Executive Summary

The West Dakota Water Development District (WDWDD) has taken a leadership role in exploring the use of its Missouri River Future Use Water Permit #1443-2 (the permit). Before the most recent renewal of the permit, WDWDD commissioned the South Dakota School of Mines and Technology (SDSMT) to study the need for additional water supply in western Pennington County. The conclusion of the study was "a *strong need for new sources of water within the study area exists. . . local entities with a stake in our water security should pool their resources to ensure that they are proactive in securing future sources of water"* (SDSMT 2019).

In March 2020, WDWDD asked Banner Associates to coordinate with potential entities in western South Dakota to ascertain their interest in exploring a bulk water transmission line that conveys Missouri River water to various communities, Tribes, and water systems in western South Dakota. The project consisted of two parts: 1) determining interest in joining in discussions about a possible project, and 2) understanding the required steps to undertake such a project.

Several representatives from communities, Counties, Tribes, and water systems joined in four discussions to learn more about the opportunities and challenges in beginning a bulk water transmission line project. The speakers were from academia, non-profit organizations, and state and federal government provided information on best practices and programs available to assist in this potential project.

In the stakeholder meetings, many recognized the importance of working in partnership, pooling the local and Federal interests in furtherance of these projects. For example, 30 years ago Tribes and rural communities in south central and western South Dakota joined together to successfully form and fund the Mni Wiconi Rural Water System. Key lessons learned included the importance of combining interests, expanding the geographic reach, and articulating the Federal interest in the benefits of the major water projects. The stakeholder meetings concluded with a consensus of next steps, which are summarized, as follows:

> ***Governance:*** Form a new, non-profit corporation to spearhead the continued efforts to pursue a bulk water transmission line from the Missouri River to western South Dakota.
>
> ***Technical Evaluations:*** To better understand both the need and feasibility of this project, prepare a detailed Needs Assessment. This document will quantify the amounts of current and future water needs and provide detail on the financial commitments.
>
> ***Funding:*** WDWDD has provided initial funding as a catalyst to begin discussions and evaluations, additional funding to continue the development of a new organization and technical studies is necessary, requiring state and Federal funding.

With the increased growth in population in western South Dakota, including the projected 3,500 military personnel and 4,200 dependents with the arrival of the new B-21 "Raider" Bomber at Ellsworth Air Force Base, located in Pennington and Meade Counties (Ellsworth AFB 2020), and with the preparations for possible drought conditions in the future, the continued exploration for the development and distribution of water from the Missouri River is recommended.

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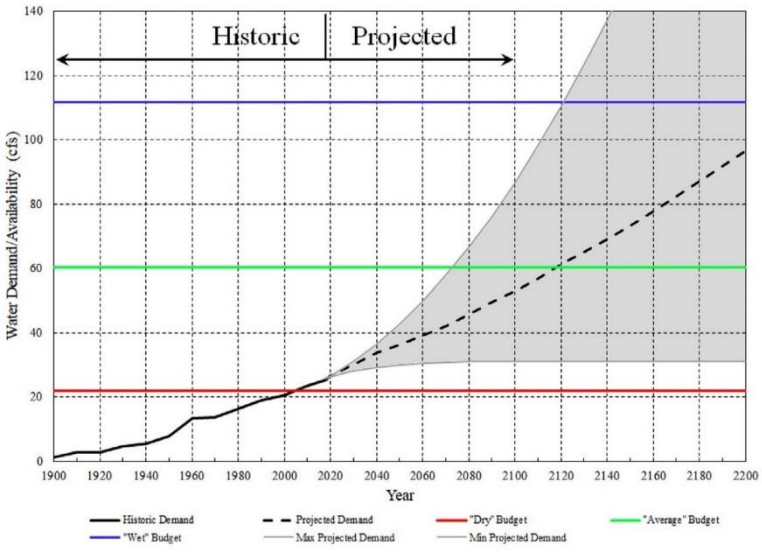
1. INTRODUCTION

Securing a reliable source of water, both in quality and quantity, is one of the most critical challenges facing municipalities and rural areas today. This is of particular importance in western South Dakota, which has a more arid climate and limited water supplies. In addition to the arid climate, the population will continue to increase. One example of this growth is within the Box Elder and Rapid City area, 3,500 military personnel and 4,200 dependents are projected with the arrival of the new B-21 "Raider" Bomber at Ellsworth Air Force Base, located in Pennington and Meade Counties (Ellsworth AFB 2020). With this increased population, water demands are projected to exceed the supply, especially during drought conditions.

To determine the future water needs, the West Dakota Water Development District (WDWDD) commissioned the South Dakota School of Mines and Technology (SDSMT) to complete the Missouri River Water Allotment Study for Future Use Water Permit 1443-2 (Future Use Water Permit). Please refer to Section 2.1 History of Water Right, for additional discussion of the permit. Figure 1 shows the projected water demand/availability in the WDWWD area. The conclusion presented in late 2019 was:

> *A strong need for new sources of water within the study area exists. See Figure 1. Projected Water Demand/Availability in WDWDD Area. As such, WDWDD should continue to maintain Future Use Permit #1443-2, which would require renewal in 2024. If water is to be brought to western Pennington County via pipeline from the Missouri River, a project such as this would likely take decades to approve and construct. As population in the area increases, the need to ensure water security will grow ever greater. Therefore, local entities with a stake in our water security should pool their resources to ensure that they are proactive in securing future sources of water, one of which could involve water from the Missouri River*.

Figure 1. Projected Water Demand/Availability in WDWDD Area



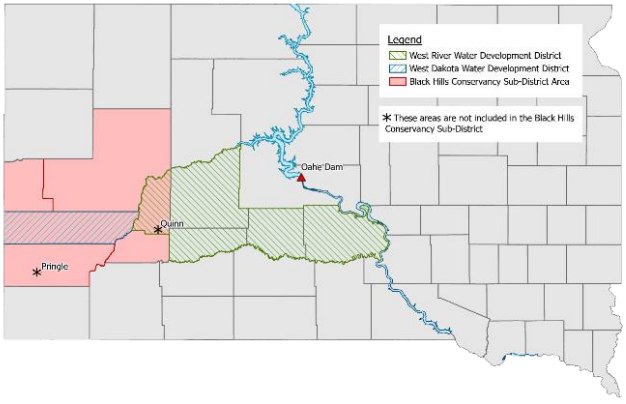
Upon receiving the results of the study, the WDWDD proceeded with the next steps to explore the use of the Future Use Water Permit. WDWDD's role includes convening potential western South Dakota partners to begin this discussion. In 2020, Banner Associates, Inc. (Banner) was retained to assist WDWDD in facilitating these discussions with various West River communities, Tribes, and water districts. A total of four Stakeholder Meetings were held from August through November 2020 via Zoom due to the COVID-19 restrictions. ***The Stakeholder Report provided information on those potential partners and confirmed interest in joining in discussions to explore a bulk water transmission line from the Missouri River to western South Dakota.***

1.1. History of the Water Right

The Future Use Water Right Permit 1443-2 was granted on November 18, 1976 to the Black Hills Conservancy Sub-District to provide 10,000 acre-feet annually for future water supplies to municipal, industrial, commercial, and rural water systems. The Missouri River's water was to be diverted from the Oahe Reservoir between the mouth of the Cheyenne River and the Oahe Dam. The water was to be conveyed through the "West River Aqueduct." The water right further stipulated, "*at such time as definite plans are made, specific application for all or any part of the water granted under this permit, must be submitted prior to the construction of facilities*."

The Black Hills Conservancy Sub-District was formed in 1964 and consisted of Lawrence, Meade, Custer, and Pennington Counties, excluding the towns of Quinn and Pringle. Please refer to Figure 2 for the Black Hills Conservancy Sub-District boundary. On September 3, 1976, the Board submitted an "Application for Permit to Appropriate Water Within South Dakota." On September 25, 1976, the Board of Directors[1] wrote to the South Dakota Water Rights Commission urging their favorable consideration of the application which was granted. The permit has been renewed on the required 7-year cycle.

Figure 2. Black Hills Conservancy Sub-District, West River Water Development District, and West Dakota Water Development District Boundaries



[1] The 1976 Board of the Black Hills Conservancy Sub-District consisted of the following members: Chair, John Loucks, Rapid City; Vice Chair, Olin Matkins, Sturgis; Secretary, Maynard Downen, Fairburn; Directors, Reuben Deutscher, Wall; Holand Veren, Sturgis; Louis Freiberg, Rapid City; Charles Wennberg, Whitewood; and CA "Bud" Polley, Spearfish.

Effective December 31, 1984, the South Dakota Legislature dissolved Conservancy Sub-Districts. Water development districts were formed effective January 1, 1985. Please refer to Figure 2 for the water development district boundaries within western South Dakota. On July 12, 1985, the following West River water right assignments were made:

- Permit # 1442-2 West River Water Development District
- Permit # 1443-2 West Dakota Water Development District

Once the assignments were complete, responsibility for renewing the permit changed from the Black Hills Conservancy Sub-District to the WDWWD. On January 14, 2003, WDWDD stated within correspondence for renewing the permit that "*preliminary information from the Black Hills Water Management Study reveals that areas of the Black Hills could be hydrologically challenged by the year 2030*."

2. METHODOLOGY

In March 2020, WDWDD contracted with Banner to begin reaching out to potential stakeholders throughout western South Dakota. The Stakeholder Report was completed and presented to the WDWDD Board of Directors in July 2020, and the Final Report was presented with both this report and a Compilation Report, which included all documents, agendas, and notes prepared for the meetings with stakeholders.

Banner worked closely with the WDWDD Program Administrator, Dan Mulally, and a sub-committee of the WDWDD Board of Directors including Treasurer Robert Williams; Director Area 4 Representative, Nathan Gjovik; and Director Area 5 Representative, Wendy Nachtigall. Banner provided information to the subcommittee on the upcoming work in preparation of the Stakeholder Report, Stakeholder Meetings, and the interim progress reports. Banner staff included Cheryl Chapman, PhD, PE, Vice President and Project Manager; Brad Wermers, President; Tim Conner, PE; Joe Munson, PE; Jared Larson, EI; Zachary Darling; and Becky Baker. The sub-committee met monthly throughout the period of the contract from March through December 2020. Banner staff provided regular updates on the status of the project to the entire Board of Directors during their regular meetings within that time period.

Banner worked to develop the agendas, recruit speakers, and facilitate discussions during the four Stakeholder Meetings. The speakers continued to engage with the stakeholders during the meetings to provide information and insights in the process of launching a major water transmission project using the Missouri River as source water.

Banner convened the interested communities, Tribes, water systems, and other individuals to create an organization to address their collective needs and begin a plan for the future development of a project to deliver Missouri River water to western South Dakota. Based on meetings with the WDWDD Sub-Committee and the Stakeholders, recommendations for a governance structure is found in the Recommendations section of this report, which includes a new organization (referred to as NewOrg until formally named) to be formed in 2021.

2.1. Stakeholder Report

Banner provided the WDWDD sub-committee a list of communities, Tribes, and water districts to be contacted for interviews as part of the Stakeholder Report. The interviewers followed a script, which was developed to ensure a consistent message delivered to all potential stakeholders. A Fact Sheet was available to be sent to the interviewees. Banner made the calls in June and July 2020. Some of the key points in the script include:

- Summary of the South Dakota School of Mines and Technology Report.
- Interview was one of several across Western South Dakota.
- No commitment to being part of a future organization.
- No commitment for the purchase of water.
- Initial organizational meetings would be facilitated, and decisions made by consensus.

2.1.1. Stakeholder Interview Findings

The interviews were informal, in that key technical directors in each organization answered questions and indicated interest without consultation with their boards or elected bodies. As such, direct quotes and answers will not be attributed to the organization, but various comments and ideas emerged from the discussions:

- Make sure that all parties participate to their ability.
- Look for outside funding (federal funding) to augment local efforts.
- Bring in key experts from across the state and region to share lessons learned.
- Have good supply but interested in more water.
- Have newly upgraded water treatment plant, and they could supply more water to other places but do not have the water rights.
- Are in a good position for water, but willing to participate.
- Some of the current lines (in an existing water district) are undersized, limiting capacity in certain areas. Initial studies in the 1990s looked at servicing water to Rapid City.
- Have no feasible water source to treat.
- Although there are various districts, county does not have water system.
- Water demand outpacing supply.
- Interested in participating as long as rates are not increased.

Overall, the response to the request to be part of a discussion to explore the formation of an organization to address Missouri River water for western South Dakota was positive. Many acknowledged that a large infrastructure project would need to be a joint effort and would be a multi-year, multi-agency funded effort.

2.1.2. Stakeholder Report Summary

The overall outcome of the interviews was positive, affirming the interest and need to discuss a bulk water transmission line from the Missouri River to western South Dakota. Although there was no specific plan of whom would be included or where the water would be delivered, those interviewed

agreed to be part of a larger discussion to explore an organization and ultimately a project further. Only one entity expressed no interest at this time.

2.2. Stakeholder Meetings

Banner coordinated informational meetings designed to provide additional information to water managers and decision makers in various parts of local governments to learn more about potential organizational structures of the Missouri River project. All interested parties committed to participate in a consensus process to establish the charter to govern the operation of the new organization. Background information on various water system charters was provided to the participants.

2.2.1. Overview of Topics

A total of four Stakeholder Meetings were held via Zoom, due to the Covid-19 restrictions, one meeting a month between August and November 2020. A synopsis of the meetings is as follows:

August 13, 2020: Introductory meeting and fact-finding on other water systems and projects in the South Dakota. The speakers at the meeting were:

- Overview SDSMT Report
  - Kurt Katzenstein, Lead Author
- South Dakota Association of Rural Water Systems (SDARWS)overview on rural water systems in South Dakota
  - Kurt Pfeifle, SDARWS
- Missouri River Water Rights
  - Jay Gilbertson, East Dakota Water Development District
- Lewis and Clark Regional Water System Overview
  - Dave Odens, previous Lewis and Clark Project Engineer

September 10, 2020: A meeting to better understand the regulatory and funding agencies involved in bulk water transmission lines, plus the experience of funding Mni Wiconi Rural Water System.

- US Department of Agriculture, Rural Development (USDA RD) Funding
  - Tim Potts, South Dakota Community Program Director
- South Dakota Legal and Regulatory Framework
  - South Dakota Department of Environment and Natural Resources (SDDENR) Mike Perkovich and Andy Bruels
- US Bureau of Reclamation (Reclamation) Water Projects Program
  - Dani Fettig, Dakotas Area Office Rural Water Manager
- Formation of Mni Wiconi
  - Mario Gonzales, Attorney for Mni Wiconi

October 15, 2020: Discussions of the next steps, including the preparation of a Needs Assessment to meet the application requirements for various project sponsors.

November 12, 2020: Final meeting to discuss the next steps such as the formation of a non-profit and status of funding for the Needs Assessment.

2.2.2. Participants

Various stakeholders throughout western South Dakota attended some or all the Stakeholder Meetings. The participants included:

Andy Bruels	SDDENR Project Engineer
Bob Nelson	Deadwood Public Works Director
Bob Williams	WDWDD District 6 Representative and Treasurer
Dale Tech	Rapid City Public Works Director
Dan Bjerke	WDWWD Chair
Dan Coon	Rapid City Assistant Public Works Director
Dan Mulally	WDWWD Program Administrator
Dani Fettig	Reclamation Supervisory Civil Engineer
Deb Hadcock	Pennington County Commission Chair
Don Peterson	Southern Black Hills Water System Manager
Doug Curry	Box Elder Public Works Director
Dustin Lee	Spearfish Public Works Director
Leo "Earp" Fischer	Mni Waste Water Company Director
Gail Boddicker	Hermosa Finance Officer, Utility & Administration
Jake Fitzgerald	West River/Lyman Jones Rural Water System Manager
Jay Gilbertson	East Dakota Water Development District Manager
Jeff Crocket	Rapid City Water Superintendent
Jeremiah Corbin	SDARWA Source Water Protection Specialist
Kurt Katzenstein	Principal Author on SDSMT Report
Kurt Pfeifle	SDARWS Executive Director
Mike Harmon	Spearfish City Administrator
Mike Perkovich	SDDENR Water and Waste Funding Program Administrator
Nathan Gjovik	Box Elder Assistant Public Works Director
Paula Gengler	Spearfish Executive Assistant
	Perkins County Rural Water System
Syed Huq	Rosebud Sioux Tribe Water Resources Director
Tim Conner	Banner Lead Engineer- Lewis & Clark project
Tim Potts	USDA RD Community Program Director
Willard Clifford	OST Water Department Manager

2.2.3. Meeting Protocols

Although the meeting protocols were approved by the group, there were important tenets of decision-making to set forward. When there is a diverse group, making sure all voices are heard and respected is essential to good outcomes. In past work on Missouri River management decision-making, the National Research Council fundamental recommendations for success included:

- Participation by a broad spectrum of interest group.
- Inclusion of Tribal interests.
- Continuous two-way communication with the public.
- Visible participation by federal, state, and Tribal governments and non-governmental organizations.

- Consensus decision-making by the stakeholder group.
- Bounding the process with defined goals and with timelines for achievement.

Although the goals of the Missouri River Recovery Implementation Committee are quite different from these efforts, adoption of similar goals served the new group well as discussions were initiated and decisions begin to be made about a potential water project for western South Dakota.

2.3. Conclusion of the Stakeholder Meetings

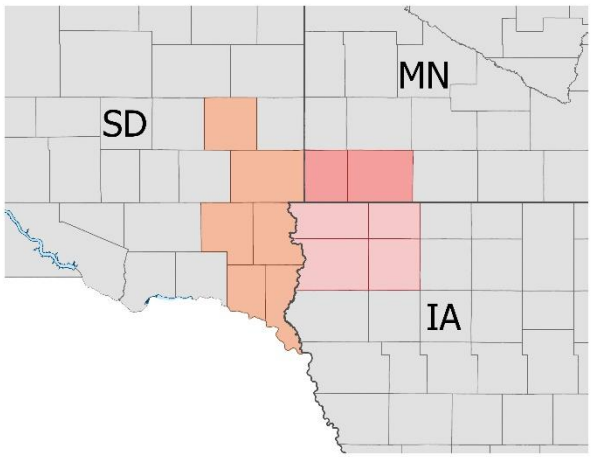
The meetings confirmed the continuing interest in pursuing a bulk water transmission line to bring Missouri River to western South Dakota. Participants generally supported a Needs Assessment, developing a more quantitative approach to understanding the need of future water for communities, counties, and Tribes throughout western South Dakota.

The participants have also recognized the importance of forming a new organization, whose primary focus is the development and operation of a bulk water transmission line from Missouri River to western South Dakota. The new organization would include WDWDD but would expand the geographic reach to other corners of western South Dakota that have an interest in pursuing additional water for the people within their jurisdictions.

3. CASE STUDIES

To undertake this large, complex project, a funding strategy will be needed. As discussed during this study, this will not be the first large bulk water delivery system in South Dakota. To consider the funding strategy for this large-scale system, three case studies are presented below which are relevant to systems that have come before this one, discussing their path to obtain the appropriate funding, as well as lessons learned that can be leveraged for this future system. After the case studies, the current funding options are presented.

3.1. Lewis & Clark Rural Water System



The Lewis & Clark Rural Water System supplies bulk water to 20 member cities and rural water systems in a 5,000 square-mile area in southeast South Dakota, northwest Iowa, and southwest Minnesota. East Dakota Water Development District (EDWDD) funded the Needs Assessment in 1989. Lewis & Clark Rural Water System was formed in 1990 and began lobbying for funding. Representatives from the board, typically the chairman and vice chairman, would coordinate with a lobby consultant and meet with congressional representatives to discuss the water supply needs of this area. The system was authorized by Congress in 2000 (Public Law 106-246) and funding came through BOR. Groundbreaking was on August 21, 2003, construction began in earnest in 2004, and operations started on July 30, 2012. In addition to the congressional authorization, this system was able to utilize stimulus funding in 2008. Portions of the system were shovel ready, meaning environmental and design were completed, so stimulus money was able to be applied. Water rates cover 100% of the operations and maintenance expenses. As communities or rural water systems have joined, these changes have been funded by the local members.

Lewis & Clark Summary of Information

System:

- Service Area: 5,000 Square Miles
- Population served: 20 cities and rural water systems
- System Capacity: 60 MGD

Milestones- Dates Noted:

- Needs Assessment: 1989
- Lewis & Clark Formed: 1990
- Congressional Authorization: 2000
- Ground Break: 2003
- Operating: 2004

Funding Sources:

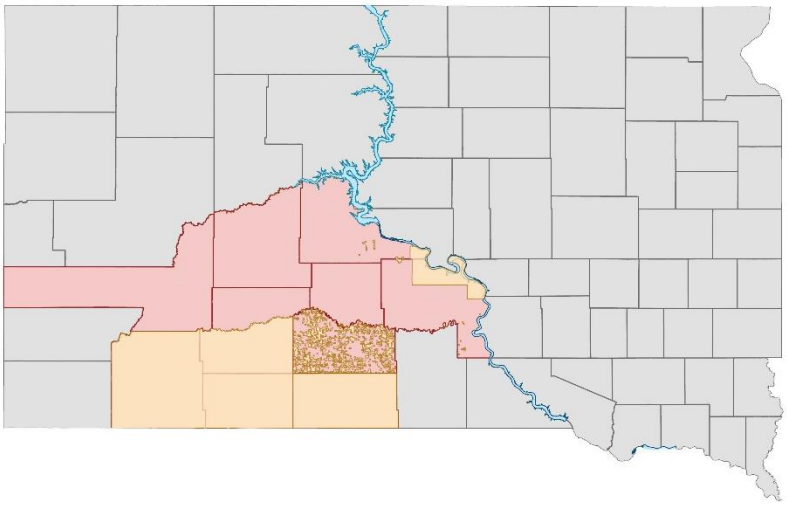
- Federal: BOR
- State:
- Local: EDWDD

Funding Summary:

- Federal: 80%
- State: 10%
- Local: 10%*

* Any changes to the system after authorization is up to the local entities.

3.2. Mni Wiconi Water Treatment Plant/Coreline



The Mni Wiconi supplies ten counties in central and southwest South Dakota through the Oglala Sioux Rural Water Supply System. In 1988, the Mni Wiconi reached its first integral milestone by getting federally authorized through by Congress (Public Law 100-516). The original ambassadors of the project were a diverse group of people, tribal and non-tribal, working towards the mutual understanding that "water is life", or "Mni Wiconi" in Lakota. The original project included the Oglala Sioux Rural Water Supply System, the West River Rural Water System, and the Lyman-Jones Rural Water System. In 1994, the West River and the Lyman-Jones Rural Water Systems merged. Amendments to the project were adopted in 1994 that added the Rosebud Sioux Tribe and the Lower Brule Sioux Rural Water System. With the inclusion of two more tribal communities, the original authorized appropriation was raised to $263.3 million and came through the Bureau of Reclamation (BOR). The project was re-authorized in 2002 (Public Law 110-367) and amended again in 2008 (Public Law 110-161). The final amendment was passed in 2013, and the project construction was completed in 2016. The Mni Wiconi Rural Supply System is the largest Native American/Tribal Water System in the United States and serves 52,000 people across an area of 12,500 square miles.

Min Wiconi Summary of Information

System:

- Service Area: 12,500 Square Miles
- Total New Pipeline Miles: 4,200 Miles
- Population served: 52,000
- System Capacity: 14 MGD

Milestones- Dates Noted:

- Congressional Authorization: 1988
- Ground Break: 1992
- Water Delivered: 2002
- Treated Water Pipe #1: 1/2018
- Treated Water Pipe #2: 6/2018
- Treated Water Pipe #3: 11/2019
- Water Tower: 6/2020
- Second Phase Funding Approved: 8/2020

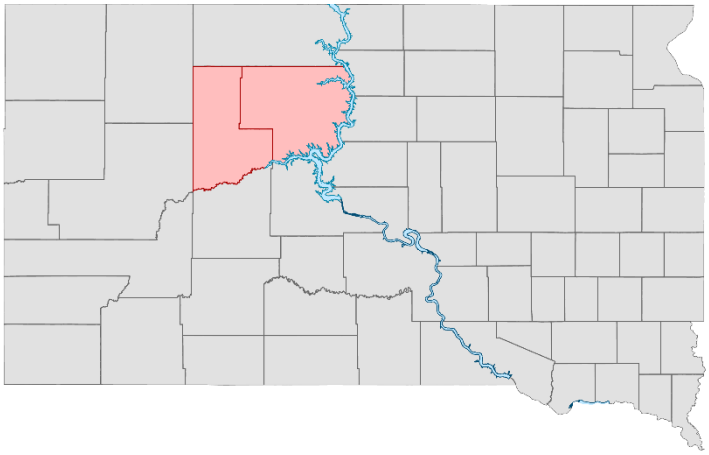
Funding Source:

- BOR

Funding Summary:

- West River/Lyman-Jones Rural Water Systems - 80% BOR Funds, 20% WR/LJ Funds
- RST and OST Systems: 100% BOR Funds

3.3. Mni Waste' Rural Water Supply System



The Mni Waste' Rural Water Supply System completed a Needs Assessment in 1996 and a Technical Report in 1999. In 2003, the Mni Waste' Water Company was formed through a Tribally Chartered Rural Water System lending way to a managing body that took the appropriate action to see this rural water system become a reality. In 2005, the Mni Waste' Water Company had the original Technical Report revised and updated; this document would go on to form the basis for the project's Preliminary Engineering Report (PER). The first PER was completed in 2010 and ultimately lead to the Mni Waste' Water Company's ability to secure US Department of Agriculture Rural Development (USDA RD) funding. The original funding package was set up to be a total of $73,900,000 with: $65,871,293 from USDA RD, $1,000,000 from Indian Health Service (IHS) grant, and $7,000,000 from the Cheyenne River Sioux Tribe (CRST). The project design was started in 2013 and construction started in 2014. Within one year, the 10.5 miles of raw water pipeline transporting Missouri River water was completed, and within the next four years, three sections of treated water pipelines were completed. The water treatment plant completion followed in 2019 and water tower completion in 2020 marking the completion of the first phase. The current system serves 14,000 members within the Dewey and Ziebach counties on the Cheyenne River Lakota Reservation.

Min Waste' Summary of Information

System:

- Service area _ Square Miles
- Total New Pipeline Miles: 35.5 Miles
- Population served: 14,000
- System Capacity: 4.4 MGD

Milestones- Dates Noted:

- Needs Assessment: 11/1996
- Technical Report: 11/1999
- Min Waste' Water Company: 2003
- Revised Technical Report: 2/2005
- PER Review: 6/2010
- Construction Started: 2014
- Raw Water Pipeline: 8/2015
- Water Treatment Plant: 7/2019
- Treated Water Pipe #1: 1/2018
- Treated Water Pipe #2: 6/2018
- TreatedWater Pipe #3: 11/2019
- Water Tower: 6/2020
- Second Phase Funding Approved: 8/2020

Funding Source:

- Federal: USDA RD, IHS, BOR
- Local: Mni Waste' Water Company, CRST
- No Congressional Authorization

Funding Summary:

- Phase 1: $73.9 Million
  - USDA RD $65,871,293
  - IHS $1,000,000
  - CRST: $7,000,000
- Phase 2: $32.8 Million
  - USDA RD: $26, 146,000
  - IHS: $3,070,000
  - Min Waste' Company: $2,517,000

3.4. Lessons Learned from Case Studies

Representatives from each case study provided lessons learned, items that can be utilized to go forward with this water system:

- Congressional authorization was critical for two of the water systems.
    - To be successful at authorization, the water system and the communities it would serve had a united message of the need for these systems. This information was pulled from the Needs Assessment.
    - Identify key individuals to represent this system to congressional representatives. Individuals should represent the communities that would be served by this system, including Tribal, Rapid City, and board members.
- Leverage other funding options to complete Preliminary Engineering Report (PER) and environmental documentation.
    - The initial preliminary studies, like the Needs Assessment, are critical components for satisfying funding opportunities with the multiple governmental agencies and being able to successful leverage potential funding opportunities.
- Have a key person upon the formation of the water system that can keep the funding and accounting straight. Funding authorizations need to be clearly understood, including the amount per year provided and inflation costs of construction versus funding approved previously.
- Have a good firm dedicated to handling easement acquisition. This can take time and having a consistent, well organized firm is critical to keeping the project going.

4. FUNDING STRATEGIES

Through the early stages of the exploration, WDWDD was the catalyst for encouraging and funding the convening of potential stakeholders to determine a path forward. The funding provided by WDWDD for the stakeholder convening and early Needs Assessment work[2] is early support for the potential project, but WDWDD is not structured to be the long-term manager for this project.

Local and Federal funding will be the long-term source of funding for the design, construction, and operations and maintenance of a bulk water transmission line. The current federal funding sources and options, including the Reclamation, the U.S. Environmental Protection Agency (EPA), the USDA RD, and the SDDENR, were reviewed and are provided below. Table 1 summaries the discussions.

4.1. U.S. Bureau of Reclamation (Reclamation)

BOR is the largest wholesaler of water in the country and provides water to 31 million people across the Great Plains to the West Coast. Reclamation is a contemporary water management agency with a Strategic Plan outlining numerous program, initiatives, and activities that will help the Western States, Native American Tribes and others meet new water needs and balance the multitude of competing uses of water in the West. BOR has played one of the most critical roles in a lot of water resource projects throughout the western half of the United States. In South Dakota, Reclamation has been integral to the completion of the Mni Wiconi rural water supply system and the Lewis and Clark Regional Water System. Both projects were federally authorized with the combined effort of private, local, state, and federal entities. In the past, BOR has had a separate funding program called their Title 1 which is a structured program for developing and recommending future rural water supply projects, however, there is currently no funding for this program.

4.2. Environmental Protection Agency (EPA)

For water resources in the United States, the EPA has a wide function on federal assistance and regulations on all environmental resources. For water resources, EPA supports infrastructure finance efforts under the Clean Water Act and Safe Drinking Water Act. Two relevant programs are the Drinking Water State Revolving Fund and Water Infrastructure Finance and Innovation Act. The Drinking Water State Revolving Fund (DWSRF) program is a federal-state partnership to help ensure safe drinking water. On a state level, the EPA utilizes South Dakota Department of Environment and Natural Resources (SDDENR) to be the governing body for the State Water Revolving Funds, and efforts for this program would be completed through the SDDENR office.

The Water Infrastructure Finance and Innovation Act (WIFIA) program is a federal program that accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects. This program would be explored through EPA on a federal level.

[2] WDWDD voted once on November 10, 2020 to fund a Needs Assessment of communities, counties, and Tribes in Western South Dakota. A second vote must affirmatively approve this action, scheduled for December 8, 2020.

4.3. U.S. Department of Agriculture Rural Development (USDA RD)

USDA RD works towards promoting the continual infrastructural and economic development of Rural Communities. Many of the rural communities throughout South Dakota utilize and have benefited from Rural Development's assistance. For water resources, USDA RD has two relevant programs, Water & Waste Disposal Loan & Grant Program and SEARCH Grant Program. The Water & Waste Disposal Program provides funding for clean and reliable drinking water systems and aids with low-interest loans and grants. The Mni Waste' water supply project has been funded almost entirely through the Water and Waste Disposal Loan and Grant Program. The SEARCH Grant Program helps rural communities with predevelopment feasibility studies, design, and technical assistance on proposed water and waste disposal projects.

Table 1. Current Funding Options

Federal Agency	Funding Program	Type of Funding	Potential Use for this Project
Reclamation	Title 1 – Rural Water Program	Grants	Planning Study; PER, and other predevelopment studies
Reclamation	Congressional Authorization	Federal Funding	Design and Construction
EPA/SDDENR	Drinking Water State Revolving Fund (DWSRF)	Low interest loans/ Grants	Design and Construction
SDDENR	SRF Water Resources Management Plan- Larger Infrastructure Projects	State Funding	Design and Construction
EPA	Water Infrastructure Finance and Innovation Act (WIFIA)	Low interest loans, subsidized financing for large dollar-value projects	Design and Construction specific to Rapid City
USDA RD	Water & Waste Disposal Loan & Grant Program	Low interest loans and grants	Design and Construction

Federal Agency	Funding Program	Type of Funding	Potential Use for this Project
USDA RD	SEARCH Grant	Grants	Planning Study; PER, NEPA, and other predevelopment studies

4.4. South Dakota Department of Environment and Natural Resources (SDDENR)

The SDDENR is a critical agency within South Dakota that provides environmental monitoring and natural resource assessment, technical and financial assistance for environmental projects, and environmental regulatory services. SDDENR has a program called the State Water Resources Management System and it identifies large, costly water projects that are seeking significant state cost share participation. Funding is provided through project specific special appropriations through legislature and Governor. It is noted in the Next Steps section that one of the first agency milestones will to be listed on the State Water Facilities Plan for potential water projects. Getting on the State Water Facilities Plan will be a prerequisite to seeking State Water Resources Management System assistance.

5. RECOMMENDATIONS

As noted previously in this report, this will not be the first bulk water transmission line in South Dakota, and much can be learned by the previous transmission lines to determine the next steps for this system. In addition to the previous transmission lines, the coordination completed with the stakeholders was utilized by Banner to recommend the following next steps for this specific project.

5.1. Governance

During coordination for this report, the stakeholders favored the formation of NewOrg to lead the various communities and areas into a governing entity that can be the long-term manager of the planning, design, construction, and operations and maintenance of a bulk water system for western South Dakota. This item recommends obtaining and funding an attorney to assist in the formation of NewOrg. The following sections discuss some of the considerations needed for NewOrg.

RECOMMENDATIONS

- ***Governance:*** Form a new, non-profit corporation to spearhead the continued efforts to pursue a bulk water transmission line from the Missouri River to western South Dakota.
- ***Technical Evaluations:*** To better understand both the need and feasibility of this project, prepare a detailed Needs Assessment. This document will quantify the amounts of current and future water needs and provide detail on the financial commitments.
- ***Funding:*** WDWDD has provided initial funding as a catalyst to begin discussions and evaluations, additional funding to continue the development of a new organization and technical studies is necessary, requiring state and Federal

5.1.1. Type of Corporation

Generally, the consensus amongst stakeholders has been to form a non-profit corporation. In 1990, this was the path that the Lewis and Clark Regional Water System took, creating as a 501(c)(4) corporation. A 501(c)(4) is a non-profit corporation, organized for social welfare purposes. The corporation can endorse or campaign against candidates and can lobby lawmakers, as long as the causes the organization is lobbying for coincide with the nonprofit's social welfare purposes. Organizations that choose to engage in political lobbying may need to provide disclosures to members showing how much of their dues were used for such activities. No proceeds from the corporation can be used for the benefit of its shareholders and contributions to the corporation are not tax-deductible. Upon advice of its attorney, NewOrg may consider this form of organization for the flexibility in seeking funding for its projects.

5.1.2. Membership

The convening members of the New Org will need to decide on the classes of membership. One method is to have classes of membership, based on the size or volume of water to be distributed. Another method is the type of governmental entity to join NewOrg, such a district, municipality, county, Tribe, or other legally organized entity.

The Board of Directors for NewOrg may include a representative from each of the participating entities. Special provision may be made for very small development sub-divisions to be represented on the board, as well. Opportunities to join NewOrg must be articulated clearly in the Bylaws, offering participating entities the chance to either join or withdraw membership at key milestones. NewOrg must also be transparent about the financial commitments.

5.1.3. Geographic Boundaries

The success of the various water systems described in the Chapter 3 Case Studies can attributed to the ability of stakeholders with shared challenges for water to join together for the good of the whole. It is largely recognized that the collaborations formed in the early stages of the projects helped boost the priority of these projects in the eye of federal agencies and Congress. Examples include:

Mni' Wiconi Water Treatment Plant/Coreline—brought together Tribes and other pre-dominantly white communities in western South Dakota.

Lewis & Clark Rural Water System—brought together many communities in Eastern South Dakota and expanded to include 2 other states, bringing Congressional delegations together for the benefit of all their shared constituencies.

Mni Waste' Rural Water Supply Systems—brought together the Cheyenne River Sioux Tribe, including communities in 3 counties in the service area.

As NewOrg continues to form, the geographic boundaries of the new service area may determine the success of the project. Tribes and other communities, military and civilian installations, and multiple states, such as South Dakota and Wyoming, could make a strong partnership for pursuing the proposed Missouri River bulk waterline for western South Dakota. A compelling argument for a diverse and broad-ranging NewOrg is the overlay of the wide service area emanating from the greater Rapid City area, the

I-90 and US 85, US 212, and SD 34 corridors bring consumers into the WDWDD geographic area. Understanding that the economic health of this area is directly connected to its availability of abundant, clean water, forms the foundation of building partnerships that enables NewOrg to be successful in bringing Missouri River water to the reaches of the service area.

5.1.4. Name of the NewOrg

Although there is great interest in finding a name for NewOrg and the project itself, it will be important as the organization forms in 2021 to ensure that all stakeholders at this point in time are participating in the naming of the organization. The discussion in the Stakeholders Meetings clearly indicated a preference for a name that is memorable, much like Mni Wiconi, Lewis and Clark, and Mni Waste, and urged those moving forward to consider such a name for this project.

5.1.5. Member-Funded Activities

There are activities that NewOrg may wish to undertake, such as travel and lobbying activities, that cannot be funded with state and federal dollars. NewOrg will set an annual budget for such activities and set annual dues to cover the budgeted expenses.

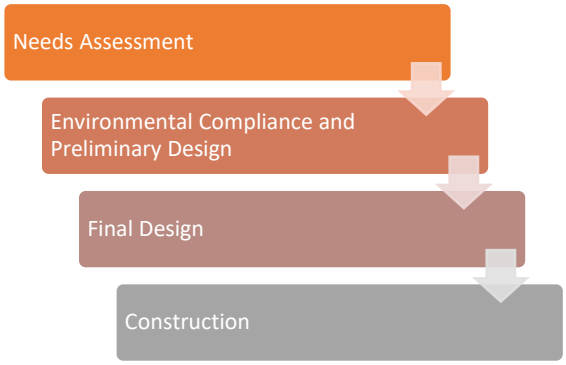
5.2. Technical Evaluations

The steps for a bulk water transmission project include: Needs Assessment, Environmental Compliance and Preliminary Design Documents, and Final Design. This section discusses these critical steps and understanding the sequencing of this work.

5.2.1. Completion of Needs Assessment

Completion of the Needs Assessment will provide a clear, purpose and need statement for the project. The assessment would also be a red flag analysis for the future step of completing environmental compliance and preliminary engineer documents. In addition, cost versus benefit would be considered to determine the initial feasibility of the project. The assessment will have the following sections: Water Usage Evaluation, Alternative Analysis, and Environmental Screen.

5.2.2. Environmental Compliance and Preliminary Engineering Documentation



The use of the federal funds, which are the main funding options as noted in Chapter 4 Funding Strategies will required the completion of environmental compliance and preliminary engineer documents. Each federal agency has their own guidance and report templates for the completion of these documents, each varying slightly. To remain open to opportunities for funding, Banner recommends consider all three main agencies, BOR, EPA, and USDA RD, that could fund this project and include all three agency document requirements to the extent possible. Being able to do this, would leave the potential for the agencies to adopt previously completed documents with minor revisions,

creating efficiency for the project. The environmental compliance and preliminary design documents must be completed and approved for final design and construction to move forward. The following sections provide an overview of the environmental compliance documents and preliminary design documents:

5.2.2.1. Environmental Compliance Document

Federal funds require compliance with the National Environmental Policy Act (NEPA). This compliance can be in one of three forms of documents, Categorical Exclusions, Environmental Assessments, or Environmental Impact Statements. This process will be completed concurrently and together with the preliminary engineering document. This process can be a decision-making process, considering the benefits and impacts to each alternative that is feasible. The process will require compliance with all Federal, state, local and Tribal laws.

The Needs Assessment that will be completed is an initial step in the NEPA process and will provide the initial purpose and need statement. This statement can be the message carried forward to lobby for funding. In addition, the Needs Assessment environmental scan portion will identify any red flag items, giving the WDWWD an indicator on the type and level of analysis needed during the NEPA process. The following graphic notes the steps of the NEPA process. The conclusion of the NEPA process is the selection of an alternative that is pulled forward into final design and construction. In addition, the document clearly notes any commitments or mitigation that needs to be completed during the construction of the project.

5.2.2.2. Preliminary Engineering Document

The preliminary design document, similar to the environmental compliance document, differs by federal agency. Banner recommends that the document completed meets the requirements of all the potential funding agencies, allowing versatility in funding options. The preliminary design for the project will lay out the potential alternatives for the project. The alternatives may include alignment, water treatment, and water storage. A range of alternatives will be determined, including these three components and all initial information will be shown for NewOrg and federal agencies to make an informed choice for the selected alternative. The selected alternative will be identified in the approved preliminary engineering document and once approved by the federal agency with the environmental document, can proceed to final design and construction.

5.2.2.3. Final Design

The selected alternative is approved in the environmental compliance and preliminary engineering documents, final design may begin. Final design includes preparing plan sheets and preparing for bid lettings. As well as confirming easement purchase and environmental compliance commitments are met before going to bid letting.

5.3. Funding

As described in Chapter 4 Funding Strategies, various state and federal agencies manage programs to fund the development of water systems, from conceptual ideas through turning on the water faucet.

Each of the Technical Evaluations, recommended in the previous section, fits with one or more of the funding programs, as described in this section. NewOrg will have the ability to fine-tune the approach, evaluate, and apply for funding to accomplish the work at each step. To get started, it is recommended that the following funding applications be pursued concurrently:

5.3.1. Potential Funding for Environmental Compliance and Preliminary Engineering Documents

NewOrg would work with SDDENR to get on the State Water Plan. The State Water Plan allows the option to be listed on State Water Resources Management Plan, specifically for larger infrastructure projects. NewOrg could utilize these funds for the completion of the environmental compliance and engineering documents. Depending upon the funds needed, NewOrg may also need to supplement utilizing BOR or USDA funds. BOR Title 1 funds can assist in the completion of these documents. Congressional representatives can assist with the allocation of funds to the BOR Title 1 program, with the intention of a specific project.

5.3.2. Seek Congressional Authorization

NewOrg would need to determine key local individuals that are representative of the entities that need this project, including Tribes, Rapid City, rural communities, etc. These key individuals will meet with congressional representatives to request congressional authorization. NewOrg would bring on lobby consultant to assist in meeting with congressional representatives. The main focus will be to have all communities united in their message to congressional representatives and funding federal agencies. This unified message typically comes from the Needs Assessment.

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