efforts at the local level create more professionalized water services where knowledge and capacity building have been retained over time.</p> |

The assessment of the enabling environment reveals that many of the challenges facing rural communities go beyond the often cited “lack of local TMF capacity.” Instead, responsibility also lies with structural problems relating to state authorities’ policy, planning, financing, coordination, etc.

In order for many New Mexico communities’ grassroots desires for regionalization to be effective and scaled, all nine building blocks of the enabling environment must be strengthened to support the new management model for communities that are motivated. This assessment reveals that while the state-wide momentum described in section 3.1 earlier in this report has indeed touched on all nine building blocks, there are still major gaps and unaddressed systemic challenges at the level of the enabling environment.

While the above assessment of each building block may be simplified and only partially complete, it presents a useful tool to stakeholders such as RCAC. Further use of such a framework can better enable RCAC to target its advocacy and partnership efforts, communicate the importance of advocacy, and ultimately achieve greater impact.

5.0 A New path forward: regional umbrella management entity

5.1 Mora County Water Alliance overview

From RCAC's, NMED's and Collaborative Vision's mutual support to Mora County from 2014-2018 that focused on their rural economy and strengthening priority value chains, the idea for a regional umbrella entity to support water services was born. While RCAC heavily aided to organize the specifics, the overall arrangement was a grassroots idea coming from the communities themselves. In 2018, three founding MDWCA members officially formed the Alliance, despite participation in the meetings from 13 systems around the county. The Alliance's mission and vision are as follows:

The vision is to be a collaborative entity that offers sustainable support services for water systems within the County.

The mission of the Mora County Alliance is to develop a management support structure and the necessary infrastructure improvements for the water systems to sustain the health of the communities, water table, and water shed for current and future generations. We aim to provide reliable, high quality, affordable and sustainable services to our membership.

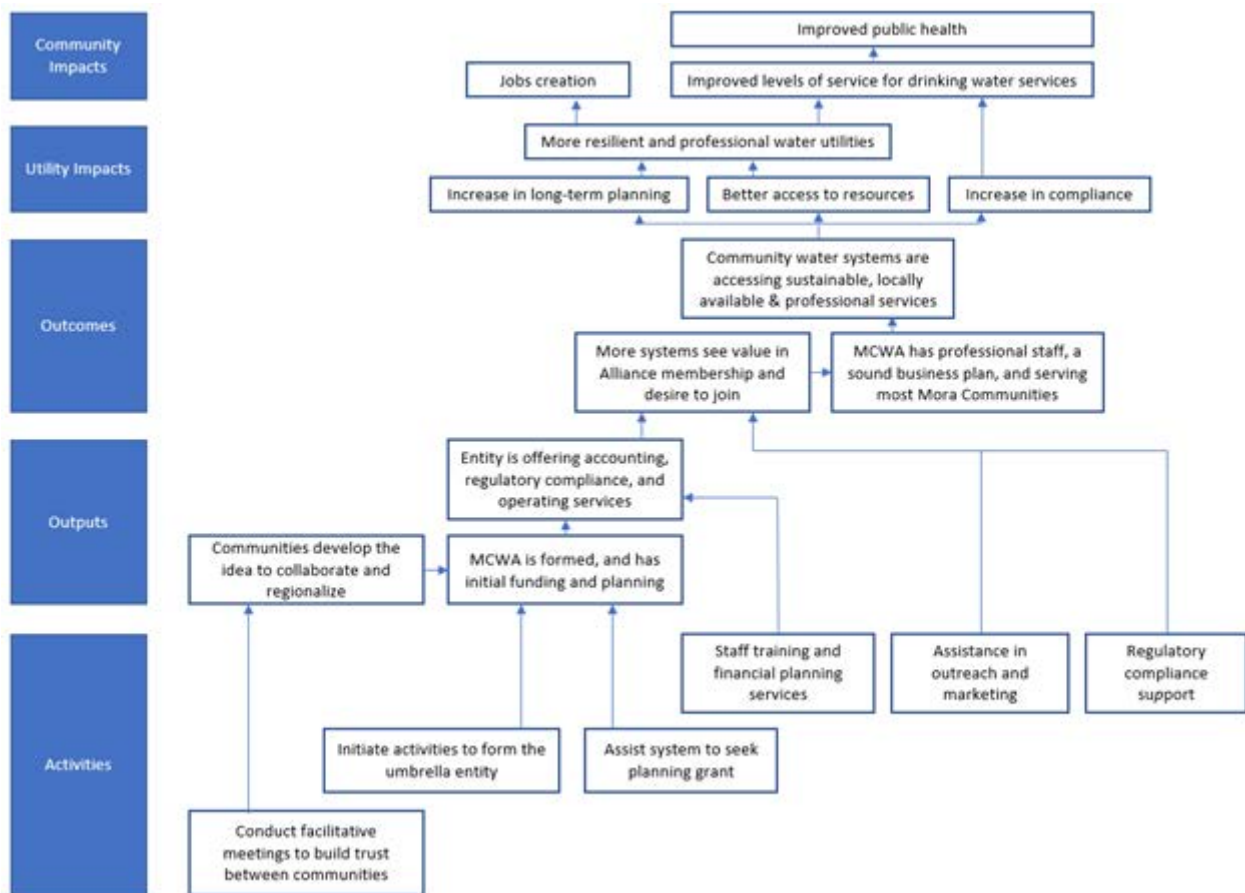
A noteworthy element of the Alliance's governance structure is that the independent members maintain total autonomy and ownership. Instead of a regional structure that would allow for less perceived local control (such as a consolidation or merger), members pay a monthly subscription for the Alliance's bookkeeper or operator services, such as billing, accounting, regulatory compliance reporting, meter reading, sampling and operator services. Each type of service has a fee depending on the size of the system, and members can subscribe to any services that they want while keeping other services in-house. Most importantly to member systems, they retain ownership, authority and decision-making over the future of water in their community, while taking advantage of a greater economy of scale within the regional entity to make operations more professional and affordable. Importantly, utilizing MCWA services can free up valuable time from volunteer board members to focus on long-term planning.

5.2 Expected outcomes of regionalization intervention

Currently, the MCWA exists but is not fully operational and has not yet met the expected outcomes, so significant assistance from RCAC is still needed. On the surface, the TA performed today is similar in task and scope: staff training, regulatory compliance, meeting coordination, assistance with financial and long-term planning. Yet, the expected outcomes of this TA lie in stark contrast to the TA performed in decades past; there is a vision and plan for true community resiliency.

Figure 8, below, visually represents RCAC’s designed TA intervention in Mora County.

Figure 8: Program design for Regionalization TA in Mora County



Regionalization TA from RCAC is expected to be temporary, and lessened in terms of level of resources as the program progresses towards the expected outcome, after which no significant or ongoing TA is expected.

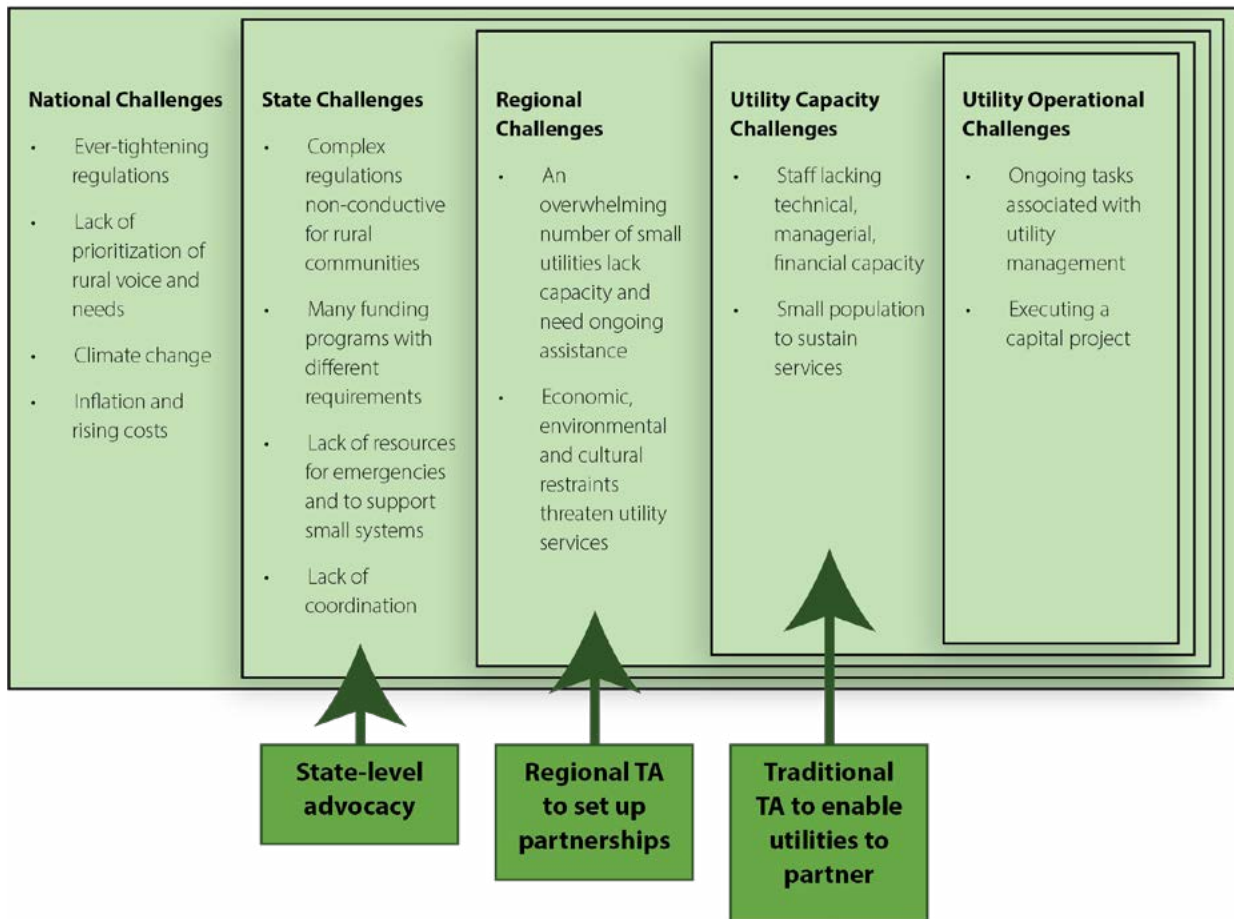
RCAC still heavily supports MCWA and is working toward the expected outcome of higher membership. With only three systems joining, it is still not possible to reach economies of scale and self-sustainability for the regional entity. Present day, RCAC is conducting the final three activities from the diagram in Figure 8, above: staff training and related services; regulatory compliance support to utilities around the county to aide them in joining the Alliance; and marketing and outreach toward non-member utilities. Recent challenges have included a lack of leadership and staff turnover without succession planning which has resulted in compliance violations and low membership. While these challenges are also commonly present in non-regional MDWCAs, Figure 8 above shows that these persistent barriers are expected to be solved when higher membership is achieved, which is expected to lead to more professionalization of these positions with a business model of paid staff and leadership. But, as of September 2023, MCWA hired three additional staff with support from RCAC and temporary funding to continue the path to grow services and reach financial independence once higher membership and economy of scale is achieved. Only six of a possible 14 PWSs within the county have joined to date. As is typical of this type of grassroots community organizing, it is heavily dependent on community personalities, and requires frequent pivoting and soft skills. There is also a reliance on volunteer labor that prevents some systems from desiring to pay for professional services, but over time attitudes supporting dependence on volunteer labor has been observed to be decreasing. Nevertheless, both RCAC's analysis and the MCWA Master Plan show that the building blocks for success of the Alliance exist at both the local and state levels.

As is typical of complex, systemic interventions, several factors that have influenced the regionalization have been external to RCAC's control. Qualitative interview data revealed two important factors of success to date to include: (1) the personality and drive of one community leader who also led another local nonprofit and has taken on leadership roles within MCWA, and (2) the Calf-Canyon-Hermits Peak fire in 2022 hit Mora County very hard, and has since led to more rural community members valuing collaboration and mutual support, in addition to realizing the need for greater resiliency.

5.3 The Alliance's need for TA

The TA, described in Sections 3 and 4 of this report, needed to implement this new management model has occurred simultaneously at the local, regional and state levels. Figure 9, below, visualizes this shift from traditional TA. The larger arrow indicated for regional activities represents the higher effort and resources compared to local or state activities.

Figure 9: TA to support regionalization within the wider system



The concept and benefits of regionalization, as considered from the local level of the wider system, are well-documented in publications, guides and reports available from RCAC and other sector partners. The scope of this case study therefore aims to document the Mora County regionalization case from both a historical lens and from an enabling-environment lens. As such, this case study does not delve into implementation details. The RCAP Regionalization Guidebook provides an in-depth look at the process and requirements to consider implementing a regional project from the local level.

However, a knowledge gap exists around understanding the level of effort, resources and funding required to implement a regional solution. Because Mora County TA is still ongoing and has been tracked in variable ways over different programs and contracts, this case study is not able to evaluate the full cost of implementing such a solution. Nevertheless, some approximations and lessons learned from Mora County and the creation of other regional entities in New Mexico reveal the following:

- While TA needs are greatest at the regional level, TA providers must work heavily at the outset with individual water systems. It is also necessary to conduct TA at the state-level with state officials and legislatures in order to support and influence actors that will be involved in the regionalization.
- Regionalization is slow: past experience shows between five to 10 years may be expected in order to have a regional entity working successfully.
- Regionalization TA is not traditional and can often take the path of two steps forward, one step back. Outputs can be variable, and outcomes are achieved over many years. For these reasons, funding for such interventions is best based on achievable outcomes and must include flexibility for varied paths to success. For example, the primary outcome of one primary contract between NMED and RCAC has been based around the outcome of “strengthened regional collaboration.”
- Regional collaborations require seed money to get started to establish the “business” aspect and hire the initial manager.

6.0 Discussion and next steps

The case of Mora County, while representative of rural water systems across the country, is uniquely worthwhile to study due to the data available about the long history of TA, and the way institutional changes across the state of New Mexico have influenced it in the past decade. Key findings include the following:

- **State-level advocacy and systems-change models of community intervention are needed to achieve universal access to safe drinking water services.** While TA providers may implement various capacity building activities, low capacity is likely to still be widespread until the wider system incentivizes more holistic approaches. In this sentiment, the state of New Mexico is an innovative leader in regionalization, recognizing the need for a new solution and taking action.
- **Traditional TA has short-term goals and is usually focused on addressing the symptoms of the deeply rooted systemic challenges causing persistently low TMF capacity.** Mora CWSs, while served with traditional TA in the mid-1990s to mid-2000s, saw large improvements associated with accessing funding, improving infrastructure, and achieving 100% compliance. Almost 20 years after such improvements, Mora utilities largely still face significant non-compliance, have aging infrastructure and need significant support from TA.

- **RCAC's advocacy has been an effective tool to spur and contribute to collective action across NM, with the outcome of providing better support to communities.** An analysis of the enabling environment in New Mexico that supports communities like those in Mora County revealed significant momentum, led by the state, to address the barriers that exist beyond the control of communities. Through this process, the state has created tangible opportunity for communities that desire regional collaboration to improve their capacity.
- **The state of New Mexico's regulatory design of regionalization is a worthy example to study and share because it begins with community desires.** This grassroots approach to regionalization almost turns the top-down approach to consolidation pushed elsewhere in the country upside down. Many communities in New Mexico still resist regionalization for varied reasons. But they, like Mora, may take another decade or more of improving incentive schemes and building a body of positive evidence before expressing interest in collaboration.
- **Regional collaboration presents an entirely new management model for rural water services, designed to achieve more resilient and professional water utilities.** Regional TA, combined with state advocacy and hints of traditional TA, supports communities in creating a regional management model.

The work to further institutionalize regional management models is ongoing throughout New Mexico and rural communities across the country. Three suggested directions for future work based on the findings of the case study include the following:

1. Investment in monitoring and evaluation of the regional approach to TA is needed. Despite significant federal and state investments to TA, there is minimal critical evaluation of the success of such investments. Evaluating TA outcomes is no simple task given the complexity of the wider system for rural water management, but methods and lessons from other sectors exist to evaluate outcomes of systemic interventions which may be applied to rural water TA. Some of the longer standing regional authorities in New Mexico may present good candidates for evaluation and study. Such efforts would serve to build the body of evidence that informs governments in targeting and support to rural communities.
2. The level of investment by TA providers, funders and state agencies to execute successful regionalization is widely unknown. It is recommended that future regionalization efforts implement standardized and holistic tracking of activities and investment across the varied activities associated with regionalization TA to draw lessons

learned regarding the level of effort and investment to implement collaborative entities.

3. Further investigation should look into the linkage between the state-level challenges explored within New Mexico to the challenges persistent in other states and at the national level. The challenge of small utilities' repeated noncompliance and poor utilization of funding resources is well documented, but deeper causes and possible solutions from a systems lens are not well understood. Additionally, New Mexico presents a rather unique regulatory environment due to the SPA, so comparison of its enabling environment to that of other states is a question whose answer could inform other states, decision-makers, and advocates across the country.